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Uganda's nascent oil sector

Revenue generation, investor-stakeholder alignment, and public policy

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Abstract: This paper discusses the political economy of oil in Uganda since the announcement of its discovery in 2006. It focuses on the dynamics of oil revenue generation (pre-commercial production) and expenditure, investor-stakeholder contestation (i.e. between bureaucrats, investors/oil companies, and domestic stakeholders), and the role of public policy. Although the Government has created several institutional and regulatory frameworks to manage oil-related revenues and ensure that oil contributes to structural transformation, Uganda is already experiencing many of the stylized facts associated with natural resource exploitation, including macroeconomic instability, rent dissipation, and, more broadly, threats of adverse impact on the environment and on local livelihoods in the oil regions. Besides these, Uganda, and similarly endowed African countries, face the economic challenges related to the global shift in recent decades towards a low-carbon development paradigm and the threatening prospect of oil investments becoming 'stranded assets'. The latter issues are not yet part of the policy conversation in Uganda.

Key words: environment, investor–stakeholder contestation, local livelihoods, oil revenue, public policy

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1 Introduction

This paper uses a largely political economy analytical framework—focusing on interest group contestation, institutional coordination under information/resource asymmetry, and insider–outsider influences on the formulation and implementation of public policy—to discuss the macro and structural impacts of the oil and gas finds in Uganda, which were announced on the eve of the country's 44th independence anniversary in October 2006. It tells the story of Uganda's changing development paradigm, where oil encashment (even before full production) has become a key means for extending state patronage, but also, given frail controls, a launchpad for malfeasance and institutional erosion.

It looks at the contradictory roles that foreign oil companies have played in developing Uganda's oil and gas resources—undertaking large investments in high-end technologies and human resources that are transforming Uganda, while making sizeable returns through farm-downs (a normal occurrence in the extractives industry, as investors try to cash in, but which are looked upon with disdain by the local population as a form of exploitation) even before the oil projects have reached first oil. It discusses how the oil companies have sought to 'blend in' by accommodating demands from local entrepreneurs, bureaucrats, communities, and residents for greater direct involvement in the operational activities and supply chains of the oil sector, and showing greater sensitivity to the environment of the Albertine region.

The paper is also about the contradiction of pursuing the goal of reaching commercial oil production as soon as possible, while seeking to implement national content policy. In a situation of low domestic capacities and skills, with technical training taking time, the two goals cannot be pursued simultaneously.

Lastly, it narrates the common people's struggle to claim some of the benefits, their insistence on the preservation of their physical environment, cultural sites, and communal grazing lands, and their dissatisfaction on both counts.

In his speech at the 44th independence anniversary, President Museveni projected sharp increases in domestic investment and FDI, enabling exports of petroleum products to the region and globally within a decade. But the path from oil discovery to commercial development has been slower than either the Government or the population anticipated. Still, even in the absence of full production, there have been stark political and economic dynamics emerging from the investment, revenue, and spending effects of oil-related activities in Uganda, with implications for public policy, domestic institutions, investors, and other stakeholders.

The paper argues that Uganda provides interesting variations on the experience of African countries with oil development and revenue management, while offering new insights, notably with regard to (i) regional (geopolitical) ramifications—related, for example, to the proximity of the oil-drilling activities to the restive Democratic Republic of the Congo (DRC) border, and the issue of which country (Kenya or Tanzania) will host the oil pipeline to the Indian Ocean; (ii) environmental impacts (in western Uganda, the oil regions are contiguous to national nature parks, rivers, and the shores of Lake Albert); (iii) the challenges of crowding in local private sector interests; (iv) and the socioeconomic impacts of modern infrastructure construction (airport, refinery, local pipeline, power stations, roads) in a rural setting.

On the road to oil production, Uganda is experiencing many of the stylized facts associated with natural resource exploitation in low-income economies, i.e. adverse impacts on macroeconomic stability such as currency appreciation, erosion of regulatory frameworks and agencies, the emergence of cronyism, and oil rent dissipation. However, probably because full production is still far off, the macroeconomic impacts have been quite moderate. Uganda has not experienced runaway inflation; nor has its exchange rate appreciated unduly—quite a contrast with the macroeconomic experience of Mozambique, following its recent gas finds, as described by Roe (2018).

The general conclusion of the paper is that robust domestic institutions are a prerequisite for the effective management of oil-related revenues and for ensuring equal access to the income-generating opportunities from the oil and gas projects. However, Uganda—and similarly endowed countries seeking to exploit their oil and gas resources for rapid development—faces serious issues of sequencing and path dependence, as well as challenges of longer-term concern associated with the global shift toward a low-carbon development paradigm and the spectre of investments in new oil finds becoming 'stranded assets'.

The rest of the paper proceeds as follows: Section 2 looks at the short history of oil development in Uganda, including the evolution of institutional and legislative frameworks. Section 3 provides a conceptual discussion of the linkages between oil, interest groups, and public policy in the context of a rapidly changing economic and political environment in Uganda. Section 4 discusses the macroeconomic impacts of oil revenue management (pre-full oil production) in Uganda, including implications for fiscal discipline. Section 5 discusses the unintended consequences of oil development and looks at the impacts of oil activities on rural livelihoods in the oil-producing areas, notably regarding access to social services and the physical environment. Section 6 concludes with arguments on what needs to be done to ensure that Uganda's oil resources contribute to its development and not the reverse.

2 Uganda's path to oil production

2.1 Overview

This section provides a brief historical account of Uganda's oil discovery, including the challenges faced by the country as one of Africa's latecomers to oil production (the so-called Cinderellas of the industry[1]) and the role played by a traditional major (Total E&P), independents (Australia's Hardman Resources, Anglo-Irish Tullow, and Heritage Oil, headquartered in New Jersey, USA), the Chinese company CNOOC, and the Government itself in establishing the basic structures for developing the oil industry in Uganda from scratch.[2] Today, the incumbent National Resistance Movement (NRM) government sees the oil discovery and the development activities that oil has since unleashed in the country's peripheral regions as its singular achievement. Indeed, Museveni has often referred to the oil project, with only the faintest hint of irony, as 'my oil'; and it can be conceded that, despite setbacks, the oil project would not have come as far as it has without Museveni's impetus and planning.

[1] They are called Cinderella prospects because global conditions have changed dramatically in the past decade and the learning curve for individual countries has become so steep that they might 'miss out on the ball'. See, for example, Morgan (2020).

[2] The bulk of the companies that are undertaking exploratory work in Africa are of relatively recent vintage: Tullow was established in 1985, Heritage Oil in 1992, and Hardman Resources in 2000. Africa Energy, part of the Lundin Group of Companies, set up in 2010, has also been quite active on the continent.

The Uganda government's enthusiasm for oil production aside, the shift in global fundamentals, including an unprecedented and sustained increase in oil prices (until 2014), and the wish of companies from richer countries to secure themselves a stake in emerging markets, were important factors in heightening interest in Africa's new green field explorations (Deloitte 2013). Even then, with the oil majors and larger independents confined to their traditional regions of operation, the heavy lifting in riskier and unproven areas in Africa and Latin America was left to mid-size national and international companies, such as those named above.

2.2 A short history of Uganda's oil

Museveni's oil

The Albertine Graben in western Uganda, where the oil projects are hosted, sits on a territory of some 23,000 square kilometres that stretches from Lakes Edward, Katwe, and George in Uganda's southwest to its border with South Sudan, and is split with the DRC along the common border. Early in the 20th century, there were intermittent attempts by the colonial government's survey department, based at Entebbe, the capital at the time, to detect the presence of viable oil deposits by studying the geology and implications of the oil seepages that were common across swathes of western Uganda (Wayland 1925). These efforts were ultimately frustrated by the country's remote and hostile terrain and lack of support from the colonial government. The Colonial Office in London considered the search for oil in Uganda a distraction from the focus on agriculture that it had designated for East Africa. Moreover, WWII did not allow much further oil exploration, while local agitation for political independence in the 1950s and onwards meant that the oil project would not attract policy attention for decades.

Post-independence, in the early 1960s, Uganda was not able to pick up the oil project, as it was embroiled in internecine political struggles that eventually spilled over into civil war and economic anarchy. The creation of an oil department in the Ministry of Energy in the mid-1980s did not amount to much, especially given the difficult political terrain at the time, with parts of the country hived off by dissidents. It was not until the assumption of power by Yoweri Museveni and the NRM in 1986, and the economic reforms that they introduced in the decades that followed, that oil prospecting and development came into the limelight.

Geopolitics

Uganda's oil has also had important geopolitical overtones. The oil deposits were discovered in the remote western parts of the country, along the border with eastern parts of DRC. This has significance because during the 1990s, before the oil discovery in Uganda, fierce battles had been fought between Congolese, Rwandan, and Ugandan troops in the eastern DRC, allegedly for control over the region's vast resources—fighting that displaced populations, raised the number of armed dissident groups, and affected economic and political life there. Oil riches have been known to spark conflict among communities, and the risk increases when they are found astride countries with a long history of disharmonious relations.

In 2007, less than a year after the oil discovery was announced in Kampala, military skirmishes engendered by Uganda's oil drilling operations at the border between Uganda and the DRC were reported, necessitating a high-level meeting between their presidents, mediated by Tanzania, in Arusha. Following the meeting, the idea of a joint oil development commission between the two countries was seen as the best way to address the charge that Uganda's oil projects were surreptitiously siphoning off DRC's oil reserves, across the border. The initiative, however, failed to take off, while oil prospecting and development in this part of Uganda continued with little interruption.

Ten years later, in 2017, Uganda and DRC had made up sufficiently to revisit the idea of collaboration on oil production and related activities. Their oil ministers reached understandings on DRC's interest to join the East African Crude Oil Pipeline (EACOP) project—as part of its broader interest to join the East African Community. It also wanted to be part of the consortium that would construct and run the oil refinery, estimated to cost US$3.5 billion, to be set up near Hoima. The latter would be crucial for transporting any oil produced on the DRC side of the border, the earlier development of which had involved similar investors (Tullow and Total) as the Ugandan projects.[3]

Infrastructure imperative

The Albertine Graben is located in quite a remote part of Uganda. The distance from Buliisa, the main oil-producing district, to Kampala, the capital, is 284 kilometres, while it is another 924 kilometres from the latter to Mombasa, the nearest seaport, i.e. a total of 1,208 kilometres. This is the distance that must be covered by trailers transporting equipment to the oil region. The proposed EACOP from Hoima to Tanga will traverse an even longer distance (1,410 kilometres) to reach its destination at the Tanzanian coast. Its proposed construction has also had geopolitical consequences, with the governments of Kenya and Tanzania pitted against each other for what could prove to be a lucrative deal. Kenya (Uganda's most important trade partner) had expected to 'clinch' the deal with little difficulty, but it eventually went to Tanzania. The latter played mostly on its relative safety and political predictability (the proposed route through Kenya was thought to be vulnerable to rebel attack from Somalia-based fighting groups) and the fact that the government owns all the land in Tanzania and hence total compensation would be relatively modest.

