

Mining Engineers' Journal



Official Publication of
Mining Engineers' Association of India

Price ₹100/-

Vol. 27

No. 3

MONTHLY

October - 2025



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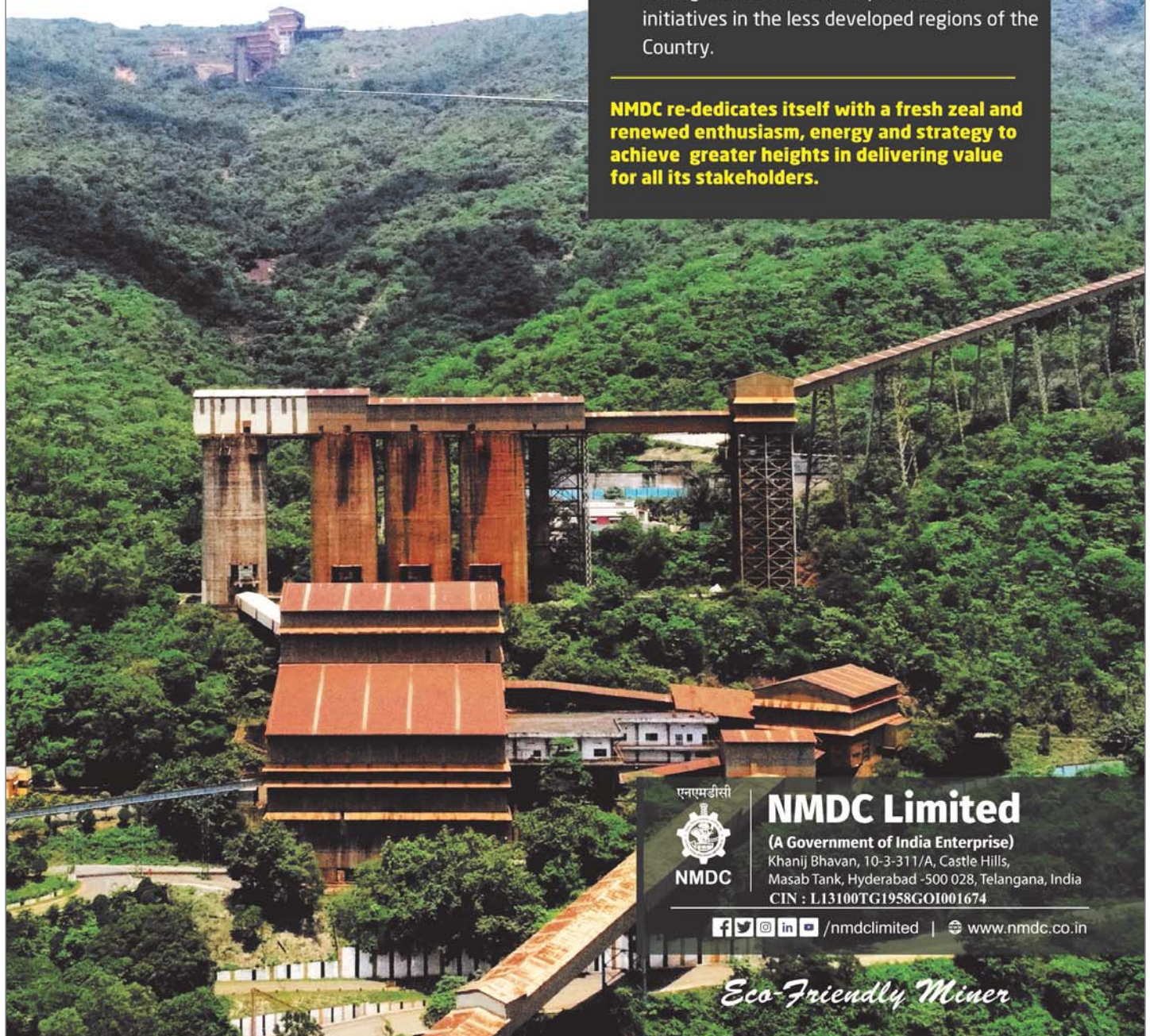


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Mining Engineers' Journal

ISSN 0975 - 3001



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President's Message.....

Dear members..

On the joyous occasion of Dussehra and Diwali, I extend my warm greetings and best wishes to all members of MEAI and their families.

India's core sector grew by 6.3% in August 2025, achieving a 15-month high, driven by robust performance in steel and coal. Steel production rose by 14.2% and coal by 11.4%. Cement, fertilizer, electricity, and petroleum refinery products also showed positive growth. Since the eight core industries - Steel, Coal, Cement, Fertiliser, Electricity, Crude Oil, Natural Gas, and Petroleum - collectively account for over 40% of the Index of Industrial Production (IIP), this progress is highly encouraging for industrial momentum nationwide. The contribution of the mining sector remains significant.

It is encouraging to see the vibrant activities of our Chapters.

Bellary-Hospet Chapter hosted its Annual General Meeting on 20th August 2025. I extend my congratulations to the Office bearers on being re-elected for a second term. The commitment of the Chapter in organizing seminars, workshops, and professional activities under the MEAI banner is highly commendable.

Bangalore Chapter convened its Annual General Meeting and Technical Talk on "Green Mining" on 30th August 2025, I appreciate Shri. Dhananjay G. Reddy, Vice President-I, for attending the AGM. I extend my congratulations to Dr. T N Venugopal as chairman and newly elected Office Bearers & Executive Committee of the Chapter as they embark on their new responsibilities towards advancing the objectives of MEAI. Conducting Technical talks regularly will help members to upgrade their knowledge.

The Rajasthan Chapter-Jodhpur successfully conducted its 18th Annual General Meeting on 7th September 2025. I extend my appreciation to Dr. Pukhraj Nenival, Vice President-II, for attending the event. It is heartening to note that Shri. Deepak Tanwar and Shri. Rakesh Purohit were elected as Chairman and Secretary of the chapter respectively. My best wishes to the newly elected office bearers.

I extend my appreciation to the ***Hyderabad Chapter*** for successfully organizing the Executive Committee Meeting along with a Technical Meet on the theme "Green Technologies in Mining: Innovations for Sustainable Operations" on 13th September 2025. I am sure that deliberations during the meet provided valuable insights into sustainable practices and innovative approaches in mining operations. I am also pleased to note the gracious presence of Shri V. S. Rao, Past President, for giving his valuable time to the MEAI activities.

I congratulate the ***Belgaum Chapter*** for conducting a Basic Life Support and CPR hands-on training programme for the employees of Doddannavar Brothers Iron Ore Mines, Bagalkot on 13th September 2025. It is good to note that over 40 Mine employees including some female employees participated in the training and were given the awareness on Cardiac Arrest and importance of first aid using CPR techniques with the support of Mannequins. I extend my appreciation to Shri. Rachappa, Vice President-III and Chairman of the Chapter, along with his team, for organizing this impactful programme aligned with MEAI's objectives.

I congratulate all the Chapters for their dedicated efforts and extend my best wishes for continued success.

I also take this opportunity to extend my best wishes to all MEAI members and their families for the festive season.

D.B. Sundara Ramam
President



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Orebody Knowledge: The Smartest Investment in Mining Finance

This editorial is inspired by the presentation "Leveraging Orebody Knowledge to Reduce Investment Risk and Protect Returns," delivered by Paul House and Dave Lawrie of IMDEX Limited at the CRIRSCO AusIMM Minerals Reporting Colloquium 2025 in Perth, Australia.

In mining, success does not hinge solely on commodity price cycles or market trends, but crucially on the quality of information about the rock beneath the surface. History is littered with projects undone by unexpected geology, ballooning costs, and eroded investor confidence. At the heart of many such failures lies one fundamental shortfall: inadequate orebody knowledge (OBK).

Orebody knowledge encompasses a comprehensive understanding of what a mineral deposit contains, its precise location, and how the ore behaves in situ. Far from a purely academic pursuit, OBK is the cornerstone of prudent financial and operational decision-making. Without it, companies and investors are effectively taking gambles with potentially billions of dollars. With it, they can dramatically reduce risk, protect returns, and build lasting trust with investors.

The Cost of not knowing: Global research consistently shows that nearly half of mining asset impairments can be traced back to insufficient orebody knowledge. These costs are not minor: impairments commonly run into hundreds of millions, and at times, exceed billions of dollars. Consider three recent examples illustrating these risks:

- IGO Limited announced impairments between A\$880 million and A\$980 million, directly resulting from unforeseen orebody complexities and escalating costs.

- South32's Hermosa project in Arizona faced an unexpected subsurface water problem, necessitating an additional US\$365 million for dewatering—far beyond initial estimates.
- The Snowy Hydro project in Australia chose to forgo further expert drilling advice, culminating in a staggering A\$7 billion impairment over five years.

In these cases, a relatively modest investment in enhanced geological data collection could have averted catastrophic financial consequences.

Orebody Knowledge as a Strategic Financial Option: Mining projects will always entail inherent risks. However, OBK offers a means to frame and manage that risk in financial terms. Economists describe this concept as the Value of Information—the quantifiable financial advantage gained by investing in critical knowledge to avoid costly surprises.

OBK can be viewed as a strategic financial instrument akin to an options contract:

- A *call option*: If geological data is favourable, companies proceed with confidence, knowing the upside justifies the capital outlay.
- A *put option*: If serious risks emerge, companies can exit early and economically, avoiding sunk costs in an uneconomic deposit.

This approach elevates OBK beyond a technical requirement—it becomes central to strategic mine finance.

Integrating OBK into Mining Finance Structures: Traditional feasibility studies often leave geological uncertainties unresolved, exposing projects to hidden risks downstream. Forward-thinking stakeholders are embedding OBK into financing mechanisms by a) Linking capital release to specific OBK milestones, b) Adjusting financing terms dynamically as new geological insights become available, and c) Incorporating mandatory OBK evaluations into due diligence protocols.

Such adaptive financing reduces impairment risk, protects lenders, reassures equity investors, and aligns fiduciary duties with responsible risk management.

Demonstrated Benefits in Practice: The value of OBK is tangible and measurable:

- A gold project leveraged improved drilling data to cut exploration by 31,500 metres, saving C\$10 million in capital and accelerating timelines by 50%, while adding 350,000 ounces of measured gold two years ahead of schedule.
- A copper project invested US\$5 million in targeted OBK efforts, yielding an NPV uplift of US\$80–90 million, a two-percentage-point IRR boost, and substantially reduced decision risk.
- Even in mergers and acquisitions, OBK insights have shifted valuations significantly, as seen in revised takeover bids by BHP after improved geological understanding.

Every dollar spent on orebody knowledge has returned multi-fold benefits in project value, financial performance, and diminished uncertainty.

