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forum

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# AFRICA'S OIL & GAS SCENE AFTER THE BOOM: WHAT LIES AHEAD

## Contents



Africa's oil and gas scene has undergone dramatic changes over the past two decades. In 2000, the continent was producing nearly 8 million barrels per day (b/d). A decade later, largely on the back of new production from Angola and Sudan, output rose to above 10 million b/d. This came at the same time as a sharp rise in global oil prices, generating enormous revenues for African oil producers and setting off exploration activities in largely unexplored regions. As prices rose to over $100 per barrel on average from 2010 to 2014, Africa enjoyed an unprecedented oil boom.

In recent years, however, Africa's oil fortunes have fallen. Due to conflict in Libya and South Sudan, as well as stagnating production in Algeria, Angola, and Nigeria, output dropped to 8 million b/d in 2017, and prices averaged roughly $50 per barrel from 2015 to 2017. A price recovery could spark renewed interest in exploration, but the past three lacklustre years have had a damaging impact on the continent's oil and gas industry. Even with sustained high oil prices, it will take time to recover.

This issue of the *Oxford Energy Forum* explores the aftermath of Africa's energy boom. It draws on contributors from industry, academia, and civil society to offer multiple views of the opportunities and challenges that lie ahead for oil and gas development on the African continent. The issue examines continuities and changes in the African energy landscape since oil prices fell from record highs after 2014. It focuses on the politics and economics of seasoned producers in sub-Saharan Africa and the birth of new oil and gas producers and up-and-comers, and shows that while old political and security challenges persist, new governance and regional risks are also impacting the development of new oil and gas industries.

The outlook is not good. The key producers in sub-Saharan Africa, Nigeria and Angola, face ageing oilfields and a lack of new investments, not to mention the need for considerable reform. Meanwhile, in up-and-coming producers in East Africa, Uganda and Kenya, although the relatively small reserves discovered to date will not displace Africa's main production centres, future output is still important in the development of domestic economies in the region. But long delays from a failure of neighbouring countries and international oil companies to cooperate on a regional pipeline have stalled these industries from moving to the production stage. In gas, falling prices and governance challenges have stalled Mozambique and Tanzania from developing their considerable offshore assets.

Oil and gas developers in Africa will soldier on. Some new producers, such as Ghana, will continue to provide bright spots on the continent. But political and security risks will also continue to drag down Africa’s energy potential. The priorities of national leaders and international oil companies will clash around the development of new resources. And consequently, the selectivity shown by domestic and foreign investors will narrow, particularly if global energy prices are volatile in the coming decade. The combined efforts of government and industry will be needed to mitigate the political and security risks in oil and gas, win new investment and finance, and drive forward the next stage of Africa’s energy development: the growth of renewables and local energy markets.

**Prospects for African oil**

James McCullagh and Virendra Chauhan begin the issue with a sober forecast on the coming years for the African oil business. Africa has never really stood out as a significant oil region, with only 9 per cent of total proven reserves, and that trend is likely to continue. Up-and-coming producers, such as Uganda and Kenya, have relatively small reserves, and it will be the usual suspects—Nigeria, Angola, Libya, and Algeria—that make up the majority of future production. But these large producers will experience sagging results over the next three to five years. Low oil prices in recent years have discouraged new investment in their maturing oilfields. Despite the 2018 price recovery, this neglect will now take its toll on Africa’s overall production.

**The political economy of decline in Nigeria and Angola**

Ricardo Soares de Oliveira looks at the legacies of the 2004–2014 oil boom and the manner in which the post-2014 bust has impacted Africa’s oil producers. Zooming in on Angola and Nigeria, he shows that different patterns of macroeconomic management and sector governance, as well as dissimilar political pressures, have led to differences in outcomes for these leading producers. However, Soares de Oliveira’s analysis emphasizes the shared patterns across these and other oil-rich states in sub-Saharan Africa. In the absence of economic diversification in the boom years, dysfunctional sector institutions, and continued dependence on foreign oil expertise, states across the board have suffered significantly in fiscal terms as well as with the drying up of corporate investment in the oil sector.

**Angola after dos Santos: taking stock**

One country struggling with stagnating production levels is Angola. Lucy Corkin examines how Angola’s change of political leadership in 2017, with Eduardo dos Santos stepping down after 38 years of rule, will impact its oil industry. The new leader, João Manuel Gonçalves Lourenço, has, to some surprise, started to dismantle the patronage network established under dos Santos. He has also initiated much-needed reform of the oil sector, particularly by starting to eliminate conflicts of interest in Sonangol, the powerful state oil company, and the country’s regulators. This is already helping to draw in new investment. Yet the persistence of graft and nepotism under Lourenço demonstrates that even with a change in leadership, not everything will be made new in Angola.

**Nigeria’s oil reforms in limbo**

Militancy, ageing oilfields, the need for governance reforms, and a lack of new investments have all hampered Nigeria’s oil industry, Africa’s largest producer. Eklavya Gupte examines how insurgency in the Niger Delta may once again heat up. President Buhari has pushed for a new amnesty program for fighters in the Delta, but the stakes will only grow higher as Nigerians head to the polls in 2019. Nigerian light sweet crude attracts a large number of buyers, particularly in Europe and India. But amidst the threat of militancy, the long-awaited Petroleum Industry Governance Bill must be passed before the oil industry gets the boost it needs.

**The rise of regional risk in East Africa**

Moving to up-and-coming producers in East Africa, Luke Patey finds that the interaction between domestic and regional risk has done much to shape the future of individual oil industries. Despite aspirations to cooperate on a new pipeline with Kenya, South Sudan, in the midst of civil war, will remain dependent on negotiating access to pipelines heading through its northern neighbour, Sudan. Landlocked Uganda has started the process of developing a new pipeline through Tanzania, but this regional cooperation continues to be delayed by President Museveni’s hard bargaining with international oil companies. Finally, after years of discussions, a failed bid to cooperate with Uganda has dashed Kenya’s hopes of acting as a regional hub for East Africa’s oil. After losing Uganda’s support for a new regional pipeline, Kenya will now have to fend for itself in attracting investors in a stand-alone pipeline from its oilfields in Turkana to the coast.

**Oil politics and stoppages in Kenya: agreeing to disagree again soon?**

Kenya's drive to become an oil exporter in the near future has been slowed by more than just regional competition. Charles Wanguhu examines how international oil companies operating in Kenya's north-western region of Turkana have struggled to navigate longstanding tensions between national and local politicians as well as to maintain amicable relations with local communities. Several stoppages due to protests and violence, most recently stalling a trucking scheme for early oil production, have been costly affairs. Temporary solutions in which oil companies offer new jobs and contracts to local businesses, without the development of a genuine governance system, can delay but not prevent the next disruption.

Mozambique: bankrupt before the bonanza

Mozambique, another up-and-coming Africa producer, is struggling to establish its offshore gas industry. Anne Frühauf argues that the combination of falling energy prices and high levels of debt, much of it entered into secretly, will drag down Mozambique's budding gas sector for a decade. Maputo can now ill afford any further delays in the development of its Rovuma natural gas reserves, crucial to the country's effort to reduce its debt. While the socio-economic and political climate has its risks, LNG players enjoy considerable influence over the current government.

**Challenging prospects for upstream contracting in Tanzania**

Peter Bofin and Rasmus Hundsbæk Pedersen review the development of Tanzania's gas industry and its governance issues. Here, large LNG discoveries were made in 2010, but policies advanced by the government of President John Magufuli have been largely out of sync with the downturn in global markets. New regulatory bodies have led to institutional crowding, and restrictive legislation has resulted in the government not playing a productive role in the industry's development. President Magufuli's State House is now the primary place where large international oil companies are negotiating access and terms and leaning on their home governments for help. The interventionist president adds a fair amount of unpredictability to the industry's future development.

**Resurgent resource nationalism in Tanzania's petroleum sector**

Looking at the recent policies of the Tanzanian government, Rasmus Hundsbæk Pedersen and Thabit Jacob find resource nationalism resurfacing. President Magufuli's 'economic warfare' against international mining companies has sparked a re-evaluation of Tanzania's contracts in the gas industry. With populist undertones, the country's legal and institutional framework on extractives has undergone a major revision to leverage benefits for the national government. But these moves should not come as a surprise. They are rather continuities of efforts by the ruling party, the Chama Cha Mapinduzi (Party of Revolution), to ensure a larger role for the state in economic development.

**Oil, politics, and risk in Ghana**

Crossing the continent to West Africa, Monica Skaten examines the interplay between politics and risk in the region's new producer, Ghana. With offshore discoveries and development underway since 2007, the oil industry has steadily progressed in spite of the recent downturn in global oil prices. Along the way it has endured a corruption scandal connected to early investments and has largely resolved a border dispute with Côte d'Ivoire. With offshore developments moving ahead, Ghana is now aiming to explore the onshore Voltaian Basin. Political polarization between Ghana's two main political parties, however, could undermine the industry's long-term development. Changes in government result in changes in economic policy, key personnel in state-owned companies, and contract recipients in the domestic private sector.

**The new African energy landscape: catching the changing tide**

The issue ends with a look to the future. Lapo Pistelli sees Africa's broader economic development being held back by a widespread lack of energy access. Booming populations and urbanization demand that this change. Energy costs are extraordinarily high, particularly for poor and isolated communities. Instead of focusing simply on developing oil and gas for export, African governments and energy companies need to give immediate attention to the development of commercially viable local energy markets. Harnessing Africa's abundant natural gas reserves and expanding off-grid renewable energy programs are crucial for industrial development. Overcoming Africa's energy challenge is essential in developing internal markets and attracting domestic and international investors to lift hundreds of millions of people out of poverty.

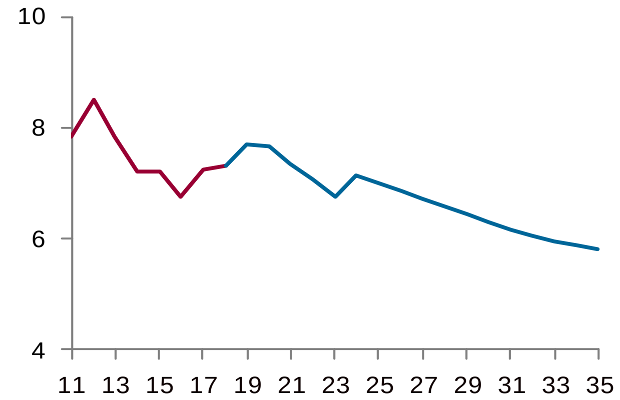
## PROSPECTS FOR AFRICAN OIL

***James McCullagh and Virendra Chauhan***

Africa offers tremendous potential for the development of new gas reserves, as the rapid development of the Zohr field in Egypt and Coral South in Mozambique have shown. But for oil, the story is less rosy. Africa has produced 127 billion barrels of conventional oil to date, less than 10 per cent of the global total; and we estimate that another 126 billion barrels have yet to be produced, less than 9 per cent of proven reserves worldwide. These numbers underscore Africa’s position in global oil markets: rather than having the potential to disrupt global trade, it will be a case of more of the same—a story dominated by the West African giants, Nigeria and Angola, and Libya in North Africa.

New countries are emerging as oil producers, with Senegal, Uganda, and Kenya offering enticing prospects over the medium term, though the resource size and production potential are unlikely to move the needle. The decline in opportunities of sufficient scale has resulted in a number of asset reshuffles through the downturn, with both Shell and Total offloading assets to smaller operators.

**African crude oil production, historical and projected, mb/d**




Source: National agencies, IEA, EIA, JODI, Energy Aspects.

Africa’s reputation as a land of new frontier oil plays has been dealt a heavy blow by the low oil price environment of the past four years, leading to a dearth of new exploration and development. Production—and exports—should be flat year-on-year in 2018, as legacy projects in Angola, Nigeria, and Congo-Brazzaville offset natural declines at mature fields elsewhere, though there is plenty of downside risk to loadings out of Nigeria and Libya, where geopolitical instability remains a near-constant threat.

Production should rise slightly in 2019, but given high depletion and decline rates, a thin project pipeline will make it difficult for the continent to maintain even current production levels beyond 2019. The empty project pipeline can be largely explained by the oil price crash of 2014 and the consequent disincentive to explore for high-cost oil. That picture is slowly changing, as evidenced by the recent uptick in Nigerian rig counts, but given the typical length of exploration and development cycles, particularly in the deep offshore, new oil from these projects will hit the market in 2023 at the earliest. So even if aggressive enhanced recovery techniques are deployed at existing fields, Africa’s production will struggle for growth between 2019 and 2022.

Angola, one of sub-Saharan Africa’s foremost oil producers, is a case in point. Existing fields are seeing base declines of 15 per cent; the figure below shows declines for the CLOV (Cravo, Lirio, Orquidea and Violeta) field. These declines will need to be offset by new developments, but the latter are becoming smaller and more complicated. Well completions in 2017 were half those of 2014. Angolan production has declined precipitously this year, falling below 1.5 million barrels per day (mb/d) over much of the summer, which is around 20 per cent below its July 2015 peak of 1.8 mb/d. Underlying field declines exceeded 20 per cent in Q1 2018, but this is not a new issue. Angola’s deepwater fields are simply responding to elevated depletion rates and investment drying up through the downturn in oil prices. During the initial parts of the downturn (2015–2016), Angola was able to hold production constant at 1.7 mb/d, disguising underlying depletion.

Clearly this was not sustainable. With many fields in a post-plateau terminal decline phase (which typically occurs when 45–50 per cent of reserves have been produced), these trends are becoming more and more apparent. Our analysis of 26 fields suggests that almost 60 per cent of producible reserves have been depleted, and Angola will have its work cut out rejuvenating its ailing oil industry. Of the fields analysed, we assessed underlying declines at an alarming 15 per cent. Reversing such steep decline rates will take time and money, and with few major projects scheduled beyond 2019, Angola is facing the prospect of terminal output declines.

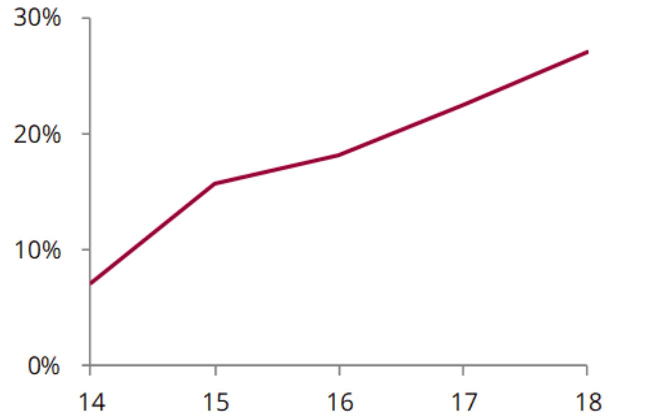
There is only one major project—Total’s 0.23 mb/d Kaombo project, which is being developed in two separate phases, in Q4 2018 (inaugurated in November) and Q1 2019—underpinning our 70,000 barrels per day (b/d) year-on-year growth forecast for Angolan oil production in 2019. However, we acknowledge downside risk to this forecast, given that it assumes a complex field will ramp up smoothly. Furthermore, it assumes that CLOV, Angola's largest fiel, will continue to operate at utilization rates above 90 per cent, an ambitious assumption if history is any guide.

