

Endeavour's Boungou Mine

THE ENDEAVOUR TO DELIVER





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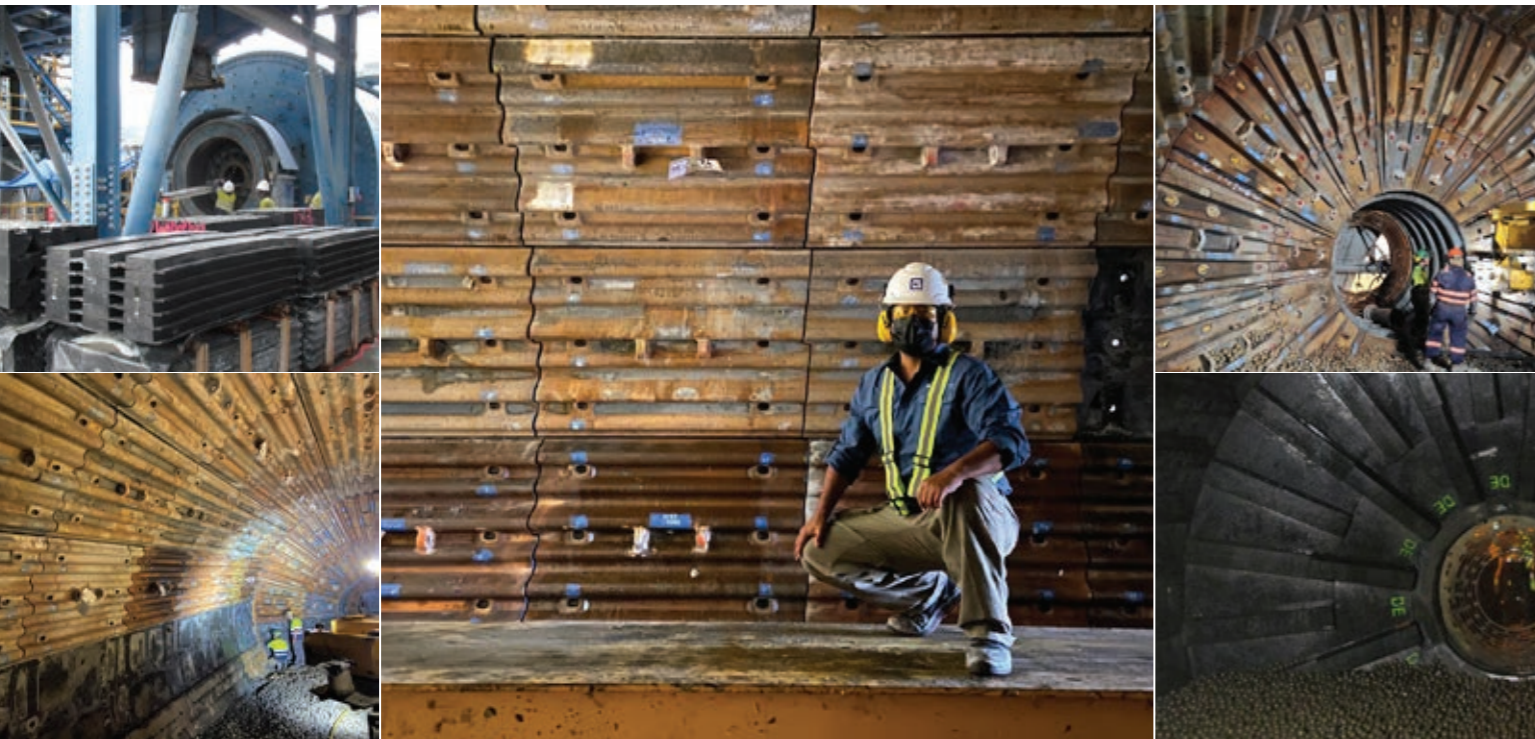
Located 355 kilometres east of Burkina Faso's capital, Ouagadougou, the Boungou mine is the fifth largest mine in the West African country, which is making a name for itself as a serious player in the global gold market. Gold production in Burkina Faso has been on a fast upward trend over the past decade, growing from 22 million ounces in 2010 to 58 million ounces in 2020. At the time of writing, production growth shows no sign of stopping.

Driving this are companies like the Boungou mine's parent company, Endeavour Mining. A Canadian company, it was responsible for approximately 33% of Burkina Faso's total gold production in 2021. The Boungou mine is its third biggest investment in Burkina Faso and could be the most exciting to date given how much potential the surrounding area is thought to have. Business Excellence dropped by to take a closer look.

Overview

The Boungou mine is a high-grade open pit operation, which was acquired by Endeavour in mid-2020, as part of its acquisition of the mine's previous owner, SEMAFO. Endeavour's acquisition of SEMAFO and Teranga has made it one of the top 10 gold producers in the world and it fit neatly into Endeavour's existing portfolio of mines in West Africa.

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One of the big attractions of the acquisition, aside from the strength of the mine itself, was how the area around the mine is considered to have significant exploration upside. Nearly 40 exploration targets have been identified to date.

Before they can be explored, and Endeavour hopes, exploited, there are already ambitious plans afoot at the Boungo mine. The mine's life has been estimated at approximately 6.5 years, during which time the target is to discover 1.0 to 1.5 million ounces of indicated resources at a discovery cost of less than \$32 per ounce. The mid-term objective is to extend the mine life towards Endeavour's +10-year target while evaluating the potential of the surrounding area.

