

**SOUTHERN AFRICA** is a treasure of opportunities for the international oil industry and is now widely regarded as the new frontier of growth for ambitious explorers.

Global oil prices have risen steadily since mid-2010, rising from around US\$70 a barrel in May of that year to US\$123 a barrel for Brent crude oil by the end of the first quarter of 2012.

With annual growth in Africa's oil production expected to average four percent over the next five years and oil prices likely to continue rising, southern Africa is fast becoming an attractive region for ambitious explorers, seeking to tap the vast unexplored reserves available in the region.

Following the disruption to Libyan oil supplies, the importance of southern Africa as the new frontier for the international oil industry cannot be overemphasised. SADC's vast and largely untapped hydrocarbon resources are seen as filling the gap and taking up a more prominent place among the world's biggest oil producers.

Gas discoveries by international oil companies in Mozambique, Namibia and the United Republic of Tanzania during the past few years have reignited investor interest in this previously under-explored region.

This article highlights the opportunities available in southern Africa's nascent oil industry, looking at prospects in selected countries.

#### **ANGOLA**

Angola overtook Nigeria in 2008 as Africa's largest – and the world's eighth largest – oil producer. The SADC Member State presently produces over 1.9 million barrels per day (bpd) of high-quality crude oil from onshore and near-shore fields, up from 900,000 bpd in 2002 and from 500,000 bpd in 1993.

Nigeria's output has declined from 2.5 million barrels bpd in 2006 to around 1.7 million bpd as its production has been hit by rebel attacks, primarily the Movement for the Emancipation of the Niger Delta (MEND).

The oil sector produces more than half of Angola's GDP and 95 percent of its exports, and the government is seeking to expand this by developing the country's ultra-deep offshore oilfields, at a depth of 1,500 to 3,000 metres. It is expected that this will add an estimated 500,000 bpd to the current output level.

Global energy consultants currently predict an unconstrained peak for Angolan oil production of between 2.2 million and 2.3 million bpd within five years.

The country is estimated to have crude reserves of 13 billion barrels, constituting a significant percentage of SADC's total estimated proven crude reserves.

#### **DEMOCRATIC REPUBLIC OF CONGO**

The Democratic Republic of Congo began exploring for oil in the 1960s and started offshore production in 1975, reaching a peak of 27,000 bpd in 1984. Onshore production began in 1980, peaking in 1986 with eight fields in production.

The largest oil producer in the DRC is Perenco, a United Kingdom-based independent exploration and production company. Perenco operates four concessions, both onshore and offshore, in the southwest Bas-Congo province, which is located between neighbouring Angola and Congo-Brazzaville. In 2007, the company produced an average 25,000 bpd.



## **Southern Africa – the world's next**

In terms of exploration, Tullow Oil signed a production sharing agreement with the DRC government in July 2006 for a 48.5 percent operating interest in Blocks 1 and 2 on the Congolese side of the Lake Albert Basin on the border with Uganda in the northwest of the DRC.

According to Tullow estimates, the region could be sitting on about two billion barrels of oil.

Parallel exploration activities are also taking place in Block 5 of the Lake Albert region where London-based Dominion Petroleum has partnered another UK oil and gas exploration and production company, Soco International and DRC oil firm, COHYDRO, to search for oil.

Brazil's High Resolution Technology (HRT) Oil and Gas is surveying the Cuvette Centrale Basin in central DRC, which it says could hold one of Africa's largest reserves of light oil and gas accumulations.

#### **NAMIBIA**

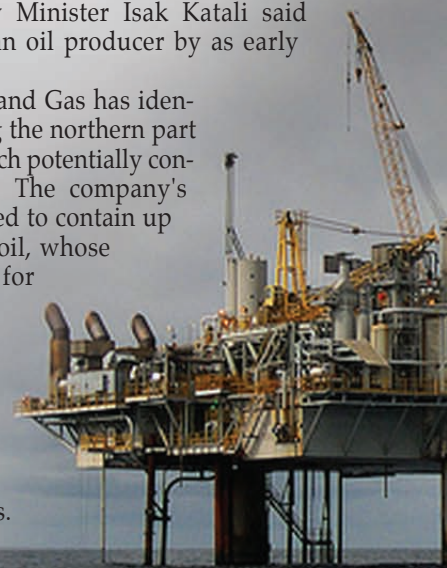
Namibia is being regarded as the next big player in Africa's oil industry, expected to fight for honours against continental petroleum powerhouses Angola and Nigeria by 2015.