The Angolan government has looked to accelerate reform and restructure the oil sector, which remains the heartbeat of the economy, in an attempt to revive investment. The industry has responded positively, with Total recently making the first final investment decision in Angola since 2015, by approving the 40,000 b/d Zinia-2 project. Additionally, Eni's 25,000 b/d Ochigufu satellite in block 15/06 ramped up to capacity in May, in less than two months. But while new legislation has started to pay dividends, it is a baby step on a long and winding road.

The challenge is not only bringing fields online to offset declines; the complexity of future developments also matters. The Kaombo project will involve tying back production from six fields (Caril, Gengibre, Gindungo phase one, Canela, Louro, and Mostarda phase 2) to two FPSO (floating production storage and offloading) vessels. Aside from their location in very deep water (1.4–2.0 km), these fields are small and spread over almost 1,200 square kilometres. The distances between the fields will require a large number of wells—59 are planned—to be connected via 300 km of subsea lines. At such distances, flow assurance becomes challenging.

To decisively alter the trajectory of Angolan oil production in the medium term will require the sanctioning of stand-alone megaprojects of the scale of CLOV or Kaombo. The reserves exist, but project economics are challenged by reservoir complexity. For example, BP's 0.13 mb/d Palas, Astraea, and Juno (PAJ) scheme was originally tipped for a final investment decision in 2010 but was delayed after BP and Sonangol could not agree on a development plan. Sonangol insisted on a stand-alone FPSO tying the three fields together, while BP wanted a cheaper scheme. We do not envisage first oil from PAJ until 2024.

**Annual depletion rates at Angola's CLOV field, 2014–2018**




Source: Company reports, Energy Aspects.

Angola is not an isolated case. We have observed similar trends in many other African oil producers, including Nigeria, Algeria, Gabon, and Equatorial Guinea, all of which predominantly produce crude grades prized for their low sulphur content and high yields of clean petroleum products. Demand for such grades will rise sharply in 2020 and beyond as the global shipping industry adapts to the International Maritime Organization's new 0.5 per cent global bunker sulphur cap, which comes into force on 1 January 2020.

Competition for light sweet West African grades will be all the more fierce given that Nigerian crude exports will nosedive by around 14 cargoes per month when Dangote's 0.65 mb/d refinery, the largest single-train refinery in the world, comes online (which is likely to occur in late 2021). In particular, Dangote plans to run a combination of locally produced Escravos, Forcados, Antan, and Bonga—crudes currently processed by refiners all over the world, though European plants often predominate.

In the medium to long term, East Africa holds the greatest promise as a source of net crude production increases. Exploration dates back to the 1950s in Kenya and Tanzania, and even earlier in Uganda, but it is only in recent years that companies have made commercially viable discoveries, including 1.7 billion barrels of recoverable oil in the Albert Basin of western Uganda and 750 million barrels of recoverable oil in the Lokichar Basin in the Turkana region of Kenya. The Lake Albert discoveries in Uganda have in turn prompted interest in the potential for finds around Lake Tanganyika and Lake Eyasi.

Together, Uganda and Kenya are set to add over 0.3 mb/d of medium low sulphur crude production in the early 2020s, but precise time frames remain fluid—and subject to political and infrastructural challenges, including the construction of lengthy heated pipelines to evacuate the waxy crude to export markets. Front-end engineering and design as well as engineering procurement and construction have been completed for the Ugandan pipeline, though project financing and key land agreements with the Tanzanian government have not yet been sealed, suggesting that the final investment decision, targeted by the project's joint-venture upstream partners for late 2018, may be delayed until 2019. The pipe will run from the Hoima region in Uganda to the Tanzanian port of Tanga.

Development of the Lokichar Basin in Kenya is at an even earlier stage of development, and arguably subject to even greater challenges given that the 900 km Kenyan crude pipeline terminates in Lamu, close to the volatile border with Somalia. The pipeline is currently slated for start-up in 2022, but that time frame could easily slip. The wider challenges of developing onshore oil fields in locations with high country risk were laid bare in July when Tullow Oil was forced to halt a 2,000 b/d Early Oil Pilot Scheme when local people blocked roads to prevent trucks from moving the oil to the coast for export.

Africa was supposed to be a vanguard province, propelling global supplies forward. But the oil price crash has left producers with some serious questions to answer if the continent is to live up to that label. Stung by low oil prices, cash-strapped governments in sub-Saharan Africa have been forced to try to simultaneously maximize output at mature fields and bring new field output online. Although this has halted declines in production, our analysis suggests that this may only be a temporary respite from what is looking like a steady downtrend in African output after 2019.

We see African crude oil production falling to 7 mb/d by 2025 and to below 6 mb/d by 2035. Without major exploration and production, the oil-dependent economies of West Africa in particular are on a fast-track to terminal production decline, and the production profiles will be all the more disconcerting for future governments given the continued lack of economic diversification in many countries.

## THE OIL BUST SINCE 2014: THE POLITICAL ECONOMY OF DECLINE IN NIGERIA AND ANGOLA

***Ricardo Soares de Oliveira***

The end of the commodities boom in 2014 was a painful reminder that the 'Africa Rising' decade of high growth, especially pronounced in the largest oil producers, did not provide durable solutions to the continent's dependence on commodity exports and the price variations therein. The optimistic period of growth that seemed to end Africa's dismal late-twentieth-century economic performance came to a close, leaving many of the challenges facing these economies essentially intact. Nowhere did the apparent achievements of the boom years prove more brittle than in Africa's two largest oil producers, Nigeria and Angola.

These two countries presented different patterns of macroeconomic management and sector governance during and after the boom, as well as dissimilar political pressures that led to partly contrasting outcomes. However, the shared patterns across Nigeria, Angola, and other oil-rich states in sub-Saharan Africa, sometimes extending to soon-to-be producers affected by a so-called pre-curse, are noteworthy. These include a lack of economic diversification during the boom years, perennially dysfunctional sector institutions, and continued dependence on foreign oil expertise. Since the drop in prices, Angola, Nigeria, and other African states have suffered in fiscal terms as well as with the drying up of corporate investment in the oil sector, and now face manifold pressures on their ability to maintain the status quo.

Both economies experienced exceptional growth during this period. Angola's GDP grew from $12 billion in 2002 to $126 billion in 2014, while Nigeria's increased from $59 billion in 2002 to $208 billion in 2008. Angola's trajectory was arguably the more spectacular of the two, as it emerged after four decades of civil war with a domestically designed and resourced national reconstruction agenda. This took place in conditions of political stability under the authoritarian rule of the MPLA (Movimento Popular de Libertação de Angola/People's Movement for the Liberation of Angola ) and President José Eduardo dos Santos and a strategic partnership with China, to which Angola became a top oil supplier.

Nigeria's boom decade was rather more turbulent. It needed to navigate remarkably fragmented politics intensified by Nigeria's return to electoral democracy in 1999, and debilitating outbreaks of violence in the north, the Middle Belt, and the oil-producing Niger Delta. Through endemic disruption of production and oil 'bunkering' (theft by tapping into pipelines), production in the Delta was kept below potential throughout this era. While Angola's oil sector, and especially the national oil company Sonangol, seemed partially insulated from the worst forms of graft (or, alternatively, graft was conducted in a more rule-bound manner), the Nigerian National Petroleum Corporation, and Nigeria's oil sector governance more generally, were widely seen as chaotic and made many investors averse to significant new commitments to the country's upstream.

While the two countries differed in these aspects, for both economies this was the most favourable period since the 1970s. Optimism about their economic potential resulted in a return to the sort of rhetoric about state-led development not heard for three decades. Nigeria and Angola were able to pay off their Paris Club debt, accumulate considerable hard currency reserves, and gain plaudits for macroeconomic management under the stewardship of internationally recognized technocrats. Both saw exponential growth in the size of their banking sectors.

What did not happen at all during this boom decade was a structural economic shift away from dependence on oil, especially as a source of government revenue. (Oil contributes only about 10 per cent of Nigeria's GDP, but it accounts for two-thirds of government revenues, and almost all export earnings.) A 2018 report co-authored by a former minister and vice president of the World Bank, Obiageli Ezekwesili calculated that Nigeria had wasted almost one trillion dollars in oil revenues without significant long-term gains or structural transformation of the economy. Nigeria and Angola experienced the boom years as emancipation from their economic limitations and pressures, but this cash-fuelled respite was temporary. The decline in oil prices from $112 per barrel in mid-2014 to a brief low of $28 in 2016 soon led to a fiscal crisis, with massive infrastructure, agri-business, and industrial projects conceived in previous years no longer affordable.

Almost overnight, the expensive development plans drawn up in the boom years were rendered utopian, while few if any of the projects that had materialized proved profitable or even viable without major state subsidies. Very soon, the drop in revenues also jeopardized the government's less flexible commitments, particularly the civil service salary bill, which had increased massively over the boom decade. Moreover, the downturn was matched by hesitation on the part of foreign investors to commit to significant exploration in view of the price scenario, with some corporations even selling their African concerns. This dearth of foreign investment was aggravated by the withdrawal of the United States as a major importer of oil from the region on account of its own fracking revolution, leaving Asian powers such as India (in Nigeria) and China (in Angola) in a dominant position as a buyers of African oil. For Angola, this reduction in foreign interest meant that its relatively modest proven reserves of under 9 billion barrels were not added to, and that average daily oil production fell slightly from close to 1.9 million barrels in 2008 to under 1.7 million barrels in 2017.

In view of the degree of oil dependence in both countries, subsequent policy choices could at best ameliorate what amounted to a massive systemic shock. In the event, decision-makers mostly failed to tackle the worst consequences of the crisis and may well have magnified its impact through flawed, but also perverse and self-serving, policies. The reaction of Angolan decision-makers to the post-2014 downturn in some ways compared positively to Nigeria's, as well as their own crisis management during the earlier (2008–2009) brief but sharp reduction in oil prices. The currency was devalued (though not quickly or significantly enough to prevent the re-emergence of a parallel currency market), fuel subsidies were rolled back, and public expenditure was curtailed.

From the vantage point of 2018, however, the running of Angola's economy from 2014 to 2017 looks problematic. After toying with a rapprochement with the International Monetary Fund, President dos Santos turned instead to China as a more opaque (if hardly concessional) source of loans. Access to scarce hard currency became a politicized prerogative of the few. Following the accession to the presidency of João Lourenço, well-supported allegations have also emerged regarding the accelerated plundering of the Angolan state by dos Santos's circle as his departure in September 2017 grew closer. This included a variety of allegations regarding the country's national oil company, then run by dos Santos's eldest daughter, and the sovereign wealth fund, then run by his eldest son.

In addition to the oil price downturn, other dynamics have contributed to Nigeria's economic crisis since 2014. The political turbulence around the last year of President Goodluck Jonathan's tenure was sharpened by conflicts across the country, especially the Boko Haram insurgency in the north and the continuing conflict in the Niger Delta. Far from accelerating the much-needed reform of the oil sector, the notorious Petroleum Reform Bill continued to limp through many drafts (a compromise version did not surface until 2018 and was promptly sidelined by President Muhammadu Buhari). Buhari's election in 2015 had raised hopes of a fight against graft, but soon resulted in erratic economic policy and the initial refusal to engage in some of the most basic measures to stabilize the economy (e.g. the long-delayed devaluation of the naira). In late 2018, the prospect of a fractious and very competitive electoral contest between President Buhari and former Vice President Atiku Abubakar has added further unpredictability to the management of Nigeria's economy.

As the World Bank has noted, Africa's oil-rich economies face two major challenges. The most urgent is the need for macroeconomic stabilization in the wake of the shocks brought about by the significant drop in revenues since 2014. Both countries' track records are patchy in this regard, due partly to their sheer dependence on oil revenues, which would always hamper coping strategies, and partly to the flawed character of the policies that were implemented. Of the two, Angola seems like the more manageable, with a hegemonic ruling party under a new incumbent able to push forward the sort of stabilization that Nigeria's competitive clientelism and deepening political fragmentation render very difficult.

The second challenge is the need for broad-based growth underpinned by economic diversification away from the volatile oil sector. This is made more urgent by dwindling oil reserves, at least in the case of Angola, and the political salience of the youth bulge. Only such a shift could durably change the postcolonial pattern of underdevelopment experienced by these resource-rich but poor societies. Beyond lip service to the need for economic diversification and development, Nigerian politics on the eve of the February 2019 election are not generating anything like a blueprint for transformation. In Angola, President João Lourenço is reengaging with the International Monetary Fund, loudly denouncing corruption, and discontinuing some of the more ruinous pre-2014 capital-intensive projects—all of which are potentially positive steps, if arguably contradicted by Angola's deep continuities in policy and personnel with the dos Santos era. But no alternative MPLA development agenda has yet emerged.

In thinking through the dire need for systemic reform in both Angola and Nigeria, an excessive focus on the vagaries of policy would make us miss the bigger picture. There is no doubt that, say, the settling of the vexed Petroleum Reform Bill in Nigeria or a reduction in graft in Angola would be positive steps. However, in countries that have seen very different policy regimes over four decades, all with dismal outcomes, it is clear that the problem is structural and not just policy-specific. In sum, the governance of Africa's two leading oil producers has never primarily concerned with economic diversification and development, however defined. Unless a sea change occurs in elite approaches to the political economy and the long-term vision for their countries—a change that could be sparked endogenously by the adoption of a different mentality by rulers, or exogenously by real-world transformations that they can scarcely control—we can expect Nigeria and Angola to continue to suffer from unpredictable fluctuations in the price of oil.

## ANGOLA AFTER DOS SANTOS: TAKING STOCK

***Lucy Corkin***

Angola's 2017 national elections may have been among the most anticipated on the continent, despite the outcome being all but certain. On 26 September of that year, João Manuel Gonçalves Lourenço, or JLo as he is sometimes known, became only the third Angolan president since the country's independence from Portugal in 1975. He had been hand-picked the previous year as the successor to Eduardo dos Santos, who after 38 years as the head of state announced his retirement from government office in March 2016. Most observers judged Lourenço to be a custodian of the political status quo, assuming that dos Santos would remain a kingmaker and head of the Popular Movement for the Liberation of Angola (MPLA). Consequently, the sweeping changes that Lourenço has implemented in his first year in office have come as something of a surprise, albeit a welcome one—particularly in terms of oil sector reform and much-needed clarity on the role of Sonangol, the state oil company, going forward.

