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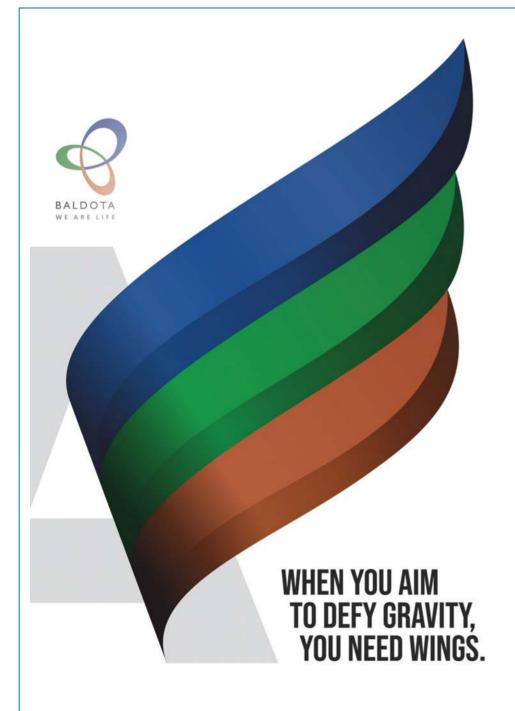


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Mining Engineers' Association of India

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Vol. 26 No. 12 MONTHLY July - 2025



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Dear members..

It has been an immense honour and privilege to serve as the President of the Mining Engineers' Association of India (MEAI) for the term 2023–2025. As I pen this message I reflect on a journey marked by transformative initiatives, unwavering commitment from our members, and significant progress toward a more sustainable and resilient mining ecosystem in India.

Over the past two years, MEAI has not only reinforced its stature as the premier professional body for mining professionals but has also expanded its influence across industry, academia, policy, and society. We have strengthened our foundation, redefined our strategic priorities, and delivered value to our members through knowledge exchange, policy advocacy, capacity building, and institutional partnerships.

As I near the completion of my term, I must candidly share that while the journey has been enriching and enjoyable, it has also been a learning experience. I had very high expectations about working for the Association, and while many were met, I was also reminded that "all that glitters is not gold." I assumed office with many aspirations.

हज़ारों ख्वाहिशे दिल में कि , हर ख्वाहिश पे दम निकले बहुत निकले मेरे अरमान, फिर भी कम निकले

There were several fulfilling moments, but also a few bitter ones, some of which I shared frankly during the 7th Council Meeting at Udaipur. I trust that members have taken those remarks in the right spirit, as honest reflections intended to improve our collective future.

Aligning with the national movement on empowering women, we inducted Ms. Sakshi Gupta (Udaipur Chapter) as a Special Invitee to the Council, marking a significant step towards inclusivity. Further, we resolved to include one woman nominee from each chapter (that fields at least two candidates) in the Elections for reconstituting Council for the term 2025–2027. Unfortunately, only two Chapters (Udaipur & Ahmedabad) could nominate one woman candidate each.

To amplify this vision, Ahmedabad Chapter organized a virtual panel discussion by and for women members, titled "Celebrating Women in Mining" in March 2025, with participants from Hindalco, Vedanta, WIM India, HZL, and moderated by Ms. Veena Padia, CEO, GVT GMDC.

However, despite these steps, a disconcerting experience during the nomination process for the upcoming elections highlighted the distance still to be covered. A qualified and enthusiastic woman candidate was denied the opportunity to contest for a leadership role, with one of the unstated reasons appearing to be her gender and youth. This experience exposed an underlying bias that still exists, even as we strive for equity. As is reflected on the incident, one thought resonated deeply:

"A whole generation worked to empower women, but forgot to teach men how to live with empowered women"

Let this serve as a call to action for our Association to not only advocate change, but also embody it—in our actions, policies, and mindset.

During my tenure, 10 new Student Chapters were launched across engineering colleges and universities, significantly increasing our student membership base. These initiatives aim to nurture future mining leaders through early engagement and exposure.

A defining moment of my term was the International Conference on 'Future of Mining: Digital Empowerment and Youth-Driven Sustainability' hosted by Rajasthan-Udaipur Student Chapter in collaboration with CTAE, MPUAT. This 'By Students, For Students' event (22–23 February 2025) was a bold statement of our vision to empower the next generation of mining leaders.

This two-year journey as President has been both fulfilling and humbling. From the hills of Udaipur to the great rann of Kutch, from policy panels in Karnataka to student-led conferences in Rajasthan – I have witnessed first-hand the passion, intellect, and dedication that defines MEAI.

I express my heartfelt thanks to:

- All past Presidents for their guidance
- My fellow Council Members, Vice Presidents, Secretary General, Treasurer, and Chapters' Chairmen & Secretaries, Editor MEJ
- The organizing teams and volunteers of various events
- Each and every member for your trust, support, and contributions

With deep appreciation and warm regards,

S.N. Mathur President



Mining Engineers' Association of India Regd. Office: Rungta House, Barbil (Odisha)

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EDITOR'S DESK



Dr. P.V. Rao Editor, MEJ

Reforming India's Mining Sector—A Call for Urgent Alignment and Action

India's mining sector, endowed with immense geological potential and strategically positioned within global supply chains, stands at a critical junction. Despite significant policy initiatives and a clear intent to modernize, the sector remains hamstrung by persistent structural and regulatory hurdles. As the nation pivots toward clean energy and digital technologies, the importance of critical minerals—such as lithium, cobalt, and rare earth elements—has grown exponentially. Yet, both domestic exploration and overseas acquisition efforts reveal gaps that must be urgently addressed if India is to secure its economic future.

A cornerstone of reform lies in modernizing India's mineral reporting framework. The Indian Mineral Industry Code (IMIC), approved by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) in 2019, is a pivotal but underutilized tool that can transform the sector. Modelled on globally accepted standards, the IMIC aligns mineral resource reporting with international norms, providing transparency, clarity and consistency for global investors. By enhancing transparency and mandating the disclosure of economically viable reserves with high geological confidence, the IMIC can significantly boost investor confidence and attract much-needed Foreign Direct Investment (FDI).

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However, progress has been slow. Despite its approval by global bodies, the IMIC remains unadopted at the policy level. The Ministry of Mines continues to rely on the MEMC Rules prepared by merging the outdated version of United Nations Framework Classification (UNFC) system and the CRIRSCO Template with suitable changes, creating a disconnect between global investment expectations and India's internal classifications. This regulatory inertia—fuelled by reluctance to overhaul established systems, limited training, and insufficient awareness among policymakers—risks sidelining India in the competitive global mining arena.

Meanwhile, the government has launched several promising initiatives to boost domestic capacity and international engagement. The National Critical Mineral Mission (NCMM), with an outlay of \$\partial 34,300\$ crore over seven years, reflects a strategic commitment to ensuring the availability of critical minerals. This includes auctioning domestic blocks and promoting overseas acquisitions. Khanij Bidesh India Ltd. (KABIL), a joint venture by public sector undertakings, is another major step toward securing strategic minerals abroad. With a foothold in Argentina and ongoing engagements in Australia and Chile, KABIL symbolizes India's ambition for resource security and its intent to diversify sources of essential minerals.

Yet, outcomes have been mixed. Domestically, only about 48% of auctionable blocks have been successfully allocated. Investors remain hesitant, citing inadequate pre-auction exploration data, procedural delays, and land acquisition hurdles. Foreign players have withdrawn from large projects—such as ArcelorMittal's \$12 billion and POSCO's \$5.3 billion ventures—highlighting how regulatory bottlenecks and unclear mining rights continue to undermine confidence and deter long-term investment.

Overseas, KABIL's progress has been steady but slow, challenged by long gestation periods, complex international negotiations, and the absence of a sovereign acquisition fund. These difficulties are compounded by fierce global competition and a still-developing domestic ecosystem for processing and recycling minerals. Despite the allowance of 100% FDI under the automatic route for most mining activities, inflows remain subdued due to these structural challenges and the lack of harmonized reporting standards.

What India needs is a bold, synchronized approach. First, the formal adoption and enforcement of the IMIC must be prioritized. Not only would this establish credibility among international investors, but it would also streamline project appraisal by banks and stock exchanges, helping domestic firms access capital more easily. Second, expediting approvals, simplifying land acquisition procedures, and ensuring robust environmental and social safeguards will create a more stable policy environment. Finally, institutional reforms—such as establishing a dedicated sovereign fund for overseas acquisitions—can provide the financial muscle and confidence needed to compete globally.

India's mineral ambitions are timely and well-founded. As the global economy shifts toward energy transition and digitalization, the demand for critical minerals will only grow. With its geological promise, technical capacity, and demographic strength, India can be a major player in this space. But to achieve this, the country must shed legacy constraints and embrace globally harmonized practices, backed by strong institutional resolve and political will.

In conclusion, India's mining future hinges not just on policy vision, but on execution. The IMIC offers a tangible, high-impact reform that can unlock investment, build trust, and ensure sustainable growth. Coupled with better exploration data, streamlined regulation, and stronger overseas strategies, it can transform India's mining sector into a pillar of national economic and strategic strength.

- Editor



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NEWS FROM THE MINERAL WORLD

Rajasthan brings new rules to develop the miningaffected areas

For DMFT, 30 per cent of royalty amount is collected from old mines of major minerals and 10 per cent each from auctioned major mineral mines and minor mineral mines.

A majority of Rajasthan's earmarked funds for miningaffected areas will be used for works like drinking water distribution, environmental protection and health facilities, said a senior civil servant.

The District Mineral Foundation Trust (DMFT) will use 70 per cent of funds in "high-priority areas", said T Ravikant, principal secretary of mines and petroleum department. The rest of the amount will be used for development works in other places in mining areas. For DMFT, 30 per cent of royalty amount is collected from old mines of major minerals and 10 per cent each from auctioned major mineral mines and minor mineral mines.

The state government has issued a notification on new DMFT rules that will enable better use of funds for mining-affected areas, said Ravikant. Public welfare works will be done within a 25 km radius of a miningaffected area, according to the new rules.

Chief Minister Bhajan Lal Sharma, who holds the mining portfolio, aims to develop mining by simplifying approvals for investments. "The Chief Minister believes that the amount collected in the DMFT fund from a mining area should be used in the overall development of the residents of the same area," Ravikant said.

Ravikant said that the new rules state 70 per cent of DMFT funds in high priority areas can be used for drinking water distribution and purification, environmental protection, health facilities, education, child development, skill development of youth and other purposes.

As much as 30 per cent of the amount can be used for other priority works, especially infrastructural development, including road, bridge, rail projects and irrigation projects, energy and watershed-related works.

Ravikant said that in districts where Rs 50 crore or more amount is collected in mining royalties, project management units will be formed for management, technical assistance and planning. As much as 10 per cent of the amount received in the fund will be kept as an endowment fund.

Anil Sharma Jaipur, BS | 19 Jun 2025

Coal India to restart 32 mines to meet power needs as clean energy stalls

India's coal giant revives old mines and plans new projects as renewable capacity falls short of surging consumption.

State-run Coal India Ltd is reopening 32 defunct mines and preparing to launch up to five new greenfield projects this year. The move comes as India's energy needs outpace the current capabilities of its renewable infrastructure, marking a pivot back to coal amid a widening gap between energy demand and clean power supply.

Coal India Chairman and Managing Director PM Prasad, in an interview with the *Financial Times*, said the mines, once considered unviable due to reliance on manual mining and outdated machinery, will now be revived through revenue-sharing agreements with private partners. At least six of these mines are expected to resume production in the financial year 2025-26.

India's total energy consumption reached approximately 40.5 exajoules in 2023, with the industrial sector accounting for 49 per cent, followed by residential, transport, and other sectors. India's primary energy consumption is projected to more than double by 2050.

"This is now happening," Prasad confirmed, referring to the Coal Ministry's December 2024 policy aimed at restoring closed mines to boost domestic supply and reduce coal imports. So far this year, tenders for 27 mines have been awarded, with five more in the pipeline.

Clean energy progress lags

While India has ramped up solar and wind investments, renewable sources have yet to meet the scale and consistency required to support the country's increasing energy consumption. Despite a \$13 billion investment in clean energy last year, the amount falls far short of the \$68 billion annual requirement needed to meet the 2030 target of 500 GW from green sources, according to research firm Ember.

Coal continues to underpin India's energy mix, powering 74 per cent of electricity generation as of 2024. While government projections indicate this figure will fall to 55 per cent by 2030 and 27 per cent by 2047, coal remains a vital interim fuel for India. Coal India currently operates 310 mines, supplying about 75 per cent of the country's total coal needs. The company expects coal production to grow by 6-7 per cent annually, reaching 1.5 billion tonnes by 2030.

Peak coal by 2035, says Coal India

Prasad pressed that despite reopening mines, Coal India is still committed to India's net-zero target by 2070.

"We will reach peak coal by 2035," he said, suggesting that while coal remains critical for now, it will gradually cede ground to more sustainable energy sources over the next decade.

The revival of the sector comes at a time when international pressure is mounting on major economies to hasten the transition away from fossil fuels. However, energy demands in the world's fastest-growing economy require it to prioritise energy security and affordability while investing steadily in renewables for the long term.

108 Cola India mines marked for final closure

Over the past decade, Coal India Limited (CIL) has identified a total of 299 coal mines as abandoned, discontinued, or closed. This includes 130 mines closed after 2009, encompassing the last ten years. However, the formal closure process has been notably slow. In a press statement last year, the central government said that a total of 108 mines have been marked for final closure and 20 for temporary closure by Coal India Ltd and SCCL, but only three have been formally closed under government guidelines as of early 2025.

The delay in formal closures is attributed to factors such as financial constraints, administrative hurdles, and the complex process of land reclamation and environmental rehabilitation. In response, the Ministry of Coal has introduced revised mine closure guidelines and established a centralised portal to monitor closure activities, aiming to streamline the process and ensure environmental and community welfare.

Vasudha Mukherjee, BS, New Delhi I Jun 09 2025

Deccan Gold Mines reports consolidated net profit of Rs 14.45 crore in the March 2025 quarter Sales decline 99.70% to Rs 0.01 crore.

Net profit of Deccan Gold Mines reported to Rs 14.45 crore in the quarter ended March 2025 as against net loss of Rs 67.40 crore during the previous quarter ended March 2024. Sales declined 99.70% to Rs 0.01 crore in the quarter ended March 2025 as against Rs 3.36 crore during the previous quarter ended March 2024.

