

RARE EARTH METALS

India's concern

China has about 37 percent of known global REE reserves but produces about 60 per cent of global REE.

India has about 6 percent of global REE reserves and produces a minuscule 1 percent of global supply.

If India is not able to explore and produce these minerals, it will have to depend on a handful of countries, including China, to power its energy transition plans to electric vehicles. That will be similar to our dependence on a few countries for oil.

Industry watchers say that the reason India would not have found a place in the MSP grouping is that the country does not bring any expertise to the table.

India's potential

Large tracts of the Indian Ocean coastline from East Africa to Myanmar, Thailand, Indonesia, and Australia are host to rich REE-containing mineral sands.

India has an extremely high possibility of discovery of new deposits along its coastline and hard rock carbonatites that exist all over the peninsula.

Reliable domestic supply of these products would be a major attraction to further high-value industries such as electronics, defense, electric vehicles, and many others.

India is, therefore, in a unique position of giving the comfort of producing "Non-Chinese" REE ore that could command a "reliable supplier" premium in the western high-tech electronics and defense industry.

This would provide a boost to Make in India and Atmanirbhar Bharat initiatives.

Government assertions

In India, capacity and capabilities in terms of mining, processing, extraction, refining and production of high pure RE oxides is adequately available.

The production of Monazite the primary source of rare earth mineral in India is around 4000 MT per annum.

As on September 2022, Atomic Minerals Directorate for Exploration and Research (AMD) has established

13.07 million tonnes in-situ monazite (containing ~55-60% total Rare Earth Elements oxide) resource occurring in the coastal beach placer sands in parts of Kerala, Tamil Nadu, Odisha, Andhra Pradesh, Maharashtra and Gujarat and in the inland placers in parts of Jharkhand, West Bengal and Tamil Nadu.

About

Rare Earth Elements or Rare Earth Metals are a set of 17 chemical elements in the periodic table – the 15 lanthanides, plus scandium and yttrium, which tend to occur in the same ore deposits as the lanthanides, and have similar chemical properties.

Despite their classification, most of these elements are not really "rare". One of the Rare Earths, promethium, is radioactive.

Usage

These elements are important in technologies of consumer electronics, computers and networks, communications, clean energy, advanced transportation, healthcare, environmental mitigation, and national defence, among others.

Minerals like Cobalt, Nickel, and Lithium are required for batteries used in electric vehicles.

REEs are an essential – although often tiny – component of more than 200 consumer products, including mobile phones, computer hard drives, electric and hybrid vehicles, semiconductors, flatscreen TVs and monitors, and high-end electronics.

Scandium is used in televisions and fluorescent lamps, and yttrium is used in drugs to treat rheumatoid arthritis and cancer.

Rare Earth elements are used in space shuttle components, jet engine turbines, and drones. Cerium, the most abundant Rare Earth element, is essential to NASA's Space Shuttle Programme.

Dependency

Some REEs are available in India – such as Lanthanum, Cerium, Neodymium, Praseodymium and Samarium, etc.

Others such as Dysprosium, Terbium, and Europium, which are classified as HREEs, are not available in Indian deposits in extractable quantities.

Hence, there is a dependence on countries such as China for HREEs, which is one of the leading producers of REEs, with an estimated 70 per cent share of the global production.

LEFT WING EXTREMISM IN INDIA

Issues

In the current scenario, barring a few exceptions, many of the senior police officers (IPS cadre) who are parachuted into the central police forces at senior ranks have little or no platoon/battalion experience.

It is not ideology and revolutionary zeal that is driving people who are engaged in LWE. For many, joining these groups is the only way to survive.

Threatening Democracy.

Initiatives

Greyhounds: It was raised in 1989 as an elite anti-Naxal force.

Operation Green Hunt: It was started in 2009-10 and massive deployment of security forces was done in the Naxal-affected areas

Aspirational Districts Programme: Launched in 2018, it aims to rapidly transform the districts that have shown relatively lesser progress in key social areas.

SAMADHAN doctrine is the one-stop solution for the LWE problem.