Lourenço's praise singers style him as a decisive leader who does not consider himself above the law and is serious about dismantling the country's patronage networks. However, despite the promise of his actions, admittedly, nothing as yet distinguishes them from the routine purge by a new leader of his long-standing predecessor's support base. Lourenço was swift in implementing a monumental cabinet reshuffle, aimed squarely at removing recipients of dos Santos' patronage from key posts. This extended to members of the former first family.

Dos Santos had never made any serious attempt to install one of his children as his successor, as none of them has a credible political pedigree or the requisite support within the more powerful party factions. However, dos Santos had instead ensured that his children were well placed enough to allow his influence to be felt beyond his official retirement. Isabel, his eldest, had been appointed chair of state oil company Sonangol, and his son Jose Filomeno 'Zenu' was set up in the Angolan Sovereign Wealth Fund, which has a $5 billion investment mandate. Lourenço removed both within the first few months of taking office. Zenu dos Santos was also charged with corruption when it emerged he had attempted to transfer $1.5 billion from the Central Bank to a Swiss bank account as a guarantee for fraudulent investment projects. This also implicated the governor of the Central Bank, Valter Filipe da Silva, whom Lourenço summarily replaced with veteran José de Lima Massano. The funds have since been returned; unusually where the Angolan political elite are concerned, Zenu dos Santos was arrested in September 2018 and the case will go to trial.

Much of the new president's energy has been directed at revitalizing Sonangol. Isabel dos Santos's removal from the parastatal's helm in November 2017 was accompanied by a complete overhaul of the company's board and the appointment of Carlos Saturnino Guerra Sousa e Oliveira, who had been serving under the new president as secretary of state for petroleum, to that position. This was a direct snub to the former president's daughter, who had previously removed Saturnino, then serving as chair of Sonangol Research and Production, in June 2016, citing gross fiscal mismanagement. In an ironic twist, the Angolan attorney general is now investigating the Sonangol administration under Isabel dos Santos, which reportedly made illicit transfers to a bank in Dubai after having been dismissed. Lourenço also exercized his executive prerogative to appoint KPMG as Sonangol's auditors, effectively revoking Isabel dos Santos's previous appointment of PwC, citing a conflict of interest.

Lourenço cannot pursue dos Santos directly. Either by agreement or sheer luck, three months before leaving office, the former president was granted a seat on the Council of the Republic, a presidential advisory body whose members enjoy immunity from prosecution. However, Lourenço has clearly been on a campaign to reduce the elder statesman's influence. Tellingly, when dos Santos himself attempted earlier this year to extend his leadership of the MPLA until 2019, he was forced to announce his retirement from party politics altogether. Lourenço finally succeeded him as head of the ruling party in September 2018, confirming a decisive shift in the balance of power.

The new president appears to have tacit approval to push through much-needed but painful reforms. With a newly appointed Central Bank Governor Massano in place, , it was announced that the kwanza's long-standing dollar peg would be abolished in favour of a 'trading band' and driven more by primary market demand. Although this precipitated a more than 40 per cent devaluation against major currencies in the eight months after its implementation, it has narrowed the gap between the official and black-market rates, which had been distorting the economy in recent years. It has also released the Central Bank from having to further defend the currency with precious reserves, which have reportedly halved to $14 billion since 2014.

Shortly after the announcement of the removal of the currency peg, Finance Minister Archer Mangueira announced the intention to negotiate a restructure of Angola's foreign debt. A rapprochement with development finance institutions also appears to be in play. Afrexim Bank announced intentions to extend a $2 billion facility to Angola, and the International Monetary Fund announced US$ 3.7 billion in three-year credit under an Extended Fund Facility. Presidential Decree 164/18 enacted regulations relating to Law 10/14, which effectively provides tighter controls on public debt. Among such measures is a cap, the kwanza equivalent of $10 million, on the Ministry of Finance's authority to negotiate and sign loans; larger agreements require the president's signature. Both these reforms will go a long way to easing dollar liquidity, which will in turn alleviate pressures on the economy, notably the hard-currency-driven oil sector.

Indeed, a key focus for the new president since taking office has been reform in the oil sector, so as to boost investment. Predictably, Angola's oil production has been in decline, with average barrels per day (bpd) dropping by more than 300,000 over the last two years. This is due in no small part, as admitted by Oil and Mineral Resources Minister Diamantino Azevedo, to the lack of investment in recent years in surveying, prospecting, and exploration. The oil majors have been understandably wary of such expenditure during a low-oil-price environment. A severe lack of foreign currency liquidity and the financial vulnerability of Sonangol further blighted Angola's attractiveness for investment. There is concern that Angola will struggle to maintain production at 1.5 million bpd for the next five years, which is almost 7 per cent less than the country's current OPEC quota. Without a spike in fresh investment, production is expected to fall to 1 million bpd by 2023, according to the Ministry of Mineral Resources and Oil.

The political wrangling centred on Sonangol in recent months was symptomatic of the country's volatile environment. Lourenço has also followed through on long-promised reforms to Sonangol itself so as to address the financial underperformance and sectoral bottlenecks in the parastatal, through which the majority of government revenues are generated. Sonangol's accounts have been lacklustre for the past few years. The company missed its budget target by 15 per cent in financial year 2016—due in part to the low oil price, which has since recovered, but also to administrative mismanagement and collusion. In August 2018, Lourenço announced via presidential decree the creation of Angola's National Oil and Gas Agency, which will assume full management of the country's oil concessions by December 2020. It will bid for new oil concessions, manage production-sharing contracts, and represent the state in sharing oil profits in oil concessions. This effectively disintermediates Sonangol from total control of the oil sector, and removes the long-standing conflict of interest between its roles as sole industry concessionaire and participant in Angola's oil exploration.

In a bid to turn around company finances, Saturnino announced in February 2018 that the company will open its 70 per cent stakes in blocks 21/09 and 20/11 to tender. (These blocks had been the subject of dispute with Cobalt International, resolved when Sonangol bought out Cobalt's stakes for $500 million in December

2017.) Furthermore, holdings in non-core investments—such as domestic airline Sonair and five Angolan banks, including an 8.5 per cent stake in Angola's largest bank, Banco Angolano de Investimentos—are being reviewed. Crucially, this will also allow the parastatal to focus on its core activities while releasing Angola's economy from Sonangol's formerly monopolistic grip.

Such efforts to restore clarity to investors appear to be bearing fruit. In May 2018, Total and Sonangol announced a final investment decision on Zinia II deepwater offshore development, which will have a production capacity of 40,000 bpd. Total has also signed a partnership agreement with the national oil company to jointly explore Block 48, as well as to develop a network of service stations across Angola.

While these developments are inspiring cautious optimism in investors, particularly in the way graft and nepotism are being tackled, several controversial figures have remained untouched. One of these is former Vice President Manuel Vicente, a figure well-known in oil industry circles, who at one time was tipped to succeed dos Santos. CEO of Sonangol from 1999 to 2012, Vicente accumulated significant government influence. He is widely seen as having been instrumental in furthering Angola's economic diplomacy, especially through Sonangol's international expansion. In February 2012, Vicente was minister of economic co-ordination, and in September of that year he was elevated to vice president. A raft of corruption scandals, both local and international, rendered him unsuitable for presidential candidacy. Sensing a change in the political wind, Portugal initiated corruption charges against Vicente this year. However, Lourenço, calling the charges an 'offense against the state of Angola', sued to have the case heard in Angola, where Vicente, as a former vice president, has immunity from prosecution. Portugal agreed in May 2018 to allow the case to be taken up by Angolan courts. While this could be seen as diplomatic sabre-rattling at Angola's former colonizer, Vicente, who counts the current CEO of Sonangol, Saturnino, as his protégé, is also reported to have inveigled his way into the circle of Lourenço's closest oil and gas advisors. This somewhat dampens the outlook for a complete break with Angola's political past.

Lourenço has made an encouraging start to his administration and has in his first year wrought changes which are undeniably positive for the investment environment, particularly the oil sector. However, there are limits to the country's purported reforms, and it is not completely a case of 'out with the old, in with the new'.

## NIGERIA'S OIL REFORMS IN LIMBO

***Eklavya Gupte***

'We are ready to bring it down. It won't drill a barrel of crude,' tweeted Mudoch Agbinibo, the leader of the militant group Niger Delta Avengers, which in 2016 brought Africa's largest oil producer to its knees with brazen attacks on the Delta's oil facilities.

The tweet threatened an attack on the floating production storage and offloading unit of the 200,000 barrels per day (b/d) Egina field, which is due to start up by end-December and is expected to increase Nigeria's oil output by over 10 per cent. Sent in February when the unit first reached Nigeria from a South Korean shipyard, it was the last time Agbinibo appeared on social media; the Niger Delta Avengers, a little-known group, has basically been dormant since then except for some apocalyptic threats. However, the din in the Delta is gradually growing, and the chances are high that the Avengers, along with a handful of other militant groups, will plan attacks on oil infrastructure.

The government has pledged to prevent fresh outbreaks of militancy and violence in the Niger Delta. It has found ways to keep the militants quiet through a combination of promises of development, money, and a shaky amnesty program. The amnesty program was started in 2009 by then President Umaru Musa Yar'Adua to fight militancy in the Niger Delta by offering incentives to youth of the region to give up oil theft and sabotage. It worked briefly, but critics argue that it has morphed into an unsustainable money-for-peace model. New militants have emerged over the past decade, replacing the old ones, and the Delta remains just as fragile.

Nigeria's oil industry can best be described as mercurial. It produces probably the best quality of crude in the world in abundance, yet this very oil has created deep fractures in society, fuelling militancy, corruption, and mistrust, which have unfortunately thrived in a country beset by economic and regulatory uncertainty.

Despite these challenges, Nigeria remains a key global crude-oil exporter, and with its vast oil and gas reserves, it will continue to be a crucial player in the energy markets.

### Calm before the storm?

Nigeria's crude and condensates output, which in mid-2016 plummeted to a 30-year low of around 1.1 million b/d due to militancy in the Niger Delta, has been climbing gradually. It averaged just around 2 million b/d in October and November 2018, in spite of pipeline sabotage affecting popular export grades like Bonny Light and Forcados – partly due to the government's efforts to maintain peace in the Delta. But the country faces a stiff challenge as it heads into a volatile campaign season ahead of the February 2019 presidential elections. Maintaining Nigeria's oil production at full capacity (2.2 million b/d) has been a struggle for every government in the past decade, and it isn't going to get any easier.

Nigeria's new breed of militants have a penchant for hyperbole and biblical references, the latter somewhat belied by the ferocity and brazenness of their attacks on the country's export terminals and oil pipelines. The militancy in the Niger Delta is omnipresent and a real threat to production levels.

The quandary for President Muhammadu Buhari is that his rivals, along with some Niger Delta politicians and militants, have found a common cause in undermining Niger Delta security. Most analysts expect disruptions of around 300,000 b/d to Nigerian oil output leading up to the 2019 elections.

'While large attacks on oil infrastructure remain unlikely, the volume of oil theft and minor disruption is likely to increase . . . and may push [international oil companies] to declare force majeure on Nigerian crude streams,' consultancy Rapidan Energy said in a recent analysts' note.

Some analysts have also said that the incumbent president's deep pockets mean the opposition will need to finance a sizeable campaign, which it will do in part with revenue from oil theft.

The attacks are also likely to fan the flames between the Christian south and Muslim north and reinforce the southern narrative that Buhari is doing more to grow the oil industry in the north than in the Delta, which remains the heart of the country's oil sector.

Recent announcements by the state-owned Nigerian National Petroleum Corporation (NNPC) that it will start oil exploration in the Lake Chad basin, along with plans to build a new refinery near the Niger border, have helped support this narrative.

However, despite its oil potential, the north remains dominated by the Boko Haram insurgency, limiting its prospects. This is also a sensitive time for the country, when the fragility of Christian–Muslim relations is being exacerbated by the spiralling farmer–herder violence in Nigeria's Middle Belt. If this violence and the instability in the Delta intensify, Nigeria's future looks bleak due to the sharpened ethnic, regional, and religious polarization.

But President Buhari, along with Vice President Yemi Osinbajo and oil minister Emmanuel Kachikwu, pushed for a 30 per cent increase in amnesty program payments this year, along with a sizable increase to the budget of the Niger Delta ministry to keep militants on side. In the past two years, the Buhari government has found ways to keep the militants quiet through promises of development, money, and amnesty. But it faces a stiffer challenge as it heads into a volatile presidential campaign season, with the danger that supply disruptions in the Niger Delta might escalate and lower Buhari's chances of winning another term.

**Light and sweet**

Despite the unrest, Nigeria's crude oil, which is light and sweet and of high quality, could face a brighter future. It is mostly low in sulphur and yields a generous amount of diesel, jet fuel, and gasoline, which are generally the most profitable products for global refineries. The light, sweet barrel, which until just under a decade ago was every refiner's most sought after, has recently lost its lustre, and has emerged as the swing barrel. Nigerian oil was one of the biggest casualties of the US shale revolution. US shale oil is similar in quality to Nigerian crude oil, and as more and more shale basins were discovered in its own backyard, the United States, once the largest buyer of Nigerian crude, did not need it any more.

But light sweet crude could stage a comeback as the International Maritime Organization's low sulphur cap on marine fuels comes into effect in 2020. This will drive demand for lower-sulphur crudes and increase their profitability. The resurgence of Nigeria's light sweet crude barrel could be around the corner.

A major goal for Nigeria's oil marketers and oil ministry is to increase the popularity of Nigerian crude. Currently, the bulk of Nigerian crude goes to Europe and India. Oil demand is largely stagnant in Europe, which is also awash with so many different types of crudes that Nigerian crude, which is generally more expensive, finds it tough to compete with cheaper heavy sour varieties.

Nigeria needs to find innovative ways to attract buyers from countries or regions where crude oil demand is rising—especially China, the world's largest crude oil importer—as exporters of US crude have recently done successfully. Nigeria has taken some steps to do this, but it needs to do more.

The 2018/2020 NNPC crude oil term contracts, which were awarded a few months ago, went to more than 60 recipients, the largest list Nigeria has ever allocated. Officials have cited this as a demonstration of NNPC's efforts to broaden its customer base and to include more domestic companies, which is expected to help Buhari ahead of the election. Many of the domestic awardees are new to the world of international oil trading and will be transferring their allocations to bigger trading companies that have more familiarity with and connections in end-consumer markets.

