

A leader in the mining industry

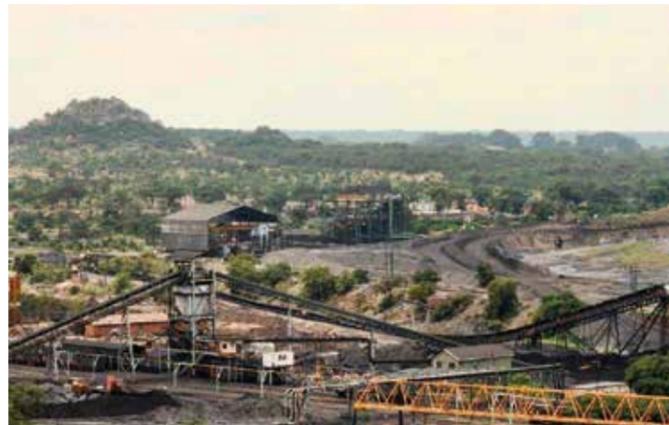
Palabora Mining Company (PMC) is one of Limpopo Province's most significant investors and has been mining, concentrating, smelting and refining copper and other by-products in the eastern part of Limpopo Province since 1956

Two feasibility studies in 2013 and 2014 underpinned the decision to extend the life-of-mine for a further two decades. PMC's investment into mining infrastructure brings with it major investments in the communities in which it operates and in people, who live near the mine, and the staff who work for the company.

PMC is the major mining project occurring in Phalaborwa and is integral to the survival of the Phalaborwa community. It is a key contributor to the local employment, directly and indirectly. The population of Phalaborwa is roughly 160 000 people and the PMC mine employs more than 4 990 (direct and indirect employees) of which 80% are from the Ba-Phalaborwa Municipal area.

Chinese Investment in PMC

A Chinese consortium acquired the mining operation in 2013 when there was a possibility that the life of the mine would be culminated and the smelter closed because it was outdated. Both of these scenarios would have led to many job losses. Soon after the sale transaction, the new owners fostered partnerships between Palabora Copper (PC), the operating subsidiary of PMC, and Chinese companies in various areas such as economic development, trade, skills and technology transfers to extend the life-of-mine, refurbish the smelter and build a new floatation plant. To this end, the consortium approved R10.4-billion to extend the



life-of-mine, R878 million to refurbish the smelter to ensure that PC continues to produce copper rod, and R261 million to construct the floatation plant to improve copper recoveries, operational efficiencies and lower operational costs. The smelter refurbishment project and construction of the floatation plant are implemented in partnership with China's Beijing General Research Institute of Mining and Metallurgy (BGRIMM). In addition to a technology transfer, BGRIMM has contractually committed to employ 90% of unskilled labour and 80% of the semi-skilled labour from the Phalaborwa area and transfer new skills to PC employees who work at the smelter to empower them to operate and maintain the refurbished smelter once completed. Before commissioning and construction of the floatation plant, PMC's executive managers and senior managers travelled to China for fact-finding and comparative-analysis missions on floatation plants built by BGRIMM. As part of the resource sharing, skills and technology transfer, BGRIMM has subcontracted work to various South African companies.

Investing in communities

The decision to extend the life-of-mine has had an impact on surrounding communities and small businesses in the area. Through PMC's enterprise development and supply chain programmes, local small business owners have been able to open or expand their operations. Over the years, PMC has invested more than R186 million in developing communities through the Palabora Foundation, PMC's community project execution partner.

Community projects include road rehabilitation and construction, and the hosting of sporting events. A 24-hour emergency health centre, MarulaMed, was inaugurated in April 2018. The centre caters to the Phalaborwa community, which does not have a private clinic.

BRICS' involvement

PMC is a member of the BRICS (Brazil, Russia, India, China, South Africa) Business Council Manufacturing Working Group as it wishes to contribute to a favourable environment for growth and technology exchanges, and to assist South Africa in building international cooperation platforms that embody the spirit and ethos of BRICS. PMC's success story is one that shows that amid cultural differences within BRICS countries, challenges and growing global economic uncertainties, cooperation by companies from BRICS countries can create a favourable environment for growth.

Investing in mining

Once the decision was made to extend the mine's operations, large amounts of capital were committed to mining operations (R10.4-billion), to construct an improved floatation plant (R261 million) and to the refurbishment of the smelter (R878 million). The project to extend the mine's life is known as Lift II and it will take mining at PMC to 2033. The project aims to make use of a large historical stockpile to create further revenue.

Investing in energy

PMC runs an energy management programme that has resulted in significant savings at the mining operation. In the five years to 2017, the company saved R232 million through avoided energy costs with respect to electricity, coal and liquid fuels, and water usage. The company's investment in energy saving through 31 projects that were successfully implemented, was rewarded with the 2017 Limpopo Productivity Award by Productivity SA.

Going green

The company is a certified ISO 14001 business that subscribes to world-leading practices. Located directly adjacent to the world-renowned



eco-tourism attraction, the Kruger National Park, PMC coordinates several onsite wildlife management and cultural heritage programmes as part of its ongoing sustainability drive. Over the past years, PMC has retained a record of being one of the safest mines in South Africa and Africa. This is particularly due to its stringent SHEQ regulations and procedures in place, and the effective management of contractors on site.

Their products

PMC owns a refinery that produces cast copper rod for the domestic market and cathodes for export. Useful by-product metals and minerals include zirconium chemicals, magnetite and nickel sulphate, as well as small quantities of gold, silver and platinum. Palabora also owns a nearby vermiculite deposit, which is mined and processed for sale worldwide. Vermiculite is a versatile industrial mineral with hundreds of uses.

The future

PMC is undertaking a life-of-mine extension project known as Lift II. The project aims to extend the life of the business up to 2033. The project includes the magnetite reclamation and beneficiation study aimed at creating additional revenue from the legacy stockpile. Approximately R1 1.79-billion is expected to be spent on the finalisation of the project, which includes the smelter expansion and the floatation plant.

For more information, please visit: www.palabora.com

