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From Sea to Shining Sea? Africa's Expanding Energy Landscape

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Introduction

Five years ago, books on African oil hardly mentioned East Africa. The region was also treated at international oil and gas conferences as the graveyard slot. No longer: today East Africa is the new oil and gas frontier, and Mozambique is the hot prospect with Tanzania not far behind. East Africa shows how quickly oil and gas frontiers shift and how new finds swiftly change the way that industry investors and analysts treat a region. The backstory of African oil and gas is already impressive. During the last twenty years, figures for known oil reserves in Africa have risen by more than 25 per cent, and gas reserves are now known to be more than 150 per cent higher.

This is a story of how little has been explored, and how much is still to be found. East Africa is finally on the oil and gas map; compared with some 15,000 wells drilled in West Africa only 500 have been drilled to date in East Africa. Talk of peak oil is dead, partly due to new discoveries. South American pre-salt discoveries in Brazil have been all the rage, but the prospects that this geology continues across to the Gulf of Guinea is significant. Angola - far from peaking in 2012 - could extend its life as a major oil exporter by an additional thirty years, and could eclipse Nigeria. We need to constantly review our assumptions.

Africa's changing markets for oil exports

Changing markets have also impacted on Africa's fortunes. Since the end of the Cold War, the USA, China and others have seen African oil as part of an effort to diversify away from too high a dependence on Middle East oil. However, over the last decade the growing demand from Asia, especially India and China, has also impacted how African governments look at oil and gas export markets. The figures speak for themselves: the International Energy Agency projects that China will become the world's largest net importer of oil by 2020, and China already receives an estimated one-third of its oil imports from Africa. Angola is the second largest supplier of imported oil to China after Saudi Arabia, and India imports some 12 per cent of its oil from Nigeria.

Changing roles for Asian national oil companies

Western international oil companies (IOCs) still dominate Africa's upstream markets, helped by decades of political experience as well as technological advantage, but this will change over the coming decades as African states seek to diversify their relationships and strike better deals. Chinese state oil companies are already buying out Western independents, or are being encouraged in Beijing to enter into Joint ventures. Examples include a tie-up between BP and Sonangol Sinopec International (SSI) in Block 18 in Angola. US companies, however, seem more circumspect about entering such partnerships.

There are signs too that Sinopec, the China National Offshore Oil Corporation (CNOOC) and others are looking to international best practice to enhance their production prospects. Like Western IOCs, they are under pressure to procure more oil. Joint ventures such as in Angola are not regarded in Beijing as a sustainable long-term strategy, although they are sometimes seen as necessary for market entry. In the case of Angola, Sinopec and CNOOC would have preferred to stop working through a Hong Kong-listed joint venture vehicle. In Angola, China has failed to win significant oil block concessions, but instead has locked in oil supplies through oil-for-infrastructure deals supported by billions of dollars of loans – coined as 'Angola mode' by the World Bank. In 2011, almost 250,000 work visas were issued by Angola for Chinese visitors, the majority for construction workers on these official projects.

Africa's changing energy geography

Yet beyond the politics, there are major shifts which are changing the geography of African oil. The emergence of shale gas and oil is a game changer. The USA had been expected to be a significant liquefied natural gas (LNG) importer but today, Qatar, Norway, Russia and West Africa can no longer assume that they have a US market. In addition Europe, China and Australia may become major shale gas producers, and this could transform the international market for LNG. Angola, Equatorial Guinea and Nigeria among others need to rethink their gas plans as the market they planned for five years ago has gone.

They cannot look East either. The massive gas finds along the East African Coast, especially off Mozambique, but also in Tanzania's waters, make East Africa one of the world's most active oil and gas exploration areas. Reports suggest 250 trillion cubic feet of prospective resources in these three countries. International companies such as BG Group, Anadarko Petroleum Corporation, Tullow Oil, Eni S.p.A and Afren have all had commercially viable finds. The gas story from Mozambique is an 'astonishing exploration success story' and Tanzania is 'impressive', according to Wood Mackenzie, the mining and energy consultancy. These discoveries could support up to sixteen LNG trains but only two train developments have so far been proposed.

The finds in Tanzania and Mozambique are significant but market economics will decide their future. Massive infrastructure investment will be required and billions of dollars of project finance will need to be raised on the international markets to fund it. The hard reality is the breakeven price for development of these new projects. Currently however, predicting the price is near impossible, as it depends on projections for the international market price – which includes shale gas developments in China, North America and Australia. This price uncertainty may add significant delays to developing these finds, at a time when domestic expectations of a gas windfall are rising. Mozambican officials speak of first gas to market in 2018, but this looks grossly over-optimistic, as Maputo has not even yet developed a gas master plan.

East Africa's recent gas finds have been followed by oil discoveries in Kenya in 2012. South Sudan and more recently, Uganda, have also experienced oil finds. Earlier this year, Kenya's President Mwai Kibaki interrupted a scheduled speech to announce a significant find by Tullow Oil in the country's north-western Turkana region. His relief was palpable as he called it a 'major breakthrough'. However analysts are already warning of the resource curse in East Africa and are drawing lessons from oil producers elsewhere in Africa. Ghana probably provides the best example, as its economy and political class are coping with recent oil discoveries. Shallow economies such as Chad and Equatorial Guinea, or states with a long history of oil distortion like Gabon, Angola and Nigeria, are less helpful.