For the full year, net loss reported to Rs 32.80 crore in the year ended March 2025 as against net loss of Rs 63.69 crore during the previous year ended March 2024. Sales rose 11.37% to Rs 3.82 crore in the year

ended March 2025 as against Rs 3.43 crore during the previous year ended March 2024.

BS | May 29 2025

Lower-grade Australian iron ore sparks global benchmark change



Rio Tinto's iron ore train cars in Western Australia

The longstanding global pricing benchmark for most traded iron ore cargoes will be adjusted in 2026 to reflect the falling quality of ore from top supplier Australia, pricing service Platts said.

Platts, part of S&P Global Commodity Insights, proposed to revise down the specification for its benchmark index to 61% iron content from 62% due to the declining quality of Australian iron ore fines, the global price reporting agency (PRA) said on Tuesday.

"The update would have baseline specifications more closely reflecting those of major medium-grade fines traded in the market," it said in a notice on its website. The benchmark 62% iron ore index has been used to settle contracts among international miners and buyers for decades.

The world's largest iron ore miner, Rio Tinto, told *Reuters* on Wednesday that it had lowered the iron content of its Pilbara Blend Fines to 60.8% and Pilbara Blend Lump to 61.6%, without specifying when the change started. The change was a result of "both customer requirements and available ore grades", according to a Rio Tinto spokesperson. Platts has also proposed to change the iron content of its benchmark 62.5% Fe China iron ore spot lump premium to 62%.

Both changes will take effect from January 2, 2026, according to the notices. The Platts benchmark prices futures, options and swaps on the Singapore Exchange, one of the biggest iron ore futures markets in the world.

"Many investors have built positions and will wait for a potential change from the Singapore Exchange to assess whether the current valuation for their positions is reasonable," said Pei Hao, a Shanghai-based senior analyst at international brokerage Freight Investor Services (FIS).

The Singapore Exchange late on Wednesday announced a proposal to amend iron ore and lump premium contracts priced against the Platts benchmarks to enable contracts from January to reflect the new Platts specifications.

"SGX will apply a one-time monetary adjustment on the adjustment date to all contracts with open interest as at and from January 2026 onwards, through members' margin accounts," the bourse said in a statement. Platts on Tuesday started publishing a daily 62%/61% basis spread to reflect the calculated difference in value between current and proposed specifications. Other price reporting agencies including Mysteel, Argus and Fast markets, have also recently launched new 61% iron ore indexes.

Reuters | June 11, 2025

Collapse at coltan mine in eastern Congo kills 12



A coltan mine near Rubaya in the Democratic Republic of the Congo

A collapse at a coltan mine in eastern Democratic Republic of Congo's North Kivu province has killed at least 12 people, a mining source and a civil society source said on Friday.

The sources said that dozens more escaped from the artisanal mine when it collapsed on Thursday. The reasons for the collapse were not immediately clear. Small, artisanal mines around the town of Rubaya produce around one-sixth of the world's supply of coltan, a metallic ore crucial to the production of smartphones and other electronic devices.

The M23 rebels have controlled the area since mid-2024 and charge a tax of 15% on the value of that coltan production, rebel officials have told *Reuters*.

Reuters | June 20, 2025

Greenland grants 30-year permit to EU-backed Molybdenum mine

Greenland Resources (Cboe CA: MOLY)(FSE: M0LY)

secured on Thursday a 30-year permit for its Malmbjerg molybdenum project, a major development backed by the European Union.



The Malmbjerg Molybdenum project is 20 Km from Mestersvig airport, pictured here

The open-pit mine is expected to supply roughly 25% of the EU's annual molybdenum demand over its first decade of operation, producing an average of 32.8 million pounds of the metal each year.

Molybdenum, a silvery-white element used to strengthen steel and improve heat and corrosion resistance, is critical to sectors such as aerospace, energy and defence. China, the dominant global supplier, recently introduced export restrictions on the metal, in response to US President Donald Trump's tariff on Chinese goods.

The Malmbjerg project is supported by the European Raw Materials Alliance (ERMA) and has already attracted interest from key industrial players. Earlier this year, Greenland Resources signed off-take agreements with Finland's Outokumpu and Italy's Cogne Acciai Speciali.



The Malmbjerg Molybdenum project

Greenland's Minister for Business, Mineral Resources, Energy, Justice and Gender Equality, Naaja H. Nathanielsen, called the project a step forward for the territory's economic autonomy. "The progress we are experiencing in the mineral resources sector is good news for all of us." she said.

Nathanielsen noted that projects like Malmbjerg contribute to the Greenland Government's goal of a (Continued on Page 34)



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ANALYSIS AND IMPACT OF THE NINE JUDGE BENCH JUDGEMENT OF THE HON'BLE SUPREME COURT OF INDIA IN THE CASE OF MINERAL AREA DEVELOPMENT AUTHORITY (MADA) & ANR. VS. M/S STEEL AUTHORITY OF INDIA (SAIL) & ANR. ETC. IN CIVIL APPEAL NOS. 4056 - 4064 OF 1999, DATED JULY 25, 2024 & AUGUST 14, 2024 ON THE MINING INDUSTRY AND WAY FORWARD

Vijay Singh A R

(Part 1 of 2)

Abstract

It is very rare to see a judgment of nine Judge Bench of the Hon'ble Supreme Court on a topic concerning regulation of mines and mineral development. It indeed clarified lot of fundamental issues plaguing the mining industry and also clearly laid down contours of bifurcation of powers between the Central Government and the State Governments and paved the way for greater clarity and in the process allowed the State Governments to come up with newer cesses or other taxes on grant of mineral rights and for holding mineral bearing land under a legitimate mining lease, by concluding that royalty is not a tax and only the States have power to levy cesses or other taxes, since the minerals are found in the land and this subject falls under the exclusive domain of States. The Central Govt. through MMDR Act, 1957 cannot levy taxes or cesses or surcharges on mines & minerals by exercising powers under Entry 54 of List I to Seventh Schedule to the Constitution.

If anybody claims mastery over the MMDR Act, 1957 and its rules then it is mandatory for such a person to thoroughly study (not read) and understand the issues discussed in this 393 page long judgement decided in the ratio of 8:1 majority, and in the personal opinion of the author one can get more insights when he studies the dissenting minority judgement given by Justice Mrs. B V Nagarathna and also ought to take cognisance of the review petition filed by the Central Government and other parties, though the Hon'ble Supreme Court did not entertain and dismissed the review petition.

Apart from bringing clarity in payment of royalty, etc. and division of powers between the Central Government and the State Government/s, it overruled certain judgements rendered by itself in the past and that were holding the field upto now and in the bargain it did not deprive the States of its legitimate collection of cess and other taxes that various State Government/s attempted to levy by virtue of powers conferred under Entry 49 of List I in the Seventh Schedule to the Constitution by allowing the States to collect the state levies that were foregone w.e.f. April 1, 2005 though giving a small reprieve to mining lease holders in terms of defraying the past dues in instalments without interest and penalty.

This judgement is not only important for the mining fraternity, but also for every legal professional who is involved in matters concerning exercise of powers on a particular legislative aspect by the Central Government or State Government.

This article / writeup is divided into following three parts for better appreciation of issues considered and conclusions arrived by the Hon'ble Supreme Court along with its impact and way forward:

Part A - ANALYSIS, DISCUSSIONS AND CONCLUSIONS OF THE HON'BLE SUPREME COURT JUDGEMENT

Part B - IMPACT OF HON'BLE SUPREME JUDGEMENT ON THE MINING INDUSTRY

Part C - WAY FORWARD POST THE HON'BLE SUPREME JUDGEMENT

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PART A: ANALYSIS, DISCUSSIONS AND CONCLUSIONS OF THE HON'BLE SUPREME COURT JUDGEMENT

1. APPEALS / PETITIONS

There were 80 Appeals / Petitions / Transfer Petitions in the matter before the Hon'ble Supreme Court ("Hon'ble Court") beginning from March 30, 2011 when the three Judge Bench of Hon'ble Supreme Court observed that there was conflict between the judgement in India Cement Ltd. and Ors. v. State of Tamil Nadu and Ors., [(1990) 1 SCC 12] delivered by seven Judge Bench of Hon'ble Supreme Court and the judgement in State of West Bengal v. Kesoram Industries Ltd. and Ors, [(2004) 10 SCC 201] delivered by five Judge Bench of Hon'ble Supreme Court and accordingly the matter (Mineral Area Development Authority (MADA) etc. vs. M/s. Steel Authority of India (SAIL) & Ors.) was referred to the nine Judge Bench of the Hon'ble Supreme Court vide order dated March 30, 2011.

2. INTRODUCTION

The nine Judge Bench judgement was passed in the ratio of 8:1 and the majority verdict was authored by then Chief Justice of India. The judgement as downloaded from the web portal of the Hon'ble Supreme Court runs into 393 pages in the ratio of 200 pages: 193 pages and the questions formulated in the matter were answered by the Hon'ble Court on July 25, 2024 and subsequently on the request of senior counsels, the Hon'ble Court delivered its second verdict on August 14, 2024 in the matter regarding retrospective application of the conclusions reached w.e.f. April 1, 2005.

Subsequent to the majority judgement in the matter, certain parties including the Central Government filed a review petition before the Hon'ble Supreme Court, but the same was rejected by the Hon'ble Court in Diary No. 38926/2024, dated September 24, 2024.

As per the disclosures made to stock exchanges (BSE & NSE) under Regulation 30(4) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 M/s. Tata Steel Limited has disclosed that it has filed a curative petition in the matter on January 17, 2025 in respect of dismissal of review petition by the Hon'ble Court and the matter is pending before the Hon'ble Court.

3. ORIGIN OF LIS i.e. LITIGATION

3.1 Litigation in the case of India Cement Limited

Under Section 115 of the Madras Panchayats Act (XXXV of 1958), as amended by Madras Act XVIII of 1964, the appellant i.e. M/s. India Cement Limited was required to pay local cess @ 45 paise per rupee of land revenue and the said imposition was with retrospective effect along with local cess surcharge under section 116 of the Act. An explanation was also inserted in the

- said Act to construe that land revenue includes royalty paid by the miners from the mineral excavated from the land.
- This levy of cess was challenged by India Cement by taking a stand that royalty was itself a tax and there cannot be levy of tax on tax by way of levy of cess on land revenue that includes royalty in Writ Petition No. 1864/65 before the Hon'ble High Court of Madras (Single Judge). Order passed on February 23, 1967 and the levy upheld.
- M/s. India Cement filed an appeal in W.A. No. 464 of 1967 before the Hon'ble High Court of Madras (DB). By Judgment and Order dated October 13, 1969 the Division Bench of the Hon'ble High Court of Madras upheld the Single Judge Bench Order (supra).
- The Hon'ble High Court of Madras upheld the levy of cess by the State Government by relying on Entry No. 49 to List II of Seventh Schedule of the Constitution.
- Being aggrieved, M/s. India Cement filed an appeal in Civil Appeal No. 62 (N) of 1970 before the Hon'ble Supreme Court, which was subsequently referred to seven Judge Bench of the Hon'ble Supreme Court.
- M/s. India Cement argued that the MM(D&R) Act, 1957 ("MMDR Act") is a comprehensive code for the regulation of mines and development of minerals and section 9 provides that the holder of a mining lease shall pay royalty in respect of any mineral removed or consumed from the leased area at the specified rates and royalty itself is a tax and the state legislatures lack competence to levy taxes on mineral rights because the subject-matter is covered by the MMDR Act.
- The seven Judge Bench of the Hon'ble Supreme Court in its judgement dated October 25, 1989 has held that-
 - (i) the state legislature is not competent to impose cess / tax on royalty. The Hon'ble Supreme Court invalidated the cess on land levied with reference to the value of minerals underlying in such land.
 - (ii) the Hon'ble Supreme Court concluded that royalty is a tax, and as such a cess on royalty being a tax on royalty, is beyond the competence of the State Legislature because section 9 of the MMDR Act covers the field and the State Legislature is denuded of its competence under Entry 23 of List
 - (iii) with respect to Entry 49 of List II, the Hon'ble Supreme Court observed that royalty is directly relatable to the minerals extracted and therefore would only be relatable to Entries 23 and 50 of List II, and not Entry 49 of List II.
- The Hon'ble Supreme Court in *India Cement*, however, directed that the said decision shall only have a prospective effect. This was for the reason that the States had been levying and collecting the cesses on

the basis of an earlier decision of the Hon'ble Supreme Court in *HRS Murthy vs. Collector of Chittoor, AIR* 1965 SC 177.

Subsequent decisions of the Hon'ble Supreme Court based on India Cement seven Judge Bench Judgement

- A three Judge Bench of the Hon'ble Supreme Court in Orissa Cement Ltd. Vs. State of Orissa [(1991) Supp 1 SCC 430 [36]], dated April 4, 1991 declared identical levies imposed by the States of Orissa, Bihar and Madhya Pradesh as being lacking in legislative competence (para 26.1 of majority judgement refers).
- The Bench again directed that the said decision shall be operative prospectively with effect from the date of the said judgment i.e. **April 4, 1991** in the case of State of Bihar, w.e.f. December 22, 1989 in the case of State of Orissa and w.e.f. March 28, 1989 in the case of State of Madhya Pradesh (para 26.2 of majority judgement refers).
- Based on the seven Judge Bench judgement of the Hon'ble Supreme Court in the India Cement case, several Hon'ble High Courts stayed / quashed the levy of cess or surcharge on minerals and the India Cement decision held the field for a very long time.