Second round of oil licensing

At the end of 2019, Uganda launched its second oil licensing round involving five blocks in the Albertine Graben, with the government expected to sign the new production-sharing agreements (PSAs) and issue new exploration licences by the end of 2020 (although the process has been severely delayed by COVID-19). It is expected that the new round will attract high bids as the blocks have been 'de-risked' by the exploration performance in adjacent blocks (the region as a whole has registered 88 per cent exploration success) and benefit from much better transport, thanks to a decade of road construction in the area, and much improved access to local managerial and technical expertise. This has made Uganda quite attractive, despite being landlocked. The competitive bidding shows that, since the first round, when exploration licences were handed out on a first-come, first-served basis, there has been increasing sophistication in the Government's handling of the oil and gas sector.

Thus, within a short period, Uganda's oil discovery has generated both internal and regional political and socioeconomic dynamics that no one would have predicted ex ante. Importantly, it has spawned interest in regional cooperation in developing a refinery and other midstream infrastructures, which are key to cementing the regional security of energy supply (Republic of Uganda 2010: 117). Uganda's oil could thus become the economic instrument that bolsters East African regional cooperation by bringing both countries and businesses on board.

[3] Not surprisingly, Tullow and Total were involved in the earlier mapping and development of the oil blocks on the DRC side. However, the process, compared with that of Uganda, has been far from smooth. The US government has put sanctions on a key developer, accusing it of the economic exploitation of DRC minerals.

2.3 Legal, regulatory, and institutional frameworks

In the space of 10 years following the oil discovery, Uganda seems to have embarked on a policy-making spree, with more than two dozen policies, Acts, statutory instruments, and guidance notes issued by the Government on issues related to the development and regulation of the oil and gas sector. Table 1 presents a selection (in chronological order) of the important legal, policy, and regulatory documents that the Government has issued in recent decades (Oloka-Onyango 2020). Inevitably, these policies and the changes they have spurred in the policy space have led to many other institutional and private sector responses at lower levels, including the formation of national oil and gas associations and the starting of businesses by both local and foreign business interests, all in efforts to get a share of the oil revenue.[4] This points to the assertion made earlier that, although oil production has been delayed considerably, policy and other activities related to oil have continued to affect the economy in several respects. As Cust and Mihalyi (2017) noted in a review of the pre-production experience of oil-producing countries globally, the impacts on growth are felt 'long before the first drop of oil is produced' as political economy and institutional effects manifest themselves.

Table 1: Legislation, regulatory, and institutional frameworks linked to Uganda's oil and gas sector

Legislation and regulatory framework/institution	Comment on context
Petroleum (Exploration and Production) Act (1985)	This regulatory instrument was introduced at a time of political unrest in the country, with little focus on economic and sectoral issues, aside from those meant to ensure regime survival. The Act had little traction.
Uganda Constitution (1995)	Article 244 of the Uganda Constitution, which was the basis of much of the earlier oil legislation, did not mention oil explicitly, as its focus was minerals. The Article was amended wholly under The Constitution (Amendment) Act (2005) and now refers to minerals and petroleum.
National Oil and Gas Policy (2008)	The Policy provided the first comprehensive consideration of how to manage the oil and gas sector and the expected revenues.
Oil and Gas Revenue Management Policy (2012)	The Policy committed the Government to transparent and accountable management of oil and gas resources (hence the setting-up of a ring-fenced oil fund) and to eventual membership (achieved in August 2020) of the Extractive Industries Transparency Initiative (EITI).
Petroleum (Exploration, Development and Production) Act and Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act (both 2013).	The two Acts provided the regulatory and operational basis for the oil and gas industry—notably the launching of the National Oil Company, which would assume and manage country's share of the oil business.
Uganda National Oil Company (2014)	The Company was established under section 42 of the Petroleum (Exploration, Development and Production) Act and section 7 of the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act (both of 2013) to handle the commercial aspects of oil production, notably retaining the Government's share in the oil ventures. It was incorporated under the Company's Act of 2012 as wholly owned by the Government of Uganda.

[4] Other policies introduced at this time with inevitable links to the oil sector are the National Trade Policy, 2007; Buy Uganda Build Uganda (BUBU) Policy, 2014; Uganda Micro, Small and New Medium Enterprise Policy, 2014; Public–Private Partnership Act, 2016; and Public Procurement and Disposal of Assets Act, 2013. Moreover, given the voluminous infrastructure being contemplated, and the implied displacement, policies touching on land issues and resettlement action plans for affected persons, as well as a National Strategy for Petroleum Transportation and Storage Facilities, were also drafted.

Legislation and regulatory framework/institution	Comment on context
Petroleum Authority of Uganda (2014)	The Authority was established under the Petroleum (Exploration, Development and Production) Act, 2013, to handle the regulatory aspects of the oil and gas industry.
National Environment Management Policy for Uganda (2014)	The goal of the Policy was to ensure that oil and gas are exploited sustainably, i.e. 'activities are undertaken in a manner that conserves the environment and biodiversity'.
Uganda National Pipeline Company (2015)	The Company is a subsidiary (100 per cent) of the Uganda National Oil Company, which will be the vehicle for UNOC's holding of 15 per cent of the proposed East African Oil Pipeline Company.
Petroleum Fund (Public Finance Management Act, 2015)	The Petroleum Fund (managed by the Bank of Uganda) was set up under section 56 of the Public Finance Management Act, 2015, as amended, coming into effect in March 2015.
The Model Production Sharing Agreement (2016)	The 'model' was designed by the Government to guide companies interested in oil and gas prospecting in Uganda. It sought to cover all pertinent issues, including taxation, royalties, cost recovery, force majeure, dispute resolution, training, research and training, waivers, applicable law, and confidentiality.
National Content Policy for the Petroleum Sub-Sector in Uganda (2017)	The Policy responded to Uganda's need to see direct benefits to nationals, in terms of employment and income, and structural transformation, more generally, from oil sector development. It outlined what needs to be done to ensure that oil production has strong forward and backward linkages to the rest of the economy and that Ugandans have the skills required to participate fully across the value chains of the oil sector. Building a petrochemical industry around oil is a major policy emphasis.
National Industrial Policy (2008/2018)	The country's industrial policy (revamped in 2018) increasingly sees oil development as an important pillar for economic transformation.
East African Crude Oil Pipeline (in process)	In May 2014, upstream partners in the Lake Albert Development Project agreed to embark on the development of an oil export pipeline. In 2016 the Uganda Government chose the Tanzania route and in 2017 signed an inter-governmental agreement on the pipeline with the Government of Tanzania. In September 2020, President Museveni visited Tanzania to sign an agreement to allow the construction of the pipeline to commence.

Source: author's construction based on Republic of Uganda (various years) and the websites of UNOC, PAU, and the Uganda Investment Authority.

Starting from scratch

In matters related to the technical and business side of oil and gas production, Uganda had quite limited knowledge and experience within the country and had to start pretty much from scratch. It achieved considerable momentum in the initial years, with many government institutions involved in shaping the policy and institutional agenda and donor partners such as Norway willing to lend a hand. Notably, in 2008, the oil and gas policy was completed and a donor-financed seminar organized for the Government and Parliament, attended by the President, his cabinet, and major development partners, ensured that it was widely known and set the tone for oil development (African Development Bank 2009).

What Uganda has had to go through to get where it is today is already the subject of several academic studies (Henstridge and Page 2012; Kyomugasho 2016; Lakuma 2018), which concluded that what was needed in terms of policy and regulatory development was reasonably straightforward, i.e. a policy framework for oil and gas to attract foreign investment and enthuse domestic stakeholders, but that the application fell well short.

Ring-fencing oil revenues

With the policy framework laid down, the Government shifted attention to institutional and operational aspects of the oil sector. Not surprisingly, the Government was astounded by how quickly oil revenues were mounting pre-commercial production—thanks to incomes taxes, royalties, licences, and withholding taxes. As discussed below, Tullow, after a considerable amount of litigation and international arbitration, finally paid some $250 million in withholding tax following its farming-down of assets to CNOOC and Total. Before that, in 2012, the Government had introduced an oil and revenue management policy, partly to pre-empt public criticism over the emerging patterns of the use of oil revenue; there had been a sharp increase in its use to finance current expenditure, contrary to the emphasis on capital and capacity building expenditure in the oil and gas policy (Table 1).

The Government subsequently (in 2015) created a Petroleum Fund at the Bank of Uganda,[5] where the Uganda Revenue Authority would deposit all the revenues emanating from oil-related activities, i.e. income tax, VAT, withholding tax, exploration licencing fees, royalties, and income from sale of seismic and related geological data (see Box 1). The fund was given the twin objectives of funding the budget (mostly infrastructure development) and saving for future generations (or equivalently developing the country's human and technical capacities). However, the idea of ring-fencing oil revenue for sustainable development through strict monitoring (including by a Parliamentary Committee) and a high degree of transparency had little or no tractability, as it was overwhelmed by the politics of the day. So far, the Petroleum Fund has not facilitated any investments; it has become largely an instrument for financing current spending.

Box 1: Uganda's petroleum fund: 'The spirit is willing, the body is weak'

Confronted by the prospect of high oil revenue receipts, the Government of Uganda was committed, for example in its oil and gas policy, to the highest standards of governance, largely agreeing with development partners, such as Norway, that if oil could not generate benefits for future generations, it was better left in the ground.[6] In the event, the government was not able to resist the temptation to expand expenditure on the basis of expected oil incomes; in other words, its behaviour has been closer to the views of the sceptics, who predicted that oil revenues (current and future) would escalate expenditure and erode institutional discipline, than those of 'good' resource husbandry arising from learning from the experiences of others, which the Government claimed it had taken to heart.

However, in November 2011, some five years after the oil discovery, the Bank of Uganda revealed to Parliament that it had released some US$740 million to the Government of Uganda for the purchase of military aircraft and other military hardware (from Russia) on the expectation of refunds from future capital gains taxes and other oil revenues. In other words, oil revenues were being expended before they began to flow and even before oil had been collateralized—a demonstration of the Government's impatience, caused by political expedience, and its failure to commit to boosting oil fund investments (as opposed to eroding the principal).

As a face-saving measure and to enhance its own credibility, the Government initiated a policy for the management of oil and gas revenues in 2012, which led to the creation of the Petroleum Fund at the Bank of Uganda in March 2015. Its twin goals were to finance the budget, especially infrastructure projects, and undertake savings for future generations. It was planned that all the oil revenues—signature bonuses,

[5] With three accounts: forex and shillings accounts at the central bank in Kampala and an account in New York, which, at arms' length from the domestic financial sector, could have provided the basis for the development of a sovereign fund, but where little or no money was ever deposited.