A New Industry Standard: The message is unmistakable: prevention—through investment in orebody knowledge—is far more cost-effective and responsible than remediation after problems surface. Waiting for issues to arise leaves companies vulnerable; investing upstream in OBK is smarter, cheaper, and better for long-term value creation.

As mining faces growing scrutiny from investors, regulators, and communities, integrating OBK into financial and operational frameworks is no longer optional—it is a fiduciary imperative. Companies embracing this discipline are positioned to secure superior financing terms, avoid crippling impairments, and deliver sustainable value in an increasingly volatile sector.

Conclusion: Mining has always been fraught with risks. Yet, the riskiest choice remains proceeding without adequate understanding of the orebody. A modest upfront commitment to robust orebody knowledge is, in effect, the smartest insurance policy for mine development finance.

For investors, lenders, and operators alike, the advice is straightforward: *let the rocks speak before you commit capital to the mine.*

- Chief Editor

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NEWS FROM THE MINERAL WORLD

➤ **Increase iron ore production, reduce prices else face export duty by Oct 2 or export ban: Centre warns**

India is weighing the imposition of an export duty on iron ore as early as October 2. The move comes amidst the government's stern warning to industry that if domestic production fails to pick up and prices are "not halved," then there will be a duty imposition, which can possibly extend to a blanket ban on exports, according to people familiar with developments of a high-level review meeting.

The move would mark the government's strongest intervention yet. Businessline has reviewed the minutes of the meeting; and spoken to multiple participants present across ministries, industry bodies and steel makers. An export duty is already being considered on low-grade iron ore (with Fe content of 58 per cent or below) in 10-20 per cent range, which has put some industry bodies in a tizzy, sources said.

Despite an environmental clearance (EC) capacity of over 200 million tonne a year, actual output has been stuck at barely half that level, raising alarm as India pushes to expand steel-making capacity.

Ore Production

The FY25 iron ore production in India was around 290 million tonne (mt). Approximately 1.65 tonne of iron ore is required for making one tonne of crude steel. So for FY25, crude steel production was around 153 mt. Or around 253 mt of the mineral was used. Around 24 mt was exported. This meant there was around 13-14 mt of excess stock.

However, exports were close to 30 mt in FY25 (Lower than FY24 levels). "If iron ore production is not increased and export-related issues are not resolved, then the export duty on iron ore will be imposed as soon as 2nd October 2025," the minutes of the meeting noted, attributing the remark to one of the lawmakers' who chaired the session.

Other points raised by the minister include reducing domestic iron ore prices "to half the current levels" and "increasing steel exports to 50 mt."

Apparently, steel makers have referred to iron ore prices as being a reason for their offerings being non-competitive against Chinese players, in global markets. India steel exports hovered around the 5 mt mark in FY25; and the country was a net importer of the alloy.

According to a meeting participant, the Minister told attendees that if conditions were not met, "there could be a ban on exports." "The clear directions (from the minister) were to enhance iron ore production in the coming months," the participant added.

Act Fast

At the meeting, the minister asked iron ore miners, including PSUs and states to act fast. Odisha, the country's largest ore-bearing State, came under scrutiny for restrictive policies and inefficient clearances.

State-run miners such as SAIL, NMDC and OMC were told to surrender unworked leases. For instance, NMDC has been unable to raise output, it was mentioned in the meeting. "...advised NMDC to surrender the unused mines so that they can be put back into auctions for new bidders," a draft of the minutes noted.

Mine Positions

As per official data, there are 179 captive working mines of which 31 are held by PSUs and 148 by private players. Out of the total EC capacity of 203.11 MTPA, actual working capacity is just 116.55 MTPA, reflecting a 57 per cent shortfall. Of the 27 auctioned ECs amounting to 272.69 MTPA, only 114.89 MTPA has come into production.

Pricing Reset

The government is also moving to reset the pricing framework. The Indian Bureau of Mines (IBM) has been directed to fix average sale prices (ASP) for all iron-ore grades within four weeks, while slimes pricing is expected in the next few days. For future auctions, premiums may be capped and bids restricted to upfront payments to bring predictability.

Industry Concerns

Industry groups, particularly steel-makers, flagged how high premiums from auctions are discouraging miners. Concerns were also raised about beneficiation plants lying idle for lack of feed, and exports of high-grade ore being disguised as low-grade through blending. Industry associations have already petitioned the government against imposing an export duty.

Against Export Duty

The Federation of Indian Mineral Industries (FIMI) has written to the Union Commerce Minister, Piyush Goyal, reasoning that stockpiling and unused fines are creating environmental hazards, and urged the government to allow exports for "effective utilisation and monetisation

of low-grade iron ore and enhanced availability... and that no export duty be imposed.”

Separately, the Goa Mineral Ore Exporters’ Association, in a letter to PK Mishra, Principal Secretary to the Prime Minister, said most Goan ores are unsuitable for domestic steel-making, as higher-grade ores from the East and Bellary are “readily available and more cost-efficient.”

“Goa can only contribute less than 5 per cent of India’s current iron ore production,” the letter noted, adding that Goa and the Konkan region should be exempted from any export duty, with the current nil-duty regime retained.

Abhishek Law, Businessline / September 14, 2025

➤ **Mineral Block Auctions See Weak Response**

The ministry of mines last week annulled the auction process for five blocks under the ongoing tranche-5 of the critical mineral auction, citing poor investors’ response. Under the Mineral (Auction) Rules, 2015, the auction was cancelled as there were no bids for three blocks -- the Katesar-Guneri Glauconite Block in Gujarat, the Kelenda Glauconite Block in Chhattisgarh, and the Holalkere-Doddaghatta Nickel and PGE Block in Karnataka.

The sale of two other blocks -- the Khobna and Agargaon Cluster Tungsten Block in Maharashtra and the Mincheri Rare Earth Element Block in Karnataka -- was annulled as the criteria of minimum three technically qualified bidders could not be met. Since the launch of auctions for critical minerals in 2023, the government has offered 81 blocks across five tranches -- 56 blocks offered for the first time, and 25 auctioned again after failing to attract bidders earlier.

Of these 81 blocks, 34 attracted a sufficient number of bidders to move forward, 33 saw fewer than three technically qualified bidders, and 14 received no bids at all, leading to the cancellations.

Saket Kumar, Business Standard / September 2, 2025

➤ **China’s rare earth product exports surge to highest since 2012**

China’s exports of rare earth products jumped to a near-record 7,338 tons in August, marking the highest monthly volume since 2012, according to customs data cited by *Bloomberg* on Friday. The data comes right before a scheduled phone call between Chinese President Xi Jinping and US President Donald Trump, during which they are expected to discuss trade and critical minerals.

China is the world’s largest producer of rare earths, a group of 17 minerals used in a multitude of high-tech applications, ranging from consumer electronics to fighter jets. With control over 70% of the global mine supply and almost all of the processing, the nation has a near-monopoly status in the rare earth sector.

In April, at the height of the US-instigated trade war, Xi’s government leveraged its dominance in rare earths by placing export restrictions on some minerals and related products, in particular high-performance magnets used in electric vehicles to wind turbines, causing disruptions in those industries.

Since then, these restrictions have loosened as trade tensions subsided, and the August export figure underscores a potential easing of supply shortage concerns. However, the recovery may also indicate that exporters were only catching up on delayed magnet orders from the earlier months. Customs data earlier showed that Chinese exports of just rare earth minerals fell 3.4% to 5,792 tons during the month.

Europe disrupted

Despite the surge in Chinese exports, end-users of rare earth magnets in Europe remain undersupplied, with many forced to halt production, according to *Bloomberg*. The EU Chamber of Commerce in China said Thursday that companies incurred seven production stoppages in August because of the shortfalls, and an additional 46 are expected this month, though it did not specify the scale or nature of the affected facilities.

A further 10 stoppages are expected by December, in addition to those in August and September, the group added. “We are seeing things moving, but they are moving extremely, extremely slowly,” Carlo D’Andrea, the Chamber’s vice president and chair of its Shanghai chapter, said at a press briefing. He called the supply bottleneck the single biggest issue currently facing the group’s members.

The information on potential shutdowns comes from 22 firms that have sought the Chamber’s help in getting approval for a total of 141 urgent applications for exports from China, *Bloomberg* reported. “China’s imposition of export controls on rare earths in April 2025 exemplifies how the US-China trade war can have significant spillover effects on global trade, critically impacting European companies’ supply chains,” the EU Chamber said in a report earlier this week.

The EU warning contrasts with remarks made earlier this week by US Trade Representative Jamieson Greer,

who said supplies to his country had “bounced back up significantly.”

Staff Writer / September 19, 2025

➤ **Brazil prosecutors call for halt on lithium mining in Minas Gerais**



Neves lithium project in Minas Gerais

Brazil's federal prosecutors have asked the country's mining regulator to suspend lithium projects in Minas Gerais, citing inadequate consultation with local communities and environmental risks.

The Federal Public Ministry (MPF) requested that the National Mining Agency (ANM) review exploration and extraction licences in Araçuaí and neighbouring municipalities in the Jequitinhonha Valley, the region that hosts most of Brazil's lithium developments. The agency has 20 days to assess current permits and stop issuing new ones until proper consultations are carried out.

Prosecutors said indigenous groups, quilombola (Afro-Brazilians descendants of slaves) communities and other traditional residents were not consulted before projects were approved. They stressed that permits must follow principles of free, prior and informed consent, in good faith.

Prosecutors also claim that existing operations have already harmed local communities. Quoting “expert reports” MPF said the Neves project, operated by Atlas Lithium (NASDAQ: ATLX), disrupted water supplies when roadwork damaged community pipelines in Calhauzinho, Passagem da Goiaba and other areas.

“The reports warn that the expansion of mining will increase pressure on infrastructure and water resources,” MPF said in the statement.

Sigma Lithium's (TSX-V, NASDAQ: SGML) subsidiary, Sigma Mineração, also came under scrutiny. A 2021 technical review identified flaws in the company's Environmental Impact Study for the Grota do Cirilo project, particularly concerning water management in Araçuaí and Itinga, MPF said. Two planned open pits could affect the Piauí stream, the main water source for residents and rural communities, especially during dry seasons.

“If the ANM does not comply with the recommendation, the MPF may adopt other administrative and judicial measures,” it said. Atlas and Sigma did not respond to requests for comments the day this article was posted, but on Sep. 15, a spokesperson for Sigma reached out and reiterated the Grota do Cirilo Project has all environmental permits granted by the appropriate agencies, in full compliance with Brazilian law.