3.2 Litigation in the case of Kesoram Industries Limited

- The Cess levied by State of West Bengal under Cess Act of 1880, Education Cess levied under West Bengal Primary Education Act, 1973 and Rural Employment Cess levied under West Bengal Rural Employment & Production Act, 1976 (as amended on 1992) were under challenge before the Hon'ble Calcutta High Court by M/s. Kesoram Industries Limited & Ors.
- The Division Bench of the Hon'ble Calcutta High Court, relying on the seven Judge Bench Judgement in India Cement matter, struck down Cesses (Road Cess and Public Works Cess, etc.) on coal bearing & other lands vide Judgement dated November 25, 1992 [AIR 1993 Calcutta 78] w.e.f. April 1, 1992.
- The State of West Bengal filed an appeal before the Hon'ble Supreme Court against the aforesaid judgement rendered by the Hon'ble Calcutta High Court. On October 12, 1999 the three Judge Bench of the Hon'ble Supreme Court referred the matter to a Constitutional Bench (five Judge Bench) and thus the matter came to be referred as The State of West Bengal vs. Kesoram Industries Ltd. and Ors. In Appeal (civil) 1532-1533 of 1993, the matter was taken up and heard by the five Judge Bench of the Hon'ble Supreme Court and judgement delivered on January 15, 2004 in a ruling decided in the ratio of 3:2 majority.
- The five Judge Bench of the Hon'ble Supreme Court concluded that the State legislature is competent to

- impose cess / tax and that there was typographical error in earlier seven Judge Bench judgment of India Cement (specifically in para 34). Accordingly, the Hon'ble Supreme Court upheld the cess imposed by State of West Bengal in this case.
- Further the Constitution Bench held that the decision in India Cement stemmed from an inadvertent error and clarified that royalty is not a tax.
- Interim, the Hon'ble High Court of Allahabad has upheld the constitutional validity of cess levied in the State of U.P. on minor minerals which decisions are the subject-matter of civil appeals filed under Article 136 of the Constitution before the Hon'ble Supreme Court. Date of Judgement 01.03.2000 (Ram Dhani Singh Vs. Collector, Sonbhadra and Ors. AIR 2001 Allahabad 5) Section 35 of the U.P. Special Area Development Authorities Act, 1986, r/w Rule 3 of the Shakti Nagar Special Area Development Authority (Cess on Mineral Rights) Rules, 1997.

3.3 Referring to larger bench of nine member bench of the Hon'ble Supreme Court

- The Hon'ble High Court of Patna (now Jharkhand) in CWJC 1885/1994 in the case of SAIL vs. State of Bihar and 10 others held the cess imposed on land being used for mining was not within the scope of Entry 49 of List II to Seventh Schedule of the Constitution and hence State Government cannot impose cess. Date of Judgement March 22, 1999. The Hon'ble High Court relied on India Cement judgment of the Hon'ble Supreme Court.
- The judgment of Hon'ble High Court was challenged before the Hon'ble Supreme Court by the State Government titled as Mineral Area Development Authority Vs. Steel Authority of India Ltd. (MADA vs. SAIL) (Civil Appeal No. 4056-4064 of 1999).
- On March 30, 2011 MADA vs. SAIL came up for hearing before three Judge Bench of Hon'ble Supreme Court and the Hon'ble Court observed that there is conflict between India Cement judgment (Seven Judge Bench) and Kesoram judgment (five Judge Bench) and accordingly the matter was referred to nine Judge Bench vide order dated 30.03.2011 by formulating a set of questions to be decided by the larger bench.
- 4. LEGISLATIONS PROMULGATED ACROSS THE COUNTRY BY VARIOUS STATE GOVERNMENTS PRIOR TO INDIA CEMENT JUDGEMENT AND POST KESORAM INDUSTRIES JUDGEMENT OF THE HON'BLE SUPREME COURT

4.1 State enactments levying Cess (prior to India Cement Case) – Alphabetical order

- 1) The Andhra Pradesh (Mineral Rights) Tax Act, 1975 (A.P. Act 14 of 1975).
- 2) The Andhra Pradesh (Andhra Area) District Boards Act, 1920.
- 3) The Andhra Pradesh (Telengana Area) District Boards Act. 1955.
- 4) The Cess Act, 1880 (Bengal Act 9 of 1880) as applicable in the State of Bihar.
- 5) The Karnataka Zilla Parishads, Taluk Panchayat Samitis, Mandal Panchayats and Nyaya Panchayats Act, 1983 (Karnataka Act 20 of 1985).
- 6) The Karnataka (Mineral Rights) Tax Act, 1984 (Karnataka Act 32 of 1984).
- 7) The Madhya Pradesh Karadhan Adhiniyam, 1982 (M.P. Act 15 of 1982).
- 8) The Madhya Pradesh Upkar Adhiniyam, 1981 (M.P. Act 1 of 1982).
- 9) The Maharashtra Zilla Parishads and Panchayat Samitis (Amendment and Validation) Act, 1981 (Maharashtra Act 46 of 1981).
- 10) The Orissa Cess Act, 1962 (Orissa Act II of 1962).
- 11) The Tamil Nadu Panchayat Act, 1958 (Tamil Nadu Act XXXV of 1958).
- Certain state enactments were struck down by the Hon'ble High Courts. Eg. the Hon'ble High Court of Karnataka declared the Karnataka (Mineral Rights) Tax Act, 1984 as unconstitutional when the constitutional validity was questioned in the case of M/s. Evershine Monuments & Ors. in WP Nos. 14360/84, 15922/84, 16053/84, 17076/84 and 17385/84 in its judgement dated 12.09.1990 by squarely relying on the Hon'ble Supreme Court judgement in India Cement case.
- The seven Judge Bench judgement of the Hon'ble Supreme Court in the case of India Cement had practically rendered the above state enactments otiose and the states could not have collected any cess or other levies on minerals or mineral bearing lands or on royalty, apart from royalty as per section 9 of the MMDR Act. The India Cement judgement had rendered the collection of cess, etc. by the State Government through the above said State enactments without authority of law and the same is barred under Article 265 of the Constitution.
- Practically the state Governments had to refund the cesses or other levies collected to the person who has borne the incidence or made payment to the State exchequer. In addendum the states' financial position was precarious and refund of unauthorisedly collected cesses or levies would cast a huge financial burden on the State Governments.

- Hence the Central Government enacted "The Cess and Other Taxes on Minerals (Validation) Ordinance, 1992 (Ord. 7 of 1992)" that was promulgated by the President of India on February 15, 1992, to validate collection of such levies by State Governments up to the 4th day of April, 1991 (cut-off date considered since the Hon'ble Supreme Court passed judgement in the Orissa Cement Limited on this date which struck down the levy under The Orissa Cess Act, 1962, by following the ratio laid down in the India Cement judgement).
- The Cess and Other Taxes on Minerals (Validation)
 Act, 1992 [Act No. 16 of 1992] ("Validation Act") was
 Gazetted on April 4, 1992 w.e.f. February 15, 1992 by
 the Central Government. In the preamble the Central
 Government stated as under:

An Act to validate the imposition and collection of cesses and certain other taxes on minerals under certain State laws.

- The dominant objective of the Validation Act was to validate the levies already made upto April 4, 1991, and not to legislate on the subject by naming a law imposing cess on royalty.
- The Validation Act had just three (3) sections with one Schedule comprising the above said eleven (11) state enactments. The main purpose of the Validation Act was to safeguard the collections already made by the State Government/s in the name of cess or other taxes under the aforesaid eleven (11) state enactments upto April 4, 1991 and to curb collection of cesses and other taxes thereafter.
- The Parliament took precaution to itself re-legislate on the subject matter in exercise of its legislative power and it chose to legislate by incorporation, a method of legislation well recognised by law. The technique may be called archival drafting because it requires persons applying the Act after a considerable period has elapsed since the relevant date to engage in historical research in order to find out what the law thus imported amounts to.
- The Parliament had power to legislate on the topic it could make an Act on the topic by any drafting means including by referential legislation.
- The Cess and Other Taxes on Minerals (Validation) Act, 1992 was under challenge before a two (2) Judge Bench of the Hon'ble Supreme Court in the case of P. Kannadasan and Ors. v. State of Tamil Nadu and Ors. ([1996] 5 SCC 670) and the Hon'ble Supreme Court upheld the powers conferred on the Central Govt. to promulgate the Validation Act by its judgement dated July 26, 1996.
- Interim an issue arose in the State of Bihar, wherein the state relying on the Validation Act, 1992 was seeking to

collect the cess & other levies that were not collected upto April 4, 1991 and the same was challenged by TISCO (Tata Iron and Steel Company Limited) (rechristened as Tata Steel Limited now) & Others before the Hon'ble Patna High Court in C.W.J.C. Nos. 1280, 1507, 1639, 1702, 1711 and 1870 of 1992 (R) and the Hon'ble Patna High Court did not allow the State Govt. to collect the cess & other levies that remain unrecovered vide its judgement dated January 17, 1996. The Hon'ble Patna High Court never had the benefit of relying on the two Judge Bench judgement of the Hon'ble Supreme Court in the case of P. Kannadasan and Ors. v. State of Tamil Nadu and Ors. (supra), since the judgement was delivered later on July 26, 1996.

- Aggrieved, the State of Bihar filed an appeal before the Hon'ble Supreme Court against the aforesaid judgement of the Hon'ble Patna High Court in DISTRICT MINING OFFICER AND ORS. vs. TATA IRON AND STEEL CO. AND ANR. [Civil Appeal Nos. 4803- 4808 of 2001] and the matter was posted before the three (3) Judge Bench of the Hon'ble Supreme Court and the Hon'ble Court upheld the judgement and order of the Hon'ble Patna High Court by reasoning that the Validation Act, 1992 protected only the amounts already collected by the State Governments through invalid laws, but it never gave powers to the State Government/s to collect / recover any amount that was pending collection / recovery upto April 4, 1991.
- The Hon'ble Supreme Court in the TISCO matter held that the expression "imposition and collection" would mean, imposition already made or collection already made under certain State laws and the preamble cannot be construed to mean to confer a further right of imposition and collection of cesses on the minerals extracted up to 4th April, 1991.
- Benefit of litigation to M/s. India Cement Limited in terms of non payment of cess & surcharge - India Cement Limited had challenged the levy of cess, right from the date of inception of the levy under the Tamil Nadu Act and the Hon'ble High Court of Madras had granted stay of the operation of the Act. Even after the judgment of the Hon'ble High Court, while the matter was pending in the Hon'ble Supreme Court in appeal, the stay order was operating and the assesse, therefore, never passed on the cess levied to any consumer nor could it do so because the commodity was a controlled commodity and the litigation ended with a judgment in favour of the assesse. The Hon'ble Supreme Court reasoned that to re-open such cases in the garb of the Validation Act and seeking to impose levy and collection from the year 1964 would not only be unreasonable, but also would be contrary to the very judgment passed inter-

parties and the Court having stayed the operation of the Act in favour of the assessee.

4.2 State enactments levying Cess & other taxes (post Kesoram Industries Case) – Alphabetical order

Pursuant to Kesoram judgment various States enacted fresh laws imposing cess / tax. Some of the Acts are:

- Bihar Coal Mining Area Development Authority (Amendment) Act, 1992 and the Bihar Mineral Area Development Authority (Land Use Tax) Rules, 1994.
- 2) Orissa Rural Infrastructure and Socio-economic Development Act, 2004.
- 3) Chhattisgarh (Adhosanrachna Vikas Evam Paryavaran) Upkar Adhiniyam, 2005 (No.7 of 2005).
- 4) Madhya Pradesh Rural Infrastructure and Road Development Act, 2005.
- 5) Telangana Mineral Bearing Lands (infrastructure) Cess Act. 2005 (Act No. 38 of 2005).
- 6) Andhra Pradesh Mineral Bearing Lands (infrastructure) Cess Act, 2005 (Act No. 38 of 2005).
- 7) Environment and Health Cess on Mineral Rights under Section 16 of the Rajasthan Finance Act, 2008.
- 8) Jharkhand Mineral Bearing Lands (Covid-19 Pandemic) Cess Act, 2020.
- In certain cases the above state enactments were challenged before the Hon'ble High Courts and certain Hon'ble High Courts granted stay of levy of cess and other taxes by relying on the seven (7) Judge Bench order in India Cement case and not on the five (5) Judge Bench ruling in Kesoram Industries case, following the judicial hierarchy. Eg. The Hon'ble Orissa High Court stayed operation of Orissa Rural Infrastructure and Socio-economic Development Act, 2004 and never allowed the State of Orissa to collect the cess & other taxes under this enactment.

5. CONSIDERATION OF FACTORS ALONG WITH REASONING, DISCUSSIONS AND CONCLUSIONS ARRIVED BY THE MAJORITY IN THE NINE JUDGE BENCH OF THE HON'BLE SUPREME COURT IN MADA & ANR. VS. SAIL & ANR.

• Basics of Constitution - The Indian Constitution, as amended by the 106th Constitution Amendment Act, 2023 has 448 articles in 22 parts along with 12 Schedules. The Hon'ble Court has clearly opined that the Indian written Constitution has virtually become permanent owing to the judgement delivered by the thirteen (13) Judge Bench in the case of Kesavananda Bharati v. State of Kerala (1973) 4 SCC 225 [582] by a majority ruling of 7:6. The Hon'ble Supreme Court has

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- clearly held that the basic structure of the Constitution can never be amended / altered by the law makers.
- In the same judgement the Hon'ble Supreme Court has recognised that federalism embodies a division of powers between the units of the federation, that is, the Union and the States. Indian federalism is defined as asymmetric because it tilts towards the Centre, producing a strong Central Government. Yet, it has not necessarily resulted in weak State Governments.
- Fiscal federalism entails that the power of the States to levy taxes within the legislative domain carved out to them and subject to the limitations laid down by the Constitution must be secured from unconstitutional interference by Parliament (para 54 of the majority judgement, refers).
- Article 245 (read with Article 246) of the Constitution is the source of the legislative powers of Parliament / Central Govt. and the State legislatures / State Legislatures. The Hon'ble Court looked into the powers bestowed under the Constitution to the Parliament and the State legislatures in connection with enactment of statutes and the powers to levy tax as mentioned in the Seventh Schedule to the Constitution.
- The Seventh Schedule has three (3) lists List I (Union List), List II (State List) and List III (Concurrent List). The entries mentioned in List I, only the Parliament can legislate and for entries mentioned in List II, only the State Legislatures can legislate and for entries mentioned in List III, both of them can legislate without encroaching each other areas, if already legislated by one of them.
- In Para 38 (majority ruling) the Hon'ble Court has mentioned that the structure of the legislative entries in the three Lists of the Seventh Schedule follows an express and deliberate pattern. The entries are classified into general and taxing entries (R Abdul Quader & Co. v. STO, (1964) 6 SCR 867, [8]).
- The entries in the Seventh Schedule to the Constitution can be grouped as under:

Particulars	List I	List II	List III
Total no. of entries	1 to 97 [98 Entries]	1 to 66 [59 Entries]	1 to 47 [52 Entries]
Regular / general Entries	1 to 81	1 to 44	1 to 46
Taxing Entries (incl. stamp duties)	82 to 92B	45 to 63	No Entries for taxation
Other entries	93 to 95	64 to 65	
Entries dealing with fees	96	66	47
Residuary Entry	97		

- The Hon'ble Supreme Court in the case of M.P. V. Sundararamier & Co. vs. The State of Andhra Pradesh & Ors. [1958 AIR 468], date of judgement 11th March, 1958 has clearly spelt out the distinction between regular / general entries and taxing entries in the three (3) Lists of Seventh Schedule to the Constitution. It also gave illustrations as under in this judgement:
- Under the scheme of the Entries in the Lists of Seventh Schedule, taxation is regarded as a distinct matter and is separately set out. The legislature does not derive the power to tax from the general entries taxation is considered to be a distinct matter for purposes of legislative competence (Para 38 of majority ruling refers). Para 39 of the majority ruling, the Hon'ble Court mentions that if a taxing power is enumerated within a particular legislative list, it is automatically excluded from the purview of subject-matters in other legislative lists. The above position of law has been expressly affirmed by the nine-Judge Bench of the Hon'ble Supreme Court in Jindal Stainless Ltd v. State of Haryana [(2017) 12 SCC 1 [617]].

