



**Aeysha Samsodien**  
Portfolio Manager  
February 2023

## African mining's challenges and opportunities around the green energy transition

Africa's resources are fundamental in achieving the global transition to net zero, and the continent has a "window of opportunity" to be able to supply the necessary metals, maximise their social value and achieve a "just transition" at the same time, despite facing significant logistical and energy challenges. This was one of the primary messages to come from the 2023 Mining Indaba that took place in Cape Town recently.

Presenting their views on the state of the industry, mining CEOs reiterated that there was a tremendous need to invest in producing the metals essential in creating green energy, such as those for batteries (cobalt, nickel, lithium) for both energy storage and electric vehicles, as well as solar panels (which use large amounts of copper, nickel and zinc) and platinum group metals. These are all in relatively short supply, with some 300-400 new mines needed to be built over the next 10-15 years, each employing skilled workers to support production over the next 20-30 years in order to meet global net zero targets. Africa is a major source of these green metals, and it is estimated that some six times their current supply will be needed to meet the transition targets associated with net zero goals.

For example, round tables highlighted that more copper would be needed in the next two decades than had ever before been mined, and that there was a risk of a 20-25% shortfall in the production of platinum group metals should South Africa's loadshedding continue apace. With intensive

loadshedding over long periods, miners are at a high risk of being unable to catch up on lost production.

At the same time, they recognised that, due to these large projects' significant impact, issues of sustainability and equitable value transfer to local communities were vital to their success.

For African countries to establish mutually beneficial relationships with international mining groups and attract private sector investment, governments need to offer a stable long-term environment, adequate basic infrastructure, the correct legislative and governance frameworks and a cooperative approach. Companies would be assuming significant risk in order to start up the new mines, with long-term security vital. However, it was apparent that mining bosses were very concerned about the current challenges around doing business in South Africa, including the energy crisis, water shortages and logistics shortcomings, with crime and corruption as the primary causes. These all kept the costs of doing business in South Africa high compared to other countries where municipalities are able to provide basic infrastructure needs, and needed to be addressed quickly.

“South Africa has a well-developed infrastructure, but this can erode fast,” noted one CEO. “It can be fixed, but we are at a critical point where the risks are quite high... We need to see progress in energy supply. If left too late, the entire system can collapse.”

## **SA government measures**

In his keynote address, President Cyril Ramaphosa acknowledged these challenges, noting that improving logistics was crucial: Transnet had transported only 50 million tons of coal last year, its lowest level since 1993, and its overall inefficiencies had decreased mineral sales by 50%. He said that the government's priority was to achieve a sustainable and competitive mining industry through:

- Establishing a secure supply of electricity;
- Accelerating economic reforms;
- Tackling illegal mining, damaged infrastructure and criminality; and
- Improving the regulatory environment.

Progress had been made through recent initiatives, he reported, including:

- Implementing the national power plan – a framework for maintenance and adding power capacity;
- Maintenance – focusing on six power stations, for which he receives continuous progress reports;
- Taking part in the regional power pool through which SA gets 300MW from our neighbours;
- Announcing 24 renewable power projects that add approximately 6800MW to the grid;
- Removing the production licence threshold;
- Allowing Eskom to purchase surplus power from private companies;
- Decreasing the waiting time for regulatory approval – getting special infrastructure dispensation that exempts certain projects;
- Trying to reform the critical area of logistics;
- Cracking down on illegal mining, with many operations and arrests recently;
- Improving regulation;
- Working with industry; and
- Decreasing backlogs at the Department of Minerals and Energy – these had fallen by 42% and were set to be cleared completely over the next year.

At the same time, the President added, companies needed to do their own part by working closely with the communities they operated in, becoming “global citizens” by ensuring that all stakeholders’ needs were met -- shareholders, workers and communities. This was already happening more specifically, he noted, in that mining companies had made significant progress in generating their own electricity supply, which had supported mine production, but also communities.

### **Capital is key**

Companies have so far been reluctant to invest capital into the new mining projects, Indaba participants agreed. The geo-political risks had increased amid the Russia-Ukraine war, the recent de-globalisation trends and supply chain disruptions, among other factors. Other priorities had emerged as well, including investing in their own businesses’ decarbonisation processes, rather than in new mines, and companies were generally more incentivised to use their capital to fund shareholder dividends than embark on new projects.

Third-party investors have also been reluctant, preferring to put their capital into lower-risk, higher-profile decarbonisation projects in developed

markets, rather than into higher-risk, long-term mining of cobalt in the Democratic Republic of Congo or copper in Zambia, for example.

Given these disincentives, African governments needed to do as much as possible to attract the requisite capital for mining projects. Clearly, participants concluded, the future will require more frequent, intensive and better cooperation between the public and private sectors to harness the potential represented by the drive for cleaner and greener global energy sources.

<https://www.mandg.co.za/insights/articlesreleases/african-mining-s-challenges-and-opportunities-around-the-green-energy-transition/>