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Africa has for a long time assumed the role of the world's most neglected energy province. In large, this has been due to the region's comparably small reserve base for oil and natural gas – despite notable exceptions as in the cases of OPEC members Nigeria, Angola, Algeria and Libya. The significance of the African reserves for international energy markets is nevertheless large, for as one of our authors outlines, African oil and gas production is primarily exported in the face of until now marginal domestic energy consumption. New discoveries, particularly in Africa's formerly hydrocarbon-poor east, have sparked a new wave of developments that are likely to change the face of Africa as an energy producer. Enough reason for this special Oxford Energy Forum to focus on Africa's energy outlook.

Ivan Sandrea starts off, exploring the upstream successes in Africa's oil and gas industry. He confirms the view that as a result of the new discoveries in the last decade, in particular in Central and East Africa, Africa's upstream industry and energy outlook has changed dramatically; in particular its upstream future may look now to be more gas rich than previously thought. The continent's main challenge, he believes, remains the commercialisation of its newly found resources in view of the lack of sectoral experience of new producers, and Africa's long history of unsatisfying commercial outcomes in existing producers.

Monica Enfield looks at Africa's shifting risk structure for upstream projects from the investor's point of view. Above-ground risks in her view will undoubtedly constitute some of the key risks encountered by future E&P partners, including lacking government services in areas of company operations, monetisation risk or expensive infrastructure needs to commercialise resources, and political risk and associated risks resulting from local levels of corruption. Foreign investors' 'social license' to operate, Enfield argues, in the future will more often depend on companies' ability to manage these risks while providing host governments with high value-added.

Elias Pungong further discusses the impact of East African natural gas on the sub-region's economic development. Success in his view requires a delicate balance between local and investors' interests to secure long-term attractive deals for both sides, possibly under a region-wide gas development master plan. *Chekib Khelil* adds to this view by pointing out some of the key challenges faced by Africa's energy infrastructure in the area of accessing finance. Khelil advises that successful future cooperation deals between host governments and energy companies require a transparent and reliable set of legislation and regulation, enforced by politically stable host countries, and with the right balance of risk between the contracting partners.

Alex Vines reflects on East Africa's impact

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on Africa's wider energy market development. Drawing lessons from previous experience, Vines proposes that African governments need to act swiftly in order to let their economies benefit from the newly found resources, including the need to 'strengthen independent institutions and oversight; publish all the taxes and royalties from oil; do not rush into prestige projects and extravagant consumption and don't neglect creating meaningful employment.'

Several of our authors look at specific country cases. The views are generally encouraging on Africa's new hydrocarbon province East Africa. *Anne Frühauf* discusses the case of Mozambique and assesses the country's current investment framework in view of its plans to start production from its offshore fields as early as 2018. Frühauf argues that the country has all the basic political and regulatory fundamentals in place to start production on time, but cautions about Mozambique's ability to cope with unexpected political and institutional pressures that may yet be associated with the coming years' resource boom.

Oswald Clint and *Rob West's* view on Angola's pre-salt developments is more cautious; albeit viewing Angola's reservoirs as promising, they question whether the country's reservoirs in the South of the Kwanza basin will be as prolific as those found for instance in Brazil. *Eduardo Pereira* and *Elison Karuhanga* in the following article explore the effect of government regulation on Uganda's and Brazil's upstream prospects, arguing that both countries are losing valuable time as a result of political interference in the sector which sparks legal uncertainty for needed foreign investors.

Our authors' most pessimistic outlooks deal with Africa's traditional oil producers. *Amrita Sen's* account of Nigeria's production prospects is more than bleak. Despite being Africa's largest oil producer, the country has suffered from political turmoil for more than two decades in a row. The implications of lacking political stability for the oil sector have been vast: Nigeria' s oil sector today is characterised by what Sen calls 'wastage, corruption, low productivity and unchecked dominance of foreign multinationals'. The world's capital of fuel smuggling, Nigeria loses up to $40 million per day in illegal bunkering. Obsolete legislation and lacking funding for the sector suggest in Sen's view a continuingly poor performance of Nigeria's upstream sector.

Adeola Adenikinju discusses Nigeria's 2011 fuel subsidy reform and its impact on Nigeria's domestic market. In Adenikinju's view, the reform failed to achieve any of its objectives after the government revoked initial fuel price increases owing to rising popular pressure. The implications for Nigeria in his view are largely negative: continued fuel subsidies waste Nigeria's natural resources and encourage the country's legacy of fuel smuggling and illegal bunkering.

In his piece on the two Sudans' struggle for stability, *Bill Farren-Price* discusses prospects for a resumption of Sudanese oil exports in the coming year. In his view, South Sudan should be able 'to restart some oil production relatively swiftly once technical problems are overcome' following September's peace agreement between Sudan and South Sudan. However, he believes that Sudan's export pipelines are vulnerable to disruption, especially if fighting in the border zones continues. Progress beyond the September agreement in securing border provinces will also be critical to help South Sudan achieve pre-crisis production levels of 450,000 b/d, a shared target driven 'by the economic imperative of restarting oil exports, on which both are so reliant for state revenue.'

Finally, in a response to our previous issue No.89 on natural gas demand and supply, *Axel Wietfeld* draws attention to a theme he felt was left out of the discussion: European underground gas storage and its importance for European gas supplies.

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