Endeavour shares ownership of the mine with the government of Burkina Faso, which controls 10%. Although recent times have seen political turbulence in Burkina Faso, there is cross-party recognition that the country's mining industry is a crucial component of the country's growth plans.

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To this end, it has been a valuable partner to Endeavour Mining and the wider mining community in the country.

Socioeconomic Impact

To put the importance of mines like Boungo to Burkina Faso into perspective, the mining industry generated US\$544 million in 2021 in revenues, or approximately 15% of the state budget. According to the Observatory of Economic Complexity, total gold exports from Burkina Faso in 2021 were \$7.71 billion, making it the country's largest export. Naturally, this



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Maxam Burkina & Endeavour Mining

In Burkina Faso, our Journey started in year 2011 with the creation of MAXAM Burkina, to reach more than 115 employees, 4 operating mines and confirmed Market Leader position with more than 10 Mobile Manufacturing Units, 2 Rioflex Manufacturing Plant and 1 Modular Manufacturing Plant.

Maintaining the same commitment and appetite to deliver the best of blasting solutions to our partners, MAXAM was ready to support Boungou Mine to resume operation in October 2020, taking over from the former explosive supplier, within a very short mobilization time (a month), thanks to our regional footprint and country set-up. Getting Boungou back to normal

production is a common challenge – Endeavour & Maxam.

From Supply Chain perspective: with our Logistic Partners and strong support of Endeavour and the Army, we adjusted our supply plan to continue supplying Boungou despite all the difficulties.

From Operation: Maxam's started the conversion of Boungou mine, into an optimized operation, using a premium Watergel explosive, the Rioflex (in lieu of standard emulsion) – leading to:

- A cost reduction coming from patterns expansion, reduction in drilling cost and explosives consumption.
- An increase of productivity from the improvement in fragmentation, reduction of hauling/loading cycle time
- A reduction of energy consumption and full optimization downstream

Set up of Modular Manufacturing Plant: to mitigate the risk of short supply, MAXAM has developed the concept of Rioflex Modular Plant. The Modular Plant is a flexible solution to produce explosive on site, with less energy that increases the autonomous of Boungou mine. With combined efforts, Endeavour & Maxam, the Rioflex Modular Plant will be fully commissioned and operational by end of May 2023, a key milestone of Boungou recovery and development plan.

Despite all the challenges, the baselines of stable mining operation are set, and together – MAXAM and ENDEAVOUR, we are working to make Boungou successful. This is what we call Partnership and we're proud to part of it with ENDEAVOUR Mining at Boungou and in the other mines of the Group.

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57% of these employees are nationals, 37% are locals, and 7% are women

makes it a vital source of foreign exchange reserves for the government's coffers.

Although a relatively small 310 people are employed directly at the Boungo mine, the impact in the local communities is wider than one first imagines. 57% of these employees are nationals, 37% are locals, and 7% are women. Safety for these employees is a priority: In 2021, they underwent 1,147 emergency training hours, and thanks to Endeavour's malaria prevention efforts, there were 292 cases at the mine in 2021, down from 500 in 2020.



Almost all of the mine's procurement is within Burkina Faso: 96% of the total - or \$148 million of \$155 million in total



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The mine also makes a valuable contribution to the community and country at a broader level. Almost all of the mine's procurement is within Burkina Faso: 96% of the total - or \$148 million of \$155 million in total - can be attributed to national and local suppliers. This creates knock-on positive socioeconomic effects that include higher employment, raised standards for local suppliers, and more competition in the local market.

Sustainability

Sustainability is paramount at Endeavour. The company is currently working on a Stakeholder Engagement Plan (SEP) for the Boungo mine, which will identify stakeholders' main concerns and expectations, as well as set out a strategy for consultation, regular communication, and protocols to ensure effective engagement. In 2021, there were already 28 separate engagements with local communities, compared to 6 in 2020.

On the environmental side, the mine produces its own energy. Nonetheless,



its managers are continuously seeking out new ways to make the mine more sustainable. An example of this came in 2021 when the digitalisation of the SAG mill helped to optimise its performance by improving ore throughput, thereby



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Partners and Suppliers

As mentioned in the previous section, most of the Boungo mine's partners and suppliers are local or national, but there are still several names on the suppliers' list which will be familiar owing to local subsidiaries. These include the likes of Caterpillar, SGS, General Electric, and Australia's ALS geochemistry. Other such subsidiaries from neighbouring countries include REG Pro Energy and AMS, both from Senegal.

The partners and suppliers list is a broad group, however. Westago is a local supplier of custom-built sophisticated machinery. Maxam, a Spanish firm, assists Boungo Mine with its explosives requirements. Africon, a German firm, is a trusted business management consulting firm that has helped with consulting projects. BIA and AMEC Foster Wheeler is a trusted



improving its energy consumption. This will contribute to the mine lowering its current emissions intensity of 0.49 tCO₂-e/oz.



engineering consulting partner. The list is rounded out by SETRA, a partner in transport, and Oryx Energies, a pan-African energy supply platform.

The Future

The Boungo Mine is a positive story emanating from Burkina Faso. Not only does it show the potential of the

country's mines, its people, and its export capabilities, but it also puts Burkina Faso on the map in ways which weren't the case even 20 years ago. Thanks to the Boungo mine and others like it, this West African country is already the 14th biggest exporter of gold in the world and 4th in Africa. Thanks to Endeavour and its efforts around the Boungo mine, it looks like it will only continue to climb both lists.



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