

Strategic Analysis Paper

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Exploring the Opportunities for Australian Energy Companies in East Africa's Gas Discoveries

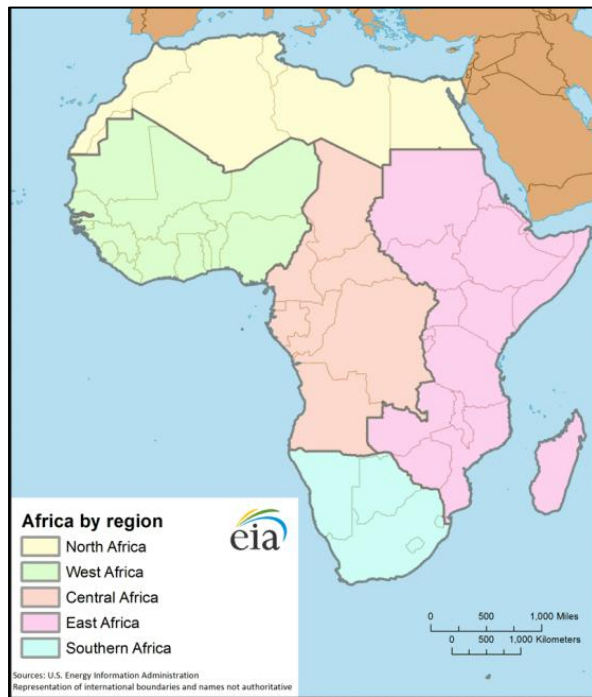
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Key Points

- Following large discoveries of natural gas off the coasts of Tanzania and Mozambique, equated by some to those on the North West Shelf of Western Australia, East Africa has received much attention and has been labelled as the newest energy hotspot.
- East Africa is a region that is still relatively underexplored and thus represents a frontier market.
- The discoveries allow numerous opportunities for investment by Australian companies.
- Although Australian energy companies have shown interest in investing in East Africa, the process has proved to be expensive, especially as Asian state-backed National Oil Companies (NOCs) become increasingly competitive. This may deter future investment interests.
- As an emerging energy hotspot, the stability of the East African region will remain a key factor in whether or not Australian companies choose to invest.

Summary

Decades of exploration in East Africa, have produced few large discoveries of oil and gas. Past exploration has also been hampered by political uncertainty and regional conflict.

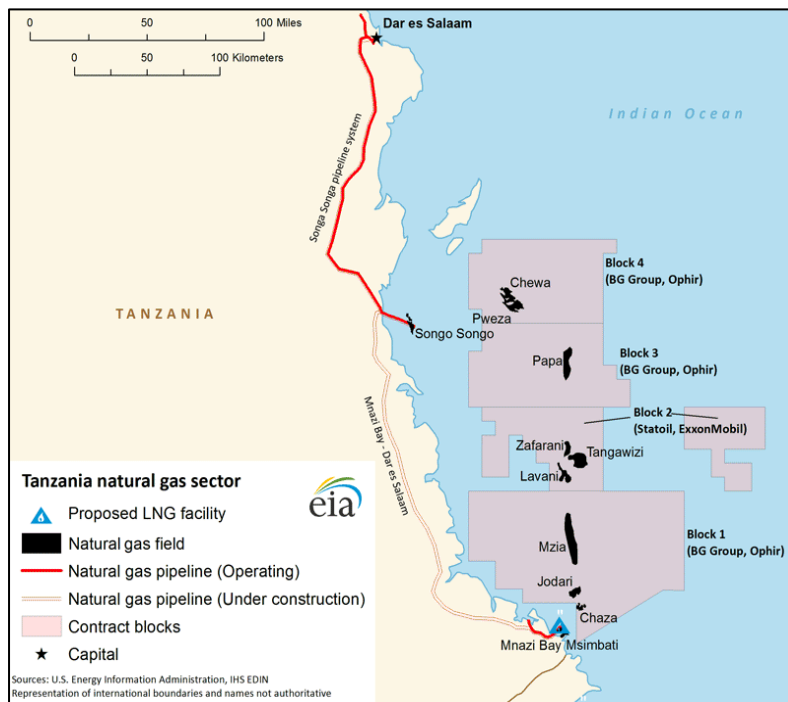


Things look set to change, however. Attention is now focusing on East Africa's offshore natural gas discoveries and this process escalated in 2012. The discoveries have garnered the attention of large international oil companies, which has led to investments in large exploration projects in the region. The gas finds have generated a marked interest, due not only to their size but also their placement in proximity to Asia. The discoveries have placed East Africa in the running to supply major Asian Liquefied Natural Gas (LNG) importers, putting them in competition with the USA and Australia.

