Mining Sector of India

Published On: 21-11-2023

Why is in news? Why India should invest in mining

"**Afghanistan can be the Saudi Arabia of lithium**," noted The Washington Post on July 23. In a brilliantly investigated ground report, the article cited a US Department of Defence finding that the Hindu Kush Mountain range in the Nurestan province in Afghanistan could potentially possess a trillion dollars' worth of critical and rare earth minerals. However, this development could be significant for India's economic future and its youth.

Key takeaways:

The **transition in global mobility from oil to electric** is now a given. The current global order was established after World War II on the back of oil-based combustion-engine technology. It is now being recast with electric mobility technology driven by batteries using minerals such as lithium, cobalt, nickel and rare earths.

Demand for such minerals is **expected to increase 20 to 40 times** over the next few decades. These minerals are the new oil and the **Hindu Kush mountain range could be the new Middle East**. And this could be India's opportunity.

India is **one of the least explored and mined large countries** in the world. Research suggests **that less than 10 per cent of India's landmass is explored and 2 per cent mined**.

Geological reports suggest that it is likely that such minerals could also be found in the northern Indian side of the Hindu Kush range since these were formed from tectonic shifts of the Gondwana supercontinent. This hypothesis has gained further credence with the early discovery of lithium in Jammu and Kashmir this year.

The **12th Five Year Plan (2012-17)** prepared by the Planning Commission during Manmohan Singh's premiership said that for every percentage point of growth in economic activity, **mining creates 13 times more jobs than agriculture and six times more than manufacturing**.

Mining and exploration **employ relatively lower-skilled people** than say semiconductor or automotive manufacturing. Large numbers of local, unskilled jobs mean greater employment opportunities for backward castes, Dalits and tribals.

The **global shift to electric mobility** will trigger an **exponentially rising demand for key minerals and rare earths**. The mere quest for these minerals can generate meaningful jobs and incomes for hundreds of millions, predominantly from underprivileged castes.

Of course, indiscriminate mining and exploration can be **ecologically damaging**, but in the contest between livelihoods for millions and ecological conservatism, the need is for a delicate balance tilted towards livelihoods.

India needs a robust set of environmental protection, labour and land laws to prevent loot and capture; this should be enforced by competent regulators.

Mining and exploration are **capital and technology-intensive**, especially with developments in deep-sea mining. It is the **private sector that is capable of bringing in the latest foreign technologies**, large amounts of capital and deploying it efficiently.

There is a **global critical minerals race** underway with countries such as **Indonesia, the Republic of Congo, Chile, Australia and now Afghanistan** in substantial lead.

Efficiency and productivity in exploration and mining for rare earths and other minerals will be key to India's ability to catch up and cater to global demand.

An **active government policy with incentives and strict regulations** to spur large-scale private sector exploration for critical minerals and rare earths may just be what India's jobless economic growth needs.

India's mining sector:

The mining sector's GDP contribution only swings between 2.2% and 2.5%, but based on the GDP of the entire industrial sector, it ranges from 10% to 11%.

Even small-scale mining adds 6% to the overall cost of mineral production. About 700,000 people have employment chances in the mining sector in India.

The **1991 economic reforms and the 1993 National Mining Policy** both contributed to the expansion of the mining industry.

Both **metallic and non-metallic minerals** are found in India. The non-metallic minerals include mineral fuels, and precious stones, among others, whereas the metallic minerals include ferrous and non-ferrous minerals.

India has **large reserves** of Iron ore, Bauxite, Chromium, Manganese ore, Baryte, Rare earth, and Mineral salts.

India is the **2nd largest crude steel producer** in the world, with 120 MT of crude steel produced in FY'22.

India is **home to 1,303 mines** that reported mineral production (excluding atomic, fuel, and minor minerals) in 2019-20 and produces 95 minerals – 4 fuel-related, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals.

India is the **2nd largest producer of coal**, all India production in 2021-22 was 777.31 MT (P) with a growth of 8.55%.

India is the **fourth largest iron ore producer** in the world. The **coal and iron ore is in the fifth largest reserve** in the world.

India is the world's fourth-biggest producer of iron ore, alumina, chromite, and bauxite as of 2015.

In 2018, it was the **11th-largest uranium producer** in the world.

With the launch of the **National Mineral Policy 2019** and the **Mines and Minerals (Development and Regulation) Amendment Act 2021**, India presents a major opportunity for investors looking to invest in the metal industry in India.