[6] The Norwegian Sovereign Fund has an External Ethics Committee that examines its investments, for example (Financial Times 2020).

royalties, profit oil, income tax, dividends, capital gains taxes, premiums, excise duty, and VAT—would be collected by the Uganda Revenue Authority and deposited with the Fund (Parliament would oversee the appropriations of the Fund on a periodic basis). The Fund's creation was lauded by local and global observers as innovative and a sign of the Government's interest in exploiting oil resources for the greater good of society. By the end of 2017, the Fund had accumulated some 422.9 billion shillings (over US$100 million), a substantial part of it being a capital gains tax accruing from Tullow Oil, with more deposits expected in subsequent months as interest in Uganda's oil industry expanded.

Ultimately, Uganda's Petroleum Fund demonstrated, once again, the difficulty of a low-income country resisting spending pressures while in possession of a liquid oil fund. In a tight borrowing environment, the Ugandan Government chose not to go to the Eurobond market, as many other African countries have done in the past decade, but to 'raid' the Petroleum Fund instead. In the fiscal year ending June 2019, the Government had drawn some 445 billion shillings (US$120.6 million) from the Fund. Given previous withdrawals, the Fund was to all intents and purposes empty by early 2020. Having used the logic of transforming finite resources into sustainable income flows through good husbandry, the Government now argued, as if it were a revelation, that in the face of a large domestic fiscal deficit, keeping the money unused in the Petroleum Fund did not make (political) sense.

The authorities are not abandoning the Petroleum Fund altogether and claim, with much less credibility than in the past, that once oil production is in full flow, the resources drawn from the Fund will be easily offset. It is not plausible to argue that there will be less pressure on the Fund in the future, that is, when it has accumulated sufficient funds (i.e. hundreds of millions of dollars); the Government's spending urge will simply become greater. A different institutional framework to manage oil revenue will be required if the Fund is to escape future raids from the Government. However, in the era of the COVID-19 pandemic, there appears to be no resistance left anywhere in government to using the Petroleum Fund for financing current expenditures—and the Fund has been exhausted.

In conclusion, by repeatedly drawing on the Petroleum Fund, citing urgent budgetary needs, the Government has been able to meet its short-term (urgent) fiscal requirements. But this behaviour has undermined the country's ability to establish and sustain a credible and expanding sovereign oil fund. In August 2020, Uganda formally joined the Extractive Industries Transparency Initiative (EITI), thereby acquiring an external agent of restraint that could help impose an acceptable level of expenditure with respect to the nation's oil revenue. However, the train has left the station (so to speak) and the spending patterns unleashed by oil money (or related expectations) will be hard to reverse. In the absence of firm domestic political commitment, external agencies of restraint can only achieve so much.

Source: author's notes.

However, in a small open economy—i.e. one with a tradable currency, no price controls, and fragile agencies of restraint—it was going to be very difficult to prevent the real exchange appreciation that results from oil receipts, or to stop the erosion of spending discipline, as extra-budgetary resources are received in the absence of fiscal rules (Lassourd and Bauer 2014). The latter are quintessentially political and, as discussed, there has been little appetite in Uganda for their adoption. The need to smooth expenditure over the economic cycle or to limit the negative impacts of oil revenue volatility has not been paid much attention thus far.

Subsequent legislation and regulatory frameworks included two Acts, introduced in 2013: for petroleum exploration, development, and production (upstream); and for refining, conversion, transmission, and storage (midstream). These enabled the creation of the Government's commercial arm for the oil sector, the Uganda National Oil Company (UNOC), as well as the regulatory arm, the Petroleum Authority of Uganda (PAU), in 2014. The former is also responsible for the development of the EACOP on behalf of the Government, as a shareholder in the consortium. In 2016, the government launched a model of a PSA on one of its websites that would guide companies through key aspects (laws and regulations) of doing oil and gas business in Uganda.

The issue of local content

In responding to local demands for Ugandans to benefit fully from their oil resources, notably in terms of employment and other income-generating opportunities, the government introduced a national content policy for the petroleum industry in 2017, with the goal of boosting oil's forward and backward linkages and ensuring equity of access to the emerging opportunities (see detailed discussion in Section 3.3). These concerns were reiterated in the broader national industrial policy. Also key to the Government's recent policy deliberations has been the updating of Uganda's policy for managing the environment. Already, the country's capacity to manage major oil spills in the pristine Albertine Graben has been questioned by local and foreign environmental activists. But, as noted earlier, institutional coordination during the implementation of these interventions has been (and remains) a key constraint (Republic of Uganda 2019a).

2.4 Oil and gas in the National Development Plans 2010–25

Paradigm shift

Uganda's national development policies have highlighted the importance of agriculture in the economy since independence in 1962, even when its shares of GDP and exports were declining. The emergence of oil as a key driver of policy has marked an important paradigm shift, at least in terms of public sector focus. With the adoption of *Vision 2040* in 2010, development plans were refocused on economic transformation (Kayizzi-Mugerwa 2013a), turning Uganda into a 'developmental state'.[7] The oil discovery was the main reason for the more ebullient approach to development suggested by the theme of Uganda's *Vision 2040*: 'A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country Within 30 Years'.

All three National Development Plans (NDP-I, NDP-II, NDP-III) under *Vision 2040* have underlined the importance of value addition, and not just for oil. Thus, considerable effort has gone into preparing frameworks for adding value to crude oil. The government has devised petroleum utilization plans that include building refining capacity, developing transport options for the refined products, and promoting a petrochemical industry, as well as energy-intensive industries such as cement, steel, and fertilizers. Moreover, the development of efficient export options for refined oil products and the use of gas conversation technologies have received high priority, as noted with respect to the national content and national industrial policies mentioned above (Republic of Uganda, 2010, 2014a, 2015, 2020a).

Policy coherence

All three NDPs have underlined the importance of addressing Uganda's technical and skills constraints in order to benefit fully from the oil sector. The inadequacy of human resources, in terms of numbers and skills, has been aggravated by insufficient technical and vocational training capacity, forcing the industry to depend on imported labour, although the last decade has seen an improvement as local universities and technical institutes take up the slack. Infrastructure in the host communities has been inadequate. Moreover, given the poor railway system, bulk equipment has been brought in by road, with serious delays and implications for the road infrastructure.

The investment in power generation and road infrastructure outlined in the first and second NDPs is beginning to make a difference. Moreover, NDP-I's financial strategy had anticipated that 'the

[7] See, for example, the essays in Kayizzi-Mugerwa and Lufumpa (forthcoming) for descriptions of similar ambitions in other African countries.

expected revenues from Uganda's oil deposits […] should significantly improve the country's domestic revenue […] and this should result in a lower fiscal deficit in the medium term' (Republic of Uganda 2010: 62). Although a similar projection was reiterated in NDP-II, the expected fiscal boost from oil did not happen to the degree expected. In anticipation of future oil income, the Government, as noted, closed the resource gap by resorting to domestic and external borrowing—the latter mainly from international development banks and China. Total debt was some US$2.5 billion in 2006/2007, rising to over US$12.8 billion by mid-2019 (70 per cent external) i.e. from 25 per cent to 40 per cent of GDP in under 15 years.[8]

Although the Government was adamant that oil would begin to flow under NDP-III, i.e. between 2020/21 and 2024/25, delays have been an irreducible feature of the oil project since launch. The new plan must now work with a world oil price that is much lower than earlier projections, bringing with it many policy and business uncertainties. In contrast to the policy exuberance of the first two plans, NDP-III is fairly measured in its proposed interventions and projections. It argues, for example, that 'promoting a development-oriented mindset' in Uganda will be just as important for sustainable development as putting the emphasis on infrastructure and power generation (Republic of Uganda 2020a: 170). Hence, the development of technical capacities for industrial development and structural transformation must be accompanied by enhanced skills among bureaucrats for policy formulation and implementation.

3 Oil, interest groups, and public policy in Uganda

3.1 Introduction

This section discusses Uganda's experience with oil development and associated oil revenue management and political economy pressures, highlighting the key policy drivers and drawing on examples from the country's recent experience. It argues that, contrary to stakeholder perception, the delay to first oil production was probably a good thing, especially as it helped the country catch up in terms of institutional and policy development. The issue of national content is central to the oil and gas business and it was worthwhile waiting for the development of robust institutional frameworks to ensure its effective operation—especially with respect to enhancing domestic managerial and technical skills and the promotion of domestic entrepreneurship.

The section also looks at how popular expectations and political complicity derailed government commitments and why it is important to adopt more effective agents of restraint, while also encouraging productive civil society participation in the oil development process.

3.2 Oil delays, popular expectations, and agencies of restraint

The positive side of oil delays

Although, for political reasons, the oil discovery was announced in 2006 to coincide with the independence anniversary celebrations, at least a decade of work had gone into the effort, with the Government sending young 'oil cadres' abroad for training in all matters related to the oil industry

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[8] The Government hoped, partly thanks to expected oil income, to raise domestic revenue collections by 0.5 per cent of GDP annually from 2010 onwards (Republic of Uganda 2019d). This did not happen, owing to the production delays discussed above. See also Kayizzi-Mugerwa (2013b) and Wolf and Potluri (2018) on the issue of oil expectations in Uganda. However, the risk of debt distress in Uganda was considered by the IMF to be quite low (pre-COVID-19).

from the early 2000s. However, by 2020, Uganda had not yet reached the all-important final investment decision (FID) with key investors in the oil sector, while the challenge of the oil's eventual transportation to market loomed large (Agence France-Presse 2020).[9]

In explaining the delays, the government has mentioned structural and bureaucratic hurdles (Republic of Uganda 2017), while also pointing at low crude prices over the past few years, which have disincentivized investors in oil prospecting globally, notably in remote and unproven jurisdictions such as Uganda, necessitating consolidation, and even exit, as the relative costs (including heightened environmental concerns) of oil production exceed the returns for many projects. Moreover, the COVID-19 pandemic of 2020 has distorted the plans of investors as well as those of the Government (Bagabo 2020).[10]

The delays have not meant, however, that the economy has been spared the undercurrents (structural, macroeconomic, and geopolitical)[11] that are usually associated with natural resource exploitation in low-income economies. Indeed, revenue flows to Uganda's treasury, from oil licences and taxes, supplemented by those from the oil-generated buoyancy of the economy, have been quite high in the 2010s, as has been the government's zeal to find new projects to finance. Notably, the Government failed to preserve the integrity of the oil fund, as discussed in Box 1. Not surprisingly, given political demands and the need to demonstrate 'what our oil really means', the oil fund has been repetitively 'raided' and was thought to be virtually exhausted by 2020 (Box 1).

