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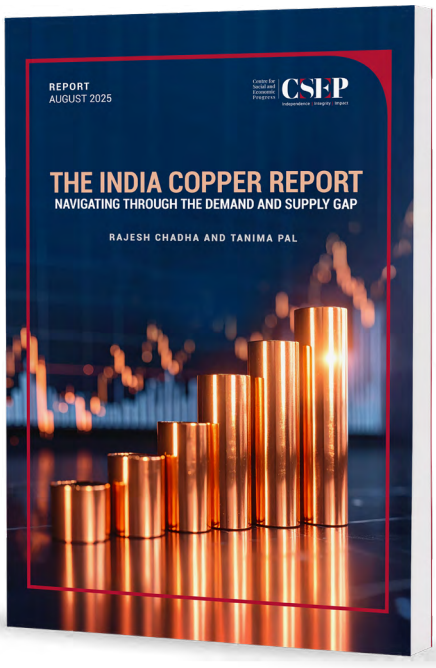
SEMINAR

The Copper Report: Navigating Through the Demand and Supply Gap

KEY TAKEAWAYS

The Centre for Social and Economic Progress (CSEP) released *The India Copper Report: Navigating Through the Demand and Supply Gap* in August 2025, highlighting India's growing dependence on copper imports amid rapidly rising demand. The report projects that domestic demand could more than double by 2030, driven by both conventional industries and new requirements from the energy transition, such as electric vehicles and renewable energy. Despite significant reserves, India faces a widening supply gap due to outdated technology, underinvestment, regulatory hurdles, and the closure of key smelters, leaving the country reliant on global supply chains. The report calls for policy reforms to streamline exploration and mining, expand domestic processing capacity, strengthen recycling systems, and build strategic international partnerships.



The event brought together experts from government and industry, and research to deliberate on India's growing copper demand, supply constraints, and policy priorities for bridging the gap.

The following are some key takeaways:

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- The exploration regime needs structural reform. The exploration licence (EL), which was introduced in 2023, has seen weak uptake; offering only a right-of-first-refusal to explorers "misses the point." India should take inspiration from international best practices like Australian/Canadian models that enable junior explorers to raise risk capital, progress projects in stages, and monetise the explored data; only a small fraction succeed, but the ecosystem works because risk is distributed and tradable.
- Public exploration agencies like GSI, MECL have limited risk appetites. The NMET, as a government body, is not positioned to shoulder venture-style exploration risk. Hence, it is important to catalyse a junior-miner-driven exploration regime for copper in India.
- Clear environmental guardrails should be formulated and implemented beforehand. Both an approved mining plan and a mine-closure plan should be prerequisites for environmental clearance.
- Strategic quality and purity of copper content in cathodes are imperative. Semiconductor applications require ultra-high-purity copper. Policy on the cathode quality standard should reflect this quality bar.
- Proposed actions should be checked for technical, economic, geopolitical, and administrative feasibility in the Indian context. Documenting global best practices (e.g., Australia/Canada) in an annexe will sharpen policy design.

RUCHI KUKREJA

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- Copper is "the new oil" for the clean-digital economy. With demand drivers spanning data centres, digitisation, renewables, and e-mobility, India's copper demand could exceed 3 million tonnes (Mt) by 2030. Over-reliance on imported cathodes is untenable for a long-term vision of a net-zero scenario. Therefore, domestic smelting and refining capacity is essential.
- India needs 4 to 5 Mt of smelting/refining capacity over the next decade, requiring USD 14 to 15 billion of investment and creating ~65,000 direct and indirect jobs.
- Reducing single-country exposure, especially dependence on China for cathodes. Public-private collaboration (e.g., with HCL and other private industry players) to commit 10-year offtakes at market prices can be thought of.
- Nearly two decades passed with no major smelting (Kutch Copper is a recent entrant) coming up due to inconsistent mining policies; FTAs that allow zero-duty finished goods undermine domestic midstream competitiveness.
- The sector is CAPEX and OPEX-intensive. Therefore, some measures like 20–30% capex subsidies, time-bound electricity subsidisation at new plants, GST structure reforms for copper, and duty rebates on imported equipment can be considered.
- To unlock the potential of secondary copper supply, it is important to formalise and scale the fragmented scrap ecosystem: with the right framework, secondary copper could meet ~30% of national demand. Current distortions see high-quality scrap exported (notably to China) while low-quality scrap material enters India. A compliance-driven, quality-assured circular economy would reposition India as a supplier of high-quality finished goods.

MOHANASUNDARAM NATARAJAN

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- Currently, the global copper market is distorted. Declining grades, depleting reserves, and rising capex exacerbate the limited new mine supply in the next 2–4 years. Resource nationalism and export restrictions are pushing countries towards local value addition.
- Long development time. It typically can take 7–20 years to move from discovery to production.
- China has reaped benefits from its early investment in the mines and metals sector. With roughly USD 70 billion invested across mines and smelters, China now dominates the processing landscape. Outside China, new smelter projects face feasibility headwinds (Chile's closures, Peru's absence of smelters, and only isolated builds in Africa). Chinese cathode production now exceeds domestic needs, enabling exports.
- India should focus on attracting more private explorers, junior miners, and a market-trusted exploration-data pipeline. Saudi Arabia's proactive code reforms in exploration and state-backed exploration are instructive.
- Recent U.S. tariffs on copper products should have a modest effect on the Indian copper market. The markets are likely to re-adjust by finding alternative export destinations.

MAYUR KARMARKAR

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- Both below-ground and above-ground copper resources should be utilised prudently. India lacks sufficient reserves and concentrates. End-of-life scrap and the urban mines must be leveraged, especially amidst rising resource nationalism.
- Industries face higher financing costs domestically, which discourages capital-intensive processing investments. Tools such as targeted market protection, waste-protection measures, and indirect subsidies could help offset this disadvantage.
- Policy uncertainty reduces investor interest. Documentation of recycling infrastructure, scrap collection, and reprocessing rate remains underdeveloped, limiting transparency and trust.
- India needs a structured and long-term strategy to build a reliable above-ground resource base. The objective should be to significantly reduce dependence on imported feedstock over the next 40 to 50 years.

Press Coverage

India faces copper crunch from energy transition, infra growth: CSEP report *Business Standard*

Outdated tech, low investment, limited private presence push India to import copper—think tank report *ThePrint*

Copper Deficit Threatens India's Renewable Energy and Infrastructure Goals: CSEP Report *KNN*

Strategic buyouts, partnerships needed for securing copper supply chain: Report *PTI*

Copper policy: India needs to tap more copper reserves; report urges push for mining investment *Times of India*

Urgent need for policy reforms to attract investment in exploration, mining of copper: Report *The Economic Times*

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