“The company categorically rejects incorrect and unfounded allegations regarding a lack of consultation or alleged flaws in the Environmental Impact Assessment (EIA),” he said in an emailed statement. “All studies were conducted with technical rigor, evaluated and approved by the appropriate agencies—including SEMAD, based on CONAMA Resolution No. 01/1986, which requires an EIA and its corresponding Environmental Impact Report (RIMA)—and remain under constant supervision.”

Sigma also noted there are no indigenous peoples within the legal radius of the project. “This has been confirmed by the responsible environmental agencies during the licensing process,” he said in the statement.

Staff Writer / September 12, 2025

➤ **India's 1st pvt gold mine in Andhra to begin full-scale production: DGML MD**

The project is expected to produce about 750 kilograms of gold per annum once it begins full-scale production, he said, adding that it would be scaled up to 1,000 tonnes within two to three years

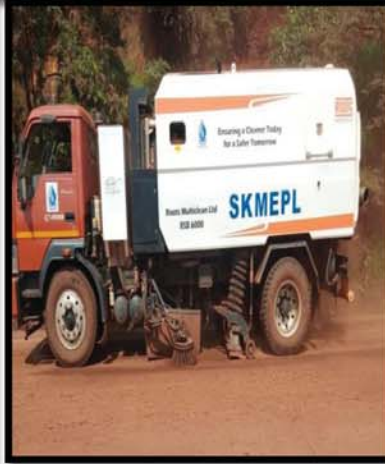
India's first large private gold mine in Andhra Pradesh is likely to start its full-scale production very soon, a top official of Deccan Gold Mines Ltd said on Thursday. The development assumes significance as India currently imports around 1,000 tonnes of gold every year. The country is the largest importer of gold after oil.

Deccan Gold Mines Ltd (DGML), the first and only gold exploration company listed on BSE, has a stake

(Continued on Page 25)



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SUITABLE POLICIES FOR EXTRACTION OF CRITICAL AND STRATEGIC MINERALS

D. V. PICHAMUTHU

Abstract

Critical and strategic minerals, as the names imply, are of vital importance to the country. However, the government policies are not conducive to the optimal exploration and extraction of these minerals.

A comparison is also made with the situation in other countries of the world, where the policies have resulted in huge benefits to those countries.

The conclusions point to the lacuna in the present policies and the recommendations point to the solutions.

1. INTRODUCTION

The classification of which minerals qualify as “critical minerals” varies from country to country. It changes over time and is also dependent on the availability of supplies. The term “critical minerals” is often used interchangeably with the term “strategic minerals”, with the latter term having implications for national security.

The Ministry of Mines issued an Office Memorandum dated January 17, 2023, which outlined India’s strategy and roadmap for “Critical and Strategic Minerals.” This paper identified the following as critical minerals for India:

Beryllium	Lithium
Bismuth	Niobium
Cobalt	Selenium
Gallium	Tantalum
Germanium	Tin
Indium	Tungsten

Thereafter the Ministry of Mines constituted a seven-member committee under the chairpersonship of the Joint Secretary (Policy), which released its report on 28th June, 2023. The criteria considered were based on a three-stage assessment:

- (i) High Economic Importance
- (ii) High Supply Risk
- (iii) Both of the above.

Surprisingly, gold and diamonds, whose import constitutes the bulk of the country’s 21% share of minerals and metals in the total import basket, do not find mention in the list.

2. EXPLORATION

Exploration is the key to achieving self-sufficiency in mineral

Based on this assessment, the following were identified as critical minerals:

1. Antimony	19. REE
2. Beryllium	i. Lanthanum
3. Bismuth	ii. Cerium
4. Cadmium	iii. Praseodymium
5. Cobalt	iv. Neodymium
6. Copper	v. Promethium
7. Gallium	vi. Samarium
8. Germanium	vii. Europium
9. Graphite	viii. Gadolinium
10. Hafnium	ix. Terbium
11. Indium	x. Dysprosium
12. Lithium	xi. Holmium
13. Molybdenum	xii. Erbium
14. Niobium	xiii. Thulium
15. Nickel	xiv. Ytterbium
16. PGE	xv. Lutetium
i. Platinum	xvi. Scandium
ii. Palladium	xvii. Yttrium
iii. Rhodium	20. Rhenium
iv. Ruthenium	21. Selenium
v. Iridium	22. Silicon
vi. Osmium	23. Strontium
17. Phosphorus	24. Tantalum
18. Potash	25. Tellurium
	26. Tin
	27. Titanium
	28. Tungsten
	29. Vanadium
	30. Zircon

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supplies, not only to discover new economically mineable resources but also to sustain production. Despite significant geological potential, domestic exploration has been hampered by stifling legislation and bureaucratic thinking. The country needs structural reforms to align with the best global practices.

While the Government of India has realised the vital role that critical and strategic minerals play in clean energy, high-tech industries, and national security, the policies adopted by it have led us nowhere. Domestic exploration, especially for deep-seated minerals, is virtually at a standstill due to the provisions of the Mines & Minerals (Development & Regulation) Act 2015 and its several amendments. Consequent to the provisions of the Act and the National Mineral Policy, the National Mineral Exploration Policy was formulated, and the National Mineral Exploration Trust was formed. These have made exploration a bureaucratic exercise. This is anathema to meaningful exploration, and the results are there for all to see.

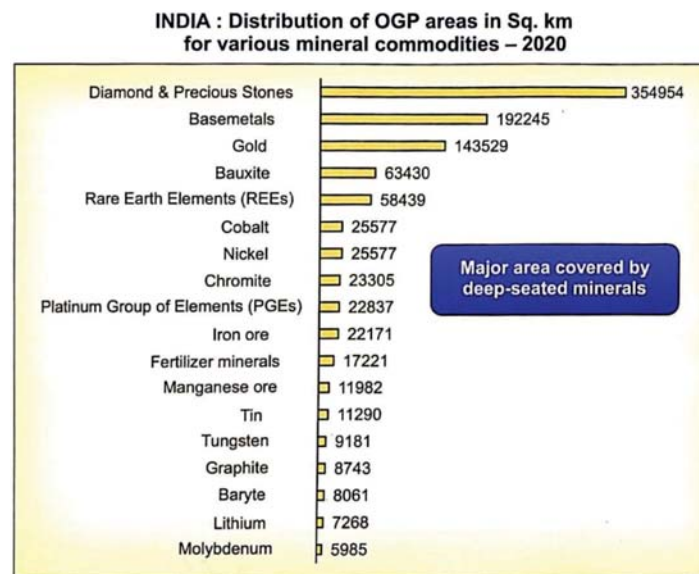
Mineral exploration is a high-risk, high-cost, and increasingly high-tech activity. According to the Ministry of Mines Note dated 7th February 2023 on “Introducing exploration licence for deep-seated minerals and critical minerals,” India spends around 1% of the worldwide budget for exploration. This is totally inadequate for the discovery of new mineral resources or expanding the resource base of known deposits.

India is endowed with indications of huge resources of various minerals/metals. Out of the country’s total geographical area of approximately 3.3 million sq. km, the obvious geological potential (OGP) has been established by the Geological Survey of India to the extent of 0.69 million sq. km. Deep-seated and high-value minerals (many of which figure in the list of critical minerals) have been identified in the OGP areas.

On the ground, whatever exploration that is taking place is mostly for surficial minerals and nothing is happening in the exploration for deep-seated minerals, except some blocks being put up for auction. Due to the risky nature of this business, in the progressive, mineral-rich countries the world over, governments do not involve themselves in this activity, but act as facilitators for private explorers. Such private explorers known as junior exploration/mining companies expect a reasonable return on the expenditure, not only to recoup the expenditure on a particular project but also some profit that would enable them to take up their next project. In some cases, they are allotted a share in the mine when it goes into production.

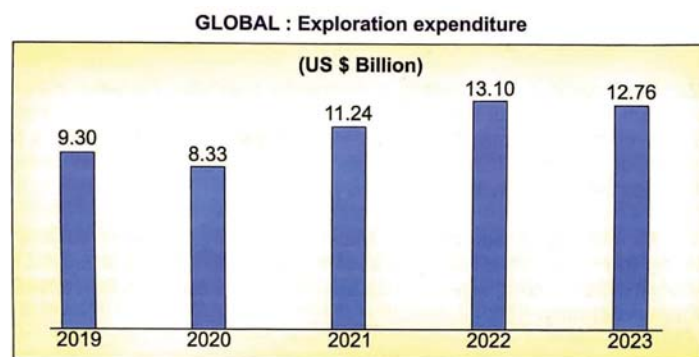
Due to the government insisting on spending taxpayers’ money on exploration and maintaining a tight leash that

inhibits private participation in the form of junior mining companies, India spends less than 1% of the worldwide expenditure on exploration, and that too mostly on surficial deposits. The result is that hardly any of the resources of the critical and strategic minerals have been converted to reserves.



Source: Geological Survey of India – Mineral Exploration in India at a Glance – 2020

The following bar chart gives an idea of the global expenditure on exploration.



Source : S&P Market Intelligence, London

3. ACTIONS BY THE GOVERNMENT

3.1 Khanij Bidesh India Limited

The Government of India, instead of taking some hard decisions, has tried to look for joint ventures abroad. It has set up Khanij Bidesh India Limited (KABIL), a joint venture formed in 2019 by three Central Public Sector Enterprises (CPSEs): NALCO, HCL and MECL. KABIL’s mandate is to identify, acquire, explore, and develop strategic mineral assets abroad. To my mind, this is one more misstep by the government for the following reasons:

- It takes the focus away from the already pitiable state of affairs persisting in the domestic exploration scenario.

- The investment in KABIL is by CPSEs, which means that it is essentially taxpayers' money. This goes against the generally accepted international norm of not using taxpayers' money for a risky activity like mineral exploration.
- KABIL is facing problems of lengthy gestation periods, regulatory hurdles, and technical challenges in extraction and refining.
- If and when a mine starts production, it will employ local labour and provide revenue to the local government in that country.

3.2 National Critical Minerals Mission

In January 2025, the Government of India launched the National Critical Minerals Mission (NCMM) with a total outlay of Rs 34,300 crore to run till 2030-31. Its aim is to boost domestic critical minerals production by expanding exploration and mining. Government agencies alone are expected to take up 1,200 exploration projects with 100 blocks of critical mineral resources planned for auction by 2030-31.

Some incentive schemes are envisaged for setting up mineral recycling. Pilot projects are also to be initiated for mineral recovery from various sources such as overburden, tailings, fly ash, red mud, and existing mines. Four mineral processing parks to house mineral processing industries will also be developed. Fiscal measures will be provided to incentivize junior exploration and mining companies through tax credits to drive investments in the exploration and development of critical minerals.