As in other African countries that have experienced an influx of oil-related revenue, a substantial amount of the resources went to infrastructure construction—accompanied by a heightened risk of malfeasance (Roe 2018). In the past decade, the Uganda government has embarked on the construction of 'oil roads', an international airport, power generation, schools, clinics, and administrative buildings in the oil-producing region to expedite the movement of people and equipment, improve access to electricity and social services, and broaden income-generating opportunities, thereby enhancing local buy-in. Despite Uganda's extensive investment in human resources, infrastructure, and equipment, and its institutional framework for oil sector development and management, the goal of becoming a full-fledged oil producer has, so far, remained elusive.

In this regard the story of Tullow Oil, the independent oil and gas company with over 70 projects in developing countries, is illustrative. Although it was intimately involved in the development of Uganda's oil fields, as noted earlier, it was forced to close shop in Uganda in 2020 as part of its current global consolidation effort (i.e. moving towards a more conservative capital structure) (Daily Monitor 2020). At a recent workshop at Makerere University, organized jointly with the

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[9] However, according to Tullow Oil (2020a), all major pre-development technical work for the oil fields (upstream) and pipeline (midstream) have been completed, including front-end engineering and design (FEED) for both segments and the completion of the environmental and social impact assessment for the pipeline on the Tanzania side, while that for Uganda has been submitted to Uganda's National Environment Management Authority (Total East Africa Midstream BV 2019). It could well be that the delays are due to non-technical factors, including the impending election in Uganda.

[10] See Kayizzi-Mugerwa (forthcoming) for a comparative discussion of the impact of COVID-19 in Uganda and Zambia.

[11] See, for example, the article by Charles Onyango-Obbo (2020) in the *Citizen Newspaper* (Tanzania) of 17 September 2020 entitled 'Opinion: Kenyans need to cry less over the Uganda–Tanzania pipeline', which discusses some of the salient geopolitical issues raised by where (in which country) to lay the path of the pipeline to evacuate Uganda's oil to the sea.

Government's aptly named 'Operation Wealth Creation', many participants saw Tullow's exit as a sign that in the thick of the political economy of oil, as well as in the light of efforts in Uganda to eliminate tax and related loopholes, the business climate in Uganda had become decidedly less attractive (Hisali 2020; Kabanda 2020). As Tullow seems to be retaining its interests in Kenya (four development blocks) and operations in Ghana (Tullow Oil 2020b), it is also tempting to read into its exit from Uganda a degree of dissatisfaction with the slower pace of oil development in the country; but its annual report, cited above, hints at the complexity of its relations with the Government and civil society as a deterrent.

For example, the otherwise seemingly innocuous case of Wabyona, a social activist based in Hoima, the 'capital' of the oil districts, had assumed a greater than expected importance for Tullow and its partners in the Lake Albert Development Project, as it had redirected attention to issues they thought had been put to rest (Kiyonga 2017). As part of his 'civic duty', Wabyona has returned repeatedly to the courts, most recently in 2020, three years after his first attempts, over the capital gains tax settlement that Tullow reached with the Government in 2015—following its farm-down of assets to Total and CNOOC in 2012 (for which it was paid over $1.4 billion). The Government, after arbitration, had agreed to settle for $250 million in capital gains (withholding) tax (instead of the $407 million set by the tax tribunal in 2014). The activist and his lawyers argue that this settlement for a lesser amount was 'illegal, fraudulent and ultra vires', while those for Tullow find the claims to be 'frivolous, vexatious and without merit'. Nevertheless, the Commercial Court in Uganda has allowed the case to go ahead. It was scheduled to be heard in the latter part of 2020, but this has been delayed.

It is illustrative that Tullow has included the Wabyona case among issues worth watching as it exits Uganda: even after its departure, Tullow will retain a contingent interest that will be monetized after 'first oil' so the litigation represents a potential threat to that income. Latent ramifications of the Wabyona issue could also be the reason why CNOOC did not exercise its pre-emption rights following Tullow's sale of its remaining interest in the Lake Albert Development Project in early 2020.

To sum up, the delays in Uganda's oil project have made time available for the creation of institutions and the design of policies, and critically allowed bureaucrats to embark on learning-by-doing. This includes internalizing the 'tricks' of the oil conglomerates, drafting and enforcing capital gains tax legislation (the Government won a case in the courts of arbitration in London worth several hundreds of millions of dollars in 2014[12]), designing tax treaties, and grappling with the intricate political economy issues of expending oil revenue efficiently and equitably, given the vast and often conflicting needs, i.e. military versus social expenditure (Patey 2015). The delay has also allowed the Government and stakeholders in the oil and gas industry to take a serious look at environmental protection measures and let the voices of civil society be heard. It is certainly doubtful whether, given start conditions, a faster pace could have achieved superior results in terms of public policy and institutions development.

[12] See the article in the *Daily Monitor* of 7 July 2014 entitled 'Uganda Wins Shs. 1 trillion Tullow Case'. However, this is only one side of the story. Alencar et al. (2020), in a paper for Oxfam, indicate that the Netherlands has become the top source of FDI (39.4 per cent in 2018) in Uganda in recent years (despite the absence of colonial links to the country)—thanks to a mutual double tax treaty. At the same time, entities (subsidiaries) of the main oil companies (Total and CNOOC) operating in Uganda are domiciled there for tax purposes (the Netherlands is perceived globally as a tax haven). Oxfam claims that tax treaties are a serious threat to future oil revenues in Uganda, i.e. a 'curse by design'. It estimates that some 95 per cent of FDI from the Netherlands to Uganda has originated from a third country.

Interest group alignment

Although the Government is undoubtedly the principal in the oil 'game', experience so far has shown that, given financial and capacity constraints, it can achieve its broader objectives only by collaborating with others, including the oil companies and civil society. It has had to devise strategies that attract investors (i.e. tax holidays and double taxation agreements), while also garnering domestic support for the oil project from within the country, notably among local bureaucracies and other interest groups in the oil-producing districts. Indeed, as per the Public Finance Bill 2012, the Government sets aside 7 per cent of oil royalties for sharing between local governments located in the oil and gas producing areas (Republic of Uganda 2012).[13]

Interest groups in Uganda's oil sector—i.e. the public sector, investors, and local stakeholders (including households in the oil-producing regions and local companies looking to provide upstream, midstream, and downstream services)—are keen to see a quick and substantial revenue stream from oil production and related activities, although there have already been significant disagreements over how this should be achieved, notably with regard to the taxes to be imposed on profits. As is often the case, this is related to the significant variance in 'discount rates' between the interest groups.[14] Moreover, there are important differences between public and investor perceptions of risk exposure, both economic and political (the latter, also including reputational risk, being more acute for the Government).

While the Government, as noted above, was credited for taking the time required to develop a rigorous institutional and regulatory framework for the oil and gas sector (including promulgating the relevant oil and gas policy and putting in place structures for the requisite social and environmental assessments), investors, while acknowledging that a process of learning-by-doing was inevitable, given the start conditions, have complained over the costs that the bureaucratic delays have meant for their investment decisions.

Residents in the oil districts (including local bureaucrats, farmers, and fishermen) have also complained about the slow flow of information, the poorly structured compensation process, and the emerging and unmitigated threats to the environment (with evidence of untreated oil spills portending more serious environmental challenges ahead, when full production commences). To address the environmental, land, and resettlement challenges that have arisen in recent decades, and the animus that has accumulated among locally based groups and households, the Government is boosting the size and competences of its local bureaucracies in the oil-producing region, including reaching out to and involving traditional leaders.

However, this might not be enough. As noted in the first development plan under *Vision 2040* (NDP-I), ensuring that all players feel that they have a stake in the oil project requires policy, legal, and regulatory frameworks that are transparent and promote accountability—including among private sector operators. In other words, despite its own inherent interest in the oil business, the

[13] However, as the example of Nigeria shows (Rustad 2008), the oil-producing districts in Uganda feel that they are not sufficiently compensated for their depletable natural resources (leading to horizontal inequalities). They point at the Mining Act (2003), which provides higher royalties to local governments (i.e. 17 per cent).

[14] A number of advocacy groups, e.g. the Civil Society Coalition on Oil and Gas (CSCO) and the Advocates Coalition on Development and Environment (ACODE), have raised their voices in recent years over the issue of benefits to the common people as opposed to business owners and professionals. They have also discussed impacts on the environment. On the other hand, oil companies have tried to wring as much out of the PSAs and other opportunities (including farm-downs) as possible. In 2019, Total threatened to walk away from the development of the EACOP if the Government failed to give the second Tullow farm-down a go-ahead.

Government of Uganda will have to assume the role of an honest broker not easily blown off course by the vagaries of oil revenues (i.e. stick to the National Development Plan) and demonstrate a willingness to share the oil and gas revenues equitably, including with future generations.

This is, however, easier said than done. Uganda needs to create formal agencies of restraint, not allied to the oil industry (i.e. parliamentary committees, NGOs, and related research networks), to arbitrate between investors and other stakeholder groups and help align their interests. Such agencies will also be necessary to protect the interests of farming and fishing households in the oil-producing regions to ensure that the deployment of the finite oil and gas resources has lasting benefits for the rest of the population.

3.3 Human and technical capabilities to boost national content

National content policy

In 2017, the Government drafted a national content policy (Republic of Uganda 2017) to ensure that Ugandan entrepreneurs and individuals would benefit from the emerging business and employment opportunities in the oil and gas sector. This emphasis was also underlined by the national industrial development policy (Republic of Uganda 2018). For example, for registered companies, at least 50 per cent of managerial staff and 70 per cent of other employees would be Ugandan. Moreover, companies would need to demonstrate value addition through the use of Uganda-sourced raw materials.

The national content policy has also encouraged sub-contracting, with the more experienced international companies urged to take the smaller indigenous firms under their wings as a form of twinning for capacity building. This would spur, at least in theory, positive learning-by-doing outcomes and also enhance self-confidence in the smaller companies, with spillovers into management and technical sophistication (Addison and Roe 2018).

However, an evaluation by the Office of the Auditor General (2015) of the impact of the national content policy on the oil business in Uganda presents a less inspiring picture. It shows that, for lack of experience and technical expertise, few indigenous firms are directly involved in the more technologically demanding aspects of the oil sector operations. Moreover, the Government's eagerness, and that of the oil companies, to reach first oil has not left much room for giving local companies real support, or for letting the learning-by-doing effects mentioned above manifest themselves. The Government has not been able to reinforce the stipulations of the national content policy in any systematic manner (Kjær 2013).