ROSHNI is a special initiative under, Pandit Deen Dayal Upadhyaya Grameen Kaushalya Yojana (Formerly Ajeevika Skills), launched in June 2013 for training and placement of rural poor youth from 27 LWE affected districts in 9 States

Way forward

Innovative measures are required to be employed in preventing IED (Improvised Explosive Device) related incidents which have caused significant casualties in recent years.

Emphasis should be laid on the capacity-building and modernization of the local police forces.

States should rationalize their surrender policy in order to bring innocent individuals caught in the trap of LWE in the mainstream.

States also need to adopt a focused time-bound approach to completely eliminate LWE groups and ensure all-round development of the affected regions.

The adverse casualty ratio in police-Naxal operations highlights the fact that insurgencies are best tackled by military forces that are trained and structured for this role

The Centre and the States should make efforts in sync that are crucial in eliminating such radicalization amongst groups (like confidence-building measures, education, welfare schemes etc)

Facts

The data also showed a decline in the number of deaths from LWE violence in Chhattisgarh and Jharkhand as well as other states.

Data of LWE violence in Chhattisgarh, Jharkhand, Bihar, Madhya Pradesh, Andhra Pradesh, Maharashtra, Odisha, Telangana and Kerala showed that 670 incidents took place in 2019, 665 in 2020, 509 in 2021 and 483 this year (until November 30).

Deaths of civilians and security forces have reduced by 85 per cent from a high of 1,005 in 2010 to 147 in 2021.

While Jharkhand saw 118 incidents and 12 deaths this year, there were 130 incidents and 26 deaths in 2021, 199 incidents and 39 deaths in 2020, and 200 incidents and 54 deaths in 2019.

Background

A number of Left Wing Extremist outfits have been operating in certain remote and poorly connected pockets of the country for a few decades now.

Maoist motto, "power flows from the barrel of gun", is their motivating force.

Naxalites seek to overthrow the State through violent means.

Naxal affected areas in India are known as the 'Red Corridor'.

The Naxal movement started with the tribal-peasant uprising against landlords in Naxalbari village of Darjiling district, West Bengal in 1967.

The Maoist insurgency doctrine glorifies violence as the primary means to overthrow the existing socio-economic and political structures.

Causes

The failure of land reforms especially land redistribution after independence.

Socio-economic inequities, unemployment, despair about the future.

Dishonest and self-serving dominant groups

Political deprivation leading to hopelessness or a sense of powerlessness.

Governance deficit in the remote parts of Red Corridor regions.

Lack of food security- corruption in the Public Distribution System (which are often non-functional).

Disruption of traditional occupations and lack of alternative work opportunities.

SURETY BOND INSURANCE

About

Surety bonds are a contract or a three-way agreement that are guarantees of payment, which insurers issue.

The surety (insurance companies/banks) provides the financial guarantee to the obligee (government) that the principal (contractor) will fulfil their obligations as per the agreed terms.

Surety bonds will aid in developing an alternative to bank guarantees for the construction of infrastructure projects. However, these are different from bank guarantees as in this a considerable amount of the project funds of contractors does not get frozen.

Risk factors

A few of the possible risk factors could be a lapse in bond coverage, which can invalidate a licence or contract. In addition, required bond renewals could add to ongoing costs and hassle.

Considering that surety bonds are a relatively new concept in India, they are a risky product as insurance companies are yet to achieve the expertise in risk assessment in such a business.

Moreover, there is no clarity on pricing, the recourse available against defaulting contractors, and reinsurance options.

Significance

Surety bonds will ensure the efficient use of working capital and reduce the requirement of collateral, which construction companies need to provide.

Insurers will work in tandem with financial institutions to share risk information. This will assist in releasing liquidity in the infrastructure space without compromising on risk aspects.

Final Thought

The above-mentioned issues need to be addressed in consultation with all the stakeholders.

That's apart this product launch is in line with the government's vision to up-scale the infrastructure development in the country to increase the pace of development of upcoming projects.

The government of India is making concerted efforts to implement measures that will accelerate the development of infrastructure in India and Surety Bond Insurance is a decisive step in this direction.