This policy might mean that there is a larger pool of people involved in Nigeria's crude oil term contracts, but it also means that the murky oil business in Nigeria, which is already riddled with corruption, could get messier, especially as political manoeuvring begins ahead of the elections.

**Big words, less action**

Nigeria's oil sector urgently needs a complete overhaul, but comprehensive reforms are unlikely in the current political climate. The state of the country's key energy legislation, the Petroleum Industry Governance Bill, is almost a metaphor for the problems in the industry.

Industry analysts say this bill will bring much-needed order to the petroleum sector, in particular its revenue-sharing model, which has been vulnerable to corruption. They argue that the bill will better regulate upstream agreements, fiscal terms, and production-sharing contracts. The bill also aims to create efficient governing institutions with clear objectives, so as to diminish the powers of the NNPC behemoth. Its passage has been seen as an urgently needed first step towards overhauling Nigeria's dysfunctional oil sector and achieving its long-term oil production targets.

But the bill has been stuck in parliament for more than eight years, held up by political wrangling and objections from foreign oil companies to the significantly higher taxes envisaged in recent drafts. Progress recently stalled again when President Buhari withheld his assent in August 2018 and sent it back to the National Assembly for review.

The bill would curb the powers of the Nigerian president and oil minister to award lucrative oil contracts on a discretionary basis and to run the three new entities to be created from NNPC. This is cited as one of the reasons Buhari has stalled its progress, showing how central oil is in the corridors of power in Nigeria.

Nigerian oil's downstream sector also needs attention. Its four refineries, which have a capacity of 445,000 b/d, have barely been functioning in the past five years, due mainly to sabotage of pipelines carrying crude to the plants and technical problems arising after years of neglect.

Given the underperformance of these refineries, there is a pressing need for Nigeria's policymakers and the government to rethink current policy on domestic fuel pricing.

The oil ministry is wooing private investors for its domestic refineries, but progress has been slow.

For now the country and region are pinning their hopes on the 600,000 b/d Dangote refinery in Lagos, which is expected to be online in the next two to three years. This is poised to be the largest refinery in Africa; besides reducing Nigeria's hefty import bill, it could curb Nigeria's crude oil exports and affect the flow of oil products into the region. But the project has been riddled with delays, and it could take some time before a big impact is observed.

Policymakers have been calling for the privatization of refineries and removal of the cap on motor gasoline, but have not delivered on the promise of reforms. Taking steps to address these issues will need to be a priority for the next administration.

The oil ministry has set itself an almost impossible target of ending gasoline imports by 2019, which is another promise that the government might fail to keep.

Emmanuel Kachikwu, the country's oil minister, has said all the right things to reform the country's oil industry with his #7BigWins agenda. But big words without action can only get you so far. Nigeria's oil sector needs a boost, and soon.

## THE RISE OF REGIONAL RISK IN EAST AFRICA

***Luke Patey***

One of the most defining characteristics of oil development in East Africa over the past decade has been the interaction of domestic and regional risk. Regional integration was originally seen as a means to energize budding oil industries. Uganda discovered oil on Lake Albert in 2006, some of the largest onshore finds in Africa for decades, and in 2012, neighbouring Kenya followed up with its own finds in its northwest Turkana region. That year, the leaders of Kenya, South Sudan, and Ethiopia gathered at the Kenyan coast to launch a $25 billion megaproject, the Lamu Port–South Sudan–Ethiopia Transport Corridor, in which a pipeline linking South Sudan's producing oilfields to Kenya's fresh finds would help anchor the massive infrastructure initiative. Not long after, Kenya began talks with Uganda to add another pipeline link to the regional oil infrastructure endeavours. With oil prices above $100 per barrel at the time, hopes were high that an interconnected regional pipeline was within reach.

But 12 years after the initial euphoria over East Africa's emergence on the African oil scene, the three would-be partners in regional infrastructure—South Sudan, Uganda, and Kenya—have gone their separate ways. South Sudan became mired in late 2013 in a civil war that has grounded any new investment plans and substantially lowered its production through pipelines north to Sudan. Uganda has turned to Tanzania, where onshore oil has still not been found, to monetize its oil resources through a regional pipeline. And Kenya, once an aspirational architect of East Africa's regional integration, finds itself struggling to find investors in a stand-alone pipeline from its landlocked oilfields in Turkana to the coast at Lamu.

For oil companies invested in the region, including the independent Tullow Oil, oil major Total, and the state-owned China National Offshore Oil Corporation, it gradually became clear that monetizing East Africa's new resources was a far larger challenge than expected. The centre of gravity for regional cooperation shifted south to the Uganda–Tanzania pipeline deal and represents a downsized version of what was originally planned. What happened? In South Sudan, Uganda, and Kenya, a mix of domestic and regional risk upended regional integration plans.

### South Sudan

South Sudan's domestic political and security environment snuffed out the potential for regional integration with its East African neighbours to the south and, thus far, necessitates its continued cooperation with Sudan despite testy relations between the two countries. The start of civil war in late 2013 ended any hope that, after splitting from Sudan in 2011, the new country would take in large new investments or advance large-scale regional infrastructure projects in its oil industry. Instead, the conflict represented another severe political disruption, after the 15-month oil shutdown that occurred in 2012 in a dispute with Sudan over pipeline transit fees. This time around, oilfields were immediately closed in Unity state and slowed down in Upper Nile, South Sudan's two oil-producing regions. Oil production went from 325,000 barrels per day (b/d) at South Sudan's independence to around 109,000 b/d in 2017.

The most promising prospects for new discoveries in South Sudan lie in Jonglei state. But this massive, isolated region, unstable even without the civil war, is hardly a desirable destination for low-cost exploration or potential oil development. France's Total has been circling a possible exploration deal for decades, and most recently was negotiating in partnership with Tullow before the latest potential breakthrough went nowhere. A smaller Nigerian company, Oranto, with little experience in onshore exploration of the magnitude required, holds rights for one concession in Jonglei but has made little progress on the ground.

At the same time, the civil war has overshadowed the naturally declining production of South Sudan's oilfields. First exploited in the late 1990s, these small and medium-sized oilfields are ageing, a condition accelerated by closures due to political intervention and armed conflict. In the wake of a number of broken pacts, the new peace agreement signed in 2018 has been met with considerable scepticism. If the fighting does simmer down and some stability holds, new cooperation with Sudan may boost production in the short run. Production will gradually rise, but some oilfields are uneconomical to reopen, and without large investments in enhanced oil recovery, overall output is projected to drop to below 100,000 b/d before 2030.

South Sudan won political freedom from Sudan in 2011, but its economic decision-making remains limited by Sudan's control of the only oil export pipeline routes. For the past decade, relations between South Sudan's ruling party, the Sudan People's Liberation Movement, and the National Congress Party in Khartoum have been anything but stable. Recent rapprochement will need to demonstrate perseverance for investors to overcome concerns fuelled by a short border war between the two countries in 2012. This could come in the form of settling long running disputes on, among other issues, the shared border between the two countries. Sudan became more involved in South Sudan's peace process partially to extract new economic benefits from the increased production in oil. It is very likely that if the economy in Sudan continues to falter, Sudanese leaders will seek to extract further economic and political concessions that may upset their South Sudanese counterparts.

### Uganda

Uganda is the region's leader in new oil production, with 6.5 billion barrels of oil in place. President Yoweri Museveni has been highly involved in the oil industry's development. He has won several drawn-out disputes with international oil companies over capital gains tax and has thus far held on to a plan to develop a domestic refinery, albeit dropping his preference for a large refinery to process both Uganda's and the region's oil, and is looking to develop an export pipeline by the early 2020s.

Landlocked, Uganda is dependent on its neighbours to transport its oil to the Indian Ocean and international markets. Its focus for this was originally Kenya but has shifted to Tanzania. The pipeline as originally planned would have linked Uganda's Lake Albert oil to Kenya's oil resources in Turkana and then continued to the coast at a new port in Lamu. But rivalry and mistrust resulted in Uganda turning to Tanzania instead.

Widespread concern remains in Uganda about overdependence on Kenya as a trade route to international markets, and increased cooperation with Tanzania will ease that concern. Equally concerning is the potential for land disputes in Kenya to slow and disrupt pipeline construction, as well as progress at the port. Kenya was unwilling to seriously consider the cost and security advantages of a central pipeline route to Mombasa, and placed priority on developing its northern region through oil and infrastructure projects.

The Tanzania route faces challenges of its own. Running from Lake Albert down the western edge of Lake Victoria and crossing Tanzania to the port at Tanga at a length of 1,443 km, the pipeline will come with a price tag of about $3.9 billion. There is less potential for land acquisition delays in Tanzania, as well as lower security risks compared to Kenya. But Yoweri Museveni's ongoing battles with international oil companies may yet delay the pipeline's completion beyond the early 2020s. Wrangling continues over how much oil will be sourced by Uganda's refinery, Museveni's main focus, and how much will be left for the export pipeline, an amount international oil companies wish to maximize.

The leading company in Uganda's oil industry, Total, has shown a strong preference for the Tanzanian route despite having entered Kenya's oil industry through its 2017 purchase of Mærsk Oil. But the oil major, now the dominant player in East Africa after Tullow's farmout, has shown patience in waiting for political winds to blow in its favour in what are still relatively small elements in its large international portfolio.

Relations between Uganda and Tanzania also need to remain warm over the long run. Tanzania promised to charge a lower tariff and plans a gas pipeline to Uganda as part of the growing energy interconnections between two countries. These commitments will need to be upheld for Uganda's oil industry to develop smoothly, and an unsettled border dispute with the Democratic Republic of Congo may bring more regional tensions should Uganda's exploration expand further.

**Kenya**

Left in the lurch, Kenya now faces the need to develop its small-scale oil resources, still measured at less than 1 billion barrels, on its own. Rising global oil prices, and the attractiveness of low-cost onshore oil, may yet give Kenya hope. But if political and security risks around the early development of its Turkana oilfields are any indication, outside investors might see more potential in backing the neighbouring pipeline in Uganda and Tanzania, rather than a stand-alone one in Kenya.

Sharp divides between national and local politicians and communities continue to impede oil development. Nairobi's decades-long neglect of the Turkana region has fostered a deep-seated resentment of outside politicians among local communities. At the same time, competition has arisen among local leaders and their affiliated businesses over economic resources made available through oil development. As a result, there have been multiple suspensions of Tullow's exploration and development activities. Political and security risks have also led to delays in what will likely be an unprofitable venture of trucking early production to market.

Losing the Ugandan pipeline link will be costly for Kenya. The resulting higher tariffs from the potential presence of two pipelines in East Africa are estimated by the Kenyan government to amount to losses of over $3 billion. To make up the loss, Kenya will need to push exploration companies to expand their work, but recent results have not been promising. Progress has, not surprisingly, been slow in the development of its planned Lamu infrastructure corridor. Failing to persuade Uganda to take part in a regional pipeline will likely not leave Kenya's resources stranded, but could lengthen the time before large exports should be expected.

**Regional politics**

Across East Africa's evolving oil scene, political and security challenges at the domestic level increasingly influence, and are influenced by, regional relations. This is not an isolated phenomenon. Border disputes are also prevalent in West and Central Africa, and should the industry move further inland, regional infrastructure deals will need to be made. National decision-makers and domestic and international investors should not ignore these new regional dynamics unfolding in Africa, because regional politics will set the tone for both progress and setbacks.

## OIL POLITICS AND STOPPAGES IN KENYA: AGREEING TO DISAGREE AGAIN SOON

***Charles Wanguhu***

After decades of on-and-off-again exploration, Kenya's 2012 discovery of commercial quantities of oil was a breakthrough for the country. But many civil society leaders worried about what was next. In the capital, Nairobi, Hamza Ahmed, a community organizer in one of the biggest informal settlements, said, 'Kenya needs leaders not dealers.' Ahmed was expressing frustration with individuals who he saw as self-serving and exploiting community grievances for personal gain. No doubt, community organizers in the Turkana region, where oil was found 544 kilometres north of Nairobi, would agree that they have been watching a similar problem unfold since 2012. A series of disputes have led to short-term-fix agreements that will in the long term lead to increased disputes and costs to oil companies operating in the country.

The Turkana region has seen several stoppages of oil company activity due to grievances articulated by local leaders over the lack of water, environmental issues, and access to economic opportunities. In 2013, led by local members of parliament, community members stormed the site where Tullow Oil, a British firm, was exploring for oil in Turkana. The disturbances led to the closure of the camp, the evacuation of staff, and the alleged loss of millions of dollars in staff and machinery downtime. It took intense negotiations and hosting of leaders from the region to resolve the impasse and end the stoppages.

A memorandum of understanding (MOU) was signed between Tullow and the Ministry of Energy and Petroleum, setting out conditions to establish a safe, secure, and sustainable operating environment in Turkana. Among the underlying issues to be addressed, two stood out: the need for shared prosperity amongst all stakeholders and the need for transparency and fairness in process and procedures in relation to sharing of opportunities.

The MOU specifically stipulated that the company would furnish the national government with information on employment and the utilization of local goods and services (including vehicle hire). The fact that vehicle hire was mentioned specifically suggests it was one of the key issues underlying the stoppages. A grievance mechanism was also established, and the company committed to increased social investment.

The timeline for the majority of these actions was in 2014. But when the sudden downturn in oil prices occurred, operational activity was reduced, and with it the use of local goods and services. Local businesses and officials who had prepared for opportunities in the sector, including by purchasing vehicles for hire to the company, were disappointed.

After the downturn, a period of relative calm followed, with minimal stoppages and reduced oil activity. However, in 2017, with elections coming and a proposed scheme to truck oil from the region to the coast, another closure occurred. The local community took over one of the sites designated for waste storage by Tullow, and this resulted in a standoff. The initial grievances were environmental, including the lack of licensing of the area for waste management and bad odour emanating from the site.

The MOU resulting from this particular stoppage was directly between the company and the local community. Of the commitments made by the company in the MOU, only one—to douse the pits with lime to prevent the smell—related to environmental concerns. The company also committed to build two classrooms, employ 34 people, undertake hydrological surveys for sinking of water boreholes, create business opportunities, and hire six vehicles from the community. In exchange, the community agreed not to disrupt company operations.

In 2018, Kenya's president, Uhuru Kenyatta, launched an initiative to transport oil from Turkana to the coast, first by road to a central rail facility and then by train to the port of Mombasa. The scheme promised to generate a tidy sum for the fledgling railway at an envisaged cost of $9.22 per barrel. The initiative was fast tracked due to external factors, particularly Uganda's choice to site its crude pipeline in Tanzania instead of Kenya. It therefore became a prestige project for Kenya to ensure that its oil reached the market before its neighbours and thus become the first country in the East African Community to export crude.

