A wealth of mineral resources

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Mining and minerals fulfil a key role in the development of Namibia's economy, accounting for some 30 per cent of GDP, playing an important role in generating skilled employment, and contributing massively to the country's foreign exchange earnings.

While diamonds remain the most important sector economically, contributing more than 40 per cent of export earnings and 7 per cent of government revenues, Namibia is also an important producer of gold, silver, copper, lead, zinc, and a broad range of rare metals and is the world's fourth largest source of uranium oxide, the 'yellow cake' needed to fuel nuclear power stations.

For the time being, however, diamonds remain Namibia's most valuable export. The country produces approximately US$700 million worth of diamonds a year, the largest player being Namdeb, a 50/50 joint venture between De Beers and the Government of Namibia. In 2006, overall production at Namdeb exceeded 2 million carats for the first time, with sales revenues up 34 per cent over the previous year. As well as securing continued employment for its employees, Namdeb is the largest corporate responsibility contributor in Namibia.

Recently the company's near monopoly on diamond prospecting has been liberalised, encouraging other companies and small-scale prospectors to participate in opening up the country's resources. An area of 26,000 sq km, the so-called Sperrgebiet or 'forbidden area' where Namdeb previously held exclusive diamond prospecting rights, has been partially opened up and has proven to have good base metal potential – the development of the Skorpion zinc mine being a notable example. And while De Beers pioneered new technologies for recovering marine diamonds, other players such as the Canadian-based Afri-Can Marine Minerals are now actively involved in the exploration and development of marine diamond recovery from its two large concessions near Lüderitz and the mouth of the Orange River, while on-shore others are exploring the potential of discovering diamondiferous kimberlite 'pipes' in north and central Namibia.

There is likewise a revival of interest in both the exploration of new reserves and processing of copper in Namibia, especially since world demand and prices have risen. Last year the London AIM-listed mining group Weatherly International took over three copper mines including the former giant mining complex at Tsumeb and its copper smelter comprising three furnaces. Weatherely has begun re-establishing the mining activities of Ongopolo following the running down of the mines by the previous administration. This has involved investing new capital in the existing mines, including de-watering an underground mine at Kombat, as well as opening access to reserves in Otjihase mine. The company has a strategy of optimising the assets of Ongopolo and looking to develop new reserves within the Southern Africa area to feed the smelter at Tsumeb.

A recent example of this is where Weatherly has formed a joint venture with Applied Intellectual Capital (AIC) to recover metals from the huge tailings dam at Tsumeb using a revolutionary new process developed by AIC subsidiary Everclear to extract the residual copper present, not by leaching it with acids but through an electro-chemical membrane process. As Weatherly's finance director Paul Craven points out, "although the technology is at the feasibility stage, indications are that this process is carbon neutral and far more environmentally-friendly than other technologies we have looked at."

Craven adds that "if the tailings yield copper as expected by AIC, then depending on extraction rates and international prices, there is a potential US$600 million to $1 billion of copper there". The smelting operation has been separated from the company's mines, Craven explains, "since it works in an international environment and is already taking copper ore from Zambia and Europe and turning it into blister copper. Current capacity is 25-30,000 tonnes, but with all three smelters operating", he says, "this could rise to over 100,000 tonnes."

Another exciting turnaround in Namibian mining is uranium. For the last 30 years Rio Tinto has operated the Rössing mine which produces 7.5 per cent of world uranium supply and, thanks to record prices for uranium oxide making further mining commercially viable, will now have its working life extended to 2016 or possibly 2021.

Paladin Resources started production earlier this year at the Langer Heinrich mine, which could raise Namibia's production to 10 per cent of the world's total. Forsys Metal's Valencia deposit and AIM-Listed UraMin's Trekoppje project have yielded good results and could begin production within two years, and Russia's state-run nuclear exporter Techsnabexport and Vneshtorgbank have indicated they will set up a joint venture for uranium prospecting and production. Few doubt that Namibia will play an increasingly important role in supplying uranium for nuclear power stations in the future. F