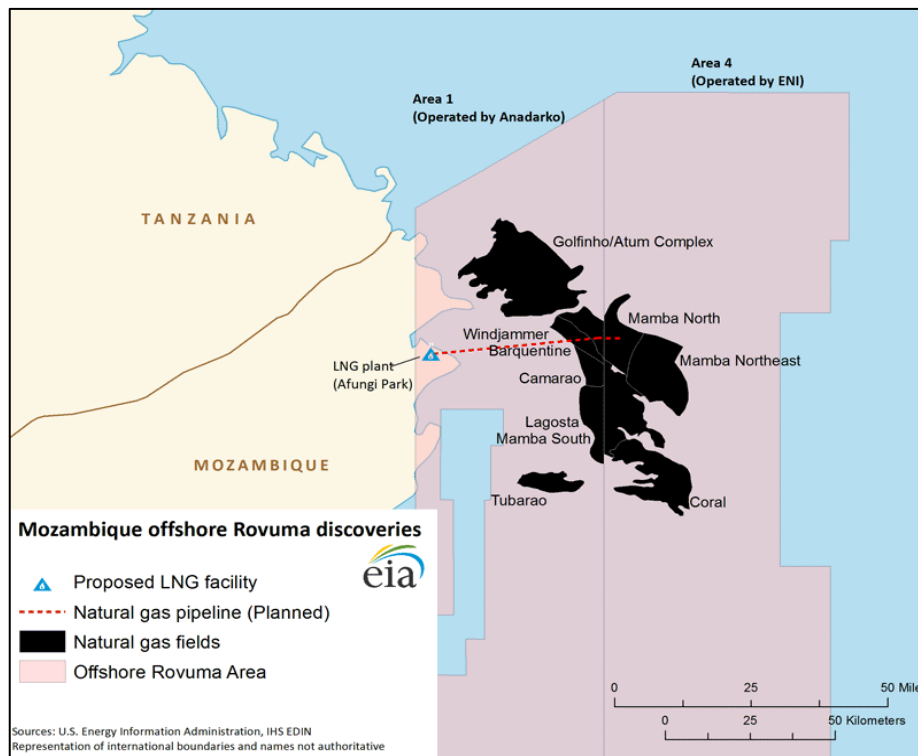
The question that arises is what LNG opportunities exist in the East African offshore region, for commercial exploitation by Australian energy companies? Australian companies interested in investing in the region will need to consider the long-term geopolitical outlook for these countries, particularly Tanzania and Mozambique, where the biggest gas discoveries are located. In addition, it is important that they assess the investment and market options available. Traditional entry is proving increasingly costly, with Asian national oil companies, in particular, proving to be highly competitive. As a result Australian interests may need to look to alternative markets in the region, where interest has also been high; i.e.: Madagascar, Kenya and even further south toward South Africa. Alternatively, Australian companies could possibly consider investment through technology entries.

Analysis

Where are these fields located and who are the primary players?



The primary areas of interest for oil and gas discoveries in east Africa, both onshore and offshore, are Mozambique, Tanzania, Uganda, Kenya and Madagascar. These countries have also shown the most progress in readying themselves for commercial development. The US Energy Information Administration (EIA) has predicted that Uganda and Madagascar are poised to become Africa's top oil producers. As this paper seeks to explore the opportunities available from offshore natural gas discoveries, however, the focus will be on Tanzania and Mozambique.