Out of the total outlay of Rs 34,300 crore, the National Mineral Exploration Trust (NMET) will earmark Rs 8,700 crore for this mission. The Geological Survey of India (GSI) will fund Rs 4,000 crore, while Rs 2,600 crore will be provided from the budget. The existing research and development schemes of the Centre earmark Rs 1,000 crore. Another Rs 18,000 crore is expected to be invested by public sector undertakings.

4. THE AUCTION REGIME

Since January 2015, when the MMDR Act underwent major amendments, all mineral concessions have been required to be granted through the auction route. This has resulted in a decrease in the number of operating mines, and the country is far from being *Atmanirbhar*, particularly for deep-seated minerals, particularly critical minerals, which require state-of-the-art technologies and substantial investment. As per the latest available information, the status for major minerals is as follows:

This situation is in spite of the State Governments holding 2696 blocks earmarked for auction.

It was expected that the auction would bring transparency, lead to resource development, and provide jobs, but none of these objectives have been met. However, the way auction rules have been formulated, the state obtains substantial revenues upfront, but this leaves the winner of the auction very little on the table. There have been several cases where the winner has surrendered the lease as it has become uneconomical to operate. In many cases, it has resulted in a massive reduction in production and consequent job losses. Alarmed by this situation, the Central Government has been repeatedly coming out with amendments, but there has been hardly any improvement on the ground.

**Status of auction of major minerals
(as on 14.01.2025)**

Major minerals	Blocks
(i) Total mineral blocks including critical minerals (ML and CL) proposed for auction (including annulled)	1301
(ii) Actual numbers of mineral blocks (ML and CL) offered for auction	465
(iii) Blocks auctioned (mining leases and composite license)	ML - 289 CL - 153 Total - 442
(iv) Number of auctioned mines in production	15 - Greenfield 39 - Brownfield 54

Source : FIMI analysis based on Ministry of Mines data

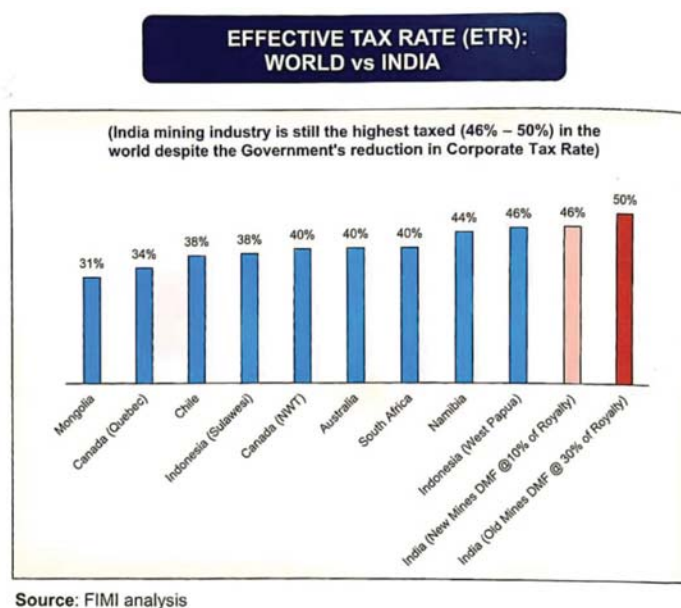
A successful bidder in the auction of mineral blocks is required to obtain 20 statutory clearances from various authorities of the Central and State Governments before commencing mining operations. The Ministry of Mines on 23rd March 2016 constituted an Inter-Ministerial Group to facilitate and expedite various clearances/approvals. A few meetings of the Group are reported to have been held, but nobody knows what happened to that group. Another order, dated 3rd June 2020, was issued by the Ministry of Mines outlining a concept of States obtaining pre-embedded clearance before auctioning mineral blocks. As per this concept, each state should select five blocks and provide them with pre-embedded clearances. Like the earlier notification, this also remained on paper and nothing came out of it.

The main goal of the Ministry of Mines seems to be to somehow make the auction regime work and do everything possible to keep mining within its ambit. To achieve this objective, a progressive section in the MMDR Act as originally promulgated in January 2015 was removed. That was section 10A(2)(b). This section guaranteed the sanctity of applications made for any mineral concession, which maybe Reconnaissance Permit, Prospecting Licence, or Mining Lease made before the promulgation of the Act will remain intact. There were some 500 cases saved under this section. The Ministry first ensured that not one of these

applications would be processed for 5 long years. Then they managed to get an amendment passed removing this section and triumphantly announced that 500 mines would be available for auction.

What the Ministry did not seem to realise is that it sent a terrible signal to investors at large in the world that India is an unreliable place to do business. Additionally, the concessionaires have gone to court where the matter is pending. On the one hand, there have been no additional mines available for auction as the Ministry had anticipated and on the other, none of these concessions have been converted to working mines. This is what can be called a double whammy.

5. TAX REGIME



The above chart of ETR refers to iron ore and consists of the following components:

- (i) Royalty - 15%
- (ii) Dead rent on mining leases
- (iii) Contribution to District Mineral Foundation
 - @10% of the royalty for MLs/CLs granted on or after 12.01.2015
 - @30% of the royalty for MLs granted before 12.01.25 and granted under Section 10A(2)(a) and (b)
- (iv) Payment to National Mineral Exploration Trust @ 2% of the royalty.

6. CONCLUSION

Mining is next in importance to agriculture as a basic economic activity. Minerals are a vital source of raw

materials for semi-finished products which in turn act as raw materials for finished products that in turn are the foundation of construction and manufacturing activities. Critical and strategic minerals play a vital role in the economy and security of the country.

The present auction policy has strangled the mining industry as will be evident from the following chart.

Licences granted and in production before and after auction regime			
	Before auction regime		After auction regime (2015 - 2025) (as on 14.01.2025)
	(2006 - 2010)	(2010 - 2014)	
Reconnaissance Permit (RP) granted	74	49	-
Composite License (CL) granted / executed	192	496	35
Execution of Mining Lease (ML) and in production	2754 (Mostly Greenfield)	494 (Mostly Greenfield)	54 (15 Greenfield and 39 Brownfield)

Source : FIMI analysis based on Ministry of Mines and Indian Bureau of Mines data

The baleful effect of the auction regime has resulted not only in not opening new mines but also the closure of many working mines whose terms have ended. This has resulted in the import bill of minerals reaching a staggering figure of Rs 1,307,940 crore which translates into 24% of the total import bill of the country for the fiscal 2023-24.

The situation regarding critical and strategic minerals is even more alarming and the government policies seem to only make the country more dependent on imports.

7. RECOMMENDATIONS

- (i) The Ministry of Mines must follow the policies adopted by progressive, resource-rich countries of the first-come-first-served method of allocation of deep-seated and/or critical minerals.
- (ii) The auction method can be continued only for surficial minerals or fully explored deposits.
- (iii) Policies have to be put in place to attract junior exploration/mining companies. They will need to be assured of the security of tenure of the allotted mineral concessions. They should also have the right to transfer the concessions subject to reasonable restrictions.
- (iv) India's mining industry has probably the highest effective tax rate in the world at over 50%. This needs to be brought down to encourage investment. A contributory factor is the cascading nature of the structure of the tax regime.

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- Report of Committee chaired by the Joint Secretary (Policy) – June 28, 2023
- Ministry of Mines Note regarding Exploration for Critical and Strategic Minerals - February 7, 2023.

ADBLUE CONSUMPTION AND ITS IMPACT ON EMISSIONS CONTROL IN DIESEL VEHICLES, QUALITY PARAMETERS AND ITS IMPACT ON VEHICLE

*Sonali Sinha ** Naveen Sethia *** Sanjay Singh

Abstract

AdBlue, or Diesel Exhaust Fluid (DEF), plays a crucial role in reducing nitrogen oxide (NOx) emissions in diesel vehicles equipped with Selective Catalytic Reduction (SCR) technology. This paper describes composition, functionality, quality parameters of ad blue and its impact on Vehicles. This paper also summarizes different factors affecting Adblue consumption in BSVI vehicles.

1. INTRODUCTION

The increasing environmental concerns regarding vehicular emissions have led to the adoption of stringent emission norms, such as Bharat Stage VI (BS6) in India. Diesel vehicles employ SCR technology to meet these regulations, using AdBlue to convert harmful NOx into nitrogen and water vapor. Understanding AdBlue consumption and its influencing parameters is essential for optimizing operational efficiency and minimizing costs.

2. COMPOSITION AND FUNCTIONALITY OF ADBLUE

AdBlue is composed of 32.5% high-purity urea and 67.5% deionized water. When injected into the exhaust stream, it undergoes a series of chemical reactions that break down NOx emissions.

Diesel contains Nitrogen + nitrogen containing compounds + Sulphur as impurities.

During combustion, it forms CO₂, H₂O, CO, HC, PM, SO_x, NO_x + Heat but NO_x is majorly from Nitrogen present in the air (which was used in the combustion)

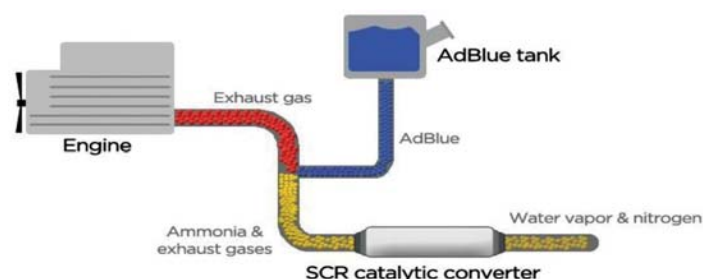
When Ad blue is sprinkled in its exhaust, it undergoes the following reactions:

- $(\text{NH}_2)_2\text{CO} + \text{Heat} \rightarrow \text{NH}_3 + \text{HNCO}$ – Ammonia (NH₃) reacts in the Selective Catalytic Reduction (SCR)
- $\text{HNCO} + \text{H}_2\text{O} \rightarrow \text{NH}_3 + \text{CO}_2$ - Isocyanic acid (HNCO), in this form can't be used in the SCR, so it reacts with water to produce NH₃.