East Africa poses unique challenges. Kenya has a strong agribusiness base, exporting tea, coffee, flowers and vegetables. It enjoys a major tourism industry and Nairobi is a regional hub, providing financial and other services. If oil reserves prove to be significant, this could be transformative for Kenya's economy. It could also embolden Kenya's ambitions to become a leading regional power. This mood was summed up by a columnist in Kenya's Business Daily who wrote, 'Kenya's economic and diplomatic clout had largely suffered from a lack of known natural resources that are of strategic importance to the rest of the world'. Kenya's politicians will need to keep a close eye on this bullishness, as regional co-operation within the East African Community (EAC) rather than head-on competition makes better economic sense. Kenya has already begun to position itself to develop facilities for exports of oil from the region – specifically from Uganda and South Sudan. Work started in early March 2012 on building a huge deep-water port in

Lamu, intended to service a pipeline across northern Kenya as part of the Lamu Port-South Sudan-Ethiopia Transport Corridor (LAPSSET). LAPSSET aims to foster transport and trade links between Kenya, South Sudan and Ethiopia. The project includes the construction of an oil refinery at Lamu, oil pipelines, railway lines and a highway linking Lamu to Isiolo in Kenya, Isiolo to South Sudan, and Isiolo to Ethiopia. Finding the $23 billion funding for such a massive infrastructure project is proving to be challenging. The Chinese government has also signalled that it prefers for South Sudan to use the current oil pipeline to Port Sudan for South Sudanese oil exports. China played a critical role in getting both Sudan and South Sudan to reach an agreement over resuming exports of South Sudanese oil through Sudanese territory.

Prospects for the regional economy

East Africa is changing, and planning for a future regional economy makes sense. Demographics are likely to change the East African landscape over the next fifty years. Uganda and Tanzania are both forecast to overtake Kenya in population size. According to UN projections, Tanzania will be the fifth largest country in the world (the fourth being the United States). With its growing middle class and successful business community, Kenya should remain as a reliable regional anchor state, although its reputation as a stable democracy was severely undermined by the surge of violence which followed the presidential elections in 2008. As Kenya's next presidential polls are scheduled for 2013, election violence threatens to re-emerge.

The country's recent energy finds will raise anticipation of billions of future oil dollars for the victorious politicians, meaning that stakes in these elections have now risen. The capacity of Kenya's institutions, and also of its politicians, to gracefully accept defeat is critical. President Kibaki himself will not be running and has a golden opportunity to secure his legacy by ensuring credible and peaceful elections.

The greatest worry is that oil money might further blight an already corrupted political class. Kenya has a bad reputation for corruption. Former anti-corruption tsar John Githongo fled the country fearing for his life in 2005. He returned to Kenya in 2008 and has set up Kenya Ni Yetu (Kenya is Ours), a campaign aimed at mobilising ordinary people to speak up against corruption, impunity and injustice. If Kenya is to effectively benefit from oil, and avoid the resource curse that many oil producers have experienced, it needs to learn from their mistakes.

Economic growth in sub-Saharan Africa peaked in 2007 at 7.1 per cent, and it is still expected to average 5.5 per cent between 2009 and 2012. East Africa is no exception and with growing regional markets and population growth, its leaders should not just focus on external markets for their oil and gas plans but also consider how better to integrate these discoveries into their regional economies. There needs to be a link into the local economy that complements the current development process. Growing agricultural development will require petrochemical markets that Tanzania and Mozambique should look at. Mozambique should consider how to integrate itself further into the southern Africa regional economy because of its increasing energy needs. There is a need for new refineries to cater for domestic needs in East Africa but this risks becoming a badge of national honour, like national airlines once were, with each country wanting its own.

Lessons to be learned

Lessons for East Africa's new energy states are clear. Independent institutions and oversight should be strengthened, records of all taxes and royalties from oil should be published, prestige projects and extravagant consumption must be avoided and authorities should not neglect opportunities to create meaningful employment. Africans need jobs, but the oil and gas industry itself never employs enough. The key is to use any oil funds to build up a competitive economy. It is also important to remember that 38 out of 54 African countries – over two thirds – are still net importers of oil, and so oil price volatility remains a major challenge. In the past, high oil prices have contributed to riots and demonstrations as food and transport prices rose.

Most importantly, governments that have newly joined the oil and gas club need to manage expectations. They should expect lengthy delays before production and expect high sunk costs and long production periods. International investors should also not underestimate likely time lags and delays, and the associated cost of capacity-building.

East Africa offers the chance to use newly found oil and gas to enhance regional development and integration, and not repeat the mistakes of others. The region's political leadership needs to show vision and foresight by being strategic in using these resources to enhance regional infrastructure, diversify its economies further, and invest in education to reduce poverty and create globally competitive economies. Choosing international partnerships carefully will be part of the challenge. A senior Tanzanian parliamentarian reflected, 'a

Chinese consortium offered to provide infrastructure, but wanted oil concessions, land and more in return. It was too much, and we allowed the deal to collapse'. When it comes to oil, African states are in the driving seat. They have the agency.