Illustrations - List I Union List	Illustrations - List II State List
Entry 22 in List I is "Railways", and Entry 89 is "Terminal taxes on goods or passengers, carried by railway, sea or air; taxes on railway fares and freights". If Entry 22 is to be construed as involving taxes to be imposed, then Entry 89 would be superfluous.	Entry 18 of List II, is "Land" and Entry 45 is "Land Revenue.
Entry 41 mentions "Trade and commerce with foreign countries; import and export across customs frontiers;". If these expressions are to be interpreted as including duties to be levied in respect of that trade and commerce, then Entry 83 which is "Duties of customs including export duties" would be wholly redundant.	Entry 23 is "Regulation of mines" and Entry 50 is "taxes on mineral rights
Entries 43 and 44 relate to incorporation, regulation and winding up of corporations. Entry 85 provides separately for Corporation tax.	

e Entries relating to taxing powers must be construed with clarity and precision to maintain exclusivity and a construction of a taxation entry which may lead to overlapping must be eschewed (Godfrey Phillips India Ltd. v. State of UP, (2005) 2 SCC 515 [46]). Para 40 of the majority judgement - The rule that words should receive their ordinary, natural, and grammatical meaning applicable to statutes also applies to the entries contained in the Seventh Schedule (Navinchandra Mafatlal v. Commissioner of Income Tax, Bombay City, (1954) 3 SCC 623).

- The Hon'ble Supreme Court in para 41 of the majority judgement has categorically held that any invasion by Parliament in the field assigned to the States and vice versa is a breach of the Constitution. In Para 54 of the majority judgement the Hon'ble Supreme Court has held that fiscal federalism entails that the power of the States to levy taxes within the legislative domain carved out to them and subject to the limitations laid down by the Constitution must be secured from unconstitutional interference by Parliament.
- The Hon'ble Supreme Court in the light of above discussions arrived at a conclusion that the Parliament in exercise of Entry 54 of List I has framed the MMDR Act, 1957, which is a regular / general entry and Entry 54 of List I does not grant power to the Parliament / Central Govt. to levy taxes whatsoever on extraction of minerals or on award of mineral rights in lands. Entry 23 of List II also talks about regulation of mines and mineral development, but is made subordinate to Entry 54 of List I. Hence MMDR Act, 1957 promulgated by the Central Govt. holds the field of regulation of mines and minerals development till date. For better appreciation Entry 54 of List I and Entry 23 of List II are mentioned as herebelow:
- Entry 54 of List I Regulation of mines and mineral development to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest.
- Entry 23 of List II Regulation of mines and mineral development <u>subject to the provisions of List I</u> with respect to regulation and development under the control of the Union.
- The fact of exercising powers under Entry 54 of List I by the Union is mentioned in section 2 of the MMDR Act, 1957.
- The readers may have a confusion that if the Union has formulated the MMDR Act, 1957 under Entry 54 of List I, then why are the concession rules of minor minerals framed by the State Government/s? This is a very valid query, more-so in the background of Entry 23 of List II.
- Section 15 of the MMDR Act, 1957 has given powers to the State Governments to frame their own rules in connection with grant, administration, royalty payments, etc. of concessions of minor minerals, once the Central Govt. notifies a particular mineral as minor mineral under section 3(e) of the MMDR Act, 1957. Hence each of the states in India have their own minor mineral concession rules. At no point in time it should be construed that minor mineral concession rules are emanating owing to the powers given to the state legislature under Entry 23 of List II. As a matter of fact,

no State Government till date has exercised any power under Entry 23 of List II.

6. WHAT IS ROYALTY?

- Once the Hon'ble Supreme Court was convinced about the exercise of powers under Entry 54 of List I to the Seventh Schedule of the Constitution by the Central Govt., it turned its attention to differences between lease and licence. In Para 85 of majority judgement, the Hon'ble Supreme Court referred to its decision in the Associated Hotels of India Ltd vs. R N Kapoor ((1960) 1 SCR 368, [28]) and concluded that a lease creates an interest in property, while a licence only permits another to make use of the property, whose legal possession continues to remain with the owner. A lease envisages and transfers an interest in the demised property creating a right in rem in favour of the lessee, while a licence only makes an action lawful which without it would be unlawful (Mangal Amusement Park Private Ltd. vs. State of Madhya Pradesh, (2012) 11 SCC 713 [15]). The Hon'ble Court also took cognisance of Section 3(26) of the General Clauses Act 1897, Section 2(6) of the Registration Act & Section 105 of the Transfer of Property Act 1882 to conclude as above.
- Under a lease deed for mining operations, the owner transfers the interest in the minerals to the lessee in lieu of the payment of rent, which usually takes the form of royalty (para 88 of majority judgement refers). Royalty is generally understood as compensation paid for rights and privileges enjoyed by the grantee (para 94 of majority judgement refers).
- The Hon'ble Supreme Court looked into the nature of mining lease under the MMDR, 1957 and the Mineral Concession Rules, 1960 (MCR, 1960). The Hon'ble Court referred to its earlier decision in the case of State of Meghalaya v. All Dimasa Students Union, ((2019) 8 SCC 177 [129]-[130]) and held that there are specific provisions in the MCR, 1960 concerning sanctioning of mining lease where minerals vest in the Government, and seperate provisions where minerals vest in private persons and when minerals vest partly with Government and partly with private persons. The Hon'ble Court concluded that when minerals are owned by the private persons and in such a case if a mining lease is to be granted then it shall be deemed to have been granted by such private persons or under authority of such private owners.
- In the light of above provisions in the MMDR Act, 1957 and MCR, 1960 the Hon'ble Court turned its attention to Article 366(28) which defines "taxation" to include "the imposition of any tax or impost, whether general

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or local or special." This Court has interpreted the word "tax" in its widest amplitude to include all money raised by taxation. In Jindal Stainless Steel the Hon'ble Court held that the expression "any tax" means "any levy which the State is constitutionally competent to legislate.

- Para 106 of the majority judgement The Hon'ble Court has generally construed the expression "imposts" to include taxes and fees [CCE v. Chhata Sugar Co. Ltd., (2004) 3 SCC 466 [36] (It was observed that an impost can be either a tax or fee.)] realizable by the authority of law [Indian Banks' Association v. Devkala Consultancy Service, (2004) 11 SCC 1 [18]]. The Central Government and the Respondents were also harping on considering royalty as a statutory exaction and is compulsory in nature and hence akin to tax. In CIT v. McDowell and Co. Ltd. [(2009) 10 SCC 755 [22]], the Hon'ble Supreme Court held that the term "impost" means compulsory levy and that "tax" in its wider sense includes all imposts.
- The Hon'ble Supreme Court also referred to certain Hon'ble High Court decisions qua royalty interpretation. The Hon'ble Gujarat High Court in the case of Saurashtra Cement & Chemical Industries Ltd. vs. Union of India (1979 SCC OnLine Guj 23) held that royalty payable under Section 9 of the MMDR Act, 1957 was not a tax. Therefore, Parliament had legislative competence to prescribe royalty under the MMDR Act in pursuance of its regulatory powers under Entry 54 of List I. The Hon'ble Orissa High Court in the case of Laxmi Narayan Agarwalla vs. State of Orissa (1983 SCC OnLine Ori 16) held if royalty is held to be tax, section 9 of the MMDR Act, 1957 would have to be invalidated because Parliament has no legislative power to impose tax under Entry 54 of List I. In AIR 1969 Punj and Har 79, the Hon'ble Punjab and Haryana High Court in Dr. Shanti Swaroop Sharma vs. State of Punjab rejected the contention of the Petitioners that royalty, being a tax, cannot be levied under delegated legislation.
- In Quarry Owners Association vs. State of Bihar, the Hon'ble Supreme Court held that royalty "does not constitute usual tax as commonly understood" but includes return for the consideration for parting with the property ((2000) 8 SCC 655 [34]).
- In Kesoram, the Constitution Bench of the Hon'ble Supreme Court had to decide on the validity of a cess levied by the State on coal-bearing land. The measure of the cess was relatable to the quantity of minerals produced from land. Whether royalty is a tax was not directly in issue and also held that India Cement was distinguishable because in that case cess was levied on royalty and not on mineral rights or lands. The decision

- in Kesoram (supra) analyzed the nature of royalty to hold that royalty is not a tax, but a payment made to the owner of land who may be a person and may not necessarily be the state (para 121 of the majority judgement refers).
- The Hon'ble Supreme Court finally concluded that Royalty is not a tax. The Hon'ble Court reasoned that on first principles, royalty is a consideration paid by a mining lessee to the lessor for enjoyment of mineral rights and to compensate for the loss of value of minerals suffered by the owner of the minerals. The liability to pay royalty arises out of the contractual conditions of the mining lease. A failure of the lessee to pay royalty is considered to be a breach of the terms of the contract, allowing the lessor to determine the lease and initiate proceedings for recovery against the lessee (para 123 of majority judgement refers).
- In para 126 of the majority judgement the Hon'ble Supreme Court laid out the differences between royalty and tax as herebelow:

Royalty	Tax	
(i) The proprietor charges royalty as a consideration for parting with the right to win minerals.	(i) Tax is an imposition of a sovereign.	
(ii) Royalty is paid in consideration of doing a particular action, i.e. extracting minerals from the soil.	(ii) Tax is generally levied with respect to a taxable event determined by law.	
(iii) Royalty generally flows from the lease deed.	(iii) Tax is imposed by authority of law.	

- Para 127 of the majority judgement Under the MMDR Act, the Central Govt. fixes the rates of royalty, but it is still paid to the proprietor by virtue of a mining lease. In case the minerals vest in the Government, the mining lease deed is signed between the State Government (as lessor) and the lessee in pursuance of Article 299 of the Constitution. Through the mining lease, the Government parts with its exclusive privilege over mineral rights. A consideration paid under a contract to the State Government for acquiring exclusive privileges cannot be termed as an impost. Since royalty is a consideration paid by the lessee to the lessor under a mining lease, it cannot be termed as an impost.
- In para 130 of the majority judgement, the Hon'ble Supreme Court concludes that both royalty and dead rent do not fulfil the characteristics of tax or impost. Accordingly, the Hon'ble Court concludes that the observation in India Cement (supra) to the effect that royalty is a tax is incorrect.

(To be continued)

REVIEW OF RARE EARTH ELEMENTS IN MALAYSIA

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Abstract

Rare earth elements are the group of seventeen elements comprising fifteen lanthanides, scandium, and yttrium. They are enriched in carbonatites, alkaline, and peralkaline igneous rocks, mineralized pegmatites, and their respective placers and derived laterites, while other sources include hydrothermal veins, bauxites, and ion adsorption clays. Peninsular Malaysia is recognized for its rare earth resource, yet comprehensive data and insights regarding the REE in this region is limited. This paper offers an overview of potential REE mineralization in geological settings such as alkaline igneous rocks, pegmatites, placer deposits (including monazite and xenotime), marine sediments, river and lake sediments, ion adsorption clay (IAC) deposits, and shale/coal deposits in Malaysia. Furthermore, it discusses the REE ecosystem in Malaysia, referencing the latest information from the Malaysian Investment Development Authority (MIDA), the REE processing center, the Academy of Science of Malaysia (ASM), the People's Republic of China (PRC), the Ministry of Energy and Natural Resources (NRECC), the Department of Mineral and Geoscience (JMG), the Ministry of Science, Technology, and Innovation (MOSTI), and the Malaysian Chamber of Mines.

1. INTRODUCTION

The term "rare" is often used to describe rare earth elements, as they are typically found in insufficient concentrations (Batapola et al., 2020). REEs tend to occur together in ore and accessory minerals because of their similar chemical properties (Dushyantha et al., 2023). There are two main types of REE deposits: primary and secondary. Primary deposits mainly consist of alkaline igneous rocks, carbonatites, and iron-oxide copper-gold deposits, whereas secondary deposits include ion adsorption clays (IAC), laterites, placers, and bauxite (Balaram, 2023). By 2019, China had accounted for more than 90% of global REE production, maintaining a dominant role in the market, while countries like Australia, the USA, Russia, Vietnam, Brazil, Malaysia, and India also made significant contributions (Mancheri et al., 2019; Ilankoon et al., 2022).

REEs are widely used in advanced industries, particularly in the production of scintillation laser crystals, high-performance NdFeB magnets, petroleum catalysts, and various electronic devices, due to their unique chemical and physical properties (Costis et al., 2021). This rising demand has led to significant exploration and extraction of these metals in Malaysia. Malaysia's upstream sector for RE resources can be categorized into four main types: (i) alluvial (onshore) xenotime and monazite, (ii) ion adsorption clays (IAC) rich in REEs, (iii) REEs and REMs in marine sediments, and (iv) REMs from primary sources, listed according to their significance (Teoh Lay Hock, 2014). Although the presence of xenotime, monazite, and ion adsorption clays containing REEs is well-established in

Malaysia, the concentrations of REEs in other sources like alkaline igneous rocks, pegmatites, river sediments, shale, and coal deposits have not been comprehensively studied in the literature (Teoh Lay Hock, 2014; Tohar & Yunus, 2020; Yaraghi et al., 2020).