IRDAI Surety Insurance Contracts Guidelines, 2022

As per the guidelines, the premium charged for all surety insurance policies underwritten in a financial year, including all instalments due in subsequent years for those policies, should not exceed 10% of the total gross written premium of that year, subject to a maximum of Rs 500 crore.

Also, insurers can issue contract bonds, which assure the public entity, developers, subcontractors, and suppliers that the contractor will fulfil its contractual obligation while undertaking the project.

Bonds that surety insurance covers include contract bonds, bid bonds, performance bonds, advance payment bonds, custom and court bonds and retention money.

The limit of the guarantee should not exceed 30% of the contract value. Finally, surety insurance contracts should be issued only to specific projects and not clubbed for multiple projects.

DISTRICT MINERAL FOUNDATION

Concerns

The Centre also observed that states have been found transferring DMF funds to their treasury and consolidated funds, and even to the Chief Minister's Relief Fund and other schemes.

Ever since its establishment in 2015, the DMF has been portrayed as the saviour of communities' tribals mostly that have benefitted little from mineral exploration and development in the regions they inhabit.

Six years down the line, there are instances galore where DMF funds have gone to areas that have little or no bearing on the lives of the vulnerable population.

Way Forward

The latest order by the Centre also echoes the same because putting huge financial resources to uses other than what they have mandated defeats the whole purpose of the DMF's creation.

Mineral development comes at a huge social and environmental cost, but communities living in these ore-bearing landscapes must be the principal beneficiary of the funds because they are the ones who bear the brunt but they aren't benefited greatly.

About

The DMF fund is raised with the mining companies' contribution of 30% of their royalty amount for mining leases.

As per the Census of 2011, the district population has 44.5% Scheduled Tribes and 62% Scheduled Castes.

Background

The lopsided equation of poverty and social benefits has failed some of India's richest mining districts for decades.

Mining has benefited mining companies, individual miners and governments, not the communities living there.

After years of deliberations and negotiations in 2015, the country's central mining law, the Mines and Minerals (Development and Regulation) Act (MMDR) of 1957 was amended and District Mineral Foundation (DMF) was instituted.

Composition & functions

The composition and Functions of the DMF are prescribed by the State Governments taking guidelines from Article 244 of the Indian Constitution, fifth and sixth schedules,

Funds every mining leaseholder will pay a fraction of royalty, not exceeding one-third of the royalty, to the DMF as per rates prescribed by the Central Government.

This fund will be used for the welfare of the people affected by the mining of selected areas.

The Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) will be implemented by the DMFs of the respective districts using the funds accruing to the DMF.

NEW INDIA LITERACY PROGRAMME

In News

The Minister of State for Education informed the Lok Sabha that the Union Government has announced a Centrally Sponsored Scheme "New India Literacy Programme" that aims to cover a target of 5 crore learners under the Foundational Literacy and Numeracy component.

About

The Union Government has approved the "New India Literacy Programme (NILP)" intending to support the States and Union Territories in promoting literacy among non-literates in the age group of 15 and above, across the country covering 5 crore non-literates during the implementation period from 2022-23 to 2026-27.

The scheme has been approved with a financial outlay of Rs.1037.90 crore including a Central share of Rs.700.00 crore and a State share of Rs.337.90 crore.

Objectives

To Provide Foundational literacy and numeracy

Promote Critical life skills: Financial literacy, Digital literacy, Commercial skills, Health care and awareness, Child care and education, and Family welfare.

The scheme will cover non-literates of the age of 15 years and above in all states/UTs in the country.

To cover 5 crore learners (1 crore per year) by using the "Online Teaching, Learning and Assessment System (OTLAS)" in collaboration with National Informatics Center.

Way forward

GIAN Initiative invites distinguished academicians, entrepreneurs, scientists, and experts from premier institutions from across the world to teach in higher educational institutions in India.

SWAYAM Portal for Online Courses.

SWAYAM Prabha Provide HD educational Channels through DTH on a 24X7 basis.

Sodhganga to develop a national repository of universities in India, digital Study material for higher education.