The primary offshore discoveries in East Africa have been off the coasts of Mozambique and Tanzania, where estimates indicate that the discoveries contain at least 100 trillion cubic feet (tcf) of natural gas. The finds, which have been equated to those off the North West Shelf of Western Australia, have attracted a variety of oil and gas companies, ranging from junior independents to oil majors. Several Australian companies are already involved in the region, primarily Tanzania, as both operators and joint venture partners on several projects. Energy, Beach Energy, Jacka Resources and Bounty Oil and Gas, are all involved in Tanzanian projects. As the interest in the area has escalated an interesting trend has begun to emerge; there has been an increase in Asian, state-backed oil and gas companies buying into these projects at high prices.

In Mozambique, the key players are Italy’s Eni and the US independent Anadarko. These companies have led successful exploration in their offshore licence areas (Area 1 and Area 4) According to Anadarko, the company has drilled more than a dozen deepwater wells within the Offshore Area 1 Block with discoveries of between 35 and 65 tcf of recoverable natural gas.

In contrast, the discoveries in Tanzania are smaller than those in Mozambique. The key players in this area are considered to be BG Group and Statoil, which have thus far led offshore exploration activities in Tanzania. BG and partner Ophir have made seven discoveries in Blocks 1, 3, and 4 and Statoil, in partnership with ExxonMobil, has made four discoveries in Block 2.

The two countries are at varying stages of development and it is difficult to forecast a clear front-runner; however, it is worth noting that the EIA predicts that Mozambique will be the first of the two to develop the capability to export LNG.

Anadarko has said that it anticipates sales of LNG from Mozambique will begin in 2018, reaching full operational capacity by 2030-32. Commentators have argued otherwise, however, stating that a more reasonable expectation for the commencement of LNG sales would be 2020.

Why should Australian companies invest in East Africa?

General improvements

East Africa is a region that is still relatively underexplored and thus represents a frontier market. The discoveries provide numerous opportunities for investment, not only as part of the upstream process, but also in other sectors that will subsequently face increased demand. For example, London-listed Baobab Resources is calling for a strategic partner to assist in developing its pig-iron project in Mozambique's northern Tete Province due to the surge in demand for steel from the emerging energy sector; a trend that is expected to continue in the medium-term.

East Africa's governance has also improved, as has the economy; consequently it is becoming more attractive for foreign investors. Australia's private sector has already recognised the potential of investing in Africa and the economic importance of the region. This is particularly true in the case of the mining industry. The stabilisation of the region, reduction of political risk and a decrease in the overall cost of capital, have meant that projects that were previously considered to be uneconomic, have now become viable.

Improving Corruption and Transparency

According to the Extractive Industries Transparency Initiative (EITI), countries that have a wealth of resources, such as oil and gas, are inclined to under-perform economically. They have higher levels of conflict often combined with poor governance. These factors can result in countries falling under the so-called 'resource curse'. Although this is not always the case, by encouraging greater transparency in these countries, the negative impacts can be diminished.

Tanzania and Mozambique are considered to be fully compliant members of the EITI. Their participation in such international initiatives is of importance, particularly in Africa, as it instils confidence in investors, who are cautious about the region due to integrity risks. It also helps to ease fears among the civil society, as the government has to be more accountable. Membership of the EITI promotes improved economic and political stability, which contributes to the prevention of conflicts associated with revenue accrued in the oil and gas and mining sectors.

Challenges to investing in Africa and Key Risks

Why Australian IOCs may find it difficult to enter the market: NOCs v IOCs

Although Australian energy companies have shown interest in investing in East Africa, the process has proved to be expensive and this may deter future investment interests. Western Australia-based Woodside Petroleum's chief executive, Peter Coleman, said in November

2012 that East Africa was becoming too expensive for oil and gas exploration. Coleman did indicate, however, that the company would continue to monitor the East African region, particularly Mozambique and Tanzania, as a potential competitor to Australian LNG exports. Similarly, Royal Dutch/Shell was involved in a prolonged battle with state-backed Thai company PTT for the purchase of Cove Energy, which held an 8.5 per cent share in Andarko's Offshore Area 1 of Mozambique. Although analysts originally speculated that Shell would be prepared to spend up to £3.20 per share for the company, it declined to bid more than £2.20 per share. Shell was outbid by PTT, which paid £2.40 per share (approximately US\$1.9 billion in total). In response to questions raised about its decision not to bid higher, the company responded that, based on market valuations and the economic potential of Cove's assets, a higher bid was not a good investment. In May 2013, according to media sources, Shell has reiterated its stance, after being involved in talks with Anadarko.