2. REE: APPLICATION AND INTERNATIONAL DISTRIBUTION

REEs did not find widespread industrial uses due to the difficult and costly extraction and separation processes associated with their mining. REEs are crucial in the production of various products, such as mobile phones, permanent magnets, lamp phosphors, rechargeable NiMH batteries, and materials used in defence (Raju et al., 2010; Dutta et al., 2016; Mendez et al., 2022; Zhu et al., 2022; Balaram, 2023). Additionally, they are necessary for the manufacturing of fluorescent lights, automotive catalysts for hybrid vehicles, and wind turbines (Chu, 2011; Binnemans et al., 2013; Dutta et al., 2016). Among these applications, the demand for NdFeB magnets, used in electric and hybrid vehicles, erbium-doped glass fibres for communication systems, and wind turbines is likely the largest driver of REE demand (Goodenough et al., 2018).

The growing global demand for rare earth elements has surged due to factors such as population growth, changing consumption patterns, technological innovations, economic development (Dutta et al., 2016). China has taken a leading role in REE exploration and currently holds the largest reserves and is also one of the leading producers of REEs as mentioned in (Table1).

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Carbonatite deposits account for the majority and most prevalent of the world's rare earth element (REE) resources. Other types of deposits include alkaline igneous rocks, IOCG deposits, placers, and IAC. The REE content primarily found in the original carbonatite rock, such as those in Maoniuping

and Bayan Obo (China) and Palabora (South Africa), as well as in lateritic profiles that have developed secondarily, like those in Araxa (Brazil) and Mount Weld (Australia) (Dushyantha et al., 2020, Dushyantha et al., 2023).

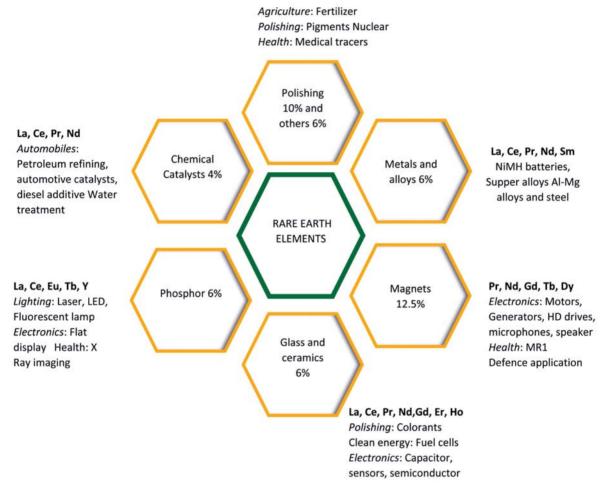


Figure 1: Key industrial applications for REE. The annual growth rate at the industry level is represented as a % in each sector (Dutta et al., 2016).

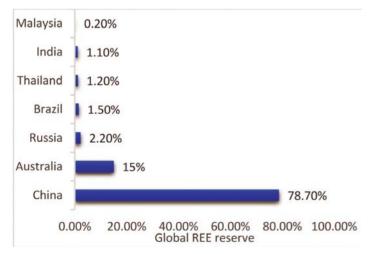


Figure 2: The world top REE producer and total reserve by country

3. TYPES AND OCCURRENCE OF REE

Due to the variety of geological formations, it is challenging to categorize REE deposits into specific groups. Batapola et al. (2020) proposed a broader classification that includes carbonatites, alkaline igneous rocks, pegmatites, skarn and vein deposits, IOCG deposits, laterites, placers, ion adsorption clays (IAC), and offshore sources. After reviewing the available literature on REE occurrences in Malaysia, Balaram (2023) categorized these deposits into seven groups: (i) alkaline igneous rocks, (ii) pegmatites, (iii) monazite-xenotime-bearing placer deposits, (iv) marine sediments, (v) river and lake sediments, (vi) ion adsorption clays associated with weathering crusts, and (vii) shale and coal deposits. These categories are explored in detail in the following sections as mentioned in Fig. 3(a) and 3(b).

Table 1. World reserves of REE by principal countries (U.S. Geological Survey, 2018).

Countries	Reserve in tonnes (in terms of REO)	% Shares
Australia	3,400,000	2.56%
Brazil	22,000,000	16.67%
Canada	830,000	0.63%
China	44,000,000	33.33%
Greenland	1,500,000	1.14%
India	6,900,000	5.23%
Malaysia	30,000	0.02%
Malawi	140,000	0.11%
Russia	18,000,000	13.64%
South Africa	86,000	0.65%
Vietnam	22,000,000	16.67%
USA	1,400,000	1.06%
World Reserves	132,000,000	-
REO= Rare Earth Oxide		

3.1. CONCENTRATION OF REE IN ALKALINE IGNEOUS ROCKS

Alkaline igneous rocks, particularly those with high intrusions of rare earth elements. These intrusions are typically formed through both magmatic and hydrothermal processes, with those associated with alkaline and peralkaline intrusions exhibiting the highest concentrations of REEs (Marks et al., 2011; Dostal, 2017). Common host rocks for these deposits include nepheline syenites, peralkaline granites (including pegmatites), and less frequently, peralkaline felsic volcanic rocks.

In the case of nepheline syenites, studies have identified syenitic rocks at Perhentian Island and the Benom Complex (Azman, 2001; Ghani et al., 2002; Ghani et al., 2013). The Perhentian Kecil syenite pluton, located in the central part of Perhentian Kecil Island, is a prominent outcrop composed of various igneous rocks, predominantly syenitic (over 90%) with some monzonitic and gabbroic varieties. The syenitic rocks on Perhentian Island have relatively low SiO2 content (46–66 wt.%), and the REE concentrations in Perhentian Kecil syenite range from 224 to 450 ppm (Azman, 2001).

Peralkaline felsic volcanic rocks, primarily trachytes with finely disseminated REE-bearing minerals, are associated

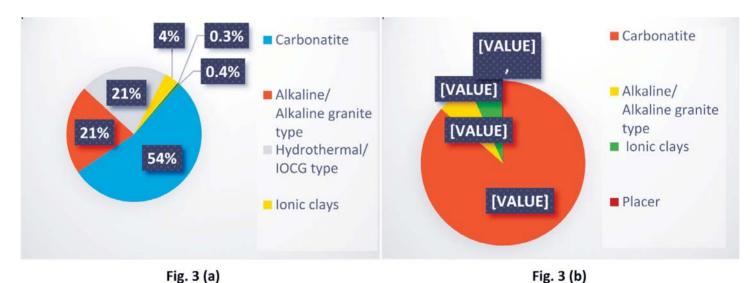


Figure 3. The proportion of different types of REE resources. Fig 3 (a) represents all REE projects Fig 3 (b) represent active mines.

with this complex. However, studies on trachyte in Malaysia are limited, with Richardson's (1939) research being the only report, describing the presence of trachyte, trachyandesite, and andesite in the Aring Formation in South Kelantan, Malaysia.

3.2. Concentration of Ree In Pegmatite

Granitic pegmatites are coarse-grained igneous rocks with a granitic composition, formed through the cooling of granitic

magma derived from the remelting of crustal materials (Batapola et al., 2020). They often appear as dykes, veins, or lenses (Jackson and Christiansen, 1993; Batapola et al., 2020).

In Peninsular Malaysia, pegmatite bodies and microgranite dikes are frequently observed in granitic rocks (Ng, 1997). Notably, microgranite-pegmatite complexes can be found up to 23 km from the Karak Highway, including sites such

as the Perkuat, Dayapi, and Bt. Sg. Besi Quarries. Jamil et al. (2016) also reported the presence of pegmatites and aplopegmatites in the Jerai granitic pluton, located in the northwestern part of the Main Range granite batholith with high Silicate oxide. Additionally, pegmatite occurrences have been noted in Bukit Mor, Bakri, and Johor in Peninsular Malaysia (Omar and Geologi, 2013).

3.3. Concentration of Ree In Monazite-Xenotime Bearing Placer

Granites, spanning from peralkaline to peraluminous compositions, typically contain significant amounts of monazite and xenotime, while allanite is found primarily in calcium-rich granites (Van Lichtervelde et al., 2021). These minerals make up around 55–60 wt.% of the Rare earth oxide content, with both monazite and xenotime contributing similarly (Zhou, 1993; Naumov, 2008; Chelgani et al., 2015).

Limited research has been conducted on the presence of rare earth elements (REEs) in monazite deposits in Malaysia. Bahri et al. (2016) investigated the REE concentrations in leachate from Malaysian monazite obtained from the 'Amang' factory in Perak. In another study, Udayakumar et al. (2020) examined the mineralogical and chemical properties of monazite extracted from tin tailings in Ipoh, Perak. This research successfully separated monazite from thorium and other REEs, with the monazite concentrate containing 60 wt.% RE oxides, including La, Ce, Pr, Nd, Gd, Eu, and Sm. A comparison of RE concentrations from these studies with those from other global monazite deposits is presented in highlighting that Malaysian monazite typically contains higher average REE concentrations than deposits found in other regions of the world.

3.4. Concentration of Ree In Marine Sedimentation

Marine surveys have been conducted by the Department of Mineral and Geoscience Malaysia (JMG) and other research groups (Teoh Lay Hock, 2014; Khadijeh et al., 2009; Antonina et al., 2013) along the coastal regions of Sabah and Sarawak, as well as on the eastern and western coasts of Peninsular Malaysia. These surveys have identified the presence of xenotime and monazite in marine sediments, though the quantities are relatively low and not currently economically viable. Marine sediment samples from Malaysia, as reported by Khadijeh et al. (2009), exhibited higher concentrations of total rare earth elements (REEs) compared to marine sediments from Egypt (El-Taher et al., 2019). In contrast, marine sediments from other regions globally typically show higher total REE concentrations than those from Malaysia (Araújo et al., 2007; Hannigan et al., 2010; Zhao et al., 2010; Ge et al., 2020; de Freitas et al., 2021; Shen et al., 2021). However, this comparison may not be definitive, as only a limited number of REEs (La, Ce, Sm, Eu, Dy, Yb, and Lu) were analyzed in Malaysian marine sediments (Khadijeh et al.,

2009; Ashraf et al., 2016), whereas a more comprehensive suite of REEs is measured in marine sediments from other parts of the world.

3.5. Concentration of Ree In River and Lake

Chang et al. (2022) investigated REE concentrations in surface sediments from the Kelantan river using ICP-MS. The study found that the total REE concentrations in the sediments varied along the river, with all REEs falling below the typical mineable ore grades. Wu et al. (2019) analyzed size-fractionated REE contents in the sediments from the Kelantan and Pahang rivers in Peninsular Malaysia, revealing that the REE concentrations in these sediments ranged from 90 279 ppm in the Kelantan River and 209 520 ppm in the Pahang River. The results indicated a consistent REE pattern across different grain sizes, showing enrichment in heavy rare earth elements (HREEs) as grain size increased when the REE patterns were normalized to 63 µm components. Ong et al. (2016) studied tropical sediments from the Pinang River, determining total LREE concentrations to be 16.06 ppm, with an average of 0.66 ppm, while total HREE concentrations were 0.89 ppm, with a mean of 0.037 ppm. Elias et al. (2019) studied REE concentrations in sediments from 113 sites along the Linggi River using Neutron Activation Analysis (NAA) and ICP-MS, revealing mean concentrations of 241.2 ppm for HREEs, 219.2 ppm for LREEs, and 22.0 ppm for total REEs. These values suggest relatively high REE enrichment in comparison to reference shale values. When compared to well-known REE deposits from Europe, Africa, and Asia, Malaysian sediments generally exhibited higher REE concentrations, although mangrove soils from China had higher REE levels than those found in the Linggi River sediments (Silva et al., 2016; Fiket et al., 2017; Brito et al., 2018; Resmi and Achyuthan, 2018; El-Taher et al., 2019; Wang et al., 2019; Hossain, 2020; de Freitas et al., 2021; Shen et al., 2021).

3.6. Concentration of Ree In Ion Absorption Deposit

lon-adsorption rare earth element deposits primarily form through the weathering of REE-rich granites (Wang et al., 2023). These deposits typically form through a supergene process, in which easily weathered REE minerals, such as REE-fluorcarbonates, break down and release REEs, which are then adsorbed by clay minerals in the surrounding weathered material (Estrade et al., 2019).

The properties of ion adsorption clay deposits are commonly found in tropical regions with hot, humid climates and significant weathering, often associated with granites that also contain tin. Peninsular Malaysia, which also has large areas of weathered tin-bearing granites and a climate similar to that of South China. (Yaraghi et al., 2020).

Ion-adsorption rare earth element (REE) deposits, particularly those containing heavy REEs (Gd-Lu), are the primary

global source of these elements. Numerous studies have focused on the geochemical analysis of REE-rich weathered granitic crusts in Malaysia. In Southeast Asia, granites are found in four major regions: the western provinces (spanning Southwest Thailand to East Myanmar), the eastern provinces (covering East Malaysia), the Main Range provinces (from South Thailand to western Peninsular Malaysia), and the northern provinces (in Thailand) (Hutchison, 1977; Cobbing et al., 1986). The Eastern and Main Range provinces are predominantly exposed in Peninsular Malaysia. These regions are sometimes called the Eastern and Western Belt Granites. Typically, high-SiO2 granites are found in veins and high-level dykes in both provinces (Azman, 2001). though in some rare instances, leucocratic, homogeneous, and enclave-free high-SiO2 granite forms as small plutons (Ghani et al., 2014).

In Bukit Pengkalan, Johor, the crust of granitic rocks was analyzed to evaluate their potential for ion-adsorption type rare earth element (REE) resources. Fauzi et al., (2023) also investigated the Bukit Enggang Granite in Sik, Kedah, which is a porphyritic biotite granite composed primarily of K-feldspar, quartz, and biotite, with K-feldspar phenocrysts distributed randomly. Across all the granites in Malaysia, negative europium (Eu) anomalies were observed, though granites from Cheras, Rawang, and Kelantan exhibited more pronounced Eu anomalies than those from other locations. Yusoff et al. (2013) attributed the larger Eu anomalies in Rawang granites to their feldspathic composition, as Eu, being redox-sensitive, can be reduced to its divalent state, leading to the creation of positive Eu anomalies in feldspar. Hence, the presence of feldspar plays a key role in the higher Eu enrichment observed in Rawang compared to Cheras.