In the build up to the launch of the trucking initiative, several high-profile political meetings were held between Turkana leaders and the national leadership, including the president. The meetings led to concessions regarding national legislation on revenue sharing, with the government ceding ground on the previous proposed cap on revenues that would accrue to county and community levels. The government allowed for 25 per cent of future petroleum revenues to go to county and community levels without any further restrictions or capping. The community leaders, on the other hand, conceded to a reduced share of revenue to the community from 10 to 5 per cent.

However, less than two weeks into the trucking scheme, a blockage led by local members of parliament at several sites, the biggest so far, occurred. The grievance was insecurity—which, although it had historically plagued the Turkana communities, experienced a spike in the number of incidents after the launch of the trucking program. This included the shooting of community police officers, which resulted in the loss of lives. The preamble to the draft MOU did in fact lead off with the insecurity. However, the political leaders who led the stoppages highlighted the economic opportunities that came from trucking. In response, the company required its contractors, hired nationally, to seek out more local businesses to share in the economic opportunity.

The first impact of these stoppages was the cost. While all stoppage-related costs are recoverable, and Kenya will bear the brunt of them, the first stoppage took two weeks to resolve, and the stoppage in June 2018 took over a month. There was also a noticeable escalation in the disputes, and a loss of social capital for the Kenyan government and oil companies with affected communities. The risk is that the parties concerned view stoppages as a genuine means of negotiation, inevitably resulting in losses due to idle machinery and staff costs.

Second, there is now likely, at every point of increased activity in the oil sector, to be a stalemate over fair distribution of opportunities. The sector provides a limited number of opportunities, and this will complicate power balances within communities and among their leaders. For instance, one local member of parliament has been accused of trying to monopolize opportunities for his own personal gain, with local residents accusing politicians of reserving opportunities for their relatives and cronies, short-changing the community they claim to be advocating for. Kenya's devolved government further complicates the power structure with an increased number of claimants, from the governor of the region to the members of county assemblies. There is also conflict between the regional government leaders and the members of parliament from the oil regions.

Third, community-based grievance mechanisms are ill placed to deal with political elites competing for economic opportunities. As the various stoppages show, in the battle for economic opportunities, grievances around security and the environment are mere placeholders. The communities' grievances are likely to remain unaddressed once the economic opportunities are shared between the political elites. On the political front, there is the question of how electoral transitions will be managed where politically connected individuals have access to economic opportunities. This not only raises the stakes in political contests but also risks full-blown conflict once new representatives seek to access these opportunities.

An additional challenge, expressed by the term 'local local content', is the demand that oil-related opportunities should be distributed not nationally or even regionally but at the level of the local community in which the operation is taking place.

There is a risk of recurring conflict as the oil industry moves to a production phase where increased opportunities are generated, resulting in political realignments. While initial lessons in Kenya point to the need for increased interrogation of local content policy and transparency and accountability in the oil sector, it also shows that MOUs often serve as mere band-aids to larger contestations that will only appear once the project reaches full commercial development. Inevitably, we are agreeing to disagree again soon.

## MOZAMBIQUE: BANKRUPT BEFORE THE BONANZA

***Anne Frühauf***

Since roughly 2012, the discovery of natural gas reserves in Mozambique's Rovuma basin has generated palpable industry excitement about what is sometimes billed the world's next Qatar. For Mozambique, one of the world's least developed countries, the finds have promised to be a game changer. However, early hopes that two major LNG projects could come onstream in 2018 have been dashed by deteriorating global conditions and domestic factors. Domestically, Mozambique's critical misstep was to mortgage its LNG future through excessive, secret borrowing well before a single LNG train was signed off on, let alone constructed.

While fresh momentum has been evident in the upstream sector in 2018, the long shadow of Mozambique's debt scandals—which were revealed in 2016 and triggered a sovereign default—will shape the political risk outlook for the upstream sector into the next decade. Mozambique's 'muddle-through' response to the crisis, as described by local economist Roberto Tibana, will be a source of political, policy, social, and security risks for upstream operators, although those risks may turn out to be manageable given the industry's growing political clout in Maputo.

### Fresh LNG momentum

Development of the Rovuma natural gas reserves, which contain around 75 trillion cubic feet (Tcf) of recoverable gas in Area 1 and some 85 Tcf of gas in place in Area 4, has gotten off to a slow start owing to a host of global and domestic constraints. Initially touted to come onstream in 2018, official projections now expect LNG production to start in 2023, with gas exports reaching 18 billion cubic meters around 2024.

In 2018, fresh momentum has been building in Mozambique's upstream sector. The first and smallest development, Eni's US$4.7 billion Coral South floating LNG project, with a planned production capacity of 3.4 million tonnes per annum, reached financial close in December 2017. Onshore, Anadarko, the operator of Area 1, has had a long marketing and financing campaign, and currently aims to take a final investment decision on its Mozambique LNG project in Q1 2019. In Area 4, the entrance of US oil giant ExxonMobil, via its $2.8 billion deal to purchase a 25 per cent stake in Eni East Africa in March 2017, has injected significant momentum into the Rovuma LNG project. It aims to conclude a final investment decision around mid-2019 and to increase the capacity of two planned LNG trains to 7.6 million tonnes per year, with a start date in 2024. While further delays are possible, sometime in the next decade Mozambique seems destined to enter the global league of LNG producers.

The Rovuma ventures are largely export-oriented, and the government's initially ambitious plans for midstream development look less certain given Mozambique's economic crisis. A 2016 government tender attracted 14 proposals from companies including Mitsui, Shell Mozambique, Yara, and

Marubeni, but only Shell's plan for a 38,000 barrel per day gas-to-liquids plant seems to be making tentative progress. Fertilizer production would also make sense from a developmental perspective, given that 85 per cent of poor households earn their living in the agriculture sector, but much will depend on gas prices and regulatory questions.

Finally, beyond the Rovuma blocks, the government in August 2018 approved exploration contracts for the fifth licencing round, which commenced in October 2014 but was delayed by regulatory hurdles. As a result, fresh exploration off central Mozambique—in the Angoche and Zambezi basins (by ExxonMobil and Eni)—and onshore in the Mozambique Basin (Sasol) could commence as early as 2019.

**Dependency on LNG revenues**

The country's status as an emerging LNG player will fundamentally reshape its political economy, all the more so because the LNG ventures are the only hope of President Filipe Nyusi's government of resolving its fiscal and debt conundrums over the next two decades. In 2013, the government of then president Armando Guebuza, sidestepping parliamentary approvals, contracted about $2.3 billion of debt to create the Mozambique Tuna Company (Ematum), ProIndicus, and Mozambique Asset Management (MAM), three moribund state ventures with barely feasible business plans involving tuna fishing, maritime security services (aimed at the upstream sector), and shipbuilding and maintenance. A debt scandal and a sovereign default later, Mozambique's debt-to-GDP ratio was 112 per cent in 2017. A subsequent Kroll audit was unable to properly account for half the funds and was largely boycotted by officials, while investigations by the attorney general's office have yielded little to date. The scandal clearly highlights the lack of accountability and the extent of corruption risks.

The crisis has severely dampened the economic growth trajectory of Mozambique—once lauded by International Monetary Fund chief Christine Lagarde for its rapid growth, poverty reduction progress, and sound economic management. Instead, government estimates now expect real GDP growth 'to remain significantly below historical performance, at an average of 3.4% over 2016–2022 vs. 7.4% over 2005–2015'. With growth and investment in other sectors mixed at best, everything is riding on the LNG projects. From 2023, official forecasts expect real GDP growth to reach 8 to 10 per cent annually, while the value of LNG net exports could reach $7.4 billion per annum.

The LNG boost will be crucial to help Mozambique extricate itself from its debt trap. However, the real revenue windfall is not expected to occur before the early 2030s. It thus comes as no surprise that the government pledged to mortgage some of its gas revenues to foreign commercial creditors as part of an in-principle debt restructuring agreement announced in November 2018. The deal includes Value Recovery Instruments worth 5% of Mozambique's annual gas revenues (capped at USD 500mn in total) for holders of the Ematum-related sovereign bond. The government also plans to return to the market for upwards of US$ 2 billion to finance the stake of national oil company ENH in the Rovuma projects. Even if the Nyusi administration manages to defer its debt obligations into the LNG-fuelled future, its borrowing spree will take a toll on development spending and—by helping the government skirt deeper investigation of the $2.3 billion debt—on Mozambique's institutional integrity.

**Policy uncertainty?**

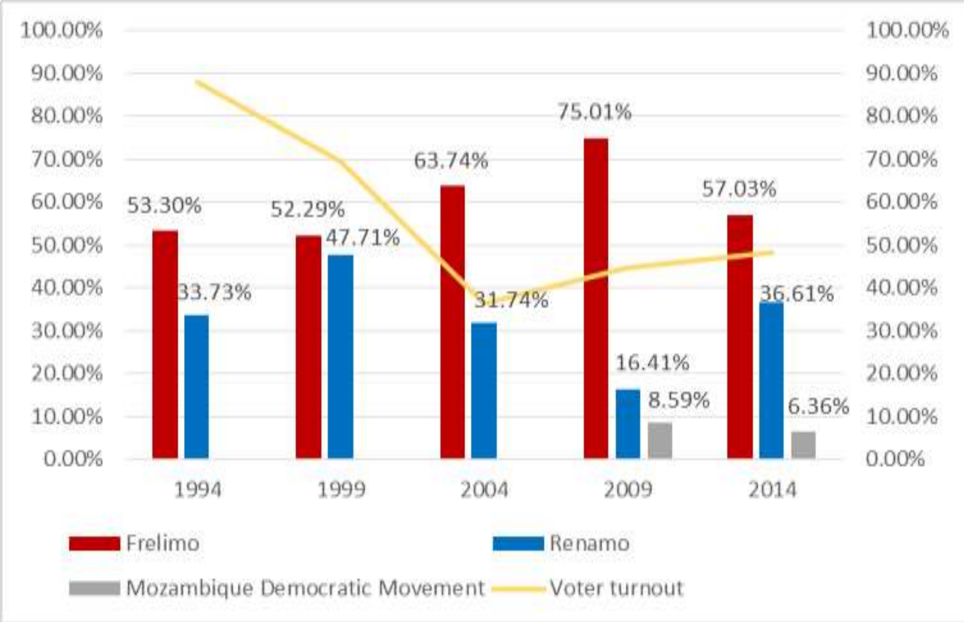
Could Maputo's fiscal and governance crisis create the conditions for a backlash for upstream players? As Mozambique's biggest source of revenue, the LNG players will have tremendous influence over current and future governments, while further eroding an already weak accountability link between the government and the public with its tiny base of taxpayers, as is common in countries experiencing the 'resource curse'.

At present, crucial upstream players—ExxonMobil, Eni, and Anadarko—enjoy a favourable negotiating position as Maputo cannot afford further delays to the LNG projects. More than any other commercial stakeholder, the LNG ventures seem to have the ear of President Filipe Nyusi's administration. This has helped the companies secure favourable policy outcomes (including the LNG Decree, Law No. 2/2014) and regulatory approvals.

Nevertheless, the government's fifth licensing round, which was launched in October 2014 but saw contract approvals delayed until 2018, highlighted regulatory uncertainties over changes to the Petroleum Law, including domestic market obligations and local content regulations. Deals with ExxonMobil, Eni, and Sasol are finally within reach after the government agreed to amend regulations requiring upstream companies to list on the local stock exchange.

Longer term, a tight fiscal and debt outlook into the late 2020s—combined with growing public pressure to spread the benefits of the LNG bonanza—could tempt the Nyusi and successor administrations to tap the country's most important income source in the production phase. While Mozambique's LNG Decree Law, passed specifically to provide security of tenure for the Rovuma ventures, is considered comprehensive, attempts to renegotiate contracts as well as tax disputes are possible, particularly as the public narrative grows that Mozambique has been short-changed. Already, a government-commissioned audit of Anadarko's and Eni's operating costs signals potential areas of future disputes.

**Presidential election results, 1994–2014**




Source: African Elections Database; Jo Hanlon: Mozambique Election Results archive.

**Will voters punish the ruling party for the debt crisis?**

The degree of political instability facing the industry will depend on whether the ruling party—Frelimo, in power since independence in 1975—manages to hold on to power in conditions of bankruptcy and austerity. Ordinary Mozambicans have undoubtedly paid the heaviest price for the debt crisis, suffering the economic slowdown, inflation, and fiscal austerity measures, including cuts to fuel and wheat flour subsidies and hikes to energy and transport prices. Amid a sense that the government has made ordinary people pay the price for the debt scandal while failing to hold officials accountable, Frelimo seems to be aware that the fallout from the debt crisis could create the risk of an electoral backlash.

The biggest test of Frelimo's staying power will be the 2019 presidential, parliamentary, and provincial elections. In the October 2018 local elections, while Frelimo still won the majority of Mozambique's 53 municipalities, its performance was markedly poorer than in 2013. According to the *Mozambique Political Process Bulletin*, the number of municipalities under Frelimo's control shrank from 50 to 44; another five Frelimo victories were disputed. Frelimo's declining share of the vote (just under 52 per cent) signals a worrying trend for the ruling party ahead of the 2019 ballot.

Despite this, Frelimo remains ahead in the polls, for two reasons. First, it benefits from a weak opposition. The once promising Mozambique Democratic Movement is a spent force, as the 2018 municipal elections demonstrated. The largest opposition party, Renamo, is making a comeback, particularly in central Mozambique and key cities. However, it has lost its iconic long-time leader, Afonso Dhlakama, and will struggle to overtake Frelimo's vote share at the national level.

Second, Frelimo has an inbuilt advantage owing to the politicized electoral commission and the party's ability to mobilize the state apparatus in election campaigns, even in austere times. The disputed outcomes and the exclusion of high-profile leaders from the 2018 local elections, combined with growing intimidation of politicians and local media figures, all suggest an erosion of democratic processes that is all too common in resource-curse countries.

Under these conditions, Frelimo may continue to win elections, but probably with less legitimacy.

**Will the operating environment become more hostile?**

Even if the political landscape remains somewhat predictable, the social risk context in which upstream companies operate may worsen as inequality sharpens. Even before the LNG bonanza kicks in, Mozambique's socio-economic indicators have begun to deteriorate. The World Bank's 2018 *Jobs Diagnostic Mozambique* emphasized that, while the national poverty headcount ratio fell from 68 per cent in 1996 to 48 per cent in 2014/2015, 'the bottom 40% of income earners has been left behind … the pattern of growth has become progressively less inclusive over the last 20 years. It depends increasingly on energy-related, export-oriented, capital-intensive "megaprojects," which have generated few jobs directly and indirectly.'

