Emerging energy player

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Recent discoveries of natural gas in Mozambique are on a world level

First it was coal, and now gas: Mozambique's vast hydrocarbons reserves look set to make it a significant global energy player, catching the world's attention in recent years and attracting increasing foreign investment from the US, Europe, as well as from the emerging economies of India and China.

Mozambique's coal reserves are estimated at 10 billion tons, and the African Development Bank (ADB) expects that in 2020 the country will be Africa's second-largest coal exporter after South Africa, with annual sales of close to 110 million tons. Coal exports will more than double the contribution of the mining sector to Mozambique's GDP in the next three years, rising from 3 per cent at the moment, to 7 per cent, according to the Ministry of Mineral Resources. Coal prices for 2012 are forecast at around US$120 a ton.

Until now South Africa was far and away Africa's major coal producer, and Mozambican coal production was limited to a few thousand tons annually, sold locally or exported to neighbouring states. Now it is emerging as a new coal power, with investors describing the country as the world's last major coal frontier. Over the last decade, about 140 coal exploration licenses have been issued, the vast majority located in Tete Province in the far northwest of the country.

Tete is separated from the rest of northern Mozambique by southern Malawi. A succession of huge discoveries has been made there. Of the reserves uncovered to date, thermal coal accounts for roughly a quarter and metallurgical coal the remainder. Two huge projects are at an advanced stage of development in Tete's Moatize Basin and a dozen others are set to follow. Brazilian giant Vale is investing US$1.7 billion in its Moatize project, where output is expected to reach 11 million mt/year by the end of next year. The company has forecast that this could increase to as much as 26 million mt/year when Moatize II is developed.

Vale is already constructing a coal handling and preparation plant with processing capacity of 26 million mt/year to serve both phases, so it seems confident that it will proceed with the second phase. Vale will use some of its coal to supply its own 300 MW power plant, which will provide electricity to the national grid as well as to Vale's mining operations.

The scale of Australian firm Riversdale Mining's discoveries on its acreage in Tete Province prompted its acquisition by Rio Tinto last August for US$4 billion. Riversdale holds a 65 per cent stake in the venture and Tata Steel of India the remainder. The Australian company holds a further 21 coal exploration licenses in Tete, including one that contains the Zambeze project. In addition, Riversdale had planned to construct a 500 MW coal-fired generation plant, to be increased to 1 GW at a later date, again for both dedicated and general use. Rio Tinto has yet to confirm whether it will continue with this side of the project.

But the vast majority of Mozambican coal output will be exported and the most likely markets are India and China. The latter is changing from coal exporter to net importer, while even the limited liberalization of the Indian coal sector has prompted massive Indian investment in Mozambican coal prospects to secure feedstock for its domestic industries. Given China and India's rapidly growing demand for steel, their coal requirements are expected to continue to exceed their domestic output by an increasingly wide margin. China's net coal imports increased by around a third last year. China already has a US$1 billion coal mining project, while India has pledged to invest a similar amount in the sector.

Coal reserves in Niassa province, in northwest Mozambique, may be as big as those in the neighbouring province of Tete. There are currently seven companies carrying out prospecting work there, in Maniamba, including the country's two largest coal producers, Vale and Riversdale Mining.

In order to accommodate increased coal exports the port of Maputo recently announced an expansion programme and the operator of the Matola coal terminal, South Africa's Grindrod, is concluding a feasibility study to more than double capacity by 2014, to 20 million tons per year. The mineral sector is also well established with Kenmare Resources operating in Mozambique since 1987 with capacity expansion underway at the Moma Titanium Minerals Mine in Nampula.

The gas game changer

Recent discoveries of natural gas in Mozambique are on a world level, already attracting billions of dollars in foreign investments and strengthening the country's position as a major energy producer in Africa.

