Modi steps up hunt for critical minerals

Big oil importer also seeks to boost uranium supplies and cut reliance on the Middle East

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India is seeking to shore up its supply of critical minerals and uranium as it tries to diversify its energy mix and patch up supply chain vulnerabilities exposed by the war in Iran.

Prime Minister Narendra Modi has sealed agreements on visits to Australia and Indonesia in recent weeks, the latest in a string of efforts designed to boost India's nuclear power sector, hit ambitious climate targets and strengthen green energy manufacturing.

"India is trying to secure supply chains because we are setting up huge domestic manufacturing," said Vibhuti Garg, director for south Asia at the Institute for Energy Economics and Financial Analysis.

"Ultimately it all boils down to minerals so India is strategically trying to get more minerals for solar and wind and uranium for nuclear power," she added.

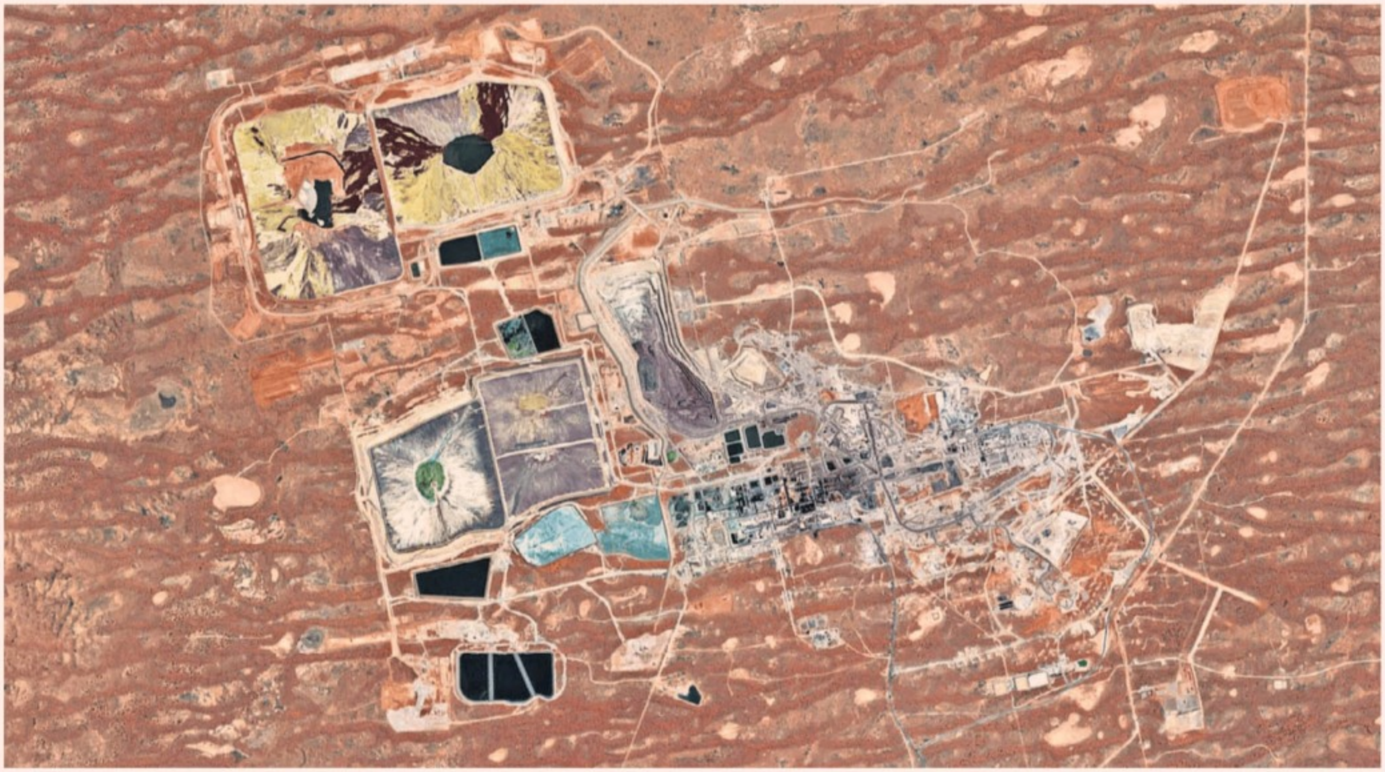
India is the world's third-largest oil importer and relies on the Middle East for about half its crude resources and two-thirds of its natural gas, a risk that has been thrown into stark relief by the conflict in the Middle East.

