# Mining a rich vein

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**Before the civil war, Liberia's mining industry contributed one-quarter of the country's GDP and 65% of the country's total export earnings**

Since the end of the Liberian civil war 10 years ago, investment has poured into the country's resources sector, raising the prospect of the unleashing of a prodigious mineral reserve potential that is considered the equal of a number of other African countries, but which is still largely untapped.

The country's mineral deposits have long been known about, and have been developed in the past. Before the 14-year civil war, Liberia's mining industry contributed one-quarter of the country's GDP and 65 per cent of the country's total export earnings. But when war broke out in 1989, all of Liberia's major mines were closed, forcing the sector's contribution to GDP to drop to less than one percentage point in the years up to 2010.

Since 2003 though, the Liberian government has taken a proactive stance in seeking to revive the country's dormant mining industry. "Between 2006 and 2010, the Liberian government facilitated deals, each worth billions of dollars, in an effort to grow the economy's mining sector," says Dean Oberholzer, research associate, Industrial Automation, Mining & Manufacturing, at consultants Frost & Sullivan.

All this has increased the contribution of the sector to the overall economy. Driven by these investments, the Liberian mining industry contributed 3.7 per cent to the country's GDP in 2011 and 10.4 per cent in 2012, with the majority of the mining sector's growth in GDP contribution accounted for by development within the country's iron ore industry, reckons Frost & Sullivan.

The iron ore deposits, such ArcelorMittal's 1 billion tonne Yekepa deposit and African Aura's 1.1 billion tonne Putu deposit – together with iron ore projects that have still to commence production – promise to elevate iron ore to around 15 per cent of GDP by 2015, exceeding all the country's other commodity exports (rubber, palm oil, timber, other metals) combined.

The dream of placing the minerals sector centre stage in Liberia's economy is fast becoming a reality, as new investments begin to materialise. ArcelorMittal, the world's largest steel maker, last year restarted Liberia's first iron ore shipments since the war and is planning to expand its operations in the next couple of years.

The company has approved plans for the second phase of its mining operations in Liberia that will augment iron ore capacity to 15 million tonnes by 2015. It was the first company to ship product out of the country in 2011, the same year in which it mined more than 1-million tonnes per year of iron ore. In 2012, ArcelorMittal reached a production capacity of 4-million tonnes per year, and will reach the 15 million-tonnes per year target within two years when phase two of its Liberia mining project is commissioned. The second phase will include upgrades to the port, installation of a new fixed ship loader, which has a capacity of loading 6,000 to 8,000 tonnes of iron ore per hour, says Oberholzer. Furthermore, there is a plan to produce a new concentrator in the Yekepa mine site.

ArcelorMittal's mega project is not the only mineral resource that is being tapped in Liberia. A spate of exploration successes from UK-based Aureus Mining has raised hopes that substantial gold deposits, with the company's New Liberty mine containing proven and probable reserve of 910,000 ounces of gold.

The New Liberty Gold Project is located within the Bea Mountain mining licence, which covers 457 km² and also hosts the gold targets of Ndablama, Gondoja and Weaju, which are the focus of exploration programmes during 2013.

These may be about to bear fruit. In mid-March 2013, Aureus announced the first results from a 62-hole diamond drilling programme at the Weaju gold target, located within the company's 100 per cent owned, Bea Mountain Mining licence in Liberia, some 30 kilometres north-east of the flagship New Liberty Gold project.

With positive drilling results to boast, Aureus is investigating the possibility of a standalone mine or trucking high-grade material from Weaju to New Liberty.

Aureus will process about 120,000 ounces of gold over the year of the New Liberty Mine's eight-year lifespan, says chief executive David Reading.

Last year, Aureus raised US$80m in equity finance to support its Liberian mining activities, and is negotiating a further US$100m in debt, for which it is preparing to announce a syndicate of banks and a timetable.

"With its US$80m in equity funding, the company is able to carry on with development at full speed, starting earthworks and optimising projects. We are now starting earthworks on the Marvoe Creek, for example," says Reading.