3.7. Concentration of Rare Earth Element in Coal and Shale

Baioumy et al. (2018) reported low total concentrations of rare earth elements in Paleogene-Neogene coals in Malaysia, ranging from 0.9 to 22 ppm. They suggested that Al2O3 could represent the detrital component of the coals, with a positive correlation between Al2O3 and SiO2 implying the presence of SiO2 as silicates, as noted by Deru et al. (2007). The highest concentration was observed in Permian black shale (325 ppm), while Cambrian black shale had the lowest (31 ppm). For black shales of Carboniferous and Permian age, a positive correlation with Al2O3 was observed, although no such correlation was found for other age groups. The chondrite-normalized REE patterns for shales in Peninsular Malaysia showed a higher concentration of light rare earth elements (LREEs) than heavy rare earth elements (HREEs), a trend commonly seen in granite and fluvial sediments. The LREE/HREE ratios and Eu anomalies of the shales provide insights into their petrogenesis and sources (Tao et al., 2017; Ibad and Padmanabhan, 2022a). The predominant higher LREE enrichment indicates a felsic to intermediate provenance, and most shale samples exhibited a negative Eu anomaly, suggesting that their parent rocks were felsic in nature.

The average REE concentrations in shales from the Timah Tasoh and Sanai formations in Malaysia surpass those of shale samples from Asia, North America, Africa, and Europe. Only the shale samples from the Celtek formation in Turkey and the Bazhenov formation in Russia have higher REE values than the Malaysian formations. In contrast, the Paleogene–Neogene coals from Malaysia exhibit lower REE concentrations compared to other global coal samples (Dai et al., 2013; Dai et al., 2016; Dai et al., 2018; Hower et al., 2016; Hower et al., 2020; Li et al., 2020).

4. METHODOLOGY

The methods used in the study are from various resources and that was gathered through different publications that globally deal with REE. In addition, data concerning REE in Malaysia were collected from scientific publications. After collection, these data were inputted into different software packages for the production of tables, charts, graphs, plots, and maps. The processes mainly used were ion exchange, hydrometallurgy and solvent extraction.

5. RESULTS AND DISCUSSION

REE resources of Malaysia, which hold relatively significant concentrations of REEs compared with other similar resources across the world. Both syenites and trachyte were reported in Malaysia at Perhentian Island and South Kelantan. Azman (2001) reported that the total concentration of REEs in syenite obtained from Perhentian Kecil Island ranges.

An average annual rainfall of 2500 mm and a variety of granitic bedrocks, many REE potential deposits are formed associated with ion-adsorption clay (Fauziana et al., 2017; Yaraghi et al., 2020). In addition to alkaline igneous deposits, Malaysia also holds placer deposits, which are the fourth largest RE resource in the world. Although mining and extraction of RE resources from this deposit in terms of REMs (monazite-xenotime) have been performed commercially in a few states of Malaysia, many states remain unexplored (Azizan Abu Samah, 2020).

6. CONCLUSIONS

REE-hosting IAC deposits in areas that lie beneath granites in Johor, Pahang, Terengganu, and Perak. The findings demonstrate good exposure of granites in the main and eastern range provinces of Peninsular Malaysia and positive LREE and HREE levels. JMG, ASM, and academic researchers extensively evaluated REEs potential in granite.

The average REE content of granites from Lumut, Telok Murok, and Johar from Malaysia surpassed values reported for granites in South Carolina (USA), Guangxi (China), the Czech Republic, and Erongo granites.

The thick sequences of black shale and coal deposits in Peninsular Malaysia might be a potential REE resource in the near future. REE content of shales from the Timah Tasoh Formation in Malaysia shows greater values as compared to shale samples from Asia, North America, Africa, and Europe. Conversely, coal from Malaysia did not show high potential in respect of its REE content.

It can clearly be inferred from the review that Malaysia lacks a primary RE deposit, but possesses three secondary and three alternative RE resources. The current global demand for REEs in the development of sustainable energy may be achieved through the effective extraction of REEs from these resources.

7. REFERENCES

- Thangarajoo, R., Yusof, M. H. M., Godang, S., Aminuddin, M. I. K. A., Saleki, M., & Ishak, H. I. (2024). CHARACTERIZATION OF POTENTIAL WEATHERED REE BEARING GRANITOID FROM HULU LANGAT, MAIN RANGE GRANITE, PENINSULAR MALAYSIA. Malaysian Journal of Microscopy, 20(1), 85-99.
- Ismail, R., Fendy, N. A., Ibrahim, S. S., & Noor, A. N. M. (2024). Geochemical Study of Rare Earth Elements (REE) Distribution in Jeli, Kelantan, Malaysia: Correlation between Physical Appearance and Geochemical Composition. In BIO Web of Conferences (Vol. 131, p. 04010). EDP Sciences.
- 3. Advokaat, E. L., & van Hinsbergen, D. J. (2024). Finding Argoland: Reconstructing a microcontinental archipelago from the SE Asian accretionary orogen. Gondwana Research, 128, 161-263.
- 4. Sany, S. B. T., Tajfard, M., Rezayi, M., Rahman, M. A., & Hashim, R. (2019). The west coast of Peninsular Malaysia. In World seas: An environmental evaluation (pp. 437-458). Academic Press.
- Choo, P. S., Ismail, I., & Rosly, H. (1994). The west coast of Peninsular Malaysia. An Environmental Assessment of the Bay of Bengal Region. BOBP/REP/67. Swedish Center for Coastal Development & Management of Aquatic Resources.
- Loneragan, N. R., Adnan, N. A., Connolly, R. M., & Manson, F. J. (2005). Prawn landings and their relationship with the extent of mangroves and shallow waters in western peninsular Malaysia. Estuarine, Coastal and Shelf Science, 63(1-2), 187-200.
- Thangarajoo, R., Shahrir, M. A. M., Yusof, M. H. M., Kamso, N. S., Aminuddin, M. I. K. A., & Abdullah, N. S. (2023). PETROGEOCHEMISTRY OF RARE EARTH ELEMENTS (REE) FROM HULU LANGAT AND BALING, MAIN RANGE GRANITE PROVINCE, MALAYSIA. Malaysian Journal of Microscopy, 19(2), 173-183.
- Yaraghi, A., Ariffin, K. S., & Baharun, N. (2020). Comparison of characteristics and geochemical behaviors of REEs in two weathered granitic profiles generated from metamictized bedrocks in Western Peninsular Malaysia. Journal of Asian Earth Sciences, 199, 104385.
- Ibad, S. M., Tsegab, H., Siddiqui, N. A., Adam, M., Mishra, S., Ridha, S., ... & Azmi, A. (2024). The upstream rare earth resources of Malaysia: Insight into geology, geochemistry, and hydrometallurgical approaches. Geoscience Frontiers, 15(6), 101899.
- Antonina, A. Nor, et al. "Geochemistry of the rare earth elements (REE) distribution in Terengganu coastal waters: A study case from Redang Island marine sediment." Open Journal of Marine Science 3.3 (2013): 154-159.

- Antonina, A. N., Shazili, N. A. M., Kamaruzzaman, B. Y., Ong, M. C., Rosnan, Y., & Sharifah, F. N. (2013). Geochemistry of the rare earth elements (REE) distribution in Terengganu coastal waters: A study case from Redang Island marine sediment. Open Journal of Marine Science, 3(3), 154-159.
- Sultan, K., & Shazili, N. A. (2009). Rare earth elements in tropical surface water, soil and sediments of the Terengganu River Basin, Malaysia. Journal of rare earths, 27(6), 1072-1078.
- 13. Elias, M. S., Ibrahim, S., Samuding, K., Kantasamy, N., Ab Rahman, S., & Hashim, A. (2019). Rare earth elements (REEs) as pollution indicator in sediment of Linggi River, Malaysia. Applied Radiation and Isotopes, 151, 116-123.
- Sanusi, M. S. M., Ramli, A. T., Basri, N. A., Heryanshah, A., Said, M. N., Lee, M. H., ... & Saleh, M. A. (2017). Thorium distribution in the soils of Peninsular Malaysia and its implications for Th resource estimation. Ore Geology Reviews, 80, 522-535.
- Fuad, M. M., Shazili, N. A. M., & Faridah, M. (2013). Trace metals and rare earth elements in Rock Oyster Saccostrea cucullata along the east coast of Peninsular Malaysia. Aquatic Ecosystem Health & Management, 16(1), 78-87.
- Wu, K., Liu, S., Kandasamy, S., Jin, A., Lou, Z., Li, J., ... & Shi, X. (2019). Grain-size effect on rare earth elements in Pahang River and Kelantan River, Peninsular Malaysia: Implications for sediment provenance in the southern South China Sea. Continental Shelf Research, 189, 103977.

READERS' VIEWS

Dear Dr. PV Rao

Good morning.

June month Editorial content is brilliant - benchmarking Australia to expose India's inability to tap the immense critical mineral wealth lying deep down and spread across.

While your first para summarises why Australia is moving fast forward in exploiting their hidden treasures, your last para spell out why India is weighed down with lopsided mineral exploration policies and what India needs to do to facilitate extracting our potential mineral wealth, thereby enabling India to play a larger role in the global mineral supply chain.

Well written, Dr. Rao. Hope something positive comes out of your sincere efforts and hard work for promoting India's mineral wealth.

Hope this Editorial article of yours is read by powers that be - GSI, Ministry of Mines, and PM office. The other day I was reading about a deepest gold mine in South Africa -5000 meters deep extracting tonnes of Gold with the help of modern technology and in India we got stuck at 3000 meters at KGF. Maybe if we go a little deeper further, we could strike a GOLDEN treasure. But that was not to be for the reasons mentioned in the article.

With best regards.

PKG Pappinissery

14-6-2025

MEAI NEWS

AHMEDABAD CHAPTER

Seminar on "Digitalization in Mining – A Pathway to Sustainable Environment

The Bhavnagar Local Centre of Ahmedabad Chapter organized a seminar on 5th June 2025 at Lignite Project, Bhavnagar on "Digitalization in Mining – A Pathway to Sustainable Environment". The seminar was aimed at exploring the role of digital technologies in promoting environmentally sustainable mining practices.



The seminar was graced by eminent personality Shri S. N. Mathur (President, MEAI). Other dignitaries on the dais were Chairman Shri Swagat Ray, Vice Chairman Shri Dhananjay Kumar, and Secretary Smt. Gunjan Pandey of Ahmedabad Chapter; and Convener, Bhavnagar Local Centre Shri Sanjay Mathur. Representatives from GMDC, GHCL and GPCL also attended the seminar. Around 45 members attended the seminar. On the occasion of World Environment Day, before the commencement of the seminar, a small plantation drive was carried out by the MEAI members.



Plantation Drive by MEAI Members

The event commenced with the welcoming of dignitaries on the dais with bouquets and shawls, followed by the auspicious lamp lighting ceremony, symbolizing the light of knowledge and innovation.





Welcome address by Shri D. K. Patel

The seminar officially began with a welcome address by Shri D. K. Patel, Convener, Bhavnagar Local Centre who extended his heartfelt greetings to all the dignitaries and participants, setting up the tone for the seminar.

Subsequently, the following dignitaries shared their thoughts.

Shri Dhananjay Kumar (Vice Chairman, Ahmedabad Chapter) emphasized the need for integrating digital solutions in conventional mining to address environmental challenges.



Speech by Shri Dhananjay Kumar



Shri Swagat Ray (Chairman, Ahmedabad Chapter) highlighted the transformative

Shri Swagat Ray addressing the Members

potential of automation, digital twins, and AI in minimizing mining's ecological footprint.



The keynote address was delivered by Shri S. N. Mathur (President, MEAI), who elaborated on national policies,

Shri SN Mathur delivering his keynote address

global trends in sustainable mining, and the pivotal role MEAI can play in promoting responsible mining practices through digitalization.

Following the inaugural session, the technical session featured presentations from various organizations on best practices and innovations in mining digitalization as mentioned below:



Shri. Kanthi Vikram (Management Trainee, GMDC) presented insights into GMDC's current initiatives involving real-time monitoring and automation.



Shri. Dhananjay Kumar (Sr. GM, GHCL) and Shri Anil Wandker (Mine manager, Khadsaliya, GHCL) delivered a paper focusing on sensorbased data collection, safety tracking, and environmental compliance through GIS and remote sensing.



Shri. B.S Patel (GM, GPCL) presented his paper showcasing the integration of drone-based survey, SCADA systems, and Al for predictive maintenance and environmental impact minimization.



Shri. Nitesh Singh (Founder & CEO of Kiarx) – presented a forward-thinking paper on innovative digital tools and platforms for sustainable mining, with a focus on Aldriven predictive analysis, blockchain integration for transparency,

and smart compliance systems. The participants engaged enthusiastically, raising pertinent questions and contributing ideas during the interactive Q&A sessions after each presentation.

To honour the contribution of Shri. S.N Mathur, a felicitation ceremony was held by the Bhavnagar Local Centre. A memento was presented describing his past achievements.



Mementos were presented to all the paper presenters and dignitaries.



The seminar was concluded with a vote of thanks proposed by Shri Sanjay Mathur, Secretary, Bhavnagar Local Centre. He noted, "We are thankful not only for the knowledge shared but also for the collaboration and bonds formed through the seminar.

that will steer us towards a greener mining future." He expressed sincere gratitude to all dignitaries, paper presenters, organizing committee members, and all members from GMDC, GHCL and GPCL for making the event successful.

The seminar proved to be a knowledge-rich event with meaningful discourse on embracing digitalization for a more sustainable and responsible mining future. It reflected the shared vision of industry professionals and MEAI towards environmental stewardship through innovation and collaboration. The seminar concluded with dinner.

Half-Day Seminar on Mining Plan and Mine Closure Plan 2025 – New Guidelines, Key Changes, and Comparative Analysis

The seminar was organized by the South Gujarat Local Center (SGLC) under the aegis of the Ahmedabad Chapter on 19th April 2025, 5:00 PM at Lords Plaza, Ankleshwar.

The program began with the lighting of the lamp and the welcoming of guests, followed by a welcome address by Shri Rakesh Jee, Convener, SGLC – Ahmedabad Chapter. A heartfelt obituary was paid to the Late Shri S. V. Karnik.