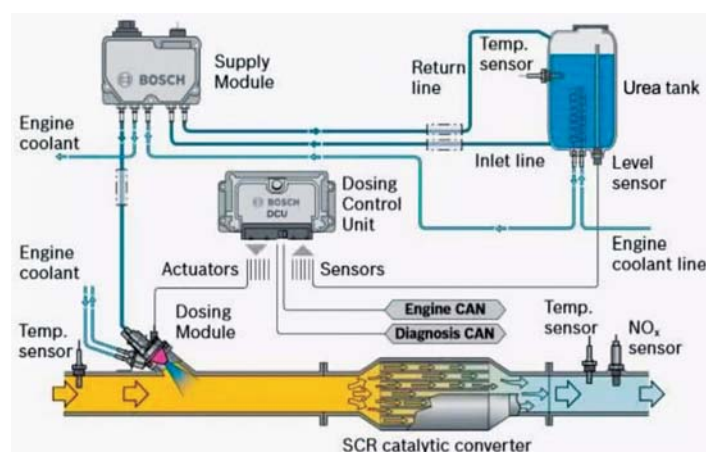
When the above compound NH₃, NO_x goes in the Selective Catalytic Reduction (SCR) it forms:

- $\text{NO} + \text{NO}_2 + 2\text{NH}_3 \rightarrow 2\text{N}_2 + 3\text{H}_2\text{O}$
- $4\text{NO} + \text{O}_2 + 4\text{NH}_3 \rightarrow 4\text{N}_2 + 6\text{H}_2\text{O}$
- $2\text{NO}_2 + \text{O}_2 + 4\text{NH}_3 \rightarrow 3\text{N}_2 + 6\text{H}_2\text{O}$

From these reactions it's clearly visible that as the molecules of NO_x are increasing, the consumption of Ammonia or Adblue also increases.



3. Mechanism of action



Flow diagram of ad blue and SCR technology in BSVI Engine

3.1 Ad Blue Dosing

A dosing module (like the one mentioned) injects Ad Blue into the exhaust system. The spray pattern and parameters like droplet size are adjusted to ensure optimal distribution of the urea solution.

3.2 SCR Mechanism

- Injection: AdBlue (or DEF, as it's also known) is injected into the exhaust stream.
- Reaction: The AdBlue decomposes into ammonia (NH₃) in the exhaust gas.

*GET Mining, ** Sr Manager (HEMM & Projects) *** AVP (Operations & Projects) SWML

- **Catalytic Conversion:** The ammonia reacts with NO_x in the presence of a catalyst, converting NO_x into nitrogen (N₂) and water (H₂O)

4. QUALITY OF AD BLUE, DIFFERENT PARAMETERS

Ensuring the quality of Ad Blue is essential for maintaining the efficiency of the Selective Catalytic Reduction (SCR)

system and preventing damage to vehicle components. Ad blue should be tested at NABL certified laboratories. Ad blue should meet IS 17042/ISO22241-2 requirements. Following are the list of parameters and their minimum and maximum acceptance value as per different ISO standards and their significance.

Sl.No	Test Parameter	Unit	Min	Max.	Test Method	Significance
1	Urea Parameter	% (w/w)	31.8	33.2	ISO 22241-2:2019, IS 17042:2018	Essential to reach lowest freezing point
2	Density	Kg/m ³	1087	1093	ISO 3675	For product identification and checking contamination
3	Refractive Index	-	1.3814	1.3843	ISO 22241-2:2019, IS 17042:2018	For product identification and checking contamination
4	Alkalinity as NH ₃	% (w/w)	-	0.2	ISO 22241-2:2019, IS 17042:2018	Appropriate amount to determine DEF shelf life
5	Biuret	% (w/w)	-	0.3	ISO 22241-2:2019, IS 17042:2018	Excess amount is harmful for catalyst
6	Aldehyde	mg/kg	-	5	ISO 22241-2:2019, IS 17042:2018	Deposit formation in case of exceeding permissible limit
7	Insoluble Matter	mg/kg	-	20	ISO 22241-2:2019, IS 17042:2018	Higher amount causes injector clogging
8	Phosphates (Po ₄)	mg/kg	-	0.5	ISO 22241-2:2019, IS 17042:2018	Excess amount is harmful for catalyst
9	Calcium	mg/kg	-	0.5		Higher amount causes injector clogging
10	Magnesium	mg/kg	-	0.5		Higher amount causes injector clogging
11	Iron	mg/kg	-	0.5		Excess amount is harmful for catalyst
12	Aluminium	mg/kg	-	0.5		Excess amount is harmful for catalyst
13	Sodium	mg/kg	-	0.5		Excess amount is harmful for catalyst
14	Potassium	mg/kg	-	0.5		Excess amount is harmful for catalyst
15	Copper	mg/kg	-	0.2		Excess amount is harmful for catalyst
16	Zinc	mg/kg	-	0.2		Excess amount is harmful for catalyst
17	Chromium	mg/kg	-	0.2		Excess amount is harmful for catalyst
18	Nickel	mg/kg	-	0.2		Excess amount is harmful for catalyst
19	Identity	-	Identity		ISO 22241-2:2019,	Excess amount is harmful for catalyst

5. FACTORS INFLUENCING ADBLUE CONSUMPTION

Ad Blue consumption is influenced by multiple factors, including:

5.1 Vehicle Variant and Emission Standard: BS4 (Bharat Stage 4) and BS6 (Bharat Stage 6) are emission standards established by the Government of India to regulate the output of air pollutants from internal combustion engine vehicles. The emission of Particulate Matter in BS6 standard is less by 82%, and of Hydrocarbon + NO_x is less by 43.33% than BS4.

Type of Fuel	Pollutants	BS4	BS6
Diesel	Particulate Matter(PM)	25mg/km	< 4.5mg/km
	HC + NO _x	300mg/km	170mg/km

5.2 Vehicle Engine Load: The engine load directly affects pressure and fuel consumption, which in turn influences NO_x emissions and AdBlue usage. The load varies depending on the vehicle's operational mode:

- **ECO Mode:** Reduces engine power output and optimizes fuel efficiency, thereby lowering NOx emissions and decreasing AdBlue consumption.

5.3 Vehicle Engine Size: Larger engine sizes require more energy, leading to increased diesel consumption and higher operating temperatures. As a result, NOx emissions rise, necessitating greater AdBlue consumption to neutralize them.

5.4 Vehicle Loading Capacity: When a vehicle is overloaded, additional energy is required for movement, leading to increased temperature and pressure. This results in higher NOx emissions, thereby increasing the demand for AdBlue.

5.5 Travelling Terrain: Steeper gradients and longer inclines on haul roads require more energy for vehicle movement. This increases diesel consumption, raises temperature and pressure, and subsequently leads to higher NOx emissions, resulting in greater AdBlue consumption.

5.6 Tire Pressure: If tire pressure is below the optimal level, friction between the tire and the surface increases. This necessitates a higher pickup force, causing the vehicle to operate in lower gears, which increases diesel consumption, temperature, and pressure, leading to increased AdBlue consumption.

5.7 Gear & Speed: Maintaining a constant gear and speed ensures standard AdBlue consumption, preventing excessive or insufficient usage.

5.8 RPM based Selection of Gear: In manually transmission, on ideal real rpm 1000-2000, then it will lead to lower AdBlue consumption. If in lower gear

- *Higher RPM and Engine Load:* When drive at higher RPMs, the engine works harder, which generally results in higher fuel consumption. Since AdBlue is injected in proportion to fuel consumption, a higher engine load will also increase AdBlue usage.
- *Lower RPM and Gear Selection:* Driving at lower RPMs, especially in higher gears, can reduce engine load and fuel consumption. This can lead to a reduction in AdBlue consumption because less AdBlue is needed for a lower volume of NOx emissions.
- *Cruising vs. Accelerating:* During acceleration or high engine loads, the SCR system may require more AdBlue to neutralize NOx emissions compared to when you're cruising at a steady speed with a lower engine load.
- *Optimal Gear Selection:* Maintaining the vehicle in the correct gear for the given speed and road conditions ensures the engine runs at optimal efficiency. Shifting too early or late can cause unnecessary engine strain, increasing both fuel and AdBlue consumption.

5.9 Temperature Effects on AdBlue Consumption

5.9.1 Consumption in High Temperatures During summer or in high-temperature conditions, AdBlue consumption tends to increase, particularly when vehicles operate under heavy loads or when engine temperatures rise. This leads to higher NOx production, requiring the SCR system to inject more AdBlue for effective NOx reduction. Although direct evaporation of AdBlue is minimal, elevated ambient temperatures may trigger more frequent injection cycles by the SCR system to maintain emission control efficiency, leading to a slight increase in overall consumption.

5.9.2 Consumption in Low Temperatures In colder weather, AdBlue consumption is generally lower because engines operate at cooler temperatures, producing less NOx, particularly during light-duty operations. Additionally, vehicles often experience prolonged idling during winter to warm up, which results in lower NOx emissions and consequently reduces the need for AdBlue injection.

5.10 Cleaning of DDF filters: DPF filters are provided before Adblue circuit, these need to be cleaned from deposited soot particles. Adblue consumption will increase if these are not cleaned as per schedule.

6. CONCLUSIONS

- After implementation of BS VI norms, Use of Adblue / DEF has become mandatory in all BSVI vehicles which include most of the mining Dumpers /tippers launched in recent time. Adblue plays a critical role in reduction of NOx out of emission, hence it is playing a vital role to meet environmental norms. By implementing SCR technology, In the presence of catalyst NOx is converted into N₂ and H₂O.
- It is highly important that ad blue being used, meet all quality parameters as per IS17042/ISO22241-2, deviation from different parameters from given range value can deteriorate catalyst function, can cause injector clogging, deposit formation etc . In a nutshell, poor quality ad blue can make vehicle breakdown, unavailable for operation, hence can affect productivity also.
- There are various factors which affect the consumption of Adblue which are summarized above, keeping in check of the above parameters can reduce Adblue consumption.

7. REFERENCES

1. Bureau of Indian standards, IS 17042.
2. <https://www.crownoil.co.uk/adblue-guide>
3. <https://www.bosch-mobility.com/en/solutions/exhaust-gas-treatment/dosing-module-cv>
4. <https://agronomyjournal.usamv.ro/>
5. <https://www.vda.de/en/topics/innovations>

READERS' VIEWS

President's message: Reading the President's Message by Shri D. B. Sundara Ramam in the September Issue of MEJ has reflected a welcome change! He has conveyed an insightful message and provided much needed emphasis on the academic contents and outcomes of the different Seminars and Conferences organized by MEAI Chapters - that aptly recognize and fulfil MEAI's role as 'a catalyst for innovation, capacity building and responsible growth' aligned with mandated mission to support progressive and sustainable mining sector in India.

However, my humble suggestion here is to be asking the respective Conveners of such Events to also record and submit the major take-aways and recommendations or the summary of Panel Discussions on the thematic Conferences / Seminars that would add value and achieve objectives, besides strengthening justification for well-spent team-efforts, energy, and scarce funds.

Editorials: The Editorials and brilliant commentaries by Dr. P.V. Rao, Chief Editor have always been inspiring and thought-provoking, laced with several 'ways forward' and insightful analyses on contemporary issues affecting the mineral and mining industry.

