

BENIN

By Paul Crankshaw

Gas is the subject of the most significant mineral-related project affecting Benin, although the country will be a consumer rather than a producer. The US\$500 million West African Gas Pipeline (WAGP) project plans to transport natural gas over a distance of 800 km, from Nigeria to Benin, Togo and Ghana. While construction was initially expected to begin in 2002, the project must still pass through a phase in which the necessary commercial and legal structures are established, the environmental impact assessed, and the concessional arrangements finalised.

Serving mainly power-generating facilities, the pipeline will carry about 160 million ft³/d of gas, rising to 500 million ft³/d after 20 years. It is hoped that the economy of Benin will benefit substantially from cheaper energy production.

Mineral activity in Benin is essentially limited to the production of construction material and cement for local consumption, and the artisanal mining of gold. Official figures show that the mining sector accounted for 5.5% of gross domestic product (1998) and employed 3% of the workforce.

Mineral resource ownership is vested in the state, which grants exclusive rights for exploration and development through the Ministère des Mines, de l'Energie, et de l'Hydraulique. The Benin Mining Code (Act No. 83-003 of May 1983) is regulated by Decree 89-296, and Act No. 83-004 addresses fiscal policy that affects mineral development. The Beninese Agency for the Environment is responsible for national environmental responsibilities, in terms of Law No. 98-030 of February 1999. The administration of mineral development applications and procedures is controlled by the Office Béninois de Recherches Géologiques et Minières.

Cement producers include Société des Ciments d'Onigbolo (for which limestone is quarried at Pobe) and the clinker-grinders Cimenterie du Bénin SA and Société des Ciments du Bénin; production capacity was estimated at about 875,000 t/y in a domestic market that consumed 450,000 t in 2000. Société Benino-Libyenne des Mines (Belimines) began exploitation of marble deposits at Dadjo at the end of 1984.

Gold exploration has been concentrated in two areas; Natitingou-Perma and Djougou/Alédjo-Koura, which is in the Atacora gold zone in northwestern Benin. The government is revising its mining laws with a view to attracting mineral investment, but no significant new discoveries have been reported to give much impetus to these efforts.

The country's best known mineral potential lies in iron ore, the only non-hydrocarbon mineral found in any quantity to date. Resources at Loumbou-Loumbou and Madekali in the district of Borgou are estimated at up to 500 Mt with an iron content of 46-52%. One of the key requirements to exploiting

these reserves would be the provision of electricity, and the state-owned electricity provider Société d'Eau et d'Electricité (SBEE) has a programme under way to investigate a dam at Arjarala with a 900-MW hydroelectric power station at an estimated cost of US\$150 million. If feasible, this provision of power could also improve the viability of phosphate deposits at Mekrou.

There are an estimated 5,500 million barrels of oil reserves in the coastal sedimentary basin. Production has declined since 1999 owing to the closure of the Seme offshore oilfield which produced 8,000 bbl/d from two wells. Zetah Oil Co. was given a licence to redevelop the oilfield and feasibility studies were set in motion in 2000.

The downstream oil industry is dependent on refined petroleum products imported from neighbouring Nigeria. A new oil terminal with a capacity of 55,000 m³/d of crude was opened at Cotonou at the end of 1999. It serves Benin, Niger, Burkina Faso and Mali.