SamagraShiksha Scheme to ensure inclusive and equitable quality education at all levels of School education.

Challenges

India has achieved universal enrollment at the elementary level. This is a great achievement, but getting Students to School is only the beginning of human Capital formation.

Broken Governance System. There are few rewards for being a good teacher and few Punishments for being a Careless one. Need more effective and accountable governance Systems.

Poor quality of facilities, Shortage of qualified faculty.

Date Curriculum, Limited university-industry Partnership.

Features

The term "Adult Education" is to be replaced with "Education For All".

The scheme will be implemented through volunteerism through online mode.

All materials and resources shall be provided digitally.

Different strategies are to be adopted for different age groups. Flexibility for States/UTs will be provided to undertake innovative

Performance Grading Index (PGI) for State/UT and district level will show the performance of States and UTs on yearly basis by weighing both the physical and financial progress through the UDISE portal.

Assessment tests to be conducted in schools by State/UTs and evaluation of learners by NIOS/SIOS; assessment on demand through OTLAS and generation of e-certificates

RELIGIOUS CONVERSION

Arguments against

According to some activists, "Such laws are used to target religious minorities and interfaith couples".

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These laws would be used to target even voluntary conversions and curb the fundamental rights of "Freedom of conscience" under Article 25.

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These Acts do not satisfy the test of reasonableness and fairness and also go against the fundamental rights under Article 14 and Article 21" of the Constitution.

Arguments in favour

These laws only ban and punish forceful religious conversion.

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Fundamental rights under Article 25 'Right to propagate a religion" did not extend to forced conversions. There is no fundamental right to convert another person to one's religion.

Way forward

Anti-conversion laws have been challenged in courts ever since Odisha moved the first such legislation in 1967. However, the courts have a mixed record defending the freedom of choice about religion, ruling in favour of individual liberty in some cases but not in others.

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The High Court on many occasions clearly said that while a person has the right to believe and the right to change their beliefs, they also have a right to keep their beliefs secret.

Context

The Supreme Court of India took serious note of a religious organisation's objections to "scurrilous, vexatious and scandalous" allegations made against minority religions by a petitioner in his case alleging "massive" forcible religious conversions.

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The court stated that It will give a wrong signal to the minority community if Supreme Court allow this type of language in the petition.

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The court asked the petitioner to remove the offending language.

About

Every individual has a natural entitlement to religious faith and freedom of conscience, a right to adopt or abandoned any faith of his own choice. Religious conversion means adopting a new religion, a religion that is different from his previous religion or religion at his birth.

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At the central level, India does not have any law which provides any sanction in case of forcible conversions. In 1954, an attempt was made to pass the Indian Conversion (regulation and registration bill) but Parliament failed to pass it due to heavy opposition. The need of the hour is to pass a strict anti-conversion bill to curb forced conversion in society.

Reasons behind religious conversion:

Conversion by force.	Conversion by offering a better life. It means offering economic incentives for one to come out of the religion.	Conversion for marriage.	Conversion to escape the rigid hierarchical system caste system.
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NUCLEAR POWER IN INDIA

Importance

Thorium and Uranium reserves: India has vast reserves of Thorium that can fuel India's nuclear energy provided appropriate technology. India's thorium deposits, estimated at 360,000 tonnes, and natural uranium deposits at 70,000 tonnes.

Energy poverty: Although India is the 3rd largest producer of electricity, about 20% of the population of the country does not have access to electricity today.

Energy demand: Nuclear energy is a critical part for India's future energy security.

Climate change: Due to its emission-free nature, nuclear energy can contribute to global efforts under the Paris Agreement.

Challenges

Public Awareness: Commercial nuclear power is sometimes viewed by the general public as a dangerous or unstable process.

Used Fuel Transportation, Storage and Disposal: Many people view used fuel as a growing problem and are apprehensive about its transportation, storage, and disposal.

Constructing New Power Plants: Building a nuclear power plant can be discouraging for stakeholders. Conventional reactor designs are considered multi-billion dollar infrastructure projects.

High Operating Costs: Challenging market conditions have left the nuclear industry struggling to compete.