Will the lack of inclusive growth result in an increasingly hostile operating environment? Some conflict with local communities over upstream development in the remote northern province of Cabo Delgado seems inevitable. In August 2018, farmers on the outskirts of Pemba, who were displaced to make way for the Pemba Logistics Base intended to support upstream operations, rioted to protest their loss of farmland and poor financial compensation (in some cases reportedly as little as $35).

There are obvious expectations that the upstream companies will create jobs and commercial opportunities for local small and medium-size enterprises. Anadarko stated at a conference in Pemba in August 2018 that it expects to employ 3,500 Mozambicans at the peak of the construction phase and 1,500 over the 30-year production period. It highlighted business opportunities related to catering, construction materials, electronics, and other equipment, but local companies are rarely competitive due to high certification, know-how, and scale hurdles. Responding to these concerns, President Nyusi proposed that local companies partner with foreign companies, which 'sounds very much like the encouragement of cabrito capitalism, where the Frelimo elite uses land titles, mining licenses or contacts to make a deal where they trade their local contribution for 20% of a [joint venture] and the foreign partner does the work, as is happening in the mining sector' (Hanlon, Mozambique News reports & clippings 422, 20 August 2018). This has the potential to worsen social conflict over the long term, as well as corruption and reputational risks for companies.

A second, escalating risk to the upstream sector is insurgent activity associated with the Islamist extremist group Al-Sunnah wa Jama'a, also locally referred to as Al-Shabab, which first staged attacks in Cabo Delgado Province in October 2017. While some reports suggest involvement of foreigners from Tanzania and Somalia, the Cabo Delgado insurgency—with an estimated 350 to 1,500 members—seems to have a homegrown element driven by unemployment and poverty, particularly within the local Mwani ethnic group, which has historically felt marginalized by the Maconde (to which Nyusi and other key northern Frelimo leaders belong).

The targets of insurgent raids have been local police and villages in five coastal districts of Cabo Delgado Province: Mocímboa da Praia, Palma (the district where Anadarko is developing its LNG facility on the Afungi peninsula), Nangade, Macomia, and Quissanga. To date, no attack has directly targeted upstream companies, and it is unclear whether the insurgent groups, typically comprising 10–30 men, have the capacity to attack secured sites. Nevertheless, some of the attacks have occurred within less than 20 km of the Afungi peninsula. This emerging threat forces companies to step up security, even if the challenges might ultimately prove manageable for companies accustomed to operating in countries like Iraq.

### The bottom line

In 2018, there has been fresh momentum in Mozambique's fledgling LNG sector, thanks to improving commercial conditions and regulatory approvals. Politically, LNG players enjoy substantial leverage as the state's only way out of its financial crisis over the next couple of decades. However, the political and socio-economic context in which the upstream companies will operate is likely to deteriorate, even if the resultant project risks may still prove to be manageable from the companies' perspective.

## CHALLENGING PROSPECTS FOR UPSTREAM CONTRACTING IN TANZANIA

***Peter Bofin and Rasmus Hundsbæk Pedersen***

Tanzania is East Africa's first petroleum producer and has produced natural gas in modest amounts for the domestic market since 2004. It may become a significant producer if agreement can be reached on the development of a liquefied natural gas (LNG) project following a series of deep-sea discoveries that started in 2010. In the early years, some maturation of the sector could be observed, driven by international oil company projects but with capacity being built in the state oil company, the Tanzania Petroleum Development Corporation (TPDC). Since then, however, development has slowed. TPDC hopes to licence a number of blocks in 2019, but prospects for this are not good, given the political, legislative, and institutional conditions.

The deep-sea natural gas discoveries coincided with, and to some extent spurred, Tanzania's adoption of a more 'resource nationalistic' stance, which has been seen as one of the most radical in Africa. A number of reforms have been passed, at times with little regard to international competition and global oil price cycles. We argue that this reflects delays in the state's reaction to market movements, with a reluctance to fully reorient state institutions, some new, to manage its envisaged role in the sector.

The collaboration between state and private sector that is required to create markets for natural gas has proved challenging. A number of new regulatory institutions have been established, but with limited development of the sector they currently tend to contribute to institutional overcrowding and indecisiveness that often leave private actors in despair. Under President John Magufuli, decision-making power has shifted to State House (the seat of the executive branch). This may allow for flexibility in terms for the bigger players, who are able to access the highest level of government. However, it threatens to undermine the stability and transparency that the sector had been moving towards.

**The development of Tanzania's gas sector**

As a petroleum-producing country, Tanzania matured significantly in the first years after production began. It saw considerable upstream investment from 2000 onwards, both onshore and offshore, as well as on the littoral. This was a response to reduced financial and geological risk, and rising prices attracting private upstream investments globally. Geological risk was reduced offshore by a 1999 2D seismic survey conducted on behalf of the TPDC. Onshore, geological risk was less directly lessened through discoveries in the western spur of the Rift Valley in Uganda (2006) and Kenya (2012). Since 2008, licensing through competitive bidding has been the norm.

Only onshore and nearshore projects are currently producing. The first small littoral natural gas fields at Songo Songo began producing in 2004, with PanAfrican Energy Tanzania Ltd controlling the upstream facilities at Songo Songo Island while Songas—a consortium consisting of Pan African Energy, Commonwealth Development Corporation, Globeleq, the state-run Tanzania Electric Supply Company (TANESCO), and TPDC—was in charge of the Dar es Salaam power plant and the onshore pipeline and processing infrastructure. In Mnazi Bay, production began in 2006 by Artumas, later Wentworth, and from 2012 with Maurel et Prom as the operator, initially supplying a power plant in Mtwara but also the National Natural Gas Infrastructure Project (NNGIP) after its finalization in 2015. Finally, the modest Kiliwani North came into production in 2016, held by Ndovu Resources, though production declined considerably in 2017 from 15 million standard cubic feet per day (mmscfd) in the first half of the year to less than 1 mmscfd in the second half. The bulk of supply to NNGIP comes from Mnazi Bay, averaging 49.1 mmscfd over 2017.

The two former projects typify the early phase of petroleum sector development in Tanzania: both were long in gestation and initially required additional donor financing in order to de-risk operations. They also differ considerably in contractual, financial, management, and ownership structures. Songo Songo has a complex ownership structure, with private management of upstream and midstream infrastructure and state involvement in midstream. It has a mix of clients, selling power to TANESCO and natural gas to industry. Mnazi Bay has a more orthodox contractual structure. Despite expansion of production related to the NNGIP, a more than 532 kilometre pipeline from Mtwara in south-western Tanzania to Dar es Salaam, the economic powerhouse of the country, the two gas fields are yet to be fully exploited as risks related to payment from the pipeline's major offtaker, TANESCO, persist. The NNGIP is owned by the state, funded by a loan from China's Exim Bank.

For these and future natural gas development projects, TANESCO's indebtedness is the greatest obstacle. It was estimated by the World Bank at $490 million in 2016. The following year, according to the Ministry of Energy, it was $363 million—still much higher than 2015's estimated $250 million, mostly legacy debts to emergency power producers. Power producers will remain the single greatest purchaser of natural gas up to 2045. In March 2016, President Magufuli declared that TANESCO would be the only power generator in the future. This has discouraged further development of known gas reserves such as at Songo Songo and Mnazi Bay, as well as other resources.

Parallel to the development of these projects, substantial offshore discoveries started in 2010, first by BG (now owned by Shell), which became operator in the same year with Ophir and Pavilion, and later by Equinor (previously Statoil) as operator with ExxonMobil owning a smaller part. Their potential boost to domestic gas supplies prompted an ambitious National Natural Gas Utilisation Master Plan (2016–2045), which focuses on industrial and power generation use in Tanzania, as well as regional pipeline exports. The realization of these plans, however, depends on approval of the LNG project, and the domestic market obligation (10 per cent according to a leaked agreement with Equinor) that offshore operators are contracted to supply. With negotiations on the host government's agreement to the project making little progress, this will not happen any time soon. With NNGIP operating below capacity, the National Audit Office fears that failure to make repayments to the Exim Bank threatens the viability of the state oil company.

In recent years, interest in exploration and production in Tanzania has subsided significantly. Of eight licences awarded since 2007 for onshore blocks away from the gaseous littoral, only three remain active, with none yet in development. Of 13 offshore exploration licences awarded since 2001, only three are extant. The littoral saw six licences awarded, including for the only significant producing fields, Songo Songo and Mnazi Bay. Yet the region's largest petroleum project also involves Tanzania. Work is expected to begin soon on the privately owned and financed East Africa Crude Oil Pipeline (EACOP), the export route for Ugandan crude. To attract the project, Tanzania is understood to have granted considerable fiscal concessions to the Total-led consortium developing the project.

**Institutions and markets**

The fall in global oil prices has contributed to the diminution in interest in Tanzanian gas, but restrictive legislation and a toughened approach to terms play an even bigger role. Institutional reforms introduced over this period strengthened the state's position in the market, but initially not in a prohibitive way. The Petroleum Act 2008, which governs midstream and downstream activities, introduced the Energy and Water Utilities Regulatory Authority as the regulator for mid- and downstream operations. The same year, fiscal terms were tightened in a new model production-sharing agreement (MPSA), somewhat late after almost a decade of rising oil prices. An Additional Profits Tax, higher royalties, and state profit share were complemented by ambitions for state involvement of up to 25 per cent. The 2013 MPSA had much more stringent terms, with a separate offshore royalty rate of 7.5 per cent reintroduced on top of the higher royalties, state profit shares, and state involvement that had first been introduced in the previous MPSA in 2008.

Even in a high oil price environment, these measures were an obstacle to investment. The country's most recent licencing round was launched in 2013 at the height of the price boom, with bidding closed just before the price slumped, but it produced no new agreements.

After the decline in oil prices in 2014, the statist trend was if anything reinforced through a new Petroleum Act in 2015, and three acts in 2017 that greatly extend the state's power to arbitrate disputes and review contracts. The Petroleum Act of 2015 was the first overhaul of the sector's legal and institutional framework since 1980. It makes significantly stronger demands for local content, calling not only for local procurement but also for significant local ownership of procurement companies. In addition, for the midstream and downstream it assigned ownership and operation of 'major gas infrastructures' to TPDC. It also created two new bodies, the Petroleum Upstream Regulatory Authority (PURA) and the Oil and Gas Advisory Bureau in the Office of the President. The former took on licencing and oversight roles previously held by TPDC, while the latter has an advisory role for the cabinet.

The division of responsibilities makes sense on paper, but in practice oversight of the sector has become increasingly politicized. TPDC is freed up to be more commercially focused, as regulatory responsibilities fall to PURA, presumably also drawing some responsibilities away from the Ministry of Energy. Having technical knowledge in State House has value in a politicized sector. Yet PURA and the Oil and Gas Advisory Bureau are yet to become operational. Some key functions ascribed to PURA in the Petroleum Act 2015 are still under TPDC in practice, such as prospecting and managing geological data. TPDC was involved in such activities until at least 2017, while PURA's role in contractual oversight has also been usurped. The most significant reviews thus far have been from the National Audit Office in 2017 and an ad hoc parliamentary committee that reviewed all existing Production Sharing Agreements (PSA) and in June 2018 declared a loss to the state of $130 million, a claim that has led to the review and renegotiation of contracts to bring them into line with the 2017 legislation.

The Natural Wealth and Resources (Permanent Sovereignty) Act 2017 explicitly removes the right to international arbitration in the case of disputes, and allows for renegotiation of contracts on instruction by parliament. Competitive bidding for exploration blocks, institutionalized from around 2008 and a requirement under the Petroleum Act 2015, is also under pressure. Minister for Energy Medard Kalemani in his budget speech for 2018/2019 announced that TPDC is searching for partners to develop offshore blocks 4/1B and 4/1C. For onshore Eyasi-Wembere, TPDC itselfiin 2018/2019 is toapply for a licence, and seek a partner. Similar plans are in place for Mnazi Bay North, another of TPDC's blocks. In the same speech Kalemani spoke of model joint operating agreements for TPDC blocks, suggesting that future PSAs will be significantly different to existing ones.

The role of the president has also come to the fore. The negotiation of the inter-government agreement for EACOP indicated the direction the sector is taking. Direction from State House was clear, with negotiations led by the minister for constitutional affairs under close oversight from State House. The negotiations were seen as very much a political process rather than a technocratic one to be left to TPDC or PURA. Direct intervention in the host government agreement for the LNG project negotiations has been less frequent, though at times critical. Only State House intervention in 2016 allowed land acquisition for the project to go ahead, after direct representations by Equinor to President Magufuli, facilitated by the Norwegian embassy. The Danish and German embassies have also helped open doors for a fertilizer project involving Danish Topsoe. Approval of the EACOP project was achieved by lobbying of both President Magufuli and Ugandan President Yoweri Museveni by senior Total officials. Norway's country-level meetings with President Magufuli are believed to have been critical in finalizing the site for the LNG project, getting approval for bilateral negotiations between Equinor and government for development of the LNG project. Such lobbying has always had a role, but has become more critical given the much greater centralization under President Magufuli compared to his predecessors.

**Challenging upstream investments**

Upstream investment may prove to be slow, not only because of a 'resource nationalistic' agenda per se. Rather, the confusion over old and new institutional mandates has delayed deals, and will continue to do so, and put off investors not prepared to ride out the price cycle. Terms that have been tightened in the face of falling oil prices are not likely to be loosened. Instead, upstream contracts are likely to veer away from MPSAs as competitive bidding becomes less likely. This will mean that more terms will be up for negotiation, potentially leading to protracted negotiations upstream. EACOP and NNGIP have shown that Tanzania is prepared to be flexible in negotiations when the alternative is losing the project, and results can be seen quickly. Despite the requirement that all natural gas infrastructure be state owned, it has been generous in providing incentives to attract this private project away from Kenya. No transit fee will be levied, while both corporate tax and VAT have been waived.

The primary role envisaged for TPDC, as a partner in jointoperations, is unlikely to be realized to any larger extent. NNGIP has saddled the company with unprecedented debt. The $1.2 billion borrowed from China's Exim Bank for construction costs was to be repaid from transit fees. With the pipeline operating at less than 10 per cent capacity, and its primary customer, the electricity utility, being a chronic debtor, this is not possible. The government may come up with additional funding, but with other huge infrastructure investments underway during a slow-down in economic activity, its ability to raise funds will be limited. Topping the infrastructure agenda is Stiegler's Gorge, a massive hydropower project on the Ruvuma River. This is now President Magufuli's priority, a project he sees as possible to complete within his term and on his terms, unlike the LNG project.