Eminent dignitaries graced the dais and addressed the gathering were: Shri S. N. Mathur, President, MEAI; Shri S. S. Ray, Chairman, Ahmedabad Chapter; Shri A. K. Makadia, Council Member; Shri P. C. Goyal, Vice Chairman II, Ahmedabad Chapter; Shri Pulak A Mathur, General Manager, Tadkeshwar Lignite Project, GMDC; and Shri S.D. Jagani, I/C General Manager, Rajpardi Lignite Project, GMDC

The technical session featured insightful presentations on various mining projects by Shri M. M. Umariya, Rajpardi Lignite Project, GMDC; Shri M. A. Nipane, Valia Lignite Mine, GIPCL; Shri V. G. Mitruka, Ambadungar Fluorspar Project, GMDC; Shri Anand Vijay, Vastan Lignite Mine, GIPCL; and Shri J. G. Pitroda, Tadkeshwar Lignite Project, GMDC.

An open house discussion provided attendees with the opportunity to engage in interactive dialogue and share valuable insights. Shri S. S. Ray also shared his perspective on the new policies. Mementos were presented to the speakers and retiring professionals in appreciation of their contributions. A special address by Shri Pulak A Mathur was followed by a short video tribute to Shri S. N. Mathur.



Felicitation to Shri S N Mathur



Lamp Lightening by MEAI President & Dignitaries



Address by Shri S N Mathur



View of Audience



Address by Chairman Shri Swagat Ray

The seminar concluded with a vote of thanks delivered by Shri A. N. Subbarao, Secretary, SGLC – Ahmedabad Chapter.

Visit of Shri S. N. Mathur to Tadkeshwar Lignite Project of GMDC

Following the successful seminar conducted on 19th April 2025 at Ankleshwar by the South Gujarat Local Centre, Shri S. N. Mathur visited the Tadkeshwar Lignite Project on 20th April 2025. During his visit, Shri Mathur interacted with the personnel of the Tadkeshwar Lignite Project and appreciated the project's evolution and progress since its inception. At 9:30 AM, a warm welcome ceremony was organized in the conference room of the Administrative Office. Shri Pulak Mathur, GM (P) and the team of Tadkeshwar Lignite Mine greeted Shri S. N. Mathur.

The Tadkeshwar Lignite Project team presented a brief report highlighting the digitalization initiatives undertaken for machinery, along with an overview of the upcoming chemical grouting work planned at the site. After the meeting, a mine visit was arranged from the designated viewpoint.



Shri. S N Mathur with Mine Team

Shri S.N. Mathur observed the operations and shared his valuable insights. In his message to the team, Shri S. N. Mathur encouraged:

"All young professionals should be actively involved on the ground, understand every aspect of reports—from the grassroots to the top level—and continuously strive to enhance their knowledge and dedication."

"Take the lead in adopting new ideas and work hard to ensure their success."

BELLARY-HOSPET CHAPTER

COACHING CLASSES FOR "MINING MATE" ASPIRANTS - 2025

The Bellary-Hospet Chapter, in association with "Mines Group Vocational Training Society (MGVTS), Hosapete", successfully conducted Coaching Classes for the candidates appearing for the "Mining Mate Certificate of Competency Examination - 2025 held by the Board of Mining Examinations, Director General of Mines Safety (DGMS), Dhanbad.

The Coaching Classes conducted from 26th May, 2025 to 30th May 2025 at the Mines Group Vocational Training Centre situated at Sankalapur, Hosapete, Vijayanagara District, Karnataka State. The Coaching sessions were held for 6 days from 9:30 am to 4:30 pm. About 30 candidates from Karnataka, & Tamilnadu attended the Classes.



The Coaching classes were inaugurated on 26th May, 2025 in the presence of Sri. G. Lakshminarayana, General Manager of M/s RBSSN Pvt. Ltd., MEAI Council Member, and the Secretary of MGVTS, Hosapete & Sri. Gopal Joshi, DGM, M/s RBSSN Pvt. Ltd.

Sri Lakshminarayana and Sri. Gopal Joshi have advised all the candidates to utilize the opportunity provided by the Mining Engineers' Association of India, BH Chapter and Mines Group Vocational Training Society. The programme was sponsored by the BH Chapter under the initiation & advice of Sri. K. Madhusudhana, Past President of MEAI & CEO (Mining) of M/s MSPL Ltd. & Sri. K. Prabhakara Reddy, Past Chairman of BH Chapter & Council Member of MEAI & CEO of M/s SUMS Pvt. Ltd. Hosapete.

Desktop computers were also kept available at the Training center to practice for the Computer Based Test (CBT) particularly for the aspirants, who do not have previous exposure in operation of the computer system.

All the candidates that attended the classes appreciated the initiative taken by BH Chapter and MGVTS, Hosapete for providing Free Coaching Classes at the Training Centre and Desktop computers also for practice.

About 900 Multiple Choice Questions (MCQs) were presented and explained with pictures and Power Point Presentations (PPTs). Relevant statutes of the Mines Act, Rules, & Regulations were also explained during the weeklong coaching classes.



On the final day, during the interactive session, the candidates expressed very good opinions about the Coaching classes

and expressed gratitude to Bellary-Hospet Chapter & MGVTS, Hosapete. Doubts clarifying session was also held before concluding the classes.

The Candidates requested to continue conducting the Mate & Blaster Coaching classes every year. Some participants expressed that additional provision of Course material, Notebooks / Diaries and to conduct a Test on the Last day of Coaching classes.

WORLD ENVIRONMENT DAY -2025

World Environment Day was celebrated with tree Plantation Drives by Bellary-Hospet Chapter on the occasion of World Environment Day, observed on Thursday, 5th June 2025. The Chapter successfully organized large-scale plantation programs at three locations—two in Hosapete and one in Sandur—to promote environmental sustainability and raise awareness among students, communities, and industry stakeholders.

The event was marked by enthusiastic participation from over 200 members, including representatives from adjacent mining companies, students, local residents, and MEAI members. A total of around 244 saplings were planted across the designated sites, symbolizing a strong commitment to environmental conservation.

Distinguished attendees that graced the occasion included Shri. K. Madhusudhana, CEO, M/s MSPL Limited; Shri. K. Prabhakara Reddy, CEO M/s SUMS; Shri. G. Laxminarayana, GM, M/s RBSSN; Shri. P. Venkateshwara Rao, Secretary, MEAI Bellary-Hospet Chapter; Shri. K. Mallikarjuna, Chairman, MEAI Bellary-Hospet Chapter; Shri. Gopal Joshi, AGM-Mines, M/s RBSSN; Shri. T. Jitendra Reddy, AGM-Mines, M/s MSPL Limited; Shri. J Srikanth, GM-Mines, M/s ZTC; Shri. Vinay Kumar, AGM-Mines, M/s NMDC; and Shri. Rakesh MM, Manager-Mines, M/s KSMCL.



Their presence added immense value to the programme and served as an inspiration to the participants. Plantation Programme Locations:

- Bhavasara Kshatriya Samaja's Graveyard, near M. P. Prakash Nagar, Hospet
- Government Higher



Primary School, M. P. Prakash Nagar, 7th Ward, Hospet

Vijaya Rameshwara Temple, near HRG Cross, Sandur



Chapter extends sincere gratitude to all dignitaries, participants, and supporting organizations for making this green initiative a memorable success. The Chapter reaffirms its dedication to environmental stewardship and community engagement through continued efforts in such meaningful activities.

RAJASTHAN CHAPTER-UDAIPUR

Report on Technology Day Celebration

National Technology Day-2025 was Celebrated with a Landmark Collaborative Initiative in Udaipur. On the auspicious occasion of National Technology Day 2025, a landmark collaborative initiative was held on 11th May 2025 at Vigyan Samiti, Udaipur. The event was jointly organized by the Rajasthan Chapter – Udaipur, The Institution of Engineers (India), (IEI) Udaipur Local Centre, and the Jain Engineers Society (JES), Udaipur.

The primary objective of the celebration was to recognize and promote Innovation & Technological advancement, while also paying tribute to the pioneers whose vision and contributions have significantly propelled the progress of science and Technology besides engineering advances in the country.

The event served as a Vibrant platform for knowledge exchange & institutional collaboration, bringing together a diverse group of professionals, academicians, researchers, Technocrats and young Students/Researchers who share a common commitment to the pursuit of technological excellence. Through a series of insightful discussions, powerpoint presentations, and shared

experiences and Q&A sessions, the gathering emphasized the crucial role of continuous innovation & Development in shaping a sustainable and progressive future.

This successful collaboration underscored the power of inter-disciplinary partnerships in driving meaningful change and reaffirmed the collective resolve to advance India's technological frontiers.

The event was graced by Dr. Ranjit Chaudhuri, Former General Manager, RSMM Ltd. who honored the occasion as the Chief Guest.



The Welcome Address was delivered by Dr. Maheep Bhatnagar, Chairman of Vigyan Samiti. In his remarks, he emphasized the historical significance of National Technology Day and underscored the organization's enduring commitment to science education and outreach. He highlighted several achievements of Vigyan Samiti's & key initiatives, notably the Mobile Science Laboratory (MSL) and the Aryabhatt Science Awareness Center, both of which have played a pivotal role in fostering scientific temperament and curiosity among young students and communities locally.

Dr KL Kothari, Vice Chancellor, provided a detailed overview of the Dr. D.S. Kothari Excellence Award and reflected on Vigyan Samiti's 65 years of dedicated service in science outreach and public engagement.

The keynote address was delivered by Dr Vipin Mathur, a distinguished gastro-enterologist and Principal of RNT Medical College. In his address, Dr. Mathur highlighted the transformative impact of technology in the medical field, particularly in areas such as diagnosis, treatment protocols, and health-care administration. He emphasized that technological innovations have significantly enhanced the quality of patient care while simultaneously improving operational efficiency in hospitals.

While addressing the gathering, Chief Guest Dr Ranjit Chaudhuri commended the commendable efforts and initiatives undertaken by Vigyan Samiti. He also offered insightful suggestions aimed at enhancing its outreach and maximizing its impact."



(L to R): Dr KL Kothari, Dr Ranjit Choudhuri, Dr Vipin Mathur, Dr KP Talesara, Sh BL Khamesra, JES, Sh Purushottam Paliwal, President-IEI & Sh AK Kothari, Patron & former National President MEAI.

Senior representatives from the engineering community, including Sh Arun Kumar Kothari, Former President of MEAI and Patron of MEAI-Udaipur; Sh P Paliwal, Chairman of The Institution of Engineers (India), Udaipur Local Chapter; and Sh BL Khamesara from the Jain Engineers Society, also addressed the gathering. They emphasized the broader role of technology in shaping society and driving sustainable progress.





Views of Audience

The program concluded with a vote of thanks delivered by Dr RK Garg, while the proceedings were smoothly anchored by Dr KP Talesara.

A Report on Technical -Talk

Rajasthan Chapter- Udaipur organized a technical talk on 24th May, 2025 at 06:00 PM on "National Critical Minerals Mission (NCMM)" in the TN Residential School, Hiran Magri, Sector-4, Udaipur (Raj.). Eminent speaker Sh Abhay Agrawal, Controller of Mines (NZ) IBM, Udaipur delivered the comprehensive lecture through powerpoint presentation.



(L-R) Dr SK Vashisth, Council Member, Sh Akhilesh Joshi, Patron, Sh Abhay Agrawal, COM (NZ), IBM, Sh AK Kothai, Former President MEAI & Sh Asif M Ansari, Secretary, Udaipur Chapter.



At the outset, Sh Asif M Ansari, Secretary, Mining Engineers Association of India Udaipur delivered welcome address and apprised on the activities of the Chapter.

On this occasion Sh AK Kothari, former National President MEAI appreciated the organizers were congratulated for the grand success of the recently held "International Conference on Centre of Excellence in Mining" by the MEAI, Udaipur Chapter and for achieving exceptional success at the international level in mining industry.

Speaker Sh Abhay Agrawal discussed the importance of this subject matter. He said that "The National Critical Mineral Mission (NCMM)" was approved by the Union Cabinet on June 26, 2024. Here are the key highlights: To ensure a steady growth and secure smooth supply of critical minerals essential for India's economic development, green energy transition & national security.

Key Components:

- 1. Institutional Setup:
- National Critical Minerals Mission (NCMM) established under the Ministry of Mines.
- NCMM will act as the apex body to coordinate efforts across government, industry, and research institutions.
- 2. Strategy Period: FY 2024-25 to FY 2030-31.
- 3. Minerals Covered (24 in total):
- Lithium, Cobalt, Nickel, Graphite (natural), Rare Earth Elements (REEs), Copper, Molybdenum, Tantalum, Niobium, Vanadium, Tin, Tungsten, and others critical for clean energy technologies, defense, and electronics.
- 4. Functions of NCMM:
- Identify and prioritize critical minerals.

- Support exploration and processing technologies.
- Facilitate investment and international cooperation.
- Coordinate recycling and circular economy initiatives.
- Promote R&D and skill development in critical mineral sectors.
- 5. Funding:
- Funded through a combination of public funding and private sector participation.
- Convergence with other government schemes like PM GatiShakti, Atmnirbhar Bharat, and Make in India.
- 6. International Cooperation:
- Leverages partnerships such as the India-Australia Critical Minerals Investment Partnership, India-US Critical Minerals Working Group, and alliances under the Indo-Pacific framework.
- 7. Outcomes Expected:
- Secure domestic and international supply chains.
- Develop indigenous processing capabilities.
- Promote sustainability through recycling and substitution.

As per the Mines and Minerals (Development and Regulation) Act (MMDR Act), Part D of the First Schedule lists 24 minerals designated as Critical and Strategic Minerals. These minerals are crucial for India's economic development, national security, clean energy transition, and advanced technologies.

List of Critical & Strategic Minerals (Part-D, 1st Schedule of MMDR Act): Aluminum, Antimony, Beryllium, Bismuth, Cadmium, Chromium, Cobalt, Copper, Fluorspar, Graphite (Flake), Hafnium, Indium, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Niobium, Platinum Group of Elements (PGE), Rare Earth Elements (REEs), Rhenium, Silicon (Semiconductor Grade), Strontium & Titanium.

These minerals have been notified under the MMDR Amendment Act, 2023, as part of India's strategy to secure supplies for the energy transition, defense manufacturing, semiconductors, EVs, and renewable energy technologies.

On this occasion, ceremonious of welcome/ felicitation of a large number of the new life members to the association, including females viz Dr Jayant Sharma, Dr Ravi Kumar Sharma, Sh Ashok Paliwal, Sh Manoj Salvi, Sh RM Yadav, and Sh RK Khiyani was held. New life members were honored with citations, uparna and garlands. In addition, a large number of new student members were also welcomed.