Way forward

If the entire life cycle of a nuclear plant is included in the calculation, nuclear energy certainly comes out ahead of fossil fuels like coal or natural gas.

Atomic Energy Commission, said that India's energy future depended on its rapid growth of nuclear power.

Nuclear waste is a major concern globally and dissuades many countries from relying on this technology.

Reprocessing of this waste helps reduce the quantum of waste generated in the reactor that needs to be disposed of through safe storage.

The solution to various challenges is not to shun the technology altogether, but to use technology to counter the problems caused by technology.

Context

India plans to build more nuclear power plants to increase the production of clean energy, the government said.

Nuclear Power in India

India's nuclear programme can trace its origins to 1944 and its efforts in 3 stage technology were established by Homi Jehangir Bhabha when he founded the nuclear research centre, the Tata Institute of Fundamental Research.

Today, India has 23 nuclear reactors in operation in 7 nuclear power plants, with a total installed capacity of 7,480 MW.

Kudankulam Nuclear Power Plant is the largest nuclear power station in India, situated in Tamil Nadu.

India's Nuclear Capacity

The present installed nuclear power capacity in the country is 6780 MW comprising of 22 operational nuclear power reactors.

In 2021, about 2 percent of the domestic production of electricity in India was derived from nuclear energy.

The present nuclear power capacity of 6780 MW is planned to be increased to 22480 MW by 2031 on progressive completion of projects.

COOPERATIVE SOCIETIES AMENDMENT BILL

Significance

The Cooperative processing units help in value additions to the raw products.

They also help in building up storage, warehouse, cold storage, rural roads and in providing facilities like irrigation, electricity, transport, education and health.

They play the role of a balancing factor between the public and private sectors and also supplement the work of the government and its agencies.

They play an important role in poverty reduction, promoting women's empowerment, and improving literacy rate and skill development.

Concern

Cooperative Societies usually do not come forward to organise cooperatives of their consensus, many times it is done by the government or local administration.

The cooperatives have limited resources.

They grant loans only for agricultural operations. Farmers approach the money lenders to meet their other requirements.

Lack of co-operation, as the people rarely understand the importance of cooperation in their lives.

The absence of willing cooperation on their part hinders the growth of the cooperative movement.

Political interference acts as a barrier to the growth of cooperative societies.

Poor performance, increasing debt and overdue, inefficient administration and management of Cooperative societies.

Way forward

Need to ensure transparency in the processes and independence in the functioning of Boards.

Good Cooperative management includes setting up clear objectives, accountability, sound planning, and establishing performance evaluation measures.

The objectives of the cooperative societies must be recognized in their long-term strategy.

Increase access to competitive and affordable external financing.

Better operational and financial performance through improved strategic decision-making.

In News

The Union Government has introduced the Multi-State Cooperative Societies (Amendment) Bill, 2022 in the loksabha.

The amendment bill aims to make the governance of multi-State cooperative societies more democratic, transparent and accountable.

Details

The Bill has the provisions of the 97th Constitution

Amendment act which provides Constitutional status and protection to cooperative societies.

It aims to improve the composition of boards and ensure fiscal discipline.

The Bill has provisions for setting up a Cooperative Election Authority, a Cooperative Information Officer and a Cooperative Ombudsman.

Provisions relating to the representation of women and Scheduled Caste/Scheduled Tribe members on the boards of multi-State cooperative societies have been included to promote equity and facilitate inclusiveness.

In India

A Cooperative Society can be defined as a voluntary association of individuals united voluntarily to meet their common economic, social, and cultural Interests.

The roots of cooperative Societies in India were sown when the first Cooperative Societies Act was passed in 1904.

National Cooperative Development Corporation (NCDC) was set up under the National Cooperative Development Corporation Act, of 1962.

Union Government announced a National Policy on Cooperatives in 2002.

The 97th Constitutional Amendment Act of 2011 granted constitutional status and protection to cooperative societies.

The functional directors of a cooperative society shall also be the members of the board and such members shall be excluded to count the total number of directors (21).

The term of office of elected members of the board and its office bearers shall be 5 years from the date of the election.