

Home > Base Metals > EXCLUSIVE CONTENT: Marampa expansion - A defining moment

Base Metals ESG Magazine Articles West Africa

## EXCLUSIVE CONTENT: Marampa expansion – A defining moment

 By Gerard Peter Sep 6, 2022



**When privately owned Gerald Group recommenced operations at its Marampa iron ore mine in Sierra Leone in May 2021, it already had a vision to expand nameplate capacity and quickly set its plan in motion to grow output.**

As a result, the mine is on a trajectory to contribute further to the country's GDP and supply a high-grade product that can play a key role in the global green energy transition. **GERARD PETER** finds out more from Marampa Mines' COO **FREDERIC LOTTI**.

Located in Port Loko District in the Northern Province of Sierra Leone, Marampa has had a chequered history with the mine moving in and out of operation on several occasions over the decades since it first started production in the 1930s. The mine had been characterised by a high-cost operation and producing a low-grade product.

"Before we stepped in, in 2017, the mine had gone bankrupt four times and we ourselves that we didn't want it to go out of operation ever again. As a result, we looked at ways to cut costs to the bare bone and produce a premier grade product to ensure a

ello, how can I help?

This site uses cookies which are essential to make the site function effectively. By using our site you accept the terms of our cookie

[ACCEPT](#) [Cookie Policy](#)



Estimated resources at Marampa are currently approximately 1.7 Bt of iron ore grading of 32% iron. Significant investments were made by Gerald Group between 2017 and 2019 to reconfigure and reactivate the operation. The project, which was commissioned in January 2019, produced high grade iron ore concentrate with >65% iron, but was then put back into care and maintenance in September 2019 due to a disagreement with the government of Sierra Leone.

In May 2021, as part of an amicable out of court settlement, Marampa Mines Limited (MML) was formed wherein Gerald Group owns 90% interest, and the government the remaining 10% interest. MML restarted export shipments in July 2021 to deplete the unshipped product stockpile left from 2019 operations, and the mine restarted production of new product in September 2021.

“The 65% iron grade product is one of the highest and purest grades globally,” states Lotti, when comparing the other iron ore mining operation in Sierra Leone that produces between 52% and 58% iron grades. MML has monikered this product Marampa Blue and its introduction in the market is a key component of a greener steel manufacturing process.

“Due to its high grade, Marampa Blue requires less downstream processing. This means fewer emissions, less pollution and more steel produced for the same unit capacity of a smelting furnace,” Lotti states.

As such, it is helping achieve a lower carbon footprint for MML’s customers (in the steelmaking process) and in the supply chain (route to market) and allowing the company to play a role in the world’s energy transition process.

The decision to produce Marampa Blue was taken in 2017 when the company was looking at ways to make the operation more sustainable. “At the time, we started to see fundamentals shifting in China where they were turning a lot more attention towards environmental compliance. While ESG features high on the agenda now, the decision to produce Marampa Blue was mainly borne out of the fact that we wanted to have a resilient operation at the mine. In doing so, we have also created a product that ticks the right boxes when it comes to ESG and we have seen demand for Marampa Blue grow on a global scale,” he adds.

## Big expansion ambitions

This site uses cookies which are essential to make the site function effectively. By using our site you accept the terms of our cookie policy.

[ACCEPT](#) [Cookie Policy](#)

Lotti indicates the plan is to more than double production to 7.0 Mtpa in the foreseeable future. In so doing the project will achieve greater economies of scale.

“Because, after investment, our fixed costs will remain more or less the same as we expand, this means that on a per tonne basis, we will be able to materially reduce our operating costs,” Lotti states.

Construction for the 7.0 Mtpa expansion started in March, and it is on track to become operational in Q3, 2023. It includes the addition of a new feed point with very large crusher and SAG Mill; a new product line to accommodate the additional feed and product volume; the addition of new set of spiral blocks to increase processing capacity; and an expansion of the mining fleet with large capacity excavators to increase mine volume rates.

In addition, the company is also looking to introduce new technology to the mine’s operations. The company has set up a pilot plant on the side of the main operations to evaluate new gravity separation equipment to replace its spiral. Another is the testing of tailing residue drying to dry stack tailings.

“This comprises processing a particular stream from the plant and if the testing is successful, then the equipment will be included in the expansion programme,” Lotti says.

### **Major boost for the economy**

As the mine ramps up production, it will require more power. Currently, operations are powered by 17 MW of installed diesel generator capacity. To run a 7.0 Mtpa operation, the mine will require over 30 MW, making it the biggest consumer of power in the country. As such, MML is keen to reduce its dependence on diesel.

“We are currently in discussions with the Ministry of Energy to allow us to look at renewable sources: solar or hydro or a combination of both. We are also looking at tapping into the CLSG (Côte d’Ivoire, Liberia, Sierra Leone, Guinea) grid which is a recently constructed 400 MW power line. This will allow us to have access to a mix of energy sources and not just rely on diesel and is a part of our goal to eventually achieve net zero carbon emissions,” Lotti states.

With the expansion and ramp up, the total number of direct and indirect employees on-site has increased to over 2 000 with a 90% strong national workforce. The company implements a local content strategy for procurement.

As MML operates and expands with health, safety and the environment as a top priority, the company is focused on further improving its cost and sustainability position through a strong ESG programme built around key areas of climate change, gender diversity, investment in communities, and education. Women currently make up ~17% of MML’s direct employees, and the target is to continue to grow this ratio further.

MML’s 70-hectare food farm being developed on its own site is another sustainable

This site uses cookies which are essential to make the site function effectively. By using our site you accept the terms of our cookie policy.

[ACCEPT](#) [Cookie Policy](#)

Marampa is the largest mining operation in Sierra Leone and its expansion bodes well for the country's economy. "When our production more than doubles to 7.0 Mtpa, it will also double revenue to government from royalties and taxes, and to communities from direct payment of royalties to them.

"On top of that, it will result in more jobs and more business for local contractors.

Marampa is a significant contributor to Sierra Leone's GDP so the expansion is important for the country," Lotti concludes.