In January, Anadarko Petroleum, the largest US independent oil and natural gas company, which is exploring the sea off the province of Cabo Delgado in northern Mozambique, announced that natural gas reserves found in the area total between 15 trillion and 30 trillion cubic feet, almost three times the size initially estimated. Houston-based Anadarko said that its Barquentine-3 appraisal well encountered more than 662 net feet of natural gas pay, expanding the estimated recoverable resource range from 15 to more than 30 trillion cubic feet.

Anadarko Petroleum is currently the operator of one of Mozambique's major offshore Indian Ocean exclusive economic zone (EEZ) offshore concessions area and has a 36.5 per cent interest in the joint venture project. Other investors include Japan's Mitsui, with a 20 per cent share, India's Bharat, BPRL, and Videocon, all with a 10 per cent stake, while Ireland's Cove Energy retains 8.5 per cent. Mozambique's national oil company Empresa Nacional de Hidrocarbonetos retains a share through the initial exploration phase. Anadarko also plans to set up a natural gas liquefaction unit and an export terminal, in which the expected investment, of US$18 billion by 2018, will be the biggest ever in Mozambique. The company says it may build as many as six LNG production unit trains.

Should the projects be developed, Mozambique will be able to transship its output to two of the world's top liquefied natural gas markets, Japan and South Korea, along with being in a prime position to service other rapidly emerging Asian gas markets, such as China and India. At the same time, other substantial discoveries have been made recently in gas exploration, mainly by Italy's ENI, which announced in November it had identified a "gigantic" gas field with total estimated reserves of 22 trillion cubic feet.

Eni said the giant discovery in Mozambique has exceeded expectations and opens new growth opportunities in the gas market, with the Rovuma Basin confirmed as a world-class natural gas province. Over the course of the year, Eni plans to drill at least other five wells in nearby structures. Eni announced in November 2011 that it will invest US$50 billion developing its huge Mozambique natural gas discovery with a view to exporting the gas to Asian markets.

Britain's BP and Dutch giant Shell are vying to acquire a 20 per cent stake in Eni's gas field and to partner it in drilling. Meanwhile, French oil company Total is also said to be in the fray for buying the stake. BP and Shell are looking to acquire the 20 per cent stake in the giant gas discovery in Mozambique for more than about US$4 billion. Eni is seeking to sell the stake to help cover the capital expenditures arising from the drilling operations. Shell has also shown an interest in buying Cove. Other large international groups such as Malaysia's Petronas and South Africa's Sasol are also involved in the development of the natural gas industry in Mozambique.

Two large US companies in the oil services (logistics) sector – Halliburton and Schlumberger – have acquired or are in the process of acquiring land in the north of the country, close to the Tanzanian border, with a view to setting up services related to gas production.

Investments and the future production of gas on a large scale offer Mozambique the possibility of becoming less dependent on foreign aid, significantly increasing State revenues over the next few years and the government's independence in setting its own policies. Economic growth in Mozambique will remain strong, reaching an average of 8 per cent per year, in large measure supported by expansion of the mining sector.

Risk awareness

In October President Guebuza noted during a gala dinner to mark the 30th anniversary of the establishment of ENH that the volume of investment in Mozambique's fledgling hydrocarbons industry soared from US$68 million seven years ago to over US$1 billion in 2011, adding with understatement, "This has contributed considerably to the knowledge of Mozambique's potential."

At the same time, he added a note of caution about the fiscal windfall and the dangers of overdevelopment: "We must continue to move towards a situation where, in a deliberate and structured manner, we encourage more Mozambican citizens to discover that they can also participate in the exploitation of the natural resources inherited from their ancestors. At the same time, we must identify other opportunities arising from the establishment of projects in this sector or emerging from public investment in other social and economic areas."

In December, the Central Bank said it was looking at setting up a sovereign wealth fund to conserve expanding mineral wealth. The Central Bank says that it has been taking advice from the World Bank on setting up such a fund.

The expansion of the Mozambique's hydrocarbon industries and increased foreign investments will bring both benefits and challenges as Mozambique seeks to balance its own long-term interests with those of competing foreign powers hungry to power their own growth through its non-renewable resources. F

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