On this occasion, also a warm welcome for Patrons of MEAI, Udaipur:





The program was conducted by Dr SK Vashisth, Council Member, MEAI. Vote of thanks was presented by Sh RP Mali, Executive Member, Udaipur Chapter.



View of audience

(Continued from Page 11)

self-sustaining economy through job creation, local business opportunities and other direct benefits for communities."

According to the project's feasibility study, Malmbjerg could generate nearly \$1 billion in tax revenue over its 20-year operational life. The Malmbjerg approval comes amid a broader uptick in Greenland's mining activity. Last month, authorities granted an exploitation licence to a Danish-French mining group, and earlier this month, the EU included a Greenland graphite initiative among 13 new critical material projects.

These moves followed the bloc's March endorsement of 47 raw material projects within EU borders. Last week, the US Export-Import Bank (EXIM) said Critical Metals Corp. (NASDAQ: CRML), which is developing the Tanbreez rare earth project in Greenland, had met initial requirements to apply for a \$120 million loan.

Interest in Greenland's mineral potential has grown since Donald Trump floated the idea of purchasing the Arctic island, a semi-autonomous territory of Denmark that holds as many as 40 items on the US and EU critical minerals list.

Cecilia Jamasmie, Mining.Com | June 19, 2025

China copper smelters match record as foreign rivals falter

Chinese copper production stayed at record levels last month, despite a plunge in the fees charged by smelters, piling the pressure on operations elsewhere in the world that compete for feedstock.

Output of refined copper matched the previous month's all-time high of 1.254 million tons, although there was an extra day in May. That pushed volumes over the first five months 8% above last year's level, even as spot

treatment charges have turned deeply negative as too much capacity chases insufficient supplies of ore.

That's proving a bigger problem for smelters outside China. Japan's JX Advanced Metals Corp. said in a statement on Tuesday it's considering output cuts due to tight concentrate supplies. The company owns 48% of Pan Pacific Copper Co., the biggest producer in Japan with total annual refined copper capacity of 650,000 tons.

Beijing has tolerated a massive expansion in capacity to feed its world-beating clean energy industries. Moreover, Chinese smelters, which account for over half of global production, are led by relatively large and efficient state-owned firms that are more resistant to financial stresses.

Those pressures are building, though. Half-yearly treatment charges are currently being negotiated, and given the shortage of ore it's global miners that are firmly in the driving seat. They began the talks by proposing negative fees, a first for term contracts that would severely affect profits at smelters.

Soaring prices for byproducts of the smelting process, including sulfuric acid and gold, are helping keep the industry afloat. Producers are also using workarounds like replacing the concentrate supplied by miners with scrap.

Copper prices on the London Metal Exchange fell 0.1% to \$9,646 a ton as of 11:49 a.m. in Shanghai.

Bloomberg News | June 19, 2025

Malaysian firm to explore rare earth mining

Berjaya Land Bhd. is set to explore and develop the mining of rare earth elements and other minerals in Malaysia's northern Perlis state.



Perlis, Malaysia

The company, a subsidiary of Malaysian tycoon Vincent Tan-controlled Berjaya Corp., signed a memorandum of understanding with Impianan Utara Sdn. on Tuesday to undertake the project, according to a filing. They will also develop large-scale plantation of Napier hybrid grass and Blackthorn durian.

The projects will be carried out in collaboration with the state's investment vehicle Menteri Besar Incorporated Perlis. The move is in line with Malaysia's ambitions to become a globally competitive and environmentally responsible player in the rare earth industry, according to the statement.

Bloomberg News | June 18, 2025

India restricts import of gold infused metals

India has imposed curbs on imports of palladium, rhodium and iridium alloys containing more than 1% gold by weight, the government said on Thursday.

The government also restricted imports of colloidal metals and certain chemical compounds to prevent gold from entering the country disguised as chemical imports, it said in a statement.

Reuters | June 19, 2025

Congo considers extending cobalt export ban as it weighs quotas



Mutanda, the world's largest cobalt mine, is responsible for a fifth of global output. (Image courtesy of Glencore.)

The Democratic Republic of Congo is considering extending a ban on exports of cobalt, as it explores

how to implement quotas for shipments of the electric vehicle battery material, four sources familiar with the discussions told *Reuters*.

Congo is likely to continue with the ban because the government wants more time to work out how to distribute export quotas among mining companies that produce the battery vehicle metal, said the sources, who cannot be named because the matters are confidential.

The world's top cobalt supplier in February imposed a four-month ban on cobalt exports that expires on Sunday, as it sought to curb oversupply and breathe new life into prices for the metal that had hit a nine-year low

A proposal to implement quotas has backing from producers including Glencore, the world's second-largest cobalt-producing company. However, Glencore's position differs with that of CMOC Group, which has lobbied for the ban to be lifted.

Eurasian Resources Group, another key Congo producer, also wants the ban lifted and is eager to hear more details from the government on how the quotas on cobalt exports would be implemented, a separate source told *Reuters*. The government is not fully united on extending the ban, according to Zack Hartwanger, head of commercial, Africa at Swiss-based commodity trader Open Mineral.

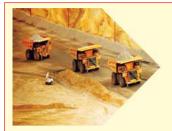
"Some (in government) raised concerns about revenues, employment, and informal supply chains," Hartwanger said. "There's tension between industrial policy goals and economic realities." CMOC, the world's top cobalt-producing company, and Congo's Ministry of Mines did not respond to emailed questions from *Reuters*.

The Authority for the Regulation and Control of Strategic Mineral Substances' Markets, or ARECOMS, which is responsible for implementing the cobalt export curbs, did not respond to emailed questions.

CMOC is ramping up cobalt output at its two mines in Congo, where the battery material is produced as a byproduct of copper, even as demand from electric vehicles manufacturers is down as the sector's growth slows.

The market glut depressed prices to as low as \$10 a pound or \$22,000 a ton in February.

Reuters | June 20, 2025



Mining Engineers' Association of India

8th National Council Meeting,

ANNUAL GENERAL MEETING & TECHNICAL SEMINAR



18th -19th July 2025

Venue: Welcomhotel By ITC Dumduma, Bhubaneswar, Odisha 751019 Organized By: Bhubaneswar-Sukinda & Barajamda Chapters

About Us

Mining Engineer's Association of India (MEAI), established in 1957, represents professionals serving the minerals and mining industry in India with member base in the tune of more than 6500 from all the states of the country which is represented by 25 regional chapters.

Barajamda Chapter was established in 1957 & Bhubaneswar-Sukinda chapter was established during 1991. The primary focus of the association is to enrich the mining community through information exchange, knowledge sharing and professional development. MEAI is an integral part of 'Competence Building Mission' of the central government which is focusing on sustainable mining and wish to develop the requisite knowledge and managerial competence of all professionals working in Mining and Mineral based industry.

Bhubaneswar: The Temple City of India

Bhubaneswar is an ancient city in India's eastern state of Odisha, formerly Orissa. Many temples built from sandstone are dotted around Bindu Sagar Lake in the old city, including the 11th-century Hindu Lingaraja Temple. Outside Rajarani Temple are sculpted figures of the guardians of the 8 cardinal and ordinal directions. Jain antiques, weaponry and indigenous pattachitra paintings fill the Odisha State Museum.



About the Conference:

Theme: Contribution of Mining & Allied Industry for "Viksit Odisha 2036"

The mining industry plays a pivotal role in realizing the vision of a "Viksit Odisha" (Developed Odisha), serving as a cornerstone of the state's economic and industrial progress. With Odisha accounting for over 41.9% of India's mineral resources, including significant reserves of iron ore, bauxite, coal, and chromite, the sector contributes substantially to the state's Gross State Domestic Product (GSDP) and industrial output. By harnessing its rich mineral wealth responsibly, Odisha is poised to transform into a hub for value-added industries, driving long-term prosperity and aligning with national development goals.

Conference Focus

- Economic Growth & Revenue Generation & Mining contribution to Odisha's GSDP
- Employment & Skill Development, D&I, job creation in mining and allied sectors and upskilling
- Sustainable Mining Practices, Environmental Conservation and biodiversity protection
- Mineral Processing & Beneficiation, Value Addition & Industrialization of mineral-based industries
- Potential for Critical Mineral Mining & Processing
- Supply chain Infrastructure Development including slurry pipeline, riverways, railways and roadways
- Use of Digitalization, Technology & Innovation to improve efficiency and safety
- Investor-friendly policies, ease of doing business, and attracting domestic and global investments.

Who Should Attend

- Professionals from the Mining Industry.
- Operations and Process equipment suppliers and designers
- Researchers and Academics

Whom You Expect to Meet

- Process Experts in Mining and Beneficiation
- Providers of exploration, mining services and equipment

Abstract Submission

Soft Copy of abstract in MS Word must be submitted. All abstracts will be reviewed by Seminar Technical Committee.

Soft copies of accepted abstracts from registered delegates will be provided to all participants.

Final presentation slot details will be communicated to authors of the accepted abstracts.

Papers can be emailed at meaibbsr@gmail.com

Important Dates:

Abstract Submission: 25th June 2025 Acceptance Notification: 5th July 2025

Sponsorship

Category	Sponsorship Fees (in Lakhs INR)	Benefits
		Display Logo/Banner/ Free delegates - 6
Gold	3 (+18% GST)	Display Logo/Banner/ Free delegates – 4
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Bronze	1 (+18% GST)	Display Logo/Banner/ Free delegate - 1

Participation

There is no participation fees for MEAI members in the Seminar.

Mode of Remittance & Bank Transfer Details:

All payments are to be made through:

Bankers Cheque/
Drafts /NEFT or
RTGS in favor of
Union Bank A/C:
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Contact us

Sri Shambhu Nath Jha

(Secretary), MEAI, Bhubaneswar-Sukinda Chapter Email: jhasn@tatasteel.com

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CONFERENCES, SEMINARS, WORKSHOPS ETC.

INDIA

- 4 July 2025: International Conference on "Sustainable and Responsible Mining through Best Mine Closure Practices". Hotel Trident, Hitech City, Hyderabad. For details Contact E: inc.wmc@gmail.com / event@bmlindia.in; T: +91 11 24367476 / +91 98683 32325.
- 18 July 2025: 8th National Council Meeting and 52nd Annual General Meeting of MEAI. Welcomehotel by ITC Dumduma, Bhubaneswar.
- 19 July 2025: National Seminar on Contribution of Mining & Allied Indsutry for "Viksit Odisha 2036" organised by Bhubaneswar & Barajamda Chapters at Welcomhotel by ITC Dumduma, Bhubaneswar.
- 25-26th July, 2025: National Seminar on Indian Mining-Present Scenario and Future Perspective. Radisson Blu Hotel, Nagpur.
- 29-30th July 2025: National Conference on Applications, Promises, and Challenges of Artificial Intelligence in the Mining Industry. Radisson Hotel, Jodhpur.

ABROAD

- 22 23 Jul 2025: International Conference on Mining and Economic Geology ICMEG. Berlin, Germany. Website URL: https://waset.org/mining-and-economic-geology-conference-in-july-2025-in-berlin
- 29 30 Jul 2025: Life of Mine I Mine Waste and Tailings Conference 2025 (#LOMMWT2025). Brisbane Convention & Exhibition Centre. Contact by phone at T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.
- 7 9 Aug 2025: 2025 China International Coal & Mining Exhibition. China International Exhibition Center (CIEC) No. 6 North Third Ring Road East, Chaoyang District, Beijing , 100028, China.
- 10 13 Aug 2025: Application of Computers & Operations Research in the Mining Industry. #APCOM2025. PCOM Conference 2025, Perth Convention and Exhibition Centre, Perth, Western Australia. AusIMM T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.
- 19 21 Aug 2025: International Conference on Mining, Material, and Metallurgical Engineering. Paris, France. Website URL: https://mmmeconference.com/. Organised by International ASET Inc.
- **2 4 Sep 2025: Critical Minerals Conference 2025 (#CMC2025).** Perth Convention & Exhibition Centre. Contact by phone at T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.
- 25 26 Oct 2025: International Conference on Hydrometallurgy and Mining ICHM. Istanbul, Turkey. Website URL: https://waset.

- org/hydrometallurgy-and-mining-conference-in-october-2025-in-istanbul.
- 28 31 Oct 2025: China Coal & Mining Expo 2025. Organised by China International Exhibition Center (Shunyi Hall), 88 Yuxiang Road, Tianzhu Airport Industrial Zone, Shun Yi District, Beijing, China. Contact 852 28815889 or katherinelee@together-expo.com.
- 11 13 Nov 2025: Environmental Integration on Sustainable Perspective and Beyond. Manila, Philippines. Website URL: https://www.ierek.com/events/environmental-integration-onsustainable-perspective-and-beyond-eispb#introduction.
- **25 26 Jan 2026**: International Conference on Geological and Earth Sciences ICGES (ICGES 2026). Paris, France. Website URL: https://waset.org/geological-and-earth-sciences-conference-in-january-2026-in-paris. Organization: World Academy of Science, Engineering and Technology.
- **25 26 Feb 2026**: **International Conference on Earth Science (ICES 2026)**. Buenos Aires, Argentina. Website URL: https://waset.org/earth-science-conference-in-february-2026-in-buenos-aires.
- **3-7 Mar 2026: CONEXPO-CON/AGG 2026.** Las Vegas Convention Center, 3150 Paradise Rd, Las Vegas, NV, 89109, United States. North America's largest construction trade show happens once every three years.
- 25 26 Mar 2026: International Conference on Geosciences, Mineralogy and Petrology (ICGMP 2026). Madrid, Spain. Website URL: https://waset.org/geosciences-mineralogy-and-petrology-conference-in-march-2026-in-madrid. Contact international@conexpoconagg.com.

CRIRSCO AGM - 2025 IN PERTH, AUSTRALIA

The CRIRSCO AGM will be held between 1st and 5th of September 2025 in Perth in the Perth Convention Centre.

The Meeting Agenda is as follows:

- 1st Sept: EXCOM Executive Meeting
- 2nd Sept: Full day closed session for NRA report discussions
- $3^{\rm rd}$ Sept: Full day closed session for NRO reports, with potential member interactions
- 4^{th} Sept: Public feedback session featuring discussions with ICMM, UNECE, and other collaborations
- Afternoon: Possible technical visits
- Evening: Session on ASX & ASIC interaction regarding the 2025 dual code
- 5th Sept: Full day open technical discussion.

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