In another recent development, unconfirmed reports from April 2013 have suggested that two of India's state-backed companies are the leading joint bidders for a twenty per cent stake in the Rovuma 1 offshore block, owned by Anadarko and Videocon Industries Ltd. The value of the stake, which the Oil & Natural Gas Corporation (ONGC) and Oil India Ltd. (OINL) are said to be interested in, has been estimated at up to US\$6 billion. The third biggest European oil company, France's Total, reportedly considered bidding for the same stake, but decided against it due to the risks of project delays and cost overruns.

These examples highlight the continuing prominence of national oil companies, their ability to manage increasingly complex projects and to compete directly with IOCs, especially on price. Consequently, investing in these areas may prove to be too costly for Australian companies, especially junior and mid-size independents. It is likely that many will come to a similar opinion to the large-independent, Woodside Petroleum, and look elsewhere to seek potentially high-value deals before they are claimed by others.

It is important to note that the presence of NOCs and their increasing status in the region will not fully deter interest in investment in East Africa. On the whole, resource companies factor in the competition posed by NOCs. It is also important to recognise that NOCs are not always in direct competition with IOCs and partnerships between the two groups continue to take place, particularly where technological expertise and experience are required by NOCs.

Another argument that has arisen is that East Africa's LNG market is due to be ready for export at the same time as other large gas projects. It is therefore important that Mozambique and Tanzania secure long-term LNG contracts. Another option is for current block owners to sell stakes in their LNG projects to Asian companies that are big LNG buyers; thereby securing markets for their LNG exports.

Political Stability

Political risk has proved to be a detrimental factor for Australian resource companies in the past and for this reason we can expect caution about future investments. Political instability in a country can be a key factor in diminishing the interest of investors; however, if potential returns are expected to be great, resource companies have been known to take the risk. This

is particularly true in situations where companies can opt for a short-term investment in a more risky area, which offers a quick turnaround on capital investment.

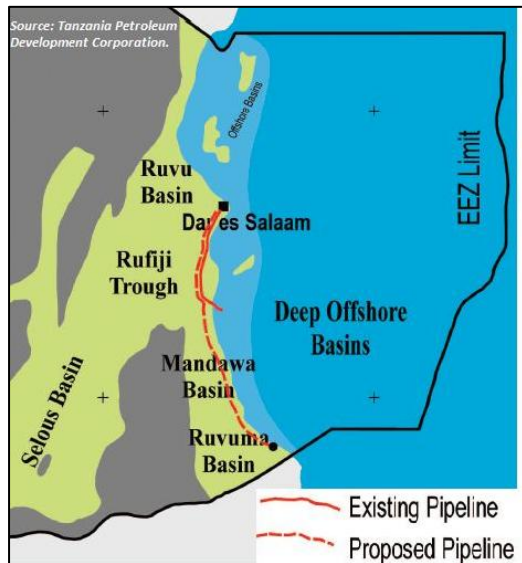
For projects such as the East African LNG development, Australian companies proposing to invest need to remain cognisant of the fact that much work is needed to develop infrastructure. It is therefore essential that Mozambique and Tanzania are viewed as being politically stable in the long-term. A primary concern associated with political instability is that conflict, especially in sudden bouts, will lead to a change in government; rendering investors vulnerable to abrupt changes in legislation. Furthermore, there are concerns that a change in government may bring about policies that promote nationalisation or indigenisation laws; as has been the case in Zimbabwe. It is unlikely that this will occur in Tanzania or Mozambique, however, both these governments have shown commitment to following best practice and it is doubtful that even a change in power would alter the current policy of attracting foreign investment. Mozambique and Tanzania are therefore considered to be relatively stable countries, with few overt security threats; but there are issues that could prove to be troublesome in the long-term for both on-shore and off-shore investments.

Managing government and community expectations

Announcements of mining and oil and gas investment in a country often bring with them high expectations from the local community and, to an extent, government as well. Local populations have previously been inclined to expect the generation of almost instant wealth from mining and oil and gas projects, a surge in education opportunities and, importantly, an abundance of employment opportunities. In addition, when investing in countries such as those in East Africa, the associated governments expect that the development of infrastructure should not only fulfil the purposes of the industry, but also benefit the country and civil society as a whole; i.e.: the infrastructure must also be usable for purposes outside the needs of the resource industry.

