Realising Africa's full oil and gas potential

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Africa's oil production in 2013 was around 6.3 million barrels per day, some 7 per cent of total world supply. It is estimated that Africa has almost 10 per cent of the world's proven oil reserves, and some 8 per cent of its proven gas reserves. However this potential is in fact probably under-estimated, as Africa is by far the least prospected continent across a range of natural resources, including oil and gas.

A number of countries in Sub-Saharan Africa, such as Angola, Gabon, Nigeria and Republic of Congo, have well-established hydrocarbon operations. Over the last decade, operations have expanded to include new producers such as Ghana, following the discovery of the offshore Jubilee field. Increasing estimates of hydrocarbon reserves in Eastern and Southern Africa are also significant, with several countries progressing towards commercial development of their new discoveries. For example, Kenya, Uganda and Madagascar are well positioned to be the next new oil producers on the continent. Kenya, following recent discoveries, could potentially start exporting oil by as early as 2016. Mozambique is working towards liquefied natural gas (LNG) exports by 2018 to meet the Asian demand, with Tanzania expected to follow suit. The shale gas boom in the US has also created similar interest to replicate unconventional gas production in Africa, notably in South Africa, which by some estimates possesses the world's fifth-largest unconventional gas reserve.

Opportunities

Hydrocarbon development clearly offers a range of opportunities, to support not just the continent's growing energy needs, but the Sub-Saharan African economies as a whole.

Countries with hydrocarbon operations stand to receive significant revenues from developing their assets. But the extent to which these revenues will reduce poverty, improve human development and bring about inclusive growth will largely be determined by the policy choices that countries make.

Countries which have made recent hydrocarbon discoveries can learn from the successes and failures of others, by designing transparent policy and fiscal frameworks to deliver an attractive investment environment, to maximise revenue, and - crucially – to invest their resources for the long term to enhance growth and to share the benefits for all.

As an example of success, Ghana's Petroleum Revenue Management Act of 2011 provided a foundation for governance and accountability, including the creation of an independent regulatory body, the Public Interest and Accountability Committee, to monitor how oil revenues are handled. Furthermore, it established the Ghana Stabilisation Fund and the Ghana Heritage Fund, for the purposes of budget stabilisation and savings for future generations.

If countries manage their hydrocarbon resources well in terms of getting the right level of rents (royalties, taxes, production shares and other revenues) and managing the resulting revenues wisely, they could significantly shorten the time required for a previously low-income country to achieve middle-income country status. Experience shows that African countries receive significantly lower royalty rates when compared to Latin American countries. However, the optimal level of taxation needs to take into account the overall risks of the project, such as the perceived country risk, the geological risk inherent in the nature of the hydrocarbon deposit, and, for 'frontier discoveries', the uncertainty associated with lack of reliable geological data.

Oil- and gas-related rents can provide a foundation for the establishment of Sovereign Wealth Funds (SWFs), which a number of African countries, including Nigeria and Angola, have put in place. Such funds can be an important source of development finance, provided they are well designed and implemented. While most African Sovereign Wealth Funds focus on stabilisation objectives, they could do more to benefit socio-economic development by providing financing for infrastructure and financial sector development – not just in their countries, but in Sub-Saharan Africa as a whole. They need to be based on clear and transparent rules balancing stabilisation and investment, contributing towards policy objectives, and not becoming a parallel source for budgets. To mitigate these risks, to improve the attractiveness to investors and to maximise tax revenues, countries can benefit from an integrated package of support from development partners such as the African Development Bank.

While oil and gas are typically not labour-intensive sectors, they do present an opportunity to generate employment, skills development and technology transfers, by nurturing the economic linkages between extraction operations and local business. The latter can provide ancillary services such as logistics, finance, power, communication, and engineering services.

National discoveries, meanwhile, could also have regional implications, as seen, for instance, in new gas-fired power plants in Mozambique and Tanzania which are serving entire regions.

Challenges to realise full potential

However, Africa's oil and gas potential is far from being fully realised. The African Progress Panel has confirmed that – in terms of human development outcomes – resource-rich countries actually lag behind non-resource-rich countries with similar levels of income. For example, a recent McKinsey report found that these resource-rich countries have poorer quality infrastructure. The challenges to realise the full potential of developing hydrocarbon resources effectively range from improving the governance structure determining the allocation and use of resources derived from the oil and gas sector, to overcoming infrastructure bottlenecks, and managing environmental and social issues.

Crucially, countries need to be realistic in managing their citizens' raised expectations where natural resources are concerned. There is usually a significant time gap between the start of exploration and the time when revenues are generated. Citizens often expect rapidly improved standards of living, and they will be frustrated when these standards are slow to materialise, or if they fail to do so. Transparency in how policy decisions on resource exploitation are taken, and how revenues are used, is the first step to create dialogue and trust between the state and its citizens. Around 10 oil and gas producers in Africa are part of the Extractive Industries Transparency Initiative (EITI), a voluntary scheme under which producing companies and governments commit to disclose and reconcile payments from their extractive industries.