So, when the Government talks about crowding in the private sector, it is important to know what that means. The oil industry is a novelty in Uganda and there are few local entrepreneurs with the technical, financial, and human resources to engage competitively in the oil and gas business. Nigerian experience shows that helping indigenous oil and gas entrepreneurs to graduate into full-fledged and competitive operating units could take a while to bear fruit.[15]

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[15] Nwosu et al. (2006) have argued that for several decades international oil companies (IOCs) have dominated all aspects of oil production in Nigeria—exploration, drilling, production, well intervention, and service provision—with little evidence of technology and skill transfer to indigenous firms, which have had to fend for themselves. Still, by finding workable technical and financing solutions, tapping into modern technologies, and overcoming governance shortcomings, a number of firms have shown that they can use local knowledge to compete with IOCs—hence finding some balance between 'globalization and localization' in Nigeria.

In the host communities, entrepreneurs and households have not yet 'cashed in' with respect to the expanding opportunities for food, other consumables, and service provision to the oil industry. The evaluation report of the Office of the Auditor General notes, for example, that few local firms have been able to meet the quality and regulatory standards required by the foreign companies and their staff—mentioning especially that the food requirements of some companies (spaghetti and broccoli are specifically mentioned) have been difficult to meet at the local level in the operational zones. Some companies have opted for own feeding arrangements with little or no connection to the local food production and supply chains. It seems, however, that as the oil companies stay longer in Uganda, and hence project a longer time horizon and acquire local experience, they acquire better links to the food and other input chains within the region and country. This has been especially the case for the so-called Joint Venture Partners in the Lake Albert Development Project (Total, CNOOC, and Tullow Oil), which have been in the country for more than a decade.

Starting from a low base with high level of ambition

Uganda embarked on oil exploitation from a low human resource and technical capacity base (Nalule and Rukundo 2018). Still, Uganda's oil and gas policy from 2008 (Republic of Uganda 2008) portrayed an ambitious agenda that required a rapid deployment of technical skills and capacities, focusing on value addition. It gave priority to the development of an oil refinery, petrochemicals industry, and pipelines for the evacuation of crude to export markets, and refined petroleum products for domestic and regional consumption—all of which required vast infusions of investment and technological know-how, both of which were scarce in Uganda. Besides, there was initially little capacity to conduct negotiations to ensure that the country got the best deal, and less still for the establishment of domestic institutions and regulatory frameworks to support upstream (exploration and production), midstream (evacuation and refining), and downstream (distribution and marketing) activities. In the true sense of the word, Uganda was forced to start from scratch.

The development of the oil sector in Uganda has required a much higher level of skilling than previous industrial development efforts and has the potential to lift 'all the boats in the harbour' as technical capacities in the economy are boosted. Many local universities and other tertiary institutions have designed courses targeted at meeting these capacity needs, providing courses in oil exploration, production operations, project management, business procurement, R&D, environmental impact assessment, and monitoring and evaluation. Moreover, a number of courses are targeted at government bureaucrats, notably with respect to inspection and oversight, audit and governance, and transparency (African Development Bank 2009).

Technical elites

Box 2 lists the type of jobs to be expected in Uganda's oil sector. It draws partly on a list of jobs advertised in a local Ugandan newspaper in 2009, some three years after the oil discovery was announced by the Government, as oil production and revenue expectations were gripping the country. Although it well reflected the jobs of the future in the oil and gas industry in Uganda, it did not seem to reflect the technical skills available in Uganda at the time. While 10 years ago the list might have been dismissed by some as a PR stunt (or trial balloon), the professional skills it identified were subsequently validated by the Government's policy stances as well as by the requirements of the oil companies, i.e. as reflected by their employment, national content, and industrial policies (Obwana et al. 2016). Moreover, Makerere University, with support from the China University of Petroleum, has set up an Institute of Geo-Sciences and Petroleum, and offers a Bachelor of Science in Petroleum.

Box 2: Professional qualifications required by Uganda's oil and gas sector

1 *Exploration and production*
Geology and geophysics, petrophysics, production and operations engineering, reservoir engineering, well engineering/drilling, petroleum engineering, petroleum operations management, chemical engineering

2 *Operations*
Oil field operations management, production operations management, general operations management, project management, petroleum plant superintending, oil field operations supervision, terminal or depot operations management, terminal or depot maintenance

3 *Contracting and procurement*
Engineering procurement, petroleum materials handling, petroleum logistics management, supervision

4 *Commercial*
Crude oil trading, commercial petroleum contracts management

5 *Environment, health and safety (EHS)*
EHS accident investigations training and experience, environmental monitoring or management, lead auditor or internal auditor qualifications, experience in safety/compliance, environmental qualifications to international standards, EHS qualifications

Source: author's construction based on African Development Bank (2009).

The national content policy argued that, while Ugandan managerial talent in the oil and gas sector was fairly limited, even more important was the development of technical capacities and skills. The policy thus emphasized vocational training, apprenticeships, and specialization, with support from the oil and gas companies. This required a rapid shift in attitudes to blue-collar professions in Uganda, i.e. the need to reprofile technical and vocational education and training (TVET) and the attitudes of the youth to such work through the provision of well paying jobs with good career prospects.

Technical training to enhance national content

In 2009, the Government established the Uganda Petroleum Institute at Kigumba in Kiryadongo District to train technicians for the oil sector. It provides diplomas in Petroleum Engineering—with specialization in downstream, midstream, and upstream operations. In 2018, the Institute was certified to offer City and Guilds (London) qualifications in 22 areas of specialization leading to international vocational qualifications in electrical, mechanical, and instrumentation maintenance; health, safety, and environmental protection; and welding fabrication and pipework at levels of competence ranging from basic (1) to advanced (3). On average, 20 per cent of the student recruits are women. In all, some 700 technicians and artisans have been trained by the Institute since its inception.

Rising to the challenge

To close the skills and capacity gaps, there has been a surge in private sector interest in training technicians and service people for the oil and gas sector in the past decade. Several technical institutes have been created in the oil regions, while a number have been established in Kampala and other cities, the bulk seeking City and Guilds certification. A major factor behind the rush for certification is the insistence by companies operating in the oil industry in Uganda that they will not employ technicians without internationally recognized qualifications. In 2020, the World Bank provided financing for the training of some 600 technicians, many of them registered at these local institutions.

In early 2020, the Oil and Gas Trainers Association of Uganda was established to cater for the interests of the growing numbers of training institutions for the industry—notably on issues of accreditation and soliciting support from government. For its part, the Petroleum Authority Uganda has set up a 'National Oil and Gas Talent Register', a portal through which those with the requisite qualifications in oil and gas studies can interact with prospective employers—improving the flow of information and simplifying the search process.

Within the ministries and agencies dealing directly with oil and gas development issues, several staff members have been trained in petroleum standards, chemistry, engineering, general management, environmental sciences, and legal studies in oil and gas. In the Ministry of Energy and Mineral Development, the supervising ministry of the oil and gas sector, special attention is being paid to raising its skills and policy-making profile through dedicated training both in Uganda and abroad.[16]

Insider assessment of employment impact

The oil companies commissioned their own study of the supply and demand for labour in the oil and gas sector in Uganda (Joint Venture Partners 2013), which was more cautious on the direct employment creation potential of the oil and gas project than reports in the newspapers. For example, while reference is often made to 160,000 potential jobs (comprising 112,000 technicians) within oil and gas production in the medium to long run, this misleadingly includes support and service activities, such as food supply to oil workers. The commissioned study underlines that the 160,000 jobs estimate refers to the total impact that oil and gas will have on employment in Uganda (i.e. direct, indirect, and induced), including that of the reinvestment of oil revenues. In terms of direct employment, the study notes that oil and gas would have only up to 13,000 employees at the peak of the construction phase and about 3,000 (plateau) during the production phase itself. While 15 per cent of the latter are expected to be engineers and managers, 60 per cent would be technicians and craftsmen, while the rest would be unskilled. The study further notes that, given the slow pace at which training institutions are getting students through the system with the requisite qualifications, there is bound to be a trade-off between quality and quantity, even at these lower levels of demand for workers.

Roe and Round (2018) argue that ultimately the oil sector's indirect and induced job creation in the economy might be more important than direct jobs in the oil industry (which, as noted above, are quite specialized). This seems to support the Government's push for value addition along the oil and gas value chain and broader input–output linkages with the rest of the economy.

Access to credit

Credit availability is a major constraint for local entrepreneurs, access to finance being especially problematic for Ugandan entrepreneurs with little previous exposure to the oil business. The Government has sought to boost the capital of the Uganda Development Bank (UDB), and hence its lending capacity, as the best way to address this lacuna. However, it is difficult to conceive of a

[16] According to the Petroleum Authority of Uganda, some 204 Ugandans have graduated with bachelor's and master's degrees in geosciences and oil and gas studies in the past decade. Many have set up their own boutique businesses, while others are undertaking consultancies, so that the overall impact goes well beyond that on the oil and gas sector.

scenario where UDB will have sufficient resources to meet the needs of its Ugandan clientele, and cut-off points are bound to be brutal. In any case, UDB's lending record provides little hope of better outcomes.[17] The Bank would need to demonstrate a complete change in its way of doing business if this government-led model (i.e. picking winners) is to succeed.

Public–private partnerships

The Government has also encouraged the development of a national policy for public–private partnerships (PPPs), although these have not taken off in earnest. It is possible to argue, in retrospect, that officials underestimated the amount of work that would go into getting the PPP efforts off the ground. While the PPP concept sounds simple and straightforward, in practice it has the potential to raise questions over rent dissipation and charges of cronyism, which have incapacitated similar efforts in richer countries.[18]

National supplier registration: an exercise in PR?

The PAU has introduced an online registration portal for all prospective national suppliers of goods and services to the oil industry. In mid-2020, some 2000 companies were registered on the website. The website is, however, not filtered, allowing companies of diverse size and competence to register. It is obvious that in any given year only a small fraction of these companies, from all over the world, will qualify for the procurement services and opportunities available in Uganda's oil industry. On the basis of the self-reported information, few indigenous firms will be included among these. It is likely, however, that many local companies see the PAU portal as a public good, which provides them free market exposure.

Of the close to 2000 companies registered on the PAU website, the majority (some 70 per cent) are incorporated in Uganda. The largest numbers of registrants are from mining and quarrying; manufacturing; construction; and information and communication, with more than 200 companies registered in each segment. Although more than half of the companies in each category are Uganda-based (i.e. are registered to undertake business in the country), they tend to be small, be of recent registration (and hence limited experience), and have only a handful of employees. The bigger companies among them are branches of foreign conglomerates, including the oil companies already operating in the Albertine Graben. Chinese companies (not registered in Uganda) appear in large numbers on the website—notably in mining and quarrying, manufacturing, and construction (civil engineering).

