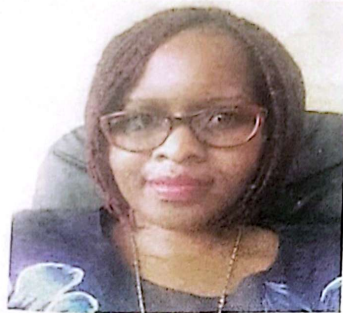


Does Uganda have potential for additional oil and gas resources?



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The story of the Ekofisk field, the first commercial and petroleum producing field in Norway, tells of the uncertainty in determining the prospectivity of petroleum basins and life cycle of an oil and gas field.

The discovery of Ekofisk in 1969 stimulated exploration on the Norwegian Continental Shelf (NCS) in the North Sea, during a period when many wildcat exploration companies were abandoning the NCS after drilling over 200 unsuccessful wells.

The successful oil exploration, development and production efforts in the North Sea is partly credited to the discovery of Ekofisk. The field has been in production for over 45 years, and this is attributed to investment in research and application of new technology for enhanced oil recovery, among other reasons.

The current estimated lifetime of the field was certainly not the expectation in 1969 when the discovery was made and when production figures plummeted in the early 1980s, with only an initial 20% recovery rate expected.

There was a turn of events when enhanced oil recovery techniques and application of new technology led to not only a rise in production, but numerous expansions of the field. The current recoverable factor is close to 50% and the field is expected to continue producing until 2050 with an estimated 6 billion barrels of in place resources.

Uganda's current resource base of 6.5 billion barrels of oil in place (with 1.4



An oil exploration well in Bullisa district. More resources are required to explore other potential basins

billion barrels of recoverable resources/reserves) is not ranked within the range of countries such as Saudi Arabia, Venezuela and Canada with hundreds of billions of reserves or the likes of Nigeria, Libya, Qatar and Russia with tens of billions of reserves.

Our nation's resources are significant and ranked within the same range as countries such as Australia, Chad and the UK and, therefore, can make a significant contribution to fast-tracking economic growth and development.

It is important to appreciate that the current resource level is from exploration of close to 40% of the Albertine graben (AG), Uganda's most prospective sedimentary basin.

The Albertine Graben is one of the four sedimentary basins with a potential for petroleum accumulation.

The discovered resources in the Albertine graben are also spread across 17 fields that have been fully appraised and are being prepared for production.

At a peak production rate of 200,000 barrels per day, Uganda's current resources can last for about 20 years. However, although exploration has been undertaken in about 40% of the AG, the licensed area in the AG is less than 20%.

40% Resources

40% of the Albertine graben has been explored. The Albertine graben is one of the four sedimentary basins with potential for petroleum accumulation. Others are Lake Kyoga basin, Moroto-Kadam basin and Hoima basin.

This means that 80% of Uganda's most prospective basin is still unlicensed. This is in addition to three other sedimentary basins in the country, whose potential is under investigation. These are Lake Kyoga basin, Moroto-Kadam basin and Hoima basin.

There is also a potential for increasing the recoverability of the current fields, whose production licences have been issued. As companies undertake development activities and begin to produce the fields, a lot more data is collected, analysed and interpreted, which contributes to a better understanding of the reservoirs.

In addition, production technology evolves and investment in research normally leads to better oil recovery techniques to improve production rates and

timelines. It is also important that the resources are produced gradually in an efficient manner and at an economic rate that will also provide a sustained benefit to the country.

So, the answer to whether Uganda has potential for additional resources is, Yes. This is because of the unlicensed and unexplored areas in the Albertine, the virgin sedimentary basins in the country and the impact of new technology, parameters, which indicate the additional resource potential of Uganda.

The presence of additional resources can only be ascertained after exploration and appraisal work has been undertaken in these unlicensed areas and after production starts, for the fields whose production licences have been issued.

The planned infrastructure to support production is based on the current resource levels, but would even put the country in a better position if additional resources are discovered, hence extending the life cycle of the oil and gas resource beyond the anticipated 20 years.

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