A more positive development is the reduction in onshore exploration and production risks. TPDC remains optimistic that oil reserves can be found and developed, particularly in the Western Rift's Lake Tanganyika and Lake Eyasi, and the company has generated airborne survey data on both. EACOP—running across the country's north to the Indian Ocean coast—will provide an export route for any new finds. Total could be well placed for any onshore opportunities in Tanzania. Negotiating EACOP at the highest level of government has likely given it an intimate understanding of interests and incentives on the Tanzanian side. TPDC is also contemplating expanding the natural gas pipeline grid, including the construction of a pipeline to Uganda along the EACOP route.

**Conclusion**

Unlike its 'new oil' neighbours, Uganda and Kenya, Tanzania has a longer history upstream and therefore the potential to be considerably more active. There has been considerable de-risking of Tanzania geologically, and market conditions are again improving. Presumably market conditions are what prompted TPDC to announce licencing for Q2 2019. However, companies seeking to invest in the country face notable political risks. The challenging political context, with politicians' constant meddling with limited understanding of international markets, tends to undermine the country's petroleum institutions. An interventionist presidency with significant executive power is an unpredictable element.

## RESURGENT RESOURCE NATIONALISM IN TANZANIA'S PETROLEUM SECTOR

***Rasmus Hundsbæk Pedersen and Thabit Jacob***

On 2 June 2018, Dustan Kitandula, chair of a special parliamentary committee investigating Tanzania's contracts with international companies in the gas sector, reported that the country had lost $130 million due to contract irregularities. Subsequently, he recommended the contracts to be renegotiated. This process had been set in motion in the wake of a declaration of 'economic warfare' on foreign-owned mining companies by the country's president, John Magufuli. Now it was the gas sector's turn to get an overhaul.

In many ways, developments in Tanzania mirrored similar resource-nationalist tendencies that had emerged in Latin America in the 2000s. Over less than a decade, the country's entire legal and institutional framework governing the extractive sector has been reformed to maximize the country's benefits from its natural resources. Recent interventions also increasingly reflect the advent of more populist impulses in the relation between the state and foreign petroleum companies, which had hitherto been dominated by the bureaucracy.

But these changes do not necessarily signify that successive Tanzanian governments have achieved the promised improvement in transparency and accountability in the gas sector. There is, in fact, more continuity than change in how the sector is governed.

First, recent events are part of a broader shift in political power and economic thinking in Tanzania's ruling party, the Chama cha Mapinduzi (CCM) or Party of Revolution, towards advocacy of a bigger state role in the country's economic development. It reflects impatience, spurred by increasing electoral competition starting around 2010, with the development model driven by foreign direct investment. This makes Tanzania an early resource-nationalist mover among the 'new oil' countries that emerged in the wake of high global commodity prices in the late 2000s.

Second, the direct involvement of parliament so far does not reflect a major change in the governance of the sector, which continues to be dominated by the executive branch. Rather, there is a centralization of power around a president with populist tendencies in which the parliament is used strategically to further specific goals. This signifies a new politicization of the sector, in which domestic politics increasingly take precedence over adaption to international competition and commodity cycles.

**Legislative changes driven by electoral politics**

When forming the special gas sector investigation committee, the parliament's speaker, Job Ndugai, referred to a set of acts that had been passed earlier in 2017 aimed at reclaiming the country's sovereignty over its natural resources. The acts were introduced after a conflict with the country's biggest mining company, Acacia, which had been accused of not paying its share of taxes. The Written Laws (Miscellaneous Amendments) Act was a reform of the Mining Act 2010. Of greater concern for the petroleum sector were the Natural Wealth and Resources (Permanent Sovereignty) Act and the Natural Wealth and Resources (Review and Re-negotiation of Unconscionable Terms) Act. The former directs that commercial dispute resolution be undertaken in Tanzanian courts only, denying access to international arbitration. The latter allows for the renegotiation of natural resources contracts, including production-sharing agreements, on the direction of the National Assembly if terms are deemed to be 'unconscionable', a term that remains undefined.

Change in the governance of the extractive sector has been underway for some time. The 2000s saw growing criticism of the government for not getting enough out of the country's mining resources. Initially raised by civil society organizations and soon taken up by what would become the country's main opposition party, Chama cha Demokrasia na Maendeleo (CHADEMA) or Party of Democracy and Development. The allegation of corruption and shady contracts in the mining sector became one of CHADEMA's main agendas and a threat to CCM, which had been in power since 1961. This affected CCM thinking in significant ways.

Around the historically competitive 2010 elections, the party undertook internal reforms that aimed to more clearly separate money and politics. Implementation was slow, but with the choice of an outsider, Magufuli, as a compromise presidential candidate in the 2015 elections, it received renewed attention to re-examine party-business relations. The newly elected president clamped down on the influential party financiers and some of the country's richest men. Also around 2010, thinking on the mineral sector, and eventually the economy as a whole, began changing towards more state involvement after decades of liberalization and generous terms to foreign companies.

The more state-led agenda was amplified by the new president's populist tendencies. As a candidate who was not part of CCM's inner circle, he sought to build a connection to ordinary Tanzanians and grass-roots party members that could help him stay in power. Despite the rapid expansion of foreign direct investments before his ascent to power, the extractive sector provided a perfect platform for such activities. His repeated attacks on what he called the corrupt and ineffective practices of the past were hugely popular. Foreign companies, Western ones in particular, could easily be depicted as a new type of colonizers, and referrals to Tanzania's first president, Julius Nyerere, and his emphasis on anti-colonial and socialist state-centric policies were common.

The involvement of the parliament in the governance of the sector fits into this image of improved downward accountability, but it has not occurred in practice. In a presidential system like Tanzania's, the parliament's power to check the executive is limited, and it has so far appeared more as a pawn in the president's game than an independent watchdog. The provisions to disclose gas contracts in the Tanzania Extractive Industries (Transparency and Accountability) Act of 2015 have never been implemented, despite parliamentary pressure. In 2017 legal provisions allowing parliament to approve of new petroleum contracts were established but revoked two months later. The speaker of the parliament has made no secret of his close collaboration with the president, for instance in the case of the gas sector committee. Indeed, it is hard to imagine the parliament's ruling-party majority going against the president on these issues. In addition, the firing of managing directors of key petroleum-sector institutions like the Tanzania Petroleum Development Corporation (TPDC) and the *Energy and Water Utilities Regulatory Authority* suggests that their autonomy is limited.

**Pursuing state-led development in the petroleum sector**

The increased emphasis on direct state involvement in the economy marked a shift from liberalization, introduced in the late 1980s, in which successive administrations had seen foreign direct investments as the main way to drive economic development. This began in the extractive sector but has since spread to the rest of the economy. A new model production-sharing agreement in 2008 increased state interest in petroleum operations from 'up to' 20 per cent to 'not less than' 25 per cent, though this was probably more a reflection of improved bargaining power due to rising global oil prices than of increased resource nationalism.

A more significant shift occurred in 2010 when a new Mining Act, among generally tougher terms, provided for active state participation in mining investments, a provision that had been done away with in the more liberal Mining Act of 1998. In 2011, five-year economic development plans were reintroduced. The first plan prescribed the recapitalization of the state-owned mining and petroleum enterprises. Since then, and in particular since the election of Magufuli in late 2015, the revival and strengthening of state-owned enterprises has spread to rest of the economy as a means to drive industrialization.

The more resource-nationalist stance in the petroleum sector also related to the major offshore deep-sea finds from 2010 onwards, which led to rising expectations among decision-makers that gas could help develop the country. A new model production-sharing agreement in 2013 toughened fiscal terms to the extent that sector insiders think it unlikely that Tanzania will attract new bids for exploration. The 2015 Energy Policy changed the focus from using Tanzania's energy resources (previously believed to be minimal) to reduce dependency on imports to developing natural gas (now known to be abundant) to promote socio-economic improvement.

The reform effort also resulted in a complete overhaul of the legal and institutional framework through three new acts. The Oil and Gas Revenues Management Act of 2015 and the Tanzania Extractive Industries (Transparency and Accountability) Act of 2015 reformed the management of revenues the extractive sector. More substantial innovations were included in the Petroleum Act, which introduced detailed provisions for all aspects of petroleum operations, from CSR over local content to a gradual separation of commercial and regulatory functions in the governance of the sector. The act also provided for state ownership of major gas infrastructure and strengthening of TPDC as the state's commercial arm. With the 2017 Sovereignty Acts, TPDC could get a further boost from the renegotiation of contracts, and Tanzanian private-sector actors could receive preferential treatment in the upstream sector.

**Conclusion**

Recent signs of the emergence of resource nationalism in Africa have received much attention. However, based on the Tanzanian case, we would argue that the toughened regulation and taxation and increased emphasis on national ownership of resources may have deeper roots. In Tanzania, where electoral competition is increasing, the governance of natural resources has become a hot political topic. The renewed emphasis on resource sovereignty is hugely popular, evoking the struggle for political and economic decolonization immediately before and after independence, which is often seen as a golden age in Tanzania.

In this atmosphere, the strengthening of state-owned enterprises is also a promise to give ordinary Tanzanian citizens a bigger slice of the country's natural resource wealth through job creation and their perceived co-ownership through the state. This is important politically in a country with a relatively weak private sector that tends to be dominated by Tanzanians of Asian origin. Some of these interventions have the potential to improve the lot of many Tanzanians. The early contracts signed in the extractive sector had to be lucrative to attract investors in a context of high operational, fiscal, and political risk. Tougher terms are thus not completely off the mark. The tougher local-content provisions will also provide new opportunities for Tanzanian businesses, including TPDC.

However, resource nationalism comes with a price tag. In the petroleum sector, the ambitions are clear, but so far implementation has been limited due to the slowdown in activity. This is partly due to falling global oil prices, but a hostile investment environment has also played a role. The government must maintain a difficult balance between maximizing Tanzanian benefits and continuing to attract foreign direct investment. It clearly struggles to get that balance right. Grandstanding towards foreign investors may be popular politically, but to the extent that it discourages investment, it also undermines the fulfilment of the economic promises that the ruling CCM party has made.

In this respect it is worth noticing the different approaches that the government has taken in the mining and petroleum sectors. In the mining sector, interventions were initiated directly in 2017 by the president, and renegotiation of contracts began soon after. But in the petroleum sector, the assessment has so far been outsourced to a parliament with limited power in these matters, and no concrete steps have been taken towards renegotiation. This could still change, but current conditions may reflect the fact that petroleum operations are technically and financially so much more demanding that someone in the government has realized that the country will struggle to carry them out without help from the international oil companies. With a strong executive under the current president, the power and independence of parliament will be tested further when contract review resurfaces.

## OIL, POLITICS, AND RISK IN GHANA

***Monica Skaten***

The West African Republic of Ghana is one of Africa's new oil- and gas-producing nations. Compared to the large African petro-states Angola and Nigeria, Ghana remains a small producer in the Gulf of Guinea with an expected average of 200,000 barrels of oil per day in 2018. But in contrast to most other producers on the continent, Ghana's industry has advanced at a steady pace in recent years despite a drop in international oil prices. Since the discovery of the Jubilee oil field in 2007, Ghana has seen three offshore projects come onstream. With some of its initial challenges solved, such as the maritime border dispute with Côte d'Ivoire, the industry is expected to retain its position as a key driver of growth in the domestic economy. This is expected to generate revenue for the government and to alleviate a long-standing electricity shortage.

Despite the fall in prices from $100/barrel highs in 2014, and a degree of political risk, Ghana has made steady progress in developing its oil sector and attracting investors. In 2018, new contracts were signed by both ExxonMobil and Aker Energy. The New Patriotic Party, which was in power during the initial oil and gas discoveries, returned to power in 2017 and has created new momentum for Ghana's industry. Ambitious promises have been made, including new blocks for competitive bidding in 2019, onshore exploration, and making Ghana's Western Region a regional petroleum hub with integrated ports and refineries. Some of the promises should be understood for what they are: attempts to attract more foreign investment and leverage for future elections. However, continued steady growth is likely, driven by foreign investment in the energy sector.

### Initial challenges in Ghana's industry

The first decade of Ghana's new petroleum industry has not been without challenges. It gained international attention when a change in government in 2009 led to an investigation of Kosmos Energy (the American exploration company that had discovered the Jubilee field) and its local partner, the EO Group, on suspicion of corruption. The other international companies working in the Jubilee field also received a thorough introduction to the political challenges of operating in Ghana. The new party in power, the National Democratic Congress, stirred conflict and suspended contracts, including Aker ASA's exploration licence in the South Deepwater Tano Block. Both Aker and Kosmos Energy were accused of dealing with corrupt political patrons as their local partners. The former chose to exit the country, while the latter endured lengthy negotiations and rebuilt its relationship with the new government just in time for the start of production in the Jubilee field in late 2010.

Ghana turned to the International Tribunal of the Law of the Sea (ITLOS) in November 2014, after a series of bilateral negotiations with Côte d'Ivoire on the two countries' maritime border did not yield meaningful results. The dispute between Ghana and Côte d'Ivoire lasted for three years and significantly delayed projects in the Tano licence area. While Ghana ultimately secured the rights to the Tano area in September 2017, the process and the verdict showed that Ghana had hastily developed along the border without securing the legal rights, ITLOS 2017. The dispute shed light on the fact that Ghana's border to the east also lacks official demarcation, and as such, oil and gas explorations to the east risk land claims by Togo.

### Offshore: progress in the Western Basin

Ghana has four petroleum basins, of which three are offshore. While they all have a history of petroleum activity, the Western Basin has led the industry to date. The Jubilee field, Ghana's largest, is operated by a consortium headed by Tullow Oil. The field is positioned in a licence area that has been the site of additional discoveries, and the development of the Greater Jubilee field is underway. Tullow's second project as operator in Ghana is the Twenneboa, Enyenra, and Ntomme (TEN) fields, which came onstream in August 2016. However, TEN was delayed by the maritime border dispute, which restricted new drilling. The Sankofa field, operated by Eni, started production in May 2017, and exploration was projected to start in an adjacent block in 2018, allowing synergies and fast-track start-up if drilling proves successful. These three fields, all located in the Western Basin, have seen the construction of infrastructure and development of the local service sector, all which aids the promotion of further exploration and production in the Western Basin.

Hess had announced discoveries in Ghana's Tano licence area before they were halted by the border dispute. In February 2018, Aker Energy acquired the Hess shares, and the company has announced a sustained exploration and production programme. Ahead of Aker's re-entry into Ghana's oil and gas industry, ExxonMobil signed a deal with the Ghanaian government to explore in Ghana's Deepwater Cape Three Points. With the growing momentum in Ghana's industry, the Ministry of Energy has announced that it will award new blocks for exploration in the Western Basin in 2019. These will be awarded through a mix of open competitive tender and direct negotiation and have a favourable location due to already existing offshore infrastructure.

