Quote by Davinder Sandhu, Co-Founder and Chairperson, Primus Partners & Nikhil Dhaka, Vice President, Primus Partners

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India's EV Ambitions Face Rare Earth Magnet Bottleneck, Report Urges Urgent Localisation | Report

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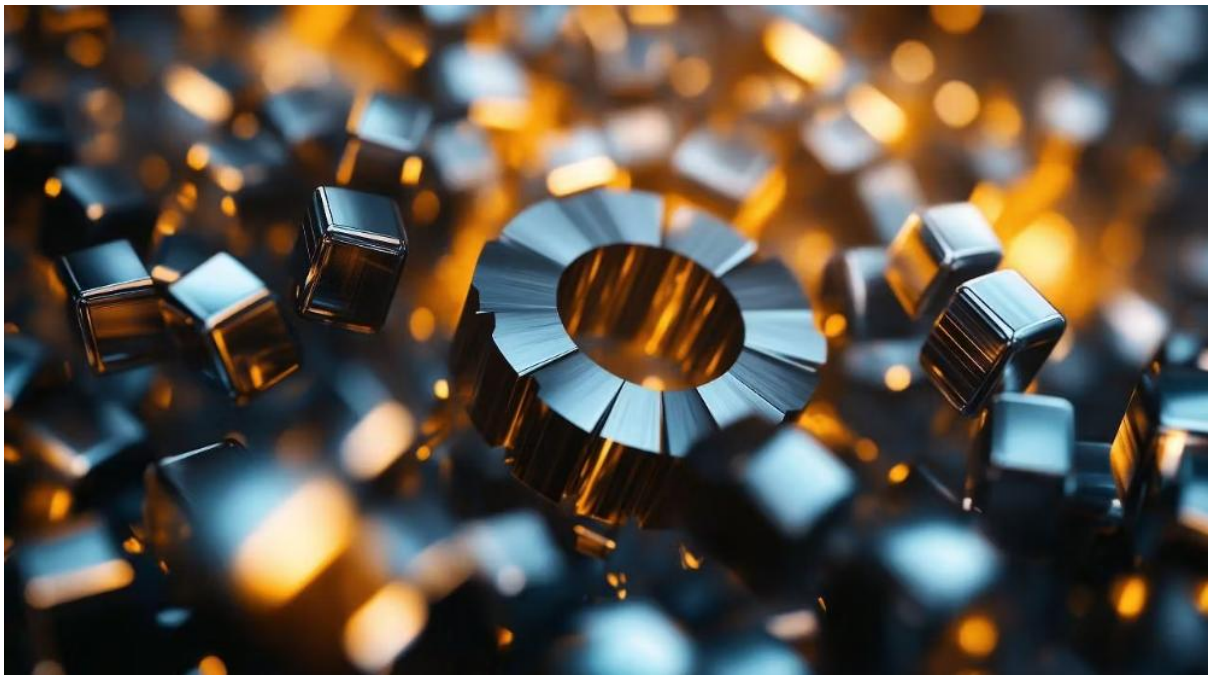

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Article Content:

India's aggressive push toward electric mobility, renewable energy, and high-tech manufacturing faces a critical risk—its overwhelming dependence on imported rare-earth magnets, particularly neodymium–iron–boron (NdFeB) types vital for electric vehicle (EV) motors.

A new report by Primus Partners, *From Extraction to Innovation: A Blueprint for Enhancing Rare Earth Magnet Ecosystem in India's EV Roadmap*, warns that without immediate localisation of the entire value chain—from mining and separation to finished magnets—India's EV and clean-tech growth will remain strategically vulnerable.

The study lays out a five-pillar blueprint to build a self-reliant and globally competitive NdFeB magnet ecosystem. First, **market assurance** through government-backed price guarantees and long-term purchase agreements will help counter extreme price volatility, which has seen neodymium swing between $50/kg and $280/kg. Demand in India is projected to reach around 7,150 tonne annually by 2030.

Second, **pilot hubs and champions** should be established in mineral-rich states such as Odisha, Andhra Pradesh, and Tamil Nadu, integrating mining, processing, and manufacturing while nurturing at least three industrial leaders capable of rapid scale-up.

Third, **upstream security** involves expanding IREL's NdPr oxide capacity, tapping India's 13.07 million tonnes of monazite reserves, and creating a six-month strategic magnet stockpile to protect critical sectors from supply disruptions.

Fourth, an **innovation infrastructure**—including a National Rare Earth Innovation Hub—would accelerate R&D in process optimisation, high-performance grades, and recycling, which could meet 35–40 kt of global demand by 2030.

Fifth, **institutional alignment** through a Magnet Ecosystem Coordination Cell would synchronise ministries, fast-track approvals, and ensure timely execution within the next three to five years.

Despite holding the world's fifth-largest rare earth reserves, India currently produces no NdFeB magnets and relies on imports—over 90% from China, which controls 92% of global magnet manufacturing. This dependency became evident when recent Chinese export restrictions and customs delays disrupted supplies for more than 20 Indian companies, including top automotive suppliers. With the domestic NdFeB magnet market projected at INR 7,295 crore by 2030, and each EV requiring 1–2 kg of magnets, the gap poses a direct threat to India's green industrial future.

Davinder Sandhu, Co-Founder and Chairperson of Primus Partners, stressed that India must avoid remaining "resource-rich but capacity-poor" and compress decades of China's industrial progress into a short window through bold investment, technology partnerships, and expedited project clearances.

Nikhil Dhaka, Vice President, added that magnets are central to EV manufacturing, with more than 25 components in a single EV depending on them, and the two-wheeler segment alone projected to require up to 44,000 tonnes by 2047.

The report concludes that early government moves like the Critical Minerals Mission and PLI schemes are promising, but unless industry, policymakers, and R&D bodies align swiftly, India risks locking in long-term dependency on imports for one of the most critical building blocks of its sustainable mobility and energy transition.

NB: Photo is representational.