Further, his suggestion to boost mineral exploration and mining in India through "transparent, investor friendly, First-Come-First-Served (FCFS) model, as is thriving in Australia and perhaps Canada and/or South Africa, are worth considering, provided there is sound upfront 'political will' that implies corruption free dealings at different levels of administrative controls and regulations. Once national interest is considered upper-most, results-oriented good governance becomes imperative and is urgently needed for Aatmanirbhar Bharat.

Dr. Rao has been a master of chosen apt terminologies and rightly emphasized on implementation of well-intentioned policies and adoption of Indian Mineral Industry Code (IMIC) duly approved by CRIRSCO since 2019. Such globally accepted standards need to be implemented to overcome 'regulatory inertia'. His suggestion on establishing a dedicated sovereign fund for overseas acquisitions of mineral rich properties suited to the uninterrupted supply chain of our Critical Mineral requirements is also a welcome initiative.

Once again, we must appreciate his rightly emphasized statement: 'A sound policy framework is essential, but without a hard accountability mechanism, even the best designed initiative can stagnate'. As reiterated by Dr. Rao, regular monitoring of Key Performance Indicators (KPIs) on implementation status of various policies and projects will yield desired results in a time-bound manner.

Do-able suggestions

- I earnestly hope that for wider inhouse circulation our MEAI Secretariat Office is arranging to circulate/ distribute hard copies of the MEJ free of cost, to all important Ministries/ Departments in the Government of India (PMO, Niti Aayog, Ministries of Mines, Coal, Power, Energy, etc.) and DMGs of the mineral rich States.
- In order to generate improved synergy, all different segments/ Departments under the Ministry of Mines must co-operate, coordinate and collaborate in a more interactive manner for achieving the common national goals related to mineral and mining sectors.
- Science and technology related R & D projects need to be taken up in collaboration with identified and encouraged / implemented amongst leading academic centers and professional organizations to boost mineral processing and metallurgical extraction sectors and achieve zero waste mining technologies.

Warm regards

Dr. Sudesh K. Wadhawan

Former Director General, Geological Survey of India &

Member, Editorial Board, MEJ

email: wadhawansk.leo@gmail.com



CRIRSCO AGM 2025 & CRIRSCO AusIMM Colloquium Held at Perth Convention and Exhibition Centre, Australia

Mr. D.B. Sundara Ramam (President, MEAI & VP - Corporate Services, Tata Steel) and Dr. P.V. Rao (Co-Chair, NACRI) attended the CRIRSCO Annual General Meeting (AGM) 2025 from September 2 to 5, 2025, at the Perth Convention and Exhibition Centre, Australia.



5 NROs of CRIRSCO participating in the AGM 2025

This key event brought together representatives from CRIRSCO's 15 National Reporting Organizations (NROs) to discuss and advance international reporting standards for mineral resources and reserves. Participating regions included Australasia, Brazil, Canada, Chile, Colombia, Europe, India, Indonesia, Kazakhstan, Mongolia, Philippines, Russia, South Africa, Turkey, and the USA. China, Armenia, and Peru attended AGM open sessions as observers.



CRIRSCO Chairperson Garth Kirkham addressing the AGM

NACRI (India) was represented by Mr. D.B. Sundara Ramam and Dr. P.V. Rao, who serve as India's representatives to CRIRSCO. On September 3, they presented a summary of NACRI's activities in India for 2024-25, highlighting opportunities and challenges in implementing the IMIC standard. Reports from each CRIRSCO member country/region were delivered in the open sessions.



(L-R): Mr. D.B. Sundara Ramam and Dr. P.V. Rao at the AGM

Their presentation focused on MEAI/NACRI initiatives in IMIC promotion, international engagement, and capacity building. Policy advocacy efforts included discussions with the Union Minister of Coal & Mines Mr G. Kishan Reddy in December 2024 in Hyderabad, addressing (a) MEAI's inclusion in policy committees, (b) adoption of IMIC as the national reporting standard, and (c) the Minister's willingness for continued dialogue. High-level meetings were held in March 2025 in Delhi with Union Minister G. Kishan Reddy, Dr. V.K. Saraswat (Member, NITI Aayog), and Mines Secretary V.L. Kantha Rao.



Mr. D.B. Sundara Ramam making a presentation on NACRI

For capacity building, highlights from the 6th IMIC Training Program (Hyderabad, May 5-9, 2025) were shared. Looking ahead, the way forward includes: (a) sustained advocacy for IMIC legislation, (b) expansion of training programs and alumni networking, (c) pursuing wider NRO reciprocity agreements, and (d) attracting foreign investment to support sustainable mineral development.

During the closed sessions, four standing committees were established to advance CRIRSCO's objectives: Administration, Policy & Strategy; Communications & Publicity; External Relations, Education & New Members; and Finance & Funding. Dr. P.V. Rao was chosen to the Administration, Policy & Strategy Committee, and Mr. Sundara Ramam was selected for the External Relations, Education & New Members Committee.

CRIRSCO Chairperson Mr Garth Kirkham informed the members that CRIRSCO was incorporated under the Canada Not-for-profit Corporations Act as the "CRIRSCO Committee for Mineral Reserves International Reporting Standards" (Corporation Number 1672871-5) on February 6, 2025, in Quebec, Canada. The bylaws of CRIRSCO were circulated to all NROs for review and confirmation.

China's membership was conditionally approved by the Executive Committee, pending ratification by the General Body within three months. The next AGM is scheduled to be held in Turkey in September or October 2026.

Key Agenda Summary: CRIRSCO AGM 2025

September 2 - Day 1

- Closed session for CRIRSCO members
- Yearly review, internal issue discussion, 2026 preparations, and member interaction
- CRIRSCO dinner



September 3 – Day 2

- Closed and open sessions with invited guests
- Committee action plans for 2026
- NRO reports (non-confidential, Group 1 & Group 2)

September 4 – Day 3

- CRIRSCO Public presentations (AusIMM, ICMM, UNFC, ISA)
- CRIRSCO Discussion session
- Site visit for CRIRSCO members and invitees



AusIMM President Chris Carr, FAusIMM(CP)



ICMM Co-COO & Director, Social Performance Danielle Martin



Representative of UNFC Expert Group



Representative of The International Seabed Authority (ISA)

September 5 – Day 4

- CRIRSCO AusIMM Colloquium (attendance by registration)

The CRIRSCO AusIMM Colloquium, held on September 5, facilitated professional exchange on key trends in exploration, mineral resource and ore reserve reporting, the impact of changing political environments, and real-world experiences. Delegates participated in interactive technical and panel sessions, with a JORC Code update as the concluding feature.

Notable presentations included:

- CRIRSCO: Past Present Future by Garth Kirkham, Chairperson CRIRSCO
- Responsible Acceleration: Preliminary perspectives on the challenges and opportunities for improving mine project development time frames by Prof Mark Noppé; Katerina Savinova, and Dr Tom Evans, the University of Queensland, Australia
- Behind the green curtain: Adventures on the path of critical mineral development by Mark Thompson, Founder of Talga Group Ltd
- Mineral Resource estimation of Critical minerals: what needs to be considered by Mike Cunningham, Principal Consultant (Geology), SRK Consulting
- Does ESG belong in Public Reports by Teresa Steele Schober, SRK Consulting
- Toward Predictive Reporting of Mineral Waste: Materiality, Transparency, Competency...and Opportunity? by Jo Heyes, Head of Resource Stewardship, Quartex
- Leveraging Orebody Knowledge to Reduce Investment Risk and Protect Returns by Paul House MD & CEO, IMDEX and Dave Lawie, Chief Geoscientist, IMDEX
- Cracking the competency code-building the talent pipeline for public reporting by Jacqui-coombes, Minerals Reporting Australia, MD, SageAbility
- Mineral Resource Classification: are we suffering from group think? by Mark Burnett, Principal Geologist, AMC Consultants



A group photo of CRIRSCO Executive body (sitting) and NRO members

The CRIRSCO AusIMM Colloquium provided an invaluable forum for global mining professionals to collaborate, share

insights, and shape the future of mineral resource and reserve reporting, thereby reinforcing investor trust and supporting sustainable development in the sector.

NACRI Proposals Submitted to CRIRSCO Executive

In the closed sessions, the NACRI representatives tabled the following suggestions:

- Circulation of Documents: Circulate relevant documents well in advance of meetings where they will be discussed by members—for instance, the "CRIRSCO Articles and Bylaws." Additionally, distributing the "Minutes of the Meeting" promptly after each meeting will enable members to review the topics addressed and revert to the Executive Board should any amendments be necessary. This should not be a problem for the Executive Committee since CRIRSCO is having secretarial support with the Secretary.
- Condensing Special AGM Duration: The duration of the Special AGM could be condensed to two days, including the Executive Board meeting typically held a day prior to the AGM. The rationale is that, given the regular AGM and confirmation of election results are now conducted online, detailed discussions on this topic no longer need to form part of the Special AGM. The suggested schedule is as follows:
 - Day -1: Closed door sessions
 - Morning session (9 am to 1 pm): Executive Board meeting
 - Afternoon session (2 pm to 6 pm): NRO members-only meeting
 - CRIRSCO Dinner
 - Day - 2: Open sessions
 - Morning session (9 am to 1 pm): NROs presentations (10 minutes each; NROs may be advised to report solely on developments that took place since the previous AGM)
 - Afternoon session (2 pm to 6 pm): Presentations by ICM, UNFC, ISA, the host, etc.; and
 - CRIRSCO AGM concluding session
 - Day - 3: Optional Activities
 - Organise Site visits or technical seminars as optional activities for interested members (such as the colloquium held in Perth or MRMR Seminar held in Vancouver)

These suggestions aim to reduce costs and resource use for NRO representatives and CRIRSCO, and to optimize senior executive participation. The proposals are currently under Executive Committee consideration.

