## **Exploration opportunities**

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he Gambia lies in the petroliferous Mauritania-Senegal-Gambia-Guinea Bissau-/Guinea Conakry (MSGBC) Basin. The oil production from offshore Mauritania and the oil discoveries in offshore Senegal prove the existence of active petroleum systems in this basin. The United States Geological Survey estimated the maximum undiscovered conventional resources of the MSGBC basin to be 430 MMBO and 2.2 TCF gas (USGS bulletin 2207-A, 2003)

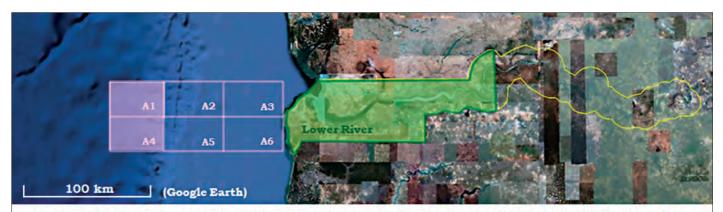
International oil companies such as BP, Shell, Chevron and ELF Aquitaine (now Total) were engaged in active exploration in The Gambia from the late 1950s to late 1970s. BP drilled two onshore wells, Serrekunda-1 and Brikama-1in 1960 and Chevron completed the Jammah - 1 offshore well in 1979. Though no commercial discoveries were made, these wells did encounter non-commercial oil and gas in Cretaceous rocks. In the late 1980s, with funding from the Canadian Government, Petro-Canada International Assistance Corporation (PCIAC) carried out series of geophysical surveys and studies across the offshore areas of The Gambia. Subsequent to these studies, the offshore area was demarcated into six blocks (A1, A2, A3, A4, A5 and A6) with average block size of 1300 square km (see map below). In 2003, the government decided to

acquire 500 square kilometer 3D seismic data in Block A1, which resulted in the identification of the most promising four-way closure, the Alhamdulillah prospect, and the subsequent successful licensing of offshore Blocks A1 and A4 to a Canadian independent company, Buried Hill Energy, through direct negotiations, in 2006.

Recently, African Petroleum, a UK-based oil and gas exploration company, farmed into the A1 and A4 licences with Buried Hill Energy by acquiring a 60 per cent working interest and also assuming operatorship of the licences. The company is already active on the ground and has acquired more than 2500 square km 3D seismic over the two blocks. The interpretation of this new 3D data has indicated high prospectivity of the acreages. Petroleum prospects in similar geologic settings to those being targeted up and down the west coast of Africa have been interpreted and will be tested by drilling before the end of 2013.

African Petroleum is one of the most active companies in West Africa whose exploration strategy is to acquire large acreages in the offshore areas of West Africa and applying 3D seismic technology with the aim of finding prospects similar to the oil fields discovered in offshore Ghana and Sierra Leone.

More than 4500 km of 2D seismic data has been acquired over the remaining four blocks i.e.



- > Offshore A1 and A4 Blocks: African Petroleum/Buried Hill Gambia
- > Onshore Lower River Block: Oranto Petroleum

Blocks A2, A3, A4 and A6. The most recent seismic data acquisition includes a 1,200 Kilometer 2D multi-client seismic survey completed by Dolphin Geophysical. Offshore Blocks A2 and A5 have attracted much interest and in fact negotiations are almost finalized with Camac Energy, a Houston based company, for the two blocks. Currently, medium to shallow water Blocks A3 and A6 (less than 600 m water depth) are available and open for direct negotiations.

In the onshore area, geological and geophysical studies, notably the 1991 seismic, gravity and magnetic survey by PCIAC have identified leads in the Paleozoic and Mesozoic formations. These leads can be developed into prospects with a minimum amount of additional seismic work. The onshore area has been divided into two blocks, with average size of 5,000 square km. These are Block Lower River and Block Upper River in the western and eastern parts of the country respectively. Recently, the onshore petroleum prospectivity has attracted Oranto Petroleum Ltd, a regional oil and gas company from Nigeria which resulted in their licensing of Block Lower River. Thus, for the onshore, block Upper River remains available for licensing.

The Gambia has very well established legal and administrative systems that provide an excellent environment for investments in the petroleum sector. Petroleum exploration and production are governed by the Petroleum (Exploration, Development and Production) Act, 2004, the Model Petroleum Exploration and Production License (royalty/tax system), the Model Production Sharing Agreement (PSA) and the Income and Sales Tax Act of 2004. The license terms are flexible and negotiable. Investments in The Gambia are secured by the Constitution and also by our membership of the International Center for Settlement of Investment Disputes (ICSID) and the Multilateral Investment Guarantee Agency (MIGA). With an Englishspeaking, well educated and skilled workforce as well as a very peaceful and friendly environment, The Gambia provides the ideal environment for the overseas investor.

The open acreage of The Gambia is shown in the map (below opposite). The petroleum licence can be concessionary (tax/royalty) or production sharing and the major fiscal terms are flexible and negotiable. Interested companies can apply directly to the Ministry of Petroleum, (First Floor, Futurelec Building, Bertil Harding Highway, Kotu, The Gambia) to have direct negotiations with the authorities.