Namibia presently has about 10,000 sq km of vast oil reserves along the country's west coast.

With an estimated 11 billion barrels of oil reserves, Namibia is marginally behind northern neighbours Angola. Mines and Energy Minister Isak Katali said Namibia could become an oil producer by as early as 2015.

UK-based Enigma Oil and Gas has identified five prospects along the northern part of the country's coast, which potentially contain 500 million barrels. The company's southern block is estimated to contain up to four billion barrels of oil, whose production is planned for 2015/16.

HRT Oil and Gas has also unveiled a N\$5 billion (about US\$656 million) investment to explore for oil off Namibia's Atlantic coast over the coming few years.





# ENERGY AFRICA

## oil frontier

This has been billed as the biggest investment by a foreign investor in the Namibian oil and gas sector yet.

HRT's blocks are believed to contain up to 5.2 billion barrels of hydrocarbon resources, which would be drillable by 2013, according to Katali.

Other exploration activities are being undertaken by Arcadia Expro Namibia and Tower Resources Plc, which have identified reserves with a potential for two billion barrels at blocks located between Walvis and Namibe basins.

### MOZAMBIQUE

A string of significant offshore gas and oil discoveries in the north-east of Mozambique has substantially increased exploration activity in the country.

Mozambique lies at the southern tip of a fault line running along the east African coast to Somalia, forming a geologically inviting region for oil and natural gas.

The country has two main sedimentary basins – the Rovuma Basin in the north-east where most of the discoveries have occurred, and the Mozambique basin further south.

The Rovuma Basin is located close to the border between Mozambique and the United Republic of Tanzania at the Rovuma Delta, and measures 400 km in length and about 160 km in width.

According to the National Petroleum Institute (INP), oil and gas exploration started in the early 1900s, but it was not until 1961 that the Pande gas field was discovered. Buzi and Temane followed in 1962 and 1967.

Exploration activity temporarily stopped during the country's liberation war in the 1970s and during the civil conflict of the 1980s.

Mozambique launched its first offshore licensing round in March 2000.

This bidding round offered 14 blocks mainly in the Mozambique Basin covering the shallow and deep Zambezi delta area.

The INP launched the second licensing round in 2005 for the concession of exploration acreage over the Rovuma Basin in northern Mozambique. It signed three offshore exploration and concession contracts with Anadarko, ENI, Petronas and one onshore with Artumas.

Recent discoveries by Italian oil and gas company, ENI and Anadarko Petroleum of the United States have sparked tremendous interest from international gas and oil companies to start exploring offshore Mozambique.

### MADAGASCAR

International oil conglomerates are scrambling for a share of Madagascar's oil sector amid projections that the Indian Ocean island has offshore reserves as high as five billion barrels.

Initial projections indicate that Madagascar could produce 60,000 bpd in three to four years, with revenue of several billion dollars, which would quickly make the oil industry the main contributor to the country's Gross Domestic Product (GDP).

The government has started auctioning oil-drilling rights and among the global oil giants scrambling for a share of Madagascar's resources are those from the United States, the United Kingdom, France, the Netherlands, Norway, China and South Korea.



Southern Africa is experiencing an oil boom.

### REFINERY AND STORAGE INFRASTRUCTURE

The region's refineries are concentrated in South Africa, with additional refining capacity located in Angola, Madagascar, United Republic of Tanzania and Zambia.

South Africa is the region's largest oil consumer (using about 68 percent of SADC's total), and the second largest oil consumer in Africa after Egypt.

An infrastructure challenge for SADC is the absence of adequate storage facilities and pipelines to transport oil between countries. Fuel destined for Botswana and Zimbabwe, for example, is ferried by trucks and trains from South Africa or Mozambique, a mode of transport that has proved uneconomical and unsafe. □