(Dr PV Rao)

Co-Chair NACRI

Published on behalf of NACRI



MEAI - COMMITTEES FOR THE TERM 2025-27

1. Govt. Policies Review & Recommendation and Minor Mineral Committee

Name	Position in the committee
Shri. A. K. Kothari	Chairman
Shri. BRV Susheel Kumar	Member
Shri. Deepak Gupta	Member
Shri. Pankaj Satija	Member
Shri. T N Venugopal	Member
Shri. B. Sahoo	Member
Dr. C H Rao	Member

2. International Affairs Committee

Name	Position in the committee
Shri. T Victor	Chairman
Shri. K. Madhusudhana	Member
Shri. Dhananjaya G Reddy	Member
Dr. Pukhraj Nenival	Member
Dr. P V Rao	Member
Dr. Abani R Samal	Member
Shri. Ravindra Kumar Sharma	Member

3. Training, Development & Program Committee

Name	Position in the committee
Shri. K. Madhusudhana	Chairman
Shri. Dhananjaya G Reddy	Member
Dr. Pukhraj Nenival	Member
Shri. Vinay Kumar	Member
Shri. Sanjeev Kumar Sinha	Member
Dr. P V Rao	Member
Shri. A R Vijay Singh	Member
Shri. Muthukumaran M	Member
Shri. M. Narsaiah	Member
Shri. Lalit Mohan Soni	Secretary

4. Membership Promotion Committee

Name	Position in the committee
Shri. Dhananjaya G Reddy	Chairman
Shri. B. Sahoo	Member
Shri. Anil Mathur	Member
Dr. Sanjeev Kumar Sinha	Member
Dr. S K Vashisth	Member
Shri. A. K. Jaiswal	Member
Shri. Ram Shanker Sharma	Member
Shri. SHM Mallikarjun	Member
Ms. Gunjan Pande	Member
Shri. L. Krishna	Member

5. Legal, Ethics and Disciplinary Committee

Name	Position in the committee
Shri. Sanjay Kumar Pattnaik	Chairman
Shri. A. K. Kothari	Member
Dr. P V Rao	Member
Shri. Pankaj Satija	Member
Shri. A R Vijay Singh	Member
Shri. M. Narsaiah	Member

6. MEJ Editorial Board

Name	Position in the committee
Shri. D B Sundara Ramam	Chairman
Shri. S.N. Mathur	Immediate Past President
Dr. P.V. Rao	Chief Editor
Dr. Abani Ranjan Samal	Member
Dr. Sudesh K. Wadhawan	Member
Dr. V.N. Vasudev	Member
Shri. Pankaj Satija	Member
Dr. Suman K. Mandal	Member
Dr. Yogesh G. Kale	Member
Shri. Shameek Chattopadhyay	Member
Shri. M Narsaiah	Publisher

7. Constitution Amendment Committee

Name	Position in the committee
Shri. V S Rao	Chairman
Shri. T Victor	Vice Chairman
Shri. A. K. Kothari	Member
Shri. Sanjay Kumar Pattnaik	Member
Shri. K. Madhusudhana	Member
Dr. P V Rao	Member
Shri. Pankaj Satija	Member
Shri. A R Vijay Singh	Member
Shri. M Narsaiah	Member

8. Election Committee

Name	Position in the committee
Dr. Pukhraj Nenival	Chairman
Shri. Rachappa M Saradagi	Member
Shri. B. Surender Mohan	Member
Shri. Atul Kumar Bhatnagar	Member
Shri. B. Sahoo	Member
Dr. Vivek Laul	Member

9. MEAI Website

Shri. Deepak Gupta, Chairman of New-Delhi Chapter, will be the In-charge of MEAI Website Management. He will be responsible for overseeing the MEAI Website overall functioning, content updating, design improvements, and regular maintenance.

(Continued from Page 11)

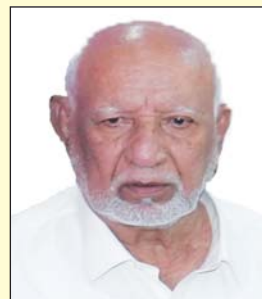
in Geomysore Services India Ltd, which is developing the first private sector gold mine at Jonnagiri, in Andhra Pradesh. The Jonnagiri gold project, he said, has received environment clearance in the months of June and July, and state clearances have also been sought.

"The project stabilisation is going on... it is only the technology of the plant which is being worked out... full-scale production will begin very soon," Deccan Gold Mines Ltd Managing Director Hanuma Prasad said on the sidelines of CII India Mining Summit 2025.

The project is expected to produce about 750 kilograms of gold per annum once it begins full-scale production, he said, adding that it would be scaled up to 1,000

(Continued on Page 35)

OBITUARY



Shri. M. G. M. Delvi

(LM-3584)

(04/08/1945 - 03/09/2025)

It is with profound grief that the Mining Engineers' Association of India (MEAI) announces the sad demise of Shri. M. G. M. Delvi, Life Member of the Bangalore Chapter, who passed away on 3rd September 2025 at the age of 80.

Mr. Delvi completed his Master's degree in Geology from Bangalore University in 1967 and began his distinguished career with the Department of Mines and Geology, Government of Karnataka, in 1968. Over the years, he made significant contributions as a Senior Geologist, particularly in the domains of ground water exploration across Karnataka and the exploration of iron and manganese ores in the North Canara district, especially around Yana. He also made valuable contributions to mineral administration in the Kolar district.

After his retirement, Mr. Delvi remained actively engaged as a consultant in mineral exploration and continued to play a vital role within the Bangalore Chapter of MEAI. Notably, he attended the recently held Annual General Meeting of the Bangalore Chapter on 30th August 2025.

A sportsman since childhood, Mr. Delvi represented his university as a formidable football fullback and exemplified sportsman spirit throughout his life.

The members of MEAI extend their heartfelt condolences and pray for eternal peace for the departed soul. May the Almighty grant strength and solace to the bereaved family to bear this irreparable loss.



NACRI (NRO) & MEAI (PO) JOINT COMMITTEES

For the term 2025-2027
(As per NACRI Charter, 2019)



1. Ethics Committee of MEAI (NACRI Members, Min = 2) - term of office: 2 years

(Members are supposed to be seniors and well respected in the society)

Mr DB Sundara Ramam
Chairman, President- MEAI

Mr T Victor
Member, Past President- MEAI

Mr Arun Kothari
Member, Past President- MEAI

Mr Sanjay Pattnaik
Member, Past President- MEAI

Mr K Madhusudhana
Member, Past President- MEAI

Dr PV Rao
Member, Co-Chair NACRI

Dr Abani Samal
Member, NACRI

Secretary General
Member Secretary, Secretary General-MEAI

2. Complaints Committee of MEAI (NACRI Reps, Min = 2) - term of office: 2 years

(Members are supposed to be active and holding responsible positions in PO)

Mr DB Sundara Ramam
Chairman, President- MEAI

Mr Dhananjaya G. Reddy
Member, VP-I MEAI

Dr Pukhraj Neniwal
Member, VP-II MEAI

Mr Rachappa Saradagi
Member, VP-III MEAI

Dr Sanjeev Kr Sinha
Member, NACRI

Dr A Srikant
Member, NACRI

Dr AK Sarangi
Member, NACRI

Mr M Narsaiah
Member-Secretary, Secretary General-MEAI

3. RCP Registration Committee (NACRI Reps, Min= 2) - term of office: 2 years

(Members are responsible to scrutinize the applications and approve registration as per IMIC guidelines)

Mr DB Sundara Ramam
Chairman, President- MEAI

Mr M Narsaiah
Member, Secretary General- MEAI

Dr PV Rao
Member, Co-Chair NACRI

Mr TR Rajasekar
Member, NACRI

Mr Shameek Chattopadhyay
Member, NACRI

Mr Deepak Rathod
Member, NACRI

Mr B Sahoo
Member-Secretary, Jt Sec. cum Treasurer-MEAI

4. Professional Development Program (PDP) Committee - term of office: 2 years

(Professional Training on IMIC and Code of Ethics by NACRI and facilitated by MEAI HQs & Chapters)

Mr DB Sundara Ramam
Chairman, President- MEAI

Mr Dhananjaya G. Reddy
Member, VP-I MEAI

Dr Pukhraj Neniwal
Member, VP-II MEAI

Mr Rachappa Saradagi
Member, VP-III MEAI

Mr M Narsaiah
Member, Secretary General-MEAI

Dr PV Rao
Member, Co-Chair NACRI

Dr Abani Samal
Member, NACRI

Dr A Srikant
Member, NACRI

Mr Pankaj Satija
Member, NACRI

Mr Shameek Chattopadhyay
Member, NACRI

Dr AK Sarangi
Member, NACRI

Mr Deepak Rathod
Member, NACRI

Dr Kavita Bhardwaj
Member, NACRI

Mr TR Rajasekar
Member-Secretary, NACRI

MEAI NEWS

BANGALORE CHAPTER

ANNUAL GENERAL BODY MEETING (AGM) -2025

The AGM-2025 of MEAI Bengaluru Chapter was held on 30-08-2025 at 11.30 AM to 1.30 PM in the Executive Development Centre, Institute of Hotel Management, SJP Campus, Sheshadri road Bengaluru.

During the AGM-2025 it has also planned two presentations on "Green Mining" theme between 10.30 AM to 11.30 AM, where the following service providers have made presentations on their electric, hybrid and dual power machines for the mining industry in line with "Green and Clean mining".

1. "Driving Sustainable Productivity in Iron Ore Mining with Battery/Electric Technology" -by M/s Gunatheetha -Authorised Dealer of Liu Gong.
2. "Driving Sustainable Productivity in Iron Ore Mining with Hybrid Technology in Crushing & Screening" -FINLAY machines by Gravitas Infra Equipment Private Limited -Authorised dealer of FINLAY.

After the above presentations, AGM-2025 was conducted from 11.30 AM to 2.00 PM followed by Lunch. Around 63 members attended the AGM-2025. During the AGM-2025, elections results of New office bearers & Executive committee nominated by the outgoing Executive Committee are declared & new committee installed by the outgoing committee. The composition of the New Office bearers and Executive Committee of the Bangalore Chapter for the term 2025-27 are as below,

MEAI Bengaluru Chapter Office Bearers & Executive Committee for the term 2025-27	
Dr. T. N. Venugopal	Chairman
Dr. C. V. Raman	Vice Chairman
Mr. Sitaram Kemmannu	Secretary
Mr. K. Ramani	Joint Secretary
Mr. Mallikarjun Sarapur	Treasurer
Ms. Sarita Dange Mr. G Raghunath Singh Mr. Shobhachala Kakade Mr. A. Samul Ms. Monisha G.Y.	Executive Committee members

MINUTES OF THE PROCEEDINGS OF THE MEETING

The Annual General Meeting of the Bangalore Chapter was held at 11.30 hrs. on Saturday, 30th August 2025, in the Executive Development Center, Institute of Hotel Management, SJP Campus, Sheshadri road, Bengaluru. The meeting was organized in physical mode and 63 members attended. Dr. H. S. Venkatesh, Chairman presided over the

meeting and extended a warm welcome to the members. Sri Dhananjay G Reddy -Vice President I MEAI had also attended & observed the proceedings.