In many countries, including Tanzania and Mozambique, governments expect that local labour will be used for projects. This, in itself, raises various issues. First, there is a shortage of skilled labour, particularly those trained to work in the oil and gas sector. Although targeted education programmes may be established in universities and through company training, it will take some time before a skilled workforce is created. If resource companies need to wait for the creation of a skilled workforce, it will lead to major delays on projects. Conversely, if governments lower the requirements and allow a greater percentage of skilled labour to be imported, there is likely to be strong opposition from the local community. In such a scenario, it is likely that protests will target not only government, but individual companies as well.

Although those investing in offshore gas blocks are less likely to have to deal with meeting the expectations of the community, the issue becomes particularly important for related onshore developments. It is also important for offshore block holders to monitor what is happening with infrastructure developments on-shore, even if they may not be directly involved. Opposition to development, or unrest stemming from the project, are likely to hamper development and cause delays to output projections.



The protests in Tanzania in early 2013 are illustrative of this reaction. Demonstrators from the southern Mtwara Region protested against government's decision to build a gas pipeline from Mtwara to Dar es Salaam, where the gas will be converted into electricity. The decision to send the gas to Dar es Salaam via a 532km pipeline was made because the city already has the necessary infrastructure required for the project. The residents of Mtwara have argued that they are not against the construction of the pipeline, but became disgruntled at the prospect that the development will not benefit their area; rather Dar es Salaam, which is already developed, will

gain the benefits. Residents argued that a processing plant should instead be built in Mtwara. Protesters were also reportedly concerned that the pumping of the gas to Dar es Salaam for processing would mean that Mtwara would not benefit from any employment generated by the development. The protests, in which four people were killed and dozens more injured, caused damage worth at least \$929,000 in vandalised property.

Australian resource companies and East African local governments need to ensure that community perceptions of benefits and attainable wealth are properly managed and not exaggerated or misinterpreted. Any promises of remuneration, employment and education as a result of investment, need to be attainable. Although Tanzania and Mozambique are expected to remain relatively stable, if the resource industry does not benefit the majority of the population, particularly the growing youth population, incidents of social unrest could escalate, which, in turn, will undermine the political stability of the two countries.

Policies and legislation

As previously highlighted, a key concern for investors centres on policies and legislation; resource companies must be confident of the security of their assets in any country. Both Tanzania and Mozambique have elections forthcoming in 2015 and 2014 respectively; if legislation and policies are not set prior to the polls, investors may have cause to be wary. A change in government could bring about harsher regulations for the operating environment. Laws and regulations need to reflect the current market and operating environment; if a country retains outdated laws, it is likely to unnerve investors.

Despite being relative newcomers to the market and arguably caught off guard, Tanzania and Mozambique are aware that restructured and current oil and gas specific legislation is needed. They are attempting to rectify this as quickly as possible. Tanzania, who's only petroleum law is the Petroleum (Exploration and Production) Act 1980, is currently on the third draft of its Natural Gas Policy (the Policy). The Policy, while not legally binding, aims to provide a framework to outline the best use of the country's gas discoveries, so the country as a whole can benefit, as well as promoting transparency and accountability in the gas

industry. The Policy will then be used as a foundation for the formation of the Natural Gas Utilisation Master Plan and the Natural Gas Act.

Although the binding legislation may take some time to come into effect, the importance of the Policy is that it will give investors an initial understanding of what to expect in the future. Initial reports on the draft have said that the Policy aims to ensure that the domestic market is given first priority for gas supply, over the export market. The government will also require companies to build natural gas processing facilities onshore and companies operating in Tanzania will be required to list on the Dar es Salaam stock exchange.