[17] The UDB's lending has often been politically motivated, leading to the accumulation of a huge portfolio of white elephants and a large volume of non-performing loans.

[18] In South Africa, the PPP policy for road transport was introduced with fanfare in the 2000s, being seen as an opportunity to deleverage public spending on road infrastructure. However, a major highway in South Africa, built under PPP arrangements and hence accessed through a toll station, has been boycotted; vehicle owners argue that roads are public goods and that the taxes they pay, if well used, should suffice for their construction and maintenance.

4 Macroeconomic impacts of oil in Uganda

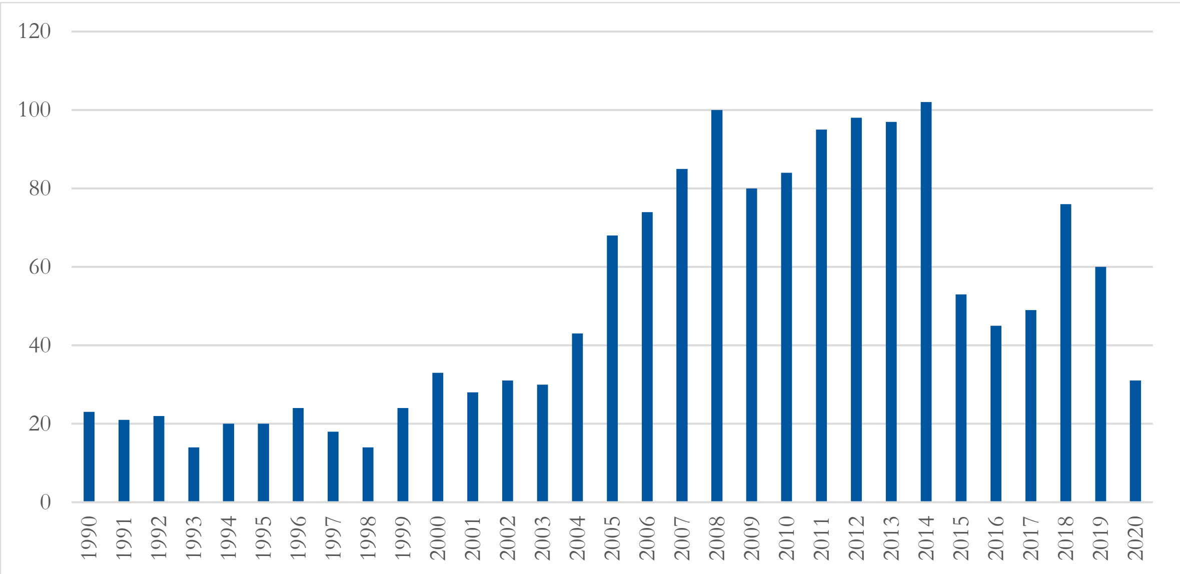
4.1 Crude prices and macro stability

Moderating the impact of the market

The Government of Uganda has pursued market-friendly policies for decades, notably with respect to setting the exchange rate. This has led to a level of economic flexibility and efficiency in the distribution of resources that, in the light of the frailty of domestic institutions, has been better than expected—even in the face of COVID-19 (IMF 2020). The Government has internalized the lessons that for non-oil sectors, notably agriculture, to thrive in the medium to long term, the real exchange rate should not be allowed to appreciate unreservedly, nor price controls be imposed in pursuit of domestic political objectives, such as cheap food for urban households. Likewise, policy-makers, given still fragile institutional structures, appreciate the moderating impact of the market during Uganda's transition to full oil production.

Figure 1 shows that, after a decade of relatively high crude prices between the mid-2000s and the mid-2010s, much lower prices set in. For example, while the price of Brent crude per barrel was hovering around $100 two years after Uganda's oil discovery in Uganda, it was about half that on average after 2015, and collapsed in 2020, with the COVID-19 pandemic.[19]

Figure 1: Crude oil prices (Brent Europe), 1990–2020 (US$)



Source: author's construction based on US Energy Information Administration data.

The lower price of crude has also had a moderating impact on investor interest, as shown by the lacklustre bidding for Uganda's second round of oil licensing during 2019/20. It has also lowered the value of Tullow Oil's final farm-down of its Ugandan assets on exit in 2020, and lowered future potential licensing fees and capital gains taxes, as well as Government revenue. In 2017, for example, Tullow had preliminarily agreed to a sale and purchase agreement with Total for two-thirds of its remaining 33.3 per cent stake in the Lake Albert Development Project (reducing its holding to 11.76 per cent in the upstream assets and the proposed pipeline) for a consideration of

[19] See, for example, the analysis of COVID-19's macroeconomic impacts by Addison et al. (2020).

some US$900 million—the Government expecting to receive US$167 million in withholding tax (i.e. a rate of about 18.5 per cent), which Tullow refused to pay. With subsequent oil price declines and the onset of COVID-19, Tullow eventually farmed out of all its remaining 33.3 per cent stake to Total in early 2020 for US$575 million (most of it upfront, though US$75 million was contingent on developments post-production). Meanwhile, the Government's withholding tax had dwindled to some US$15 million. We can surmise that during actual commercial production, oil price movements will have a much more amplified impact on revenues and the economy.

Oil prices and related expectations have had financial and real sector impacts. Data from Uganda's Bureau of Statistics show that prices for residential properties within the Greater Kampala Metropolitan Area have been declining (on average) since 2015—by 8 per cent in 2016 alone, with a small recovery in 2018 and a continued softening thereafter before a sharp fall in 2020 (partly accentuated by COVID-19), a pattern closely following that of crude prices (in late 2020, crude prices hovered around US$38 per bl, compared with over US$100 in 2014; Figure 1). This is a good illustration of the sectoral impacts that oil has had on the economy. Lacking other longer-term investment vehicles, many private citizens in Uganda have poured their money into real estate (land and housing), while several local companies have constructed 'gated communities' targeted at the middle class. Given that real estate features prominently as collateral for local bank borrowing in Uganda, the recent sharp decline in real estate prices has eroded the solidity of the financial sector. Above all, there is not enough liquidity left in the system to support the 'productive' sectors. Also, since land and buildings are non-tradable, the rise and fall of property values in response to oil price movements (boom and bust) demonstrates the real exchange rate effect of oil in the economy and underlines the importance of designing measures to moderate its impact on stability and growth.

The financial sector is expected to play an important mediating role in the development of the oil sector and its impact on the rest of the economy. As part of this process, the past decade has witnessed the entry into Uganda of several regional and international banks, expansion of the Uganda Stock Exchange, and establishment of several insurance companies. Mobile and agent banking, introduced by the Bank of Uganda, now allows financial services to be accessible in most parts of the country. This implies that the effects of oil-related investments and those of revenue generation have the potential to pass through much of the economy, for example through transport and real estate activities or the demand for social services.

4.2 Oil's revenue subsidy effects

Manifestation of the oil syndrome

Although Uganda is not yet producing oil, the oil syndrome is already manifesting itself in terms of policy and sector responses, notably on the fiscal side and in the expansion of the public sector. In recent years, several infrastructure projects connected to the needs of the oil industry have been embarked on in road transport, energy, ICT communications, and building construction, with many completed or in advanced stages of production. Additionally, the Government has recently relaunched the national airline and increased the number of districts[20] and cities, with implications for the budget. Oil prospectors, project managers, and equipment suppliers from the world's capitals have set up shop in Kampala and have also established a district presence, notably in

[20] In 1986, when the NRM assumed power, Uganda had 33 districts. This had increased to 88 by 2008, 112 by 2011, and 137 by 2020. The goal of the Government is to make administration more effective, while bringing services closer to the people. As the oil resources on which the expansion of the districts was premised has not happened, however, the buildings and structures for the new administrative entities are quite rudimentary.

Buliisa. As discussed earlier, the payment by oil companies of royalties, income taxes, excise duties, and VAT, as well as capital gains taxes, as original prospectors farm down, initially raised expectations of sharply rising oil revenue, but official opacity in the handling of these initial income sources made it difficult to estimate them with accuracy.[21]

However, as Uganda's revenue effort has not gone beyond 14 per cent of GDP in recent decades (compared with an average of about 17 per cent of GDP for Sub-Saharan Africa), while public expenditure is above 20 per cent of GDP, there is a structural deficit to the fiscal effort that must be overcome. The Government has doubled its domestic and external borrowing in the last decade and a half (from about 20 per cent of GDP in the early 2000s to 40 per cent in the late 2010s). However, once such revenue–expenditure patterns set in, they are hard to reverse: thus, although the recent sharp oil price decline would suggest that it would be prudent to avoid using tomorrow's unrealized oil revenues to resolve today's fiscal pressures, the path dependence, mentioned earlier, tends to prevail.

4.3 Good governance challenge

Agent of restraint

In February 2019, Uganda applied to join the Extractive Industries Transparency Initiative (EITI), the Government seeing its membership as an opportunity to raise transparency, improve tax collection, and ameliorate the investment culture, while also building trust and creating lasting value from oil and gas exploitation. Uganda was admitted in August 2020, with a multi-stakeholder group (government, civil society, and the private sector) put in place to monitor the process (Republic of Uganda 2020b).

Nevertheless, resource governance challenges in Uganda are multifaceted and require broader civil society engagement at the national and local levels (Van Alstine et al. 2014). Weak local bureaucracies, especially in the oil districts, mean that oil matters have become overly centralized, making it impossible for local interest groups to weigh in effectively on matters affecting their communities. It is ironic that on key issues of policy, oil companies have had more frequent interaction with local communities, and hence are in a better position to influence them directly, than NGOs or local governments. In pursuit of corporate social responsibility, for example, oil companies have constructed schools and clinics in the oil districts, although it is difficult to assess how they fit into local-level planning. While such interventions reveal the versatility of the new oil investors, they suggest that, left alone, the oil companies could well subvert local policy priorities in a bid to appease indigenous populations.

Regarding economic governance, Uganda's performance has been halting over the past decades (Manyak 2015)—as indicated by Table 2, which draws on standard, but interlinked, measures of governance, ease of doing business, and competitiveness. In terms of corruption perception, Uganda has rarely risen above the last quartile on the global ranking. Indeed, since the oil discovery and the increasing inflow of oil funds, its corruption ranking, which was 105 in 2006, has fared less well than the Government would have wished (i.e. remaining below 100) and in comparison

[21] In a letter dated 18 May 2015 to the Chairperson of the US Securities and Exchange on the subject of the Dodd-Frank Act (notably the section regarding public disclosure of project contract information) and its implications for the capacity of Uganda's civil society to monitor the country's oil and gas sector, The Civil Society Coalition on Oil in Uganda estimated that, when oil production commenced, the revenue to the Government would double, i.e. from about 13 per cent to 26 per cent of GDP, bringing with it considerable public sector spending power, but also raising the risk of malfeasance and institutional erosion.

with neighbours such as Rwanda, which has ranked in double digits for over a decade. In 2019, Uganda ranked 34th of 54 African countries in corruption perception.