Last week, Modi reached a deal with his Australian counterpart Anthony Albanese to import uranium, as well as deepen co-operation in critical minerals. India has long eyed Australia's uranium reserves, which account for about 28 per cent of global supply, to help meet its target of 100 gigawatts of nuclear energy capacity by 2047. Modi has also set a target for India, the world's third-biggest carbon polluter, to reach net zero carbon emissions by 2070.

"Australia's huge uranium reserves align directly with India's nuclear journey," Modi said in Melbourne.

The two nations had previously agreed to nuclear co-operation in 2014 but exports never materialised over concerns that Australian uranium could end up feeding India's nuclear weapons programme. Under the new agreement, UN safeguards would ensure nuclear fuel is used for "exclusively peaceful purposes", the leaders said.

In March, during Prime Minister Mark Carney's visit to New Delhi, Canada's largest uranium producer Cameco agreed a C$2.6bn (US$1.8bn) deal to supply uranium between 2027 and 2035 to boost India's nuclear energy industry.



Critical mass: the Olympic Dam uranium mine in South Australia. Narendra Modi and Anthony Albanese, below, agreed a nuclear fuel supply deal
Gallo Images/Orbital Horizon/Copernicus Sentinel Data; Hollie Adams/Reuters

India also holds some uranium reserves, and already imports from Uzbekistan and Russia.

Modi's quest for minerals also reflects India's need to feed an expanding green energy manufacturing sector. According to the Institute for Energy Economics and Financial Analysis, a New Delhi-based think-tank, India imports 100 per cent of the lithium, cobalt and nickel needed for renewable energy products.

During Modi's visit to Jakarta last week, the two sides announced more than a dozen agreements, including a rare earths deal. India will also invest in manufacturing steel in Indonesia, which boasts the world's largest reserves of nickel, a key component of stainless steel.

New Delhi is in many ways a late arriver to the critical minerals race. China dominates the refining and processing of critical minerals and produces 90 per cent of the world's rare earth permanent magnets, which are needed for technologies such as EVs, wind turbines and fighter jets, according to the International Energy Agency.

"India's transition to electric mobility and clean energy requires secure access to critical minerals, especially nickel," said Ajai Malhotra, a former Indian ambassador to Russia and a distinguished fellow at the Energy and Resources Institute in New Delhi. China has already "established a dominant position" in Indonesia's nickel industry, he added. "India may have only a few years to establish a meaningful presence in Indonesia's nickel value chain."

Modi is making an effort to catch up.

> 'India may have only a few years to establish a meaningful presence in Indonesia's nickel value chain'

In 2023, India joined the Minerals Security Partnership, a US-led coalition including the EU and more than a dozen other countries aimed at securing a stable supply of raw materials.

New Delhi has also launched a National Critical Minerals Mission and has pushed Indian mining groups to pursue reserves in the "lithium triangle" of Argentina, Bolivia and Chile, home to vast deposits of the key component for electric vehicle batteries.

Modi's push also includes Africa. The continent holds about 30 per cent of the world's known critical mineral reserves, including coltan ore, found in abundance in eastern Democratic Republic of Congo, which when refined into tantalum is used in capacitors in most modern electronic devices.

Later this year, New Delhi will host an India-Africa Summit billed as the largest ever, with a focus on critical minerals. "Indians want to get their hands on as much minerals as they can from wherever they can," said a New Delhi-based diplomat from a resource-rich country, "and as fast as they can."

Additional reporting by Diana Mariska in Jakarta and Ilya Gridneff in Toronto