Mozambique is seemingly ahead of Tanzania with its legislation, having passed its progressive Petroleum Law in 2001; however, this is currently being reviewed to include provision for natural gas. In addition, a Natural Gas Master Plan has also been developed and presented, but is yet to be finalised. Despite this positive progression, companies were unnerved by legislative changes made in January 2013, when Mozambique introduced a 32 per cent capital gains tax on sales of local assets by foreign companies operating in the coal and gas sector. The move came as the country sought to gain a greater share of profits from its mineral wealth. Such decisions, after investments have been made are not conducive to attracting new investors and it is a problem that Australian companies should be aware of. Finalisation of legislative policies is therefore of importance to both Tanzania and Mozambique, as they are due to offer new licensing rounds in late 2013/2014. If legislation is not finalised, investors are unlikely to make final investment decisions and delays to the licensing rounds can be expected.

Border disputes and Maritime boundaries

Since independence, colonially drawn borders have been a primary contributor to conflict in African countries. The location of natural resources in cross-border areas has been of particular importance. Although the regional body, the African Union, has said that the borders inherited from colonial rule should be respected, as further discoveries are made in East Africa, particularly oil and gas discoveries, it is likely that previously dormant issues, such as those relating to colonial border demarcations, will come to the fore. There are concerns that should such issues arise, they would slow down exploration and production, hampering the productivity of companies that have already invested in the affected countries, as well as deterring further interest and development in the region.

The African Union Border Programme (AUBP) was launched in 2007, as a means of preventing such disputes. It had several primary objectives, including facilitating and supporting the delimitation and demarcation of African boundaries, where that has not yet taken place. The programme has encouraged African countries to subscribe to terms in accordance with the AUBP.

In 2012, Tanzania, the Comoros and the Seychelles signed an agreement on the delimitation of their maritime borders. Previously, in 2011, Mozambique, Tanzania and the Comoros signed a similar agreement. These agreements highlight positive progress and signal that these countries intend to maintain peace and security in the wider East Africa region.

For the oil and gas sector involved in offshore operations, such a development will ease concerns. At this stage there have been no disputes over maritime boundaries between Mozambique and Tanzania and it is unlikely that such a dispute would arise.

Specific Opportunities for Australia

Australia's strengths in mining, engineering and exploration have encouraged many Australian companies to take advantage of the opportunities in Africa, not only in mining, but also in the oil and gas sector. Some commentators have argued that Australian resource companies have a history of operating in Africa and thus are equipped with a broad understanding of what to expect when investing in the region, especially the possibility of political risk.

With the fourth largest LNG industry in the world, Australia has valuable expertise and knowledge of the industry. Countries, such as Israel, have previously called on Australia to assist in LNG projects, both for its general knowledge of the industry and for access to its technology.

What has become evident is that Australian junior and mid-size independents have been more assertive with exploration in East African oil and gas than the larger independents. To enter the market now, may prove to be too costly for Australian oil and gas companies; however, this option can't be ruled out. New licensing rounds in Tanzania and Mozambique are expected in 2013/14. Alternatively, Australian interests have the option of looking at exploration blocks in Madagascar, the Seychelles and the on-shore blocks available in Tanzania, Kenya and Uganda. Technology entries are also a feasible option and Australia, as mentioned, has previously been singled out by foreign governments who were seeking this type of investment in the oil and gas sector.

Outlook

The long-term geopolitical outlook for the East Africa region, specifically Tanzania and Mozambique, appears likely to remain largely stable in terms of government and leadership. It is unlikely that even a change in government in either of these countries, would result in a leader who is against foreign investment or exploration activities. Although Tanzania and Mozambique have been somewhat caught 'off-guard' by the large discoveries of natural gas off their coasts, they have taken positive steps to continue attracting investors and to ease the concerns of those who are already present, including joining the EITI and updating legislation to make provision for the emerging gas industry.

Despite the somewhat positive long-term outlook, Australian investors should note that the key risks to monitor in Tanzania and Mozambique are those relating to social and political stability, related to inflation and unemployment, which could lead to violent disorders and, consequently, undermine the political stability of both countries.

Furthermore, Australian investors should be prepared for a lengthy period of investment in the region. It is unlikely that current time frames will be met without any cost overruns and project delays. These developments are not entirely in the hands of the resource companies

themselves, but stem from possible delays in enacting legislation, developing the necessary infrastructure and sourcing a suitable workforce.

Any opinions or views expressed in this paper are those of the individual author, unless stated to be those of Future Directions International.

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