Chairman Dr. H. S. Venkatesh welcomed all the members and in his opening remark he emphasized on the association activities and its benefit to the members with the call to all existing members to become fellow members and encourage their known people in mining to join MEAI. He also said that MEAI membership is not limited to mining engineers, but to all professionals involved in the mining sector like geoscientists and other engineers.

The members observed 2 minutes of silence in memory of the life members of the Chapter who departed during 2024-25 and remembered their contribution to the mining industry and MEAI both at National level and Chapter level. The secretary recited their biography and contributions to the industry, MEAI and society. The departed members are:

- Shri. B. N. Chandra Shekar Rao, 86Y (1938 to 24-08-2024) LM2865
- Shri. M. S. Ramanathan, 90Y (01-05-1934 to 30-10-2024) LM 0407
- Shri. Deepak Vidyarthi 77Y (25-12-1948 to 22-02-2025) LM 2268

Confirmation of the Minutes of AGM for the year 2023-24

The minutes of AGM-2024 for the year 2023-24 held on 14th September 2024 in physical mode in ERM House, Bengaluru was circulated to all the members along with the Secretary's report and audited accounts for the year 2023-24. Mr. Sitaram Kemmannu presented the minutes. The minutes were proposed for acceptance by Sri R Rajendran & seconded by Shri. A K Ojha, the same was accepted unanimously by the General Body.

Presentation of Annual Report for the Year 2024-25

Mr. Sitaram Kemmannu, Secretary, presented the highlights of the Annual Report for the year 2024-25. The Executive committee met 3 times physically and guided the activities of the chapter. The following events were organized during the reporting period:

- **AGM 2024** was held on 14-09-2025 at ERM house, around 44 members attended the AGM 2024. During AGM 2024 two presentations were made by the service providers:
 - o Presentation of M/s Ashok Leyland on their products of the mining industry especially quarries.
 - o Presentation from M/s Rossi Gearmotors (India) Pvt. Ltd on their products of mining industry.

- **Interaction session with National President Shri. S N Mathur:** Shri. S. N. Mathur, President of MEAI visited the Chapter office on 6.11.2024. The senior members, past chairmen & EC members of Bangalore Chapter had detailed discussion on various activities of MEAI and Bangalore chapter. President advised to conduct a National seminar, opening of student chapters & reviewed the IMD celebration to be held on 16.11.2024. The President was honored and felicitated during the meeting.
- **Indian Mining Day 2024** was celebrated on 16th November 2024 in the Institute of Engineers (India) Auditorium, Bengaluru. Shri. G. Kiran, Chairman cum Managing Director, KIOCL Limited has graced the occasion as Chief Guest & Mr. Dhananjaya G. Reddy Vice President-II, MEAI presided over the function. As part of Indian Mining Day celebration, competitions on Essay writing, Poster making and Elocution were organized for students of mining engineering of TTIT college of KGF on the theme of the Mining Day – Women in Mining Industry. Dr. Binutha R, Ms. Pratiksha, Ms Sapna, Ms P Navya, Ms Vidhyashree, Ms Monisha, Ms Maniteja of women force of mining industry from Vedanta and KSMCL actively participated and made presentations on the theme of IMD 2024. As a part of Indian Mining Day Celebration, Bangalore Chapter felicitated senior Octogenarian members who have contributed significantly to the mining industry and to the Bangalore Chapter. Shri. M. S. Nagar, LM 1958/BAN (Recitation -felicitated later at NITK Mangalore), Shri. S.K. Prabhakar, LM 098/CAL/BNG, Shri. Vasant Yallappa Kadam, LM 5724/Goa/BNG, Shri. V.Nagaraj, LM 1881/BAN and Sri Honnaiah Sreenivas Murthy, LM 2948/BAN were felicitated during the function.

The Annual Report was Proposed for acceptance by Mr. Sreenivasan and seconded by Dr. T.N. Venugopal and unanimously accepted by the General Body.

Income and Expenditure Statement and the Balance Sheet for the FY - 2024-25

Mr. K. Ramani, Treasurer of the Chapter, presented the audited statement of accounts for the Financial Year 2024-25, which was circulated to all members. He briefed about the receipts/payments and income/expenditure statements and showed a loss of Rs.1.49 lakhs through the expenditure over income. He also highlighted that a sum of Rs.22 lakhs are invested in Fixed Deposits and mentioned that an amount of 2.51 lakhs is to be received from HQ towards TDS since 2019-20 to present. The members have deliberated on the matter and advised the office bearers to collect the same and advised to organize the conference/seminars to strengthen the resources.

The accounts were proposed for acceptance by Shri. Y. Ramamohan Reddy and seconded by Shri. Rajashekhar

and the accounts were unanimously adopted by the General body.

Declaration of election for the Office bearers and Executive Committee of the Bangalore Chapter for the term 2025-27

Shri. N. Rajendran -Returning Officer updated the members about the election being conducted in the online mode through google form with passcode system during the 12-06-2025 to 22-06-2025 for the candidates proposed by the outgoing Office bearers & Executive Committee of the Chapter. 91 members participated to elect the Executive Body for the term, as shown below, on a unanimous/majority of votes for the candidates proposed by the outgoing Executive Committee and declared them as elected New Executive Committee for the term 2025-27 as per the election norms.

Dr. T. N. Venugopal	Chairman
Dr. C. V. Raman	Vice Chairman
Mr. Sitaram Kemmannu	Secretary
Mr. K. Ramani	Joint Secretary
Mr. Mallikarjun Sarapur	Treasurer
Ms. Sarita Dange Mr. G Raghunath Singh Mr. Shobhachala Kakade Mr. A. Samul Ms. Monisha G Y	Executive Committee Members

The General Body adopted the election results unanimously.

The new Executive Committee was instituted with the handing over of the badge by Dr. H. S. Venkatesh to Dr. T. N. Venugopal and he wished the incoming Chairman and his team best wishes. Further proceedings of AGM are conducted by Dr. T. N. Venugopal with newly elected office bearers.

The members unanimously agreed to continue with Messrs. Balakrishna and Co. as Auditor for FY 2025-26.

Resolutions discussed and passed

1. Signing Authorities for the fund management of MEAI Bangalore Chapter

As per Rule 10 (4) of amended bye-laws of the Association, dated 1st March 2018, the funds of the Chapter will be managed jointly by the Chairman, Secretary, Jt. Secretary and the Treasurer and any withdrawals from the bank can be made under the joint signature of two – the Chairman or the Secretary, or the Joint secretary and the Treasurer.

Hence new committee Chairman- Dr. T. N. Venugopal or the Secretary- Mr. Sitaram Kemmannu or the Joint Secretary-

Mr. K. Ramani with the Treasurer Mr. Mallikarjun Sarapur will be the signatories for all the bank transactions, including signing of the cheques.

The resolution was proposed by Shri. Shobhachala Kakade & seconded by Shri. P. Malleshappa. The general body unanimously resolved the same.

Dr. T. N. Venugopal, Chairman, addressed the gathering about the activities of association and requested members to share their ideas for the association activities, its fund management and other activities. The following are the matters discussed and concluded in the AGM as given on individual items.

Use of Senior Citizen funds of MEAI & Contribution to same: Chairman requested to all the members to make generous contribution the noble cause of this fund used to support needy MEAI senior citizen members of MEAI for their financial need at the old age for medical and other purposes as per laid guidelines & also requested the members attended the AGM to communicate for the use of funds by the needy members of MEAI in their known circle.

Membership drive: General Body advised to increase the membership drive from the Chapter to include the people from various mining companies, connected government departments and agencies. It has also been advised to send personalised mails to the life members of 10+ years of industry experience to become Fellow Membership of Associations.

Student Chapters of Association: Secretary has updated 22 members enrolment from the Schools of Mines KGF as student members while official opening of Student Chapter couldn't happen and student members were passed out from the institute. The new EC members of KGF Shri. Shobhachala Kakade and Shri. A. Samuel were entrusted to interact at TTIT & School of Mines to pursue on the opening of two chapters at KGF members by registering final year students.

Expenditure over income of the Chapter: General Body noted the concern of expenditure above income of the Chapter past consecutive years and advised to organise A National Level Conference where knowledge exchange, Technology advancement and networking can happen for the benefits of members, industry and service providers while revenue is also generated for sustenance of association. It has been advised to take up matters in forthcoming EC meetings and conduct a national level conference during FY 2025-26.

IMIC Implementation by NACRI: Dr. Ashok V Rao requested the status of implementation of IMIC in India and the matter was deliberated at length. Mr. Dhananjaya G Reddy updated

the matter being pursued by MEAI at government level and the challenges posed in terms of government point of view, where their proposed auction blocks are in line with UNFC & auctioning them after adopting IMIC will be a challenge. Mr. T R Rajashekar NACRI member & Dr. T. K. Rath have also updated the IMIC code implementation process at length.

It has also been decided to conduct a small workshop to sensitise the importance of IMIC code implementation to all the MEAI members and deliberate on the matter to work on its implementation in the country so that FDI can be anchored in the country for exploration and mining projects and funding form stock markets within the country.

Dr. C. V. Raman, Vice Chairman, thanked Shri. Dhananjay G Reddy -COO ERM Group and VP-I MEAI for observing the AGM proceedings and Chairmen (both outgoing & incoming) and all office bearers & EC members (outgoing & incoming) for conducting AGM in a systematic manner. He also thanked the officials of M/s Gravitas Infra Equipments Private Limited and M/s Gunatheetha for making a presentation during the AGM with respect to their products and services to the mining industry and for sponsoring the AGM. He extended special thanks to all the senior members for their presence and their advice. He further extended thanks to Mr. N Rajendran -Returning Officer for conducting elections in the best manner for the new office bearers and executive committee. He also thanked all the members who participated in the meeting. He also thanked the officials and staff of Executive Development Centre of IHM for providing the venue/food & support. He thanked one and all the way for their help rendered to the activities of the Chapter.



Presentation by Mr. C. V. Murthy of M/s Gunatheetha



Presentation by Mr. Arjun Javali of M/s Gravitas Infra Equipment Pvt Ltd



AGM - Gathering



Inaugural address by Chapter Chairman Dr. H. S. Venkatesh



Address by VP-I Shri. Dhananjaya G. Reddy



Annual Report presentation by Secretary Shri. Sitaram Kemmannu



Returning Officer Shri. Rajendran declaring election of new office bearers.



Handover of BC office to incoming Chairman Dr. T. N. Venugopal by outgoing Chairman Dr. H. S. Venkatesh



New Executive Committee of Bangalore Chapter for 2025-26 to 2026-27



Address by incoming Chairman of BC Dr. T. N. Venugopal



Members interactions during AGM



Vote of thanks by Vice Chairman Dr. C. V. Raman

BELGAUM CHAPTER

Chairman Dr Pramod