



# Association for the Study of Peak Oil&Gas

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### 475. Country Assessment - Gabon

Gabon covers an area of some 270 000 km<sup>2</sup>, straddling the Equator on the west coast of Africa. Partly dissected plateaux in the interior, rising to some 600-1000m above sea-level, give way to a fairly narrow coastal strip, washed by the northward flowing Benguela Current. The country supports a population of 1.4 million, belonging to about ten different tribal groups originally speaking Bantu languages before French became the *lingua franca*. Many live in the capital, Libreville, and Port Gentil. Gabon is bordered by the Congo to the south and east, while the Cameroons and the enclave of Equatorial Guinea lie to the north. Offshore lie the islands of Sao Tome and Principe, in which the United States is taking a strategic interest.

The Portuguese explored the Gabon Estuary in 1472, being followed by French, Dutch and British traders, many active in the slave trade during the 18<sup>th</sup> and early 19<sup>th</sup> Centuries. The French successfully negotiated rights with the local chieftains around 1840 in an effort to curb the slave trade, whereupon the territory was administered by French naval officers. Later, it became part of the French Congo before being given independent colonial status in 1910 as part of French Equatorial Africa. It was occupied by Free French forces in the Second World War, becoming an independent overseas French territory in 1946. Passing through the status of an autonomous republic in 1958, it became fully independent in 1960. The first President was succeeded by Omar Bongo in 1967 under whose dictatorial reign the country enjoyed a twenty year epoch of relative stability and prosperity, largely funded by oil revenues. Their subsequent decline, consequent upon a fall in oil price in the mid-1980s, led to political unrest and tensions, which required French military intervention to protect French nationals and property. The country has maintained its close ties with France.

GABON		<i>Regular Oil</i>
<b>Population M</b>		1.4
<b>Rates Mb/d</b>		
Consumption	2004	0.013
per person b/a		3.6
Production	2004	0.235
	Forecast 2010	0.168
	Forecast 2020	0.095
Discovery 5-yr average Gb		0.001
<b>Amounts Gb</b>		
Past Production		3.0
Reported <i>Proved Reserves*</i>		2.5
Future Production - total		1.5
From Known Fields		1.5
From New Fields		0
Past and Future Production		4.5
Current Depletion Rate		5.5%
Depletion Midpoint Date		1997
Peak Discovery Date		1985
Peak Production Date		1996

\*Oil & Gas Journal

The land is mainly under a cover of tropical rain forests, which have been profitable exploited by the timber industry since the 1970s. The construction of railways in the 1980s also opened up mineral deposits, including uranium and manganese, of which it is one of the world's largest producers. A major iron ore deposit awaits development.

Petroleum exploration commenced onshore after the Second World and was soon rewarded by the discovery of a number of small to modest fields before the giant Rabi-Konga Field was found in 1985 with about 800 Mb. Later, exploration moved offshore and was again rewarded by a number of moderately sized fields in the area south of Port Gentil. A total of about 640 wildcats have been drilled, to deliver a total of about 4.5 Gb, of which some 3 Gb have been produced. In geological terms, Gabon lies on a rift zone that developed as the South Atlantic opened during the early Cretaceous. The first deposits to be laid down were of lacustrine origin, and included hydrocarbon source rocks. The rifts were temporarily invaded by the sea, which was subject to evaporation leading to the deposition of salt. It not only sealed the deeper sequence, but also gave rise to subsequent halokinetic structures, offering traps of oil. A new cycle of deposition followed, also with the early deposition of

hydrocarbon source-rocks during the mid-Cretaceous, and lasted into the Tertiary period, when the increased gradient of the continental slope gave rise to turbidity currents. Both pre- and post-salt plays have now been thoroughly evaluated.

The country is evidently at a mature stage of exploration with little scope for significant new discovery. Deepwater discoveries have been made in neighbouring Equatorial Guinea and to the south opening some hopes that the play may extend into Gabonese waters. This brings particular strategic importance to the islands of Sao Tome and Principe, which probably exposes them to the risk political disturbance and sedition, sponsored by foreign adventurers and interests. But deepwater discovery depends on a most exceptional combination of geological circumstances, so, although Gabon has a relatively good address in the light of neighbouring finds, it is far from sure that its deepwater will deliver.

Production reached a peak of 367 kb/d in 1966 at close to the midpoint of depletion. It is now declining at a depletion rate of 5.5% a year. The country has modest gas resources, mainly used for local electricity generation, with reported reserves standing at about 1.4 Tcf.

As oil revenues decline, it is a matter of concern to find that Gabon's indigenous food production meets less than 20 per cent of the country's needs. (*The geological insights of Dr Walter Ziegler are gratefully acknowledged*).

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