Table 2: Uganda: indices of corruption, doing business, and competitiveness, 2010–19*

Year	Corruption perception ranking	Ease of doing business ranking	Competitiveness ranking
2010	127	119	108
2011	143	123	118
2012	130	126	121
2013	140	132	123
2014	142	135	129
2015	139	116	112
2016	151	115	115
2017	151	122	113
2018	149	127	117
2019	137	116	115

* The rankings do not necessarily cover the same sets of countries. However, they run in most cases up to 180.

Source: author's construction based on Transparency International, World Bank, and World Economic Forum data.

Table 2 demonstrates a close correlation between the country's performance on corruption and that on the ease of doing business and competitiveness (Uganda has relatively high marks for macro stability and entrepreneurial culture, however). In other words, poor governance, reflected in the persistence of bribery, embezzlement, and graft up to the highest offices in the country, is eating into any competitive edge that Uganda might have today as a low-cost producer, including for oil.[22] Corruption must be combatted as a matter of priority, before it does irreparable damage to institutional and regulatory networks and turns oil into a curse.

5 Oil, local livelihoods, and the environment

5.1 Sharing benefits with local stakeholders

Managing local impact

It is clear, 15 years after the oil discovery, that oil exploitation in Uganda is unleashing complex local, regional, and national geopolitical and revenue subsidy effects that will need to be managed carefully to prevent the economy from sliding back into the chaotic and unproductive state of the past. This concern was addressed during the second national content conference held in early 2020 in Kampala. At this, the Government unveiled a five-year development strategy for the 30-plus districts on the Ugandan side of the Albertine Graben that are bound to be impacted most by the area's oil development activities. The northern and southern parts of the Albertine Graben region, with smaller oil deposits, will focus on agriculture, trade, and tourism, while the central part will

[22] According to Nakhle (2015), the cost of finding oil (and gas) in Uganda is among the lowest in the world (less than US$1 per recoverable barrel compared with the world average of above US$10). However, Uganda's oil has a high wax content, which means that it will likely be bought more cheaply than that from the Middle East, for example, and that the oil pipeline will need to be heated at various points along the way to enable the oil to flow to the coast of Tanzania. These additional infrastructure-related costs will have an impact on the pricing and profitability of the oil project as a whole. To minimize these 'evacuation costs' there is a case for focusing on supplying regional oil markets in East and Central Africa.

comprise the nucleus of the oil business. Detailed physical development plans have been created for all the upcoming towns in the regions—to prevent the 'development of slums' around the oil projects. The plan is also meant to increase the presence of the Government in the region; zonal offices for the Ministry of Lands, Housing and Urban Development are being planned there. The Government hopes that this more orderly approach will prevent the egregious and development-defeating impacts of oil exploitation that have been observed in other African countries.[23]

Oil benefit shifting

The impacts of the oil sector on local livelihoods are assuming dimensions that few would have predicted when the oil projects started in the mid-2000s. There has been a steady increase in the number of young people, land speculators, and bureaucrats migrating from Kampala and other places in Uganda to the Albertine Graben region in search of employment and business opportunities. At the lower levels, local businesses have been outcompeted by better funded and mobile traders from other parts of the country. Moreover, cases of rising gender exploitation, partly arising from disruptions in local livelihoods, asset ownership, and family-life patterns, have been observed by advocacy groups at the national and local levels (International Alert 2014; NAPE 2015; Sunday Vision 2014).

Still, the Government is keen to assuage the fears of local entrepreneurs and stakeholders in the oil-producing regions, notably farmers and fishing communities, of a lack of participation in the expanding oil economy, land alienation, and negative environmental effects of unfettered oil exploration.[24] In the oil-producing areas, and aside from the 7 per cent share of royalties that goes to the region, the populations are demanding a bigger share of oil revenues, seeing it as a chance to reverse their traditional economic disadvantage (Ntujju 2020; Wabyona 2012). The Government has responded by constructing schools, administrative blocks, and police stations, as well as rural roads (over and above the modern infrastructure related to oil exploitation mentioned earlier). It is also promising to give local populations preference when it comes to oil-related jobs, although, on current evidence, locals remain sceptical (Byakagaba et al. 2019; Gelb and Majerowicz 2011).

Inevitably, tension has mounted between the Government's goal of using oil revenue as a basis for the country's rapid development[25] and its wish, in a bid to safeguard economic and political sustainability, to align the divergent interests of domestic stakeholders and foreign investors and avoid the oil-dependence syndrome. As noted above, it was mainly foreign-based companies that helped start the oil prospecting in Uganda, and they will remain crucial in completing the envisaged physical infrastructure, including the proposed oil refinery (accompanied by a 700 MW thermal plant) and the 1445-kilometre oil pipeline to the sea. They are, however, doing this for a profit, not for charity, and the real reckoning will come when returns are measured against investment expectations. The Government is beginning to realize that it does not have as much bargaining power as it thought it had at the outset (when oil prices were high). With so much public money

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[23] Nevertheless, this push, spearheaded by the Ministry of Lands, Housing and Urban Development, seems to have been done outside the NDP-III (Republic of Uganda 2020a), also unveiled in 2020, and indicates the challenges of maintaining coherence under political pressure.

[24] The National Content Policy introduced in 2017, with a view to offering affordable credit to local businesses, was a clear-cut attempt to address their concerns. With regard to stakeholders, there has been a documented increase in conflict-laden land transactions across the oil-producing districts, accompanied by a spike in local acts of violence (Muriisa and Twinamasiko 2020).

[25] NDP-I states that 'the plan is to maximize future revenues from the oil industry and utilize them for high return public investment in the longer term' (Republic of Uganda 2010: 54).

and prestige invested in the oil project, the Government is today as much a hostage to oil's dynamics as the oil companies themselves.[26]

Statistical evidence at the local level

The Uganda Bureau of Statistics (UBOS) has conducted a number of household budget surveys in the past decades, which throw some light on changes in livelihoods in various parts of the country. For a long time, the results of the surveys were aggregated under categories such as central, western, and northern. More recently, UBOS has broken down the regional designation to smaller 'tribal' units recognizable from the first decades of Uganda's independence, i.e. Kigezi, Tooro, Busoga, Bunyoro, etc. To get a feel for changes in household incomes in the oil region (Bunyoro), we have chosen three regions as controls: Kampala, the capital; Acholi, a region that is a similar distance from Kampala (275 kilometres) as the oil region but in a northerly direction; and Busoga, which is less than 100 kilometres from the capital, to the east (Table 3).

Table 3: Uganda: average monthly household incomes (shillings) (US$ in brackets), 2012/13 and 2016/17, and Gini Coefficient (2016/17) (selected regions)

Region	2012/13	2016/17	Gini Coefficient 2016/17
Kampala	918,500 (354)	938,000 (268)	0.41
Busoga	194,900 (75)	222,000 (63)	0.36
Acholi	154,700 (60)	168,000 (48)	0.35
Bunyoro	347,000 (134)	436,000 (125)	0.39

Source: author's construction based on UBOS data.

In both 2012/13 and 2016/17, Bunyoro had the second highest average monthly household income after Kampala (although owing to inflation the value, expressed in US$, had fallen between the two periods of measurement—relatable to the recession that accompanied the sharp crude oil price decline shown in Figure 1). This can be compared with Busoga, which is nearer the capital city but where average incomes are only about half those of Bunyoro. Table 3 also presents the Gini coefficient estimates for 2016/17 for selected regions. A once rural outpost, where agricultural production predominated, Bunyoro has a Gini only slightly lower than that for Kampala (0.39 compared with 0.41)—indicating the structural and income-generating shifts taking place in the oil region and how they are impacting households.

In Bunyoro, the share of wage employment increased from 18.7 per cent in 2012/13 to 24 per cent in 2016/17—reflecting increased (oil-induced) employment opportunities in the region. However, this seems to have been at the expense of the share of households in 'non-agriculture enterprises' (which includes cattle keeping). Overall, changes in income-generating patterns have

[26] A recent analysis by Oxfam, an international NGO, written by Alencar et al. (2020), argues that oil companies have used creative approaches, including where they are domiciled for tax purposes, to extract as much money (profit shifting) as possible from their Ugandan oil operations. The authors note, for example, that subsidiaries of the companies operating in Uganda's oil fields (French Total and Chinese CNOOC) are domiciled in the Netherlands, which has a favourable double taxation agreement/treaty (DTA) with Uganda. While this was meant to maximize withholding tax income for Uganda, Oxfam argues that it is doing the opposite, since operators from third-party countries are able to be domiciled in Holland—through 'letter box' companies. However, there are benefits to having oil countries operating in Uganda domiciled in a European country, such as the Netherlands, as it makes the country and the companies benefiting from 'treaty shopping' susceptible to pressure from domestic and international NGOs. Indeed, the Netherlands is considering adjustments to dividend taxation rates in future DTAs with developing countries—although there are concerns that changes are precluded by the stabilization clauses in the PSAs.

been much more marked here than in the rest of the country, as discussed by Byakagaba et al. (2019).

The UBOS survey also looks at changes in housing patterns in Uganda between 2012/13 and 2016/17. In Bunyoro, the oil theatre, owner occupancy fell from 85 per cent in 2012/13 to 73.4 per cent in 2016/17 (with renting rising from 10.1 per cent to 18.3 per cent in the same period). This is a significant shift in a previously rural region, reflecting the rapid commercialization of the housing market in Bunyoro (as workers and their families from outside the region move in). This can be compared with the much less dramatic shifts in housing patterns in Kampala during the same period.

Another perspective on the economic impacts on the ground is given by examining the responses to a question in the 2016/17 survey: What events in the five years preceding the survey had caused households in the various regions to be better off? Households in Bunyoro cited improved transport (39 per cent), better access to electricity (19 per cent), a development project (11 per cent), new schools (19 per cent), and new employment opportunities (7 per cent) as events that caused them to feel better off. In Acholi, by comparison, a development project (at 56 per cent) had caused the most improvement in the view of the households there.

5.2 Environmental impacts

Keeping oil in the ground is not an option

Uganda developed its oil and gas policy with support from the Norwegian Government, well known for its management of natural resources and for the establishment of the world's largest sovereign wealth fund (Financial Times 2020). The Norwegian model posits that if countries with natural resources are unable to manage them in a manner that ensures that future generations also benefit (intergenerational resource equity), they should leave the resources in the ground until they are able to do so.