On the back of the development in the Western Region, Ghana's Vice President Mahamudu Bawumia announced that the government has initiated efforts to make that region into a petroleum hub by 2030—bolstering capacity with up to four new refineries and additional storage, distribution, and processing facilities that can cater for the demand of the West African region, aided by new ship-to-ship and bunker zones near the ports of Takoradi and Tema. The vision for the new petrochemical industry, and particularly the sustained government contribution required to develop such infrastructure projects and processing plants, has to be regarded with scepticism in Ghana's highly competitive political environment.

### Onshore: the uncertain Voltaian Basin

The Voltaian Basin covers 40 per cent of Ghana's land mass and is Ghana's most promising site for onshore oil and gas production. The basin has been promoted by the Ghana National Petroleum Corporation since 2015 and has positive geological preconditions for oil and gas deposits. The current president of Ghana, Nana Akufo-Addo, has pledged to develop projects in the basin in the next two years. However, development of the basin carries significant financial risk, and projects will rely on foreign investment. Discoveries in the basin have inspired promises of prosperity during national political campaigns and have fuelled regional political tension. Current economic resources in the area include fisheries and transportation networks that would be impacted by development in the basin. Petroleum activity would also require resettling of entire communities. This makes development significantly more challenging here than in Ghana's offshore basins. Still, there is a potential for oil and gas discoveries, and political will in Ghana to develop the basin.

### Risk: political polarization

Ghana has a vibrant democracy, with competitive elections and frequent turnovers in government. Polarization between the two main political parties, the National Democratic Congress and the New Patriotic Party, has led to review and reversal of industry contracts in the past, and this is highly likely to happen again. Praised for its peaceful government turnovers, the period of transition in Ghana always entails changes in economic policy and replacement of key personnel in state-owned enterprises. Entrepreneurs and business owners who have had favourable contracts, access, or positions with the outgoing government have to adjust to the new regime. While national companies and individuals carry the largest risk during a change in government, international companies are not exempt, particularly if their local partners can be targeted.

Across political party lines, there is agreement about the need for a strong state presence in the petroleum industry through Ghana's National Petroleum Corporation and National Gas Corporation. However, polarization has led to different strategies for developing national petroleum companies, limiting their long-term technical and financial stability. Polarization is not limited to state-owned corporations. With high interdependence and strong relations between the business community and the political realm, party-loyal business owners in the service industry receive government contracts when their party is in power and remain dormant when it is not. While this does not apply to all service companies, it is sufficiently widespread to diminish the long-term stability of the service sector.

### Conclusions

Ghana's petroleum industry has seen steady growth despite declining international oil prices in recent years. Having joined the league of oil- and gas-producing nations with discoveries in 2007, it can today boast of three offshore oil and gas projects in the Western Basin and continued interest in further exploration, confirmed by new agreements in 2018. With the Côte d'Ivoire border dispute resolved and new licences to be offered in 2019, Ghana's industry might just see expansion of current projects as well as new projects in the next few years.

The country is renowned for its stability of both its democracy and its business environment in the African context. With the usual caveats about political predictions, the current New Patriotic Party government could be in power for two terms. This would provide stability for international and Ghanaian petroleum companies. However, polarization between the two main political parties will continue to impose risk in operations, impact institutional stability, and limit the long-term potential for state-owned enterprises in the petroleum industry.

## THE NEW AFRICAN ENERGY LANDSCAPE: CATCHING THE CHANGING TIDE

***Lapo Pistelli***

Sub-Saharan Africa's development potential is being significantly held back by mass energy poverty and lack of access to modern energy services, which is seriously affecting the health and welfare of hundreds of millions of its citizens as well as the environment. This is all the more regrettable given the continent's huge renewable and conventional energy resources, the latter of which have mostly bypassed its citizens on the way to industrialized nations of the West and East in the form of exports.

But the imperative of decarbonisation, and above all the 2014 collapse of oil prices, have added a large measure of uncertainty to Africa's energy outlook by forcing a wholesale reassessment of oil and gas company and bank investment priorities.

While some oil and gas majors abandoned projects in Africa, and in certain cases—for example in Nigeria—have been replaced by African companies, others have doubled down. Most majors, moreover, have partnered with others to the extent that today there are few licenses and projects developed entirely by a single company. Because of the necessary reduction in the break-even costs of upstream projects, companies have become more selective in their choice of projects while striving to raise their explorative performance.

On the financial side, large traditional bank lenders to the oil and gas industry in Africa have retreated—starting during the 2008 financial crisis and continuing after 2014—and new sources of finance have emerged, including African and Chinese banks, the latter even investing in non-Chinese ventures.

Some traders and service companies have invested in exploration and production ventures, taking more risks on development projects to bolster orders for their specialized services.

Although the crisis has not reshaped the geography of African production, new oil and gas regions have emerged, as in East Africa (Uganda and Kenya for oil and Tanzania and Mozambique for gas) and in the West (Ghana, Mauritania, and Senegal).

Finally, lower prices have deeply impacted the state budgets of energy-producing countries, which have had to consider greater diversification of their economies, and have reinforced the impetus towards free trade between African nations.

### The need for a new development model

Although the changes in the African energy landscape are significant, overall they have not shifted the continent's fundamental development path—yet. A radical rethinking of the development models promoted so far, above all by the West, is required in order for the continent's enormous potential to be fulfilled.

According to some estimates, moreover, Africa is the only world region where sustained economic growth in the coming years will not result in meaningful poverty reduction; on the contrary, poverty is projected to rise.

Today, about two-fifths of Africa's population is under the age of 15, and nearly one-fifth (19 per cent) is age 15–24. Almost half of the continent's population is under 18 years old, and children comprise the majority of the population in around one-third of the 55 African Union member states. The number of Africa's children is projected to top 1 billion by 2055. Whether these young people are able to join the labour market and benefit from inclusive economic growth will have key implications for Africa and its neighbours.

A crucial role in bringing about a more positive outcome must be played by private investors in the energy sector—not only because there is no development without energy, but also because the most effective answers to today's compelling questions can be found in the long-term strategies typical of energy investments and their ability to raise the necessary long-term investment funds.

It is perhaps redundant to list the many reasons access to energy is a critical ingredient for development and human well-being; that argument has been exhaustively and convincingly documented. However, relatively few in the oil and gas industry and in government have been willing to radically change course, and the results are plain to see.

According to a report by the Africa Progress Panel, Africa's shortages of electricity and system bottlenecks are holding back economic growth by up to

4 per cent a year. Businesses are paying much higher prices for electricity produced by generators they are forced to buy in absence of grid power, and poor families are the hardest hit: villagers in northern Nigeria are spending 60 to 80 times more for their energy than residents of New York City or London.

To change this, there needs to be a Copernican reconfiguration of the logic followed so far, by encouraging investments not just in exploration and production for export but, just as importantly, in development of commercially viable local energy markets, exploiting African energy for African consumption.

The task is enormous: closing the energy access gap, according to the International Energy Agency, may require investment of over $49 billion a year to 2030.

**Fuelling the energy transition**

Depressingly, in Africa in 2017, all non-hydro new power plant projects were fuelled by fuel oil or diesel or even coal, losing an important bet on the energy transition of the continent. Coal is still the prevalent fuel in African electricity generation. And the amount of natural gas burned off each year in Africa because it is not commercially profitable is equal to 30 per cent of the continent's total gas consumption. Yet Africa's abundant natural gas reserves are its best bet to quickly wean itself off the dirtiest hydrocarbons such as coal, and to smooth the transition to greater use of renewables.

A recent report co-published by Cornell University, INSEAD, and the World Intellectual Property Organization noted that several countries in Africa, including Côte d'Ivoire, Ghana, Rwanda, and Tanzania, are making notable progress in implementing off-grid renewable energy programs to create distributed (decentralized) energy systems. In Rwanda, local governments and private companies are collaborating to establish widespread off-grid solar energy systems providing electricity to approximately 600,000 households in remote areas. Innovations in pay-as-you-go business models and payment processing via mobile phones are helping to expand opportunities for Rwandan consumers to access affordable electricity.

The integration of mobile phones, their charging points, and photovoltaic generation units in rural areas has been one of the key drivers of the spread of solar photovoltaic units. They have quickly integrated in East Africa—which accounts for 34 per cent of all registered mobile accounts globally—and, together with a variety of smart-metering technologies and mobile payments, have enabled the rapid spread of a pay-as-you-go business model for electricity, allowing customers to pay for electricity in small increments. The World Bank estimates that by the end of 2016, there were 700,000 systems installed on the pay-as-you-go platform in Kenya alone.

Although small off-grid solar power can be a solution for remote communities, reliable grid-based electricity is likely to be essential as a development catalyst for a continent with explosive demographic growth and urbanization and therefore the urgent need to create jobs in labour-intensive industries.

African industrial development goals vary from agro-processing to mining and petrochemicals and have the potential to expand the manufacturing base and increase employment, investment, and income generation throughout the value chain. So African governments need to link industrial policies with energy-access policies to spur economic growth.

Market settings, fair market prices, and multilateral finance guarantees can all play a significant role in encouraging investment in the local production and distribution of electricity. International energy companies, which are of course motivated by profit, have until now most often been awarded the right to develop resources on the basis of their ability to discover oil and gas deposits and efficiently line up an export supply chain. Instead, African governments and multilateral finance institutions need to favour the creation of public–private partnerships to invest in profit-generating local markets.

**Access to energy as a human right**

In Africa, electricity access is highly varied. According to the International Energy Agency and World Bank, while in North Africa less than 1 per cent of the population lacks access to electricity, that figure is over 70 per cent in the Democratic Republic of Congo; it is 8 per cent in South Africa and 80 per cent in Somalia. The Africa Development Bank says several countries—including Ethiopia, Gabon, Ghana and Kenya—are on track to reach universal electricity access by 2030.

Lack access to electricity is not only a major impediment to development, it is a humanitarian emergency. The International Energy Agency estimates that by 2030, of the 674 million people worldwide lacking access to electricity, 600 million will live in sub-Saharan Africa. The need is clear, as are the basic remedies.

A recent study that investigated energy access in nine East African countries found that most had been unable to rapidly reach their goals for development of energy resources and electricity access. The major roadblocks were the governments' insufficient financial capacity, inadequate revenues for utilities, tariffs that were insufficient to cover costs, and a weak regulatory framework.

This also calls into question the effectiveness of subsidies. Reforming fossil-fuel subsidies is necessary to achieve the large-scale abatement of greenhouse gas emissions required for climate change mitigation, because subsidies in their current form reduce the effective price of carbon and are a disincentive to change of the energy mix. This is particularly true for oil-producing countries in West Africa (e.g. Nigeria), where there has been a long history of fuel subsidies which have weakened the national petroleum industry, causing it to import refined petroleum products. In East Africa, conversely, the absence of subsidies has stimulated creative solutions to problems of energy affordability and availability via so-called smart technologies. Relatively simple innovations such as the use of prepaid meters in households—planned by almost all East African countries—could offer benefits to utilities and consumers in terms of payment collection and flexibility, which will be a key driver of increased electricity access.

Investors and international oil companies need more certainty about basic institutional, legal, and market settings in order to commit the often huge sums required for resource and market development. A PwC report of 79 individuals from across 11 countries from upstream, midstream, downstream, and oilfield service companies highlighted the fact that uncertain regulatory frameworks top the list of challenges to investment in Africa's oil and gas industry.

International energy companies do not just bring investment capital and the latest operational methods, capabilities, and technologies—they can also help in local capacity creation through technology transfer, education and training, and local industrial partnerships, and thus can help create permanent added value by increasing the potential of host countries.

But even when provided with favourable market and institutional settings, energy companies have to *want* to change their business focus from exports to, when possible, the long-term creation of viable local markets.

**African leadership**

African governments appear to be moving with renewed collective purpose to boost local economic activity by removing the substantial barriers to trade between African firms, which more often than not incur higher tariffs on their exports to other African markets than on exports to outside the continent. Lack of domestic trade is often cited as a cause of African countries' inability to fulfil their growth potential.

Indeed, faced with an increasingly protectionist international trade environment and an unfavourable commodities cycle, which has substantially lowered revenues from commodities exports and led to ballooning and in many cases unsustainable government debt, African governments are acting to radically boost trade within the continent.

So the announcement in March of an ambitious pan-African economic bloc—the African Continental Free Trade Area—is a major milestone in boosting Africa's development potential. If it takes shape as envisaged, it will comprise all 55 African Union members, making it the world's largest free trade area by number of countries. With a combined GDP in 2017 of around $6.4 trillion on a purchasing power parity basis, and a population of 1.2 billion, Africa is potentially very attractive to global enterprises anxious to expand from mature markets.

The new African free trade zone should also encourage more links between national energy markets. The importance of creating regional electricity connectors is increasingly appreciated, as these can bestow critical market mass to power generation projects, supply excess electricity to neighbouring countries, and help mitigate the risk of intermittency inherent in wind and solar power systems. One of the latest, announced last year, will connect four West African countries—Cote d'Ivoire, Liberia, Sierra Leone, and Guinea—supporting economic development, reducing the need for expensive generators, and allowing existing and future hydropower projects to benefit the entire region.

In Sierra Leone and Liberia, less than 5 per cent of inhabitants have access to electricity, and recent conflict in the region has severely damaged infrastructure and hindered development of new networks. The new interconnector is also expected to significantly reduce use of diesel and heavy fuel oil generators.

The transition away from hydrocarbons to renewables and natural gas is a high priority for Africa, where the effects of climate change are already being felt in more severe droughts and floods.

The transition to hybrid renewables/natural gas power generation and distribution systems often requires an upgrade to so-called intelligent distribution grids to attain maximum efficiency. In cases where no electricity supply exists at all, there is therefore the opportunity to leapfrog to the latest technological solutions. Just as the mobile phone gave many Africans their first access to telecommunications, so hybrid renewables/gas generation, smart grids, mobile cash, and pay-as-you-go power contracts can connect them to modern electricity services which make the most of Africa's abundant natural resources and help curb current and future greenhouse gas emissions from a continent which the United Nations

Department of Economic and Social Affairs predicts will add another 1.3 billion people to its population by 2050.

Africa has the essential ingredients to rapidly progress—and even leapfrog—up the development curve: a young and rapidly urbanizing population, abundant resources, and notable examples of political, civic, and economic reform. But to do this it needs to grow its internal markets and attract domestic and international investors. As we can by now well appreciate, the outcome of its efforts to rise to this task will deeply influence both the hundreds of millions in Africa who lack the most necessities and the future of our planet. For energy companies, assisting Africa in its efforts is good business but also a moral imperative.

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