

Achieving self-sufficiency in copper

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Adequate domestic supplies of copper is vital for India to achieve carbon neutrality

BY PUNEET KHURANA

India's transition to carbon neutrality will be powered by a shift in mobility to electric vehicles (EVs) and power generation via renewable energy (RE). Copper will be a critical metal in this journey because of its high-intensity usage in clean energy platforms. An average battery EV requires 83 kg of copper, 4x that of a conventional car and more than 3000 kg of copper to generate 1 MW of power via the solar photovoltaic and onshore wind platforms. However, India's ability to produce adequate quantities of this copper to feed this transition hinges on its ability to secure stable long-term supply of raw material for its copper smelters.

Copper smelters satisfy India's need for a stable refined copper supply.

In 1996, domestic consumption far exceeded production. By 1997 and 1998, the commencement of production by copper smelters of Sterlite Copper and Hindalco Industries turned the face of the copper industry in India.

The smelters together made India self-sufficient in copper from the early 2000s. India also began exporting refined copper by exporting nearly 4.5 million tonnes from 1996-97 to 2017-18. This growth of domestic supply of copper has enabled the finished goods industry to become a \$18 billion industry today.

Today, India can produce 1 million tonnes of copper a year and is set to add another 1 million capacities by 2030. But much more is needed to meet the country's demand.

To ensure raw material supplies, in the short run, India should reduce the most favoured nation (MFN) duty on the import of copper concentrate from 2.5 per cent to 0 per cent.

In the long run, India can learn from China and Japan and expand the ambit of Khanij Bidesh India Ltd (KABIL), the joint venture company created by the Ministry for international mine acquisition.

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