But transparency is only the first step in the process of accountability. Civil society organisations, parliaments and independent watchdogs need to be able to interpret the data and the intricacies of oil and gas contracts, and to have the political space to engage government, and hold them to account. An open and informed dialogue means better policies, and clearer rules for investors.

Infrastructure is often a major constraint to effective hydrocarbon development. For instance, Uganda's plans to export oil have been partly delayed due to difficulties in selecting export routes, arising from its landlocked status. There are now plans for an oil pipeline from the Ugandan oilfields to Lamu (a new port on Kenya's northern coast) which could be operational by 2019. Uganda, Kenya and Rwanda have also agreed to the extension of an existing pipeline in Kenya to Uganda and Rwanda. Such projects are crucial, and they need multi-billion dollar investments to be built.

Significant challenges stand in the way of creating the linkages between the oil and gas industries and the wider domestic African economies. Nigeria has seen a recent increase in the role of indigenous companies, with local companies now controlling over 30 per cent

Anadarko's floating, production and storage (FPSO) vessel in Ghana's Jubilee offshore field

of the upstream sector, up from less than 10 per cent in 2010. This has been driven by initiatives over the last decade to increase the share of goods and services provided by local companies, and by more recent sales of assets by major multinational companies (such as Eni, Shell and Total) to local companies. But this might be harder to achieve for less established oil producers, with higher margins of uncertainty. The right policies need to be put in place, informed by evidence-based analysis on the country's competitive advantage. These can create the right incentives for companies to pool resources to invest in skills development and training certification schemes, and to define the standards of local content that allow local business development.

However, African domestic markets often remain too small to create the strong economies of scale necessary for ancillary domestic industries to thrive, with trade constraints and limits to labour movement acting as brakes to development. Regional integration to create wider markets and allow the transfer and sharing of skills remains a crucial element in realising the full potential of the oil and gas industries, beyond just revenue collection.

Now is the time for Africa to address these challenges, to establish itself as a stable and attractive investment destination, and to ensure it has the right policies and frameworks in place to reap the full benefits of oil and gas development. However, it must do so before the current market structures change radically. For example, the United States – hitherto the largest buyer of Nigeria's crude oil – is expected to become a net exporter within a decade, while Australia is on a path to becoming the world's biggest LNG exporter by 2020, with a focus on supplying Asian markets. This implies that Sub-Saharan countries need to focus on providing the right enabling environment for their planned large-scale oil and gas projects to come on-stream soon, in order to secure a place in global markets.

Across the world – and especially in Sub-Saharan Africa countries with hydrocarbon resources – governments need to respond to citizens' rising expectations of employment and social development. In order to do so, they must understand the true value of their assets, develop a vision of how to use them to promote development, and communicate that effectively to their citizens.

Fortunately, help is at hand. It comes from OECD countries, and increasingly from South-to-South exchange, for instance from countries like Trinidad and Tobago. The African Development Bank Group acknowledges the importance of stewardship of oil and gas resources, and is scaling up its financing, advisory services and capacity building support to its regional member countries.

The Bank offers a combination of public and private sector investments in the hydrocarbon sector and associated infrastructure. To this, it adds advisory support and capacity building through the Africa Legal Support Facility, which can help countries address the complexities of designing and negotiating the right concessions and contracts. In addition, the Bank's recently established African Natural Resources Centre will provide technical assistance and advice in designing the institutional and policy frameworks for managing the extractive sector and maximising its benefits for the domestic economy. It will build the capacity of governments, of civil society, and of parliaments. Crucially, in combining technical assistance and advisory services for both renewable and non-renewable resources, the Centre will be well placed to advise on the main trade-offs between using finite extractive resources and alternative renewable resources.

Africa's focus on regional integration – as exemplified by the Programme for Infrastructure Development in Africa (PIDA), led by the African Union Commission (AUC), the New Partnership for Africa's Development (NEPAD), and the African Development Bank – also provides opportunities for Sub-Saharan African countries to exploit their regional value chains more effectively. It offers the possibility for broader economic transformation, for instance through investment in petrochemical-related industries.

The private sector, too, has an important role to play by ensuring that private sector activities and investments are aligned with national and local community needs. It is stable partnerships such as these which are essential for enabling large-scale investments and creating broad-based prosperity and development.

Africa has a great opportunity to realise full potential of its oil and gas resources to transform its economy and support the livelihoods and the quality of life of its peoples. It can learn lessons from others in putting in place the legal governance and the environmental and financial reforms to achieve its ambition. ■