However, Uganda's circumstances today are vastly different from those of Norway when it first discovered oil some 50 years ago (it had the tenets of a welfare state well in place, with a homogeneous and educated population, and transparent and effective governance structures) and will need to inject the bulk of its oil revenues into development, not savings. Uganda's NDP-I puts the emphasis on 'balanced development', arguing that 'with the discovery of oil and gas, the country will need to guard against getting trapped into the "Dutch Disease syndrome", which would have adverse effects on the exchange rate and distort production incentives for non-oil sectors, thus undermining overall export potential and diversification' (Republic of Uganda 2010: 40).[27]

Global diversity hot spot

The Albertine Graben is a 'global diversity hot spot'[28] and the Government makes no pretence whatsoever that the oil and gas findings and their development in the Albertine Graben do not pose significant environmental challenges for the local fauna, human settlements, land and water resources, energy and food sources, and burial, cultural, and archaeological sites (Johnson 2007).

[27] On whether oil will be a curse or a blessing for Uganda, see also the arguments in Mbabazi (2013) and Rwengabo (2017).

[28] See, for example, the analytical assessments by Thomassen and Hindrun (2011) and the Netherlands Commission for Environmental Assessment (2012).

Besides being the most species-rich eco region for vertebrates in Africa, it also has more than half its bird species, 39 per cent of its mammal species, 19 per cent of its amphibian species, and 14 per cent of its plant and reptile species.

Through the National Environment Management Authority (NEMA) and other agencies, the Government has introduced environmental laws, regulations, and standards to guide the management of environmental resources and find solutions to Uganda's pressing environmental pressures, which have emerged in recent years owing not only to oil development but also to climate change (Kobusheshe 2020; Republic of Uganda 2014c). The urgency of the issues raised by oil development, especially the impact on wildlife, and hence tourism potential, has involved NEMA in rearguard actions of one type or the other in recent years (Republic of Uganda 2016, 2019b, 2019c). But, as noted earlier, the proliferation of laws and regulatory structures not accompanied by the strengthening of implementation capacity at national and local levels has meant that the impact on the ground is often dubious.

The Government is not oblivious to this, noting (Republic of Uganda 2010: 310) that the level of compliance with existing environmental regulatory frameworks is 'very low', which implies that misuse and degradation of the environment is largely unimpeded. The solution lies in the pursuit of a holistic approach to policies, with a higher degree of accountability and with the Government able to ensure that poor policy implementation or outright neglect of stipulations has real consequences in terms of institutional budgets and career prospects at the national and local levels.

A challenge in Uganda's quest to set high environmental performance standards is the lack of environment-related data and credible baselines on which assessments of the progress being made can be based (Golombok and Jones 2015). As already observed in the case of governance, to be credible the data-gathering effort should cover the whole economy and not just the oil sector—especially since oil activities are already having implications that span the country.

The protection of Uganda's rich biodiversity is essential for the country's longer-term development—there are no credible trade-offs between generating revenues from oil and gas exploitation and a degraded Albertine Graben region. Already civil society agitation and lobbying efforts have dissuaded the Government from damming the Murchison Falls, which lie within the oil region, to provide power to the future industrial heartland of Uganda, choosing instead to develop power stations in other less ecologically sensitive parts of the country. However, given the size of the oil and gas finds and the effort already expended in getting them to full production, the Government must begin rolling out its environmental protection blueprint for the Albertine Graben region (which it drafted a while back: Republic of Uganda 2014b).

Ugandan civil society claims that Government and investor consultations with it on oil development issues have, so far, been perfunctory (Musoke 2019), and it will need to continue pressuring the Government at the national and local levels if the influence of the oil companies and local entrepreneurs (who are wary of a too drawn-out environmental assessment processes) on the resolution of environmental issues is to be countered. The fact that the oil region is adjacent to national game parks that are a major tourist attraction (and hence of tangible economic value) has become an important bargaining point. Likewise, local populations have been unequivocal in expressing a desire to maintain their local livelihoods and preserve their unique physical environment.

Looking ahead

While Uganda and other African countries that have newly discovered oil and gas are excited about their economic and development prospects, the increasing global opposition to carbon fuels and emphasis on low-carbon development are concerning, as they are bound to depress future crude prices and confront the global oil economy with the spectre of 'stranded assets' (Addison 2018). Today, few international development institutions (e.g. World Bank and African Development Bank) are willing to invest directly in hydrocarbons (i.e. oil and gas projects)—a reflection of the prevalent and growing anti-carbon fuels sentiment in shareholder countries, where the emphasis (and targeted support to developing countries) is on promoting green growth—although how the cost of switching between options (from oil to sustainable mining, for example) will be met is not known.

On the other hand, environmental concerns have received increasing attention from domestic and foreign civil society groups, and therefore have growing political implications. The coalition between Ugandan civil society and international environmental lobby groups—especially in defence of the scenic Albertine Graben—is making inroads in the domestic debate regarding the impact of oil and gas on tourism, fishing, farming, and rural livelihoods more generally (International Federation of Human Rights 2020). The Government, investors, and domestic stakeholders now realize that environmental issues cannot be brushed aside and that to attain sustainable benefits from oil and gas will require thoughtful planning and interventions along the whole value chain—not just revenue generation.

6 Conclusions

The findings of this analytical overview of Uganda's oil development are not all discouraging. The Government has evinced a high level of adaptability, while the macroeconomy has so far been spared the devastating ravages of the Dutch Disease—although the story might be different when full oil production commences. Regardless, the oil sector has served the important role of putting Uganda's policy and institutional armour to the test. The concluding arguments are as follows:

First, although oil revenues (i.e. licences, fees, and capital gains taxes) began to flow into the Ugandan treasury before institutions for their management were fully in place, the country now has an impressive number of policies and regulatory instruments targeted at improving business processes in the oil and gas sector (and its links to the rest of the economy)—with potential to boost oil production and improve oil revenue management. In retrospect, however, as the recent case of ill-performing DTAs and fights with oil companies over withholding taxes has demonstrated, policy formulation is far from implementation. Notably, in the absence of resolute implementation and M&E strategies, and despite the creation of one-stop regulatory agencies such as the Uganda Investment Authority and the PAU, the policy interventions of the past decade and a half have evinced a high degree of incoherence.

Second, and partly owing to the issues raised in the first point above, politicians, in responding to popular pressures and other domestic exigencies, have devised creative ways of spending oil resources, not always based on optimizing economic return or maximizing social welfare. This absence of 'commitment technology' implies that the promises to future generations that politicians made at the inception of the oil project, including preservation of the environment, will likely be given short shrift. The Government would be making a mistake to assume that it is immune to the Dutch Disease and the rent dissipation that has affected similarly endowed countries in Africa and elsewhere as they sought to develop their oil resources. It will be important, therefore, to strengthen agencies of restraint across the board—including through the participation of civil society in the monitoring and evaluation of performance and impact—if Uganda's wish to derive sustainable benefits from oil is to be realized.

Third, when the rest of the economy is experiencing governance challenges, it might not be possible or practicable to insulate the oil sector or the revenues it generates from institutional erosion and lack of transparency. Therefore, to have sustainable impact, economic governance challenges must be resolved at an integrated, national level, since, given resource fungibility, sector- or project-level efforts will not be effective if pursued, as now, in a discretionary fashion.

Fourth, the unprecedented infrastructure outlays in the oil districts have had some positive impact on local livelihoods, but the direct impact on local income generation is, given the oil projects' highly capital-intensive nature across the oil and gas value chain (exploration, drilling, and road and pipeline construction), more diffuse. More will need to be done to deploy local labour and other assets in the local economy (perhaps shifting to mining and/or forestry projects), to ensure that when the oil is depleted, the communities are not left poorer than when it was still in the ground. This is not a moot point, given the experience of oil-producing regions in other African countries (Shepherd 2013) and the low economic start conditions in the oil districts.

Fifth, the sustainability of the oil project in Uganda will, to a large extent, depend on whether local entrepreneurs are actively participating in its development, including through the adoption of the relevant technologies and development of technical and managerial capacities. However, merely allotting domestic business interests a share by fiat might not be the best solution. Local companies will require support to raise their game while learning to be competitive as producers or suppliers in the oil and gas sector, and, by implication, other areas of the economy. This should not be done out of a sense of altruism but as a key means to developing a dynamic domestic private sector, which, as the recent national development plans have underlined, is deemed the backbone of the Ugandan economy.

Sixth, the challenges of environmental degradation, both in Uganda and globally, loom large. The anti-carbon-fuels movement in Uganda and in Western countries with strong development cooperation links with Uganda has grown exponentially in the past decade—already French and British NGOs are protesting against the construction of the oil pipeline to the Tanzanian coast. The fact that oil is being developed primarily in a pristine part of the country, and that spills and related disasters are bound to happen during the life of the project, is something worth strategic consideration by policy-makers in Kampala. If there is at the moment no robust plan for protecting the environment in the oil districts, one must be devised immediately; after oil begins to flow in earnest, it will be too late.

In conclusion, through oil-related taxes and fees, heightened popular expectations, and the political economy of oil encashment, oil development has had important macroeconomic impacts on the Ugandan economy in the last decade—even before oil has reached full commercial production. However, with the sharp decline of crude prices since the mid-2010s, Uganda's oil prospects have dimmed considerably. While high crude prices had, for example, encouraged Tullow to farm down and reduce its exposure, the Government's options are now limited. Not wishing to be 'played' by the oil companies, and with exit not an option, the Government has evinced limited flexibility in a rapidly changing oil market environment, choosing to maximize tax revenue as best it can along the value chain and risking a drawn-out resolution and, hence, revenue loss. While playing the global oil markets is a fool's errand, a good understanding of their movements and what they portend is worthwhile for a country and government that will need to deal with them for the foreseeable future.

This relative inflexibility is also implied by the Government's oil infrastructure portfolio—notably the airport, refinery, and oil pipeline. These ambitious infrastructure projects are bound, if history is a guide, to become more expensive to build as each delay in procurement, inputs delivery, social and environmental assessment, etc. eats into current and future oil revenue streams. Likewise, further delays in reaching the FID will postpone the point at which revenues will start flowing to the Government.

At the end of 2020, Uganda's oil development delay must therefore be put into perspective. The country's first oil production licence was issued to CNOOC in 2013, when crude prices were close to U$100 (i.e. some two and a half times what they were at the end of 2020), but not a drop of oil has yet come to market. While the revenue exuberance of the past has been dampened considerably by the oil price collapse of the past five years, strategies for scaling down to a less ebullient oil future (perhaps establishing an oil-producing collaboration with DRC and South Sudan to create economies of scale) need to be devised. It should not be forgotten that, while oil companies can farm down, sell assets, or otherwise extricate themselves from the Albertine Graben, the Government of Uganda is in it for the long haul.

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