Rare earth sector may have low-to-medium indigenisation feasibility

CEA also flags low to medium feasibility for indigenising battery cells & cathode materials and solar wafers & cells

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Chief Economic Advisor (CEA) V Anantha Nageswaran has said that indigenisation in three sectors — rare earth permanent magnets (REPM), battery cells and cathode materials, and solar wafers and cells — is highly urgent but its feasibility currently falls in the "low-to-medium" range, senior government officials told *Business Standard*.

He has also identified seven sectors where indigenisation is both highly urgent and highly feasible. These include pulses, edible oils and oilseeds, active pharmaceutical ingredients (APIs) and key intermediates, and fertiliser inputs such as alternatives to nitrogen, phosphorus, and potassium.

The remaining three out of the seven sectors are critical industrial chemicals, telecom and networking equipment, including non-frontier semiconductor chips, and power electronics, such as insulated gate bipolar transistors (IGBTs) and metal-oxide-semiconductor field-effect transistors (MOSFETs). The CEA shared this information during the fifth national conference of state chief secretaries in the last week of December.

China currently controls about 90 per cent of the world's REPM production. These magnets are used in several automobile components, especially in traction motors for electric vehicles (EVs). Since April 2025, China has restricted REPM exports to India, impacting domestic automobile production.

In November 2025, the Union Cabinet had approved the "scheme to promote manufacturing of sintered REPM", under which financial incentives — both capital subsidy and sales-based incentives — of about ₹7,280 crore will be provided to winning bidders (private players) who would set up five manufacturing plants with a combined REPM production capacity of 6,000 tonnes per year.

CEA's key points

- Nearly half of the developed world's imports from China come from 50 brands
- Union and state governments must anchor these brands' full ecosystems in India
- Supply chains are instruments of state power in the global system
- Industrialisation always thrives in clusters, exemplified by Shenzhen, Manchester, and Ho Chi Minh City
- Indiscriminate protection supports poor-quality products, entrenches incumbents, and blocks innovation

The CEA, during the conference, stated that nearly half of the developed world's imports from China come from just 50 global brands and their supply chains. The Union and state governments must persuade these 50 brands to anchor their full ecosystems in India to turbocharge the country's growth ambitions. India has successfully done this in smartphones, with exports and employment booming, and that approach must be replicated urgently across other sectors as it is key to building a strong currency, he added.

Nageswaran stated that the nature of the global system has changed, with trade no longer reciprocal and markets no longer neutral, and that "supply chains are instruments of state power". He cited China's export licensing of items of interest to India, recent issues related to US tariffs and export licensing, and the European Union's (EU's) carbon border adjustment scheme. Therefore, in such a world, "Swadeshi" is a policy instrument, he said.

The CEA mentioned that indigenisation in four sectors — heavy construction cranes, non-critical medical devices, EV motors and drivetrains, and industrial machinery such as pumps, compressors, and bearings — was highly feasible, though its urgency was considered in the low-to-medium range.

He added that in four other sectors — tunnel boring machines (TBMs), railway signalling and control systems, electrolysers and hydrogen equipment, and defence electronics, sensors, and optics — both the urgency and feasibility of indigenisation were assessed as low to medium.

The Ministry of Finance (FinMin) as well as the CEA's office did not respond to queries regarding this matter.

Industrialisation always thrives in clusters, the CEA said during the conference, pointing to examples such as Manchester, Detroit, Shenzhen, Hsinchu, and Ho Chi Minh City. China's Greater Bay Area, he noted, contributes 11 per cent of the country's gross domestic product (GDP), and 35 per cent of exports from just 0.6 per cent of its land, while Ho Chi Minh City generates 22 per cent of Vietnam's GDP and 12 per cent of its exports from the same tiny fraction of land. These examples, he said, show the strategic gap India must fill by building its own industrial clusters.

He said India needs clusters in semiconductor fabrication and advanced packaging to ensure electronics export sustainability. Precision capital goods and machine tools must also have dedicated clusters, as India cannot climb the ladder of manufacturing complexity without them. Battery cells and power electronics, he added, require domestic clusters to ensure that the transition to EVs captures value within India.

Industrial chemicals, particularly specialty and advanced chemicals, need clusters supported by environmental infrastructure and scalable production processes. Defence manufacturing clusters, he said, must be anchored by private firms and disciplined by export requirements to succeed.