Minerals like manganese, lead, copper, and alumina are expected to **witness double-digit growth** in the years ahead. There is significant scope for new mining capacities in iron ore, bauxite, and coal.

Kamaraj IAS Academy
Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040
Phone: **044 4353 9988 / 98403 94477** / Whatsapp : **09710729833**

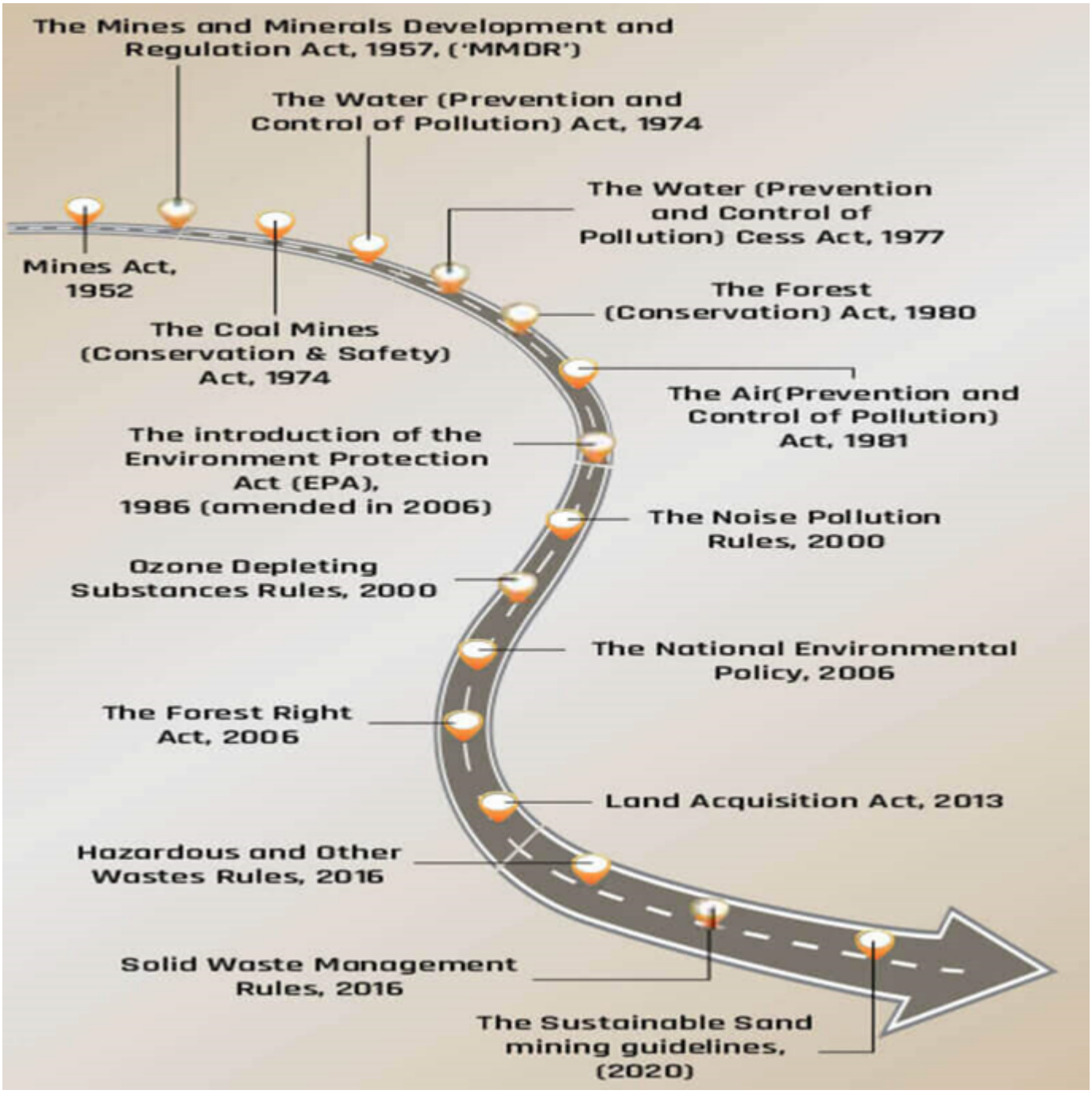
India has an advantage in the **cost of production and conversion costs of steel and alumina**.

Government initiatives for the mining sector:

India is moving quickly with plans to revamp its mining sector to achieve its goal of making India a $5 trillion economy.

India's central government and state governments are **jointly responsible** for the mining sector's administration.

The entry at serial No. 23 of List II (State List) to the Constitution of India **deals with mining-related issues** under the purview of the State government.



