UPSC

Q) Adequate domestic supplies of copper is vital for India to achieve carbon Neutrality. Explain.

↳ 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.

↳ Eco friendly product. Copper will be a critical metal because of its high-intensity usage in clean energy platforms.

↳ An Average battery EV requires 83kg of copper, 4x that of conventional car and more than 3000kg of copper to generate 1MW of Power via the Solar photovoltaic and Onshore wind platforms.

↳ Copper and India.

↳ 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.

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

↳ By 1997 & 1998 the commencement of Production by Copper smelters of Sterlite copper and Hindalco Industries turned the face of the copper Industries in India.

↳ India also began exporting refined copper by Exporting nearly 4.5 million tonnes this growth of domestic supply of copper has Enabled the finished goods Industry to become a $18bn Industry today.

↳ Today India can produce 1mn tonnes of copper a year and is set to add another 1 million capacities by 2030.

Way Forward:

↳ Much more carbon 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 to import of copper concentrate from 2.5% to 0%.

↳ 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.