One of the key attractions of Liberia's minerals sector is that it is largely unexplored. "It reminds me of how Ghana was 20-25 years ago," says Reading. "It has lots of iron ore deposits and lots of gold potential as well, and will become one of West Africa's prominent mining countries."

This prospectivity and the location next to the Atlantic ocean – with three deep-water ports, two of which have been partially refurbished – means the process of getting equipment into the country and building projects is relatively straightforward.

"The Achaean belt of Western Africa has been largely unexplored as it has been geopolitically challenged. That's gone away and there's no reason why these areas won't be as prospective as other parts of the world, such as Australia or Canada," says Reading.

The fact that there have not been many discoveries made to date merely reflects that Liberia didn't go through the kind of gold rush that other parts of West Africa underwent in the late 1990s/early 2000s, says Reading.

"It's started happening now but in terms of the deposits and the mineralisation they are very typical of the gold deposits you see globally in similar geological terrains so it's very exciting. And we have a project up the road from New Liberty, at Weaju, which also has some exciting mineralisation."

The new gold projects display the variety of the reserve base in Liberia, but iron ore is the mainstay with a clutch of important projects. Russia's Severstal Resources has acquired rights to develop the Putu iron ore project, while ArcelorMittal is investing US$1.5bn in developing iron ore deposits in Liberia's Nimba County. According to Frost & Sullivan, Elenilto Minerals & Mining is developing the Western Cluster Iron Ore project; China Union – majority owned by Wuhan Iron and Steel – is developing the Bong project, investing US$2.6 billion; while BHP Billiton has signed a deal to mine iron ore in the Nimba, Bong, Grand Bassa and Margibi counties, investments worth US$10 billion.

China Union's development is expected to allow for 25 years of iron ore production. Development of the mine, located in Bong County, should start in mid-2013.

Says Oberholzer: "To date, the majority of the aforementioned mines in Liberia are currently in development stages and are nearing completion. Railways and ports are also being extended and upgraded to meet the anticipated rise in the country's mineral production output. As far as production is concerned at mines which are operational, this seems to be on an upward trend. ArcelorMittal's 2012 production of 4 million tonnes/year shows growth, where the expected output of 15-million tonnes/year – by 2015 – shows strong growth potential for the iron ore market in Liberia."

In order to sustain interest in its mineral deposits, and ensure the benefits are spread widely to the population – unlike in previous generations – the government of President Ellen Johnson Sirleaf is taking steps to revise the mining code, which dates back to 2000.

Land and Mines Minister Patrick Sandolo is charged with driving the process, and has made a public commitment to ensure that the value-added from its minerals sector is fully captured. "It is universally considered that this country has nothing to show for the trillions of Liberian dollars which have been earned from exploitation of our minerals," Sandolo said in a statement issued in November 2012. "The challenges that our nation faces are fundamental, and the responses we fashion in response have to be equally fundamental."

As part of this commitment, the government is closely scrutinising diamond mines, in order to stem the trade in illegal (or 'blood') diamonds.

Mining players say that within the context of West Africa, the mining regime in Liberia is competitive and attractive. The government requires companies to invest in corporate social responsible initiatives within the communities where these resources are being exploited. This means putting resources into housing, schools, and healthcare projects.

Companies entering Liberia's mining sector are also investing in the development and upgrade of the required infrastructure – roads, railways and ports. For example, ArcelorMittal has created and expanded the Buchanan port to cater to its export needs.

Aureus has already built 50 kilometres of new roads, has a medical centre near the camp, and has built schools in two villages, sponsored about 30 university degrees and pays teachers at six schools currently. Says Aureus' Reading: "In our company's case, because we are relocating a small village we have committed to a community development plan and have a number of initiatives in place to develop sustainable projects for the community. This area of Liberia is a good environment for growing cashew nuts, so that's a sustainable industry we want to pursue."

The billion-dollar investments ploughing into Liberia's minerals sector herald a transformation in Liberia's economic prospects. But this time around, the government is serious that the benefits of exploitation should go well beyond the companies that are at the forefront of the exploration effort. F

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