The entry at serial No. 54 of List I (Union List) to the Constitution of India gives the central government the power to **regulate mines and mineral development** to the extent that such a regulation is declared by the Parliament to be in the public interest.

In **Union Budget 2021**, the government **reduced customs duty to 7.5%** on semis, flat and long products of non-alloy, alloy, and stainless steels to provide relief to MSMEs.

To **boost the recycling of copper** in India, the government announced a reduction of import duty on copper scrap from 5% to 2.5% in the Union Budget 2021.

The Ministry of Mines notified the **Mineral Conservation and Development (Amendment) Rules** in November 2021 to provide rules regarding the conservation of minerals, systematic and scientific mining, and the development of minerals in the country for environmental protection.

The **National Steel Policy** aims to boost per capita steel consumption to 160 kgs by 2030-31. The government has a fixed objective of increasing rural consumption of steel from the current 19.6 kgs per capita to 38 kgs per capita by 2030-31.

Ministry of Coal has formulated a strategy to **develop an integrated approach for eliminating road transportation** of coal in mines and has taken steps to upgrade mechanized coal transportation and loading system **under 'First Mile Connectivity' projects.**

National Mineral Exploration Policy 2019 aims to have an effective, meaningful, and implementable policy that brings further transparency, better regulation and enforcement, balanced social and economic growth as well as sustainable mining practices.

Mission Purvodaya emphasized harnessing the untapped potential of the region to fuel the next wave of national growth.

In 2022, **PLI Scheme for domestic production** of specialty steel has been approved with an outlay of Rs.6,322 crore (US$ 762.4 million) by the Cabinet.

Mines and Minerals (Development and Regulation) Amendment Act, 2021, notified on 28.03.2021, for giving boost to mineral production, improving ease of doing business in the country and increasing contribution of mineral production to GDP.

Enactment of Mines and Minerals (Development and Regulation) Amendment Act, 2021 enabled captive mines owners (other than atomic minerals) to sell up to 50% of their annual mineral (including coal) production in the open market.

The Ministry of Mines has formed a **Joint Venture company**, Khanij Bidesh India Ltd (KABIL), with National Aluminium Company Ltd (NALCO), Hindustan Copper Ltd (HCL), and Mineral Exploration Corporation Ltd (MECL) as partners to ensure the nation's mineral security and achieve self-reliance in critical and strategic minerals.

Foreign Direct Investment (FDI) Reforms:

100% FDI in mining in India is allowed under **automatic route**.

100% FDI in the mining sector in India is allowed in **Coal and Lignite** under automatic route.

100% FDI in the mining sector is allowed in **mining and mineral separation of titanium-bearing minerals** and ores, value addition, and integrated activities under government routes.

Challenges faced by the mining sector:

Various formalities, legal clearances and adhering to several legal obligations are required to continue operations conveniently which in turn make the mining activities unviable and unprofitable. Too many regulations

in place further hinder the progress of the sector.

Over-extraction and illegal mining - Reports estimate the existence of almost 115,000 illegal mines.

Lack of transparency and inadequate governance infrastructure.

Lack of assets and **underutilization of resources** especially under the control of public sector units.

Inefficient management of funds.

Ambiguities in the political approaches of the Centre and States in mine auction and regulation further exacerbate the problem

Failure to meet environmental compliances has led to the closure of several mines

Difficulty in acquiring environmental clearances and government permits in certain areas due to the possibility of adverse effects on the population and environment add to it.

The **lack of modern techniques** for mineral exploration and extraction hampers the progress of the sector.

Inefficient machinery is another such problem.

Health and safety related problems and frequent accidents and disasters at mining sites.

Way forward:

Incentivising domestic exploration of critical minerals is crucial for India's long-term goal of reaching net-zero by 2070.

To encourage exploration, there is a **need to shift from the current 'revenue maximizing' model to an 'exploration investment incentivizing' model.**

Encouraging **more opportunities to private sector** in exploration of critical minerals implies more mining efficiency and more self-sufficiency for India thus reducing India's mineral import bills.

The need is to have an **independent regulating authority** which should be given power to work in the larger interest of public & economic growth.

Conclusion:

India's rich geological history and association with Gondwanaland have endowed it with vast mineral resources. However, a combination of policy, infrastructural, and environmental challenges has limited the potential contribution of the mining sector to the GDP. There's a pressing need for reforms, technological upgrades, and a balanced approach to ensure that India can harness its mineral wealth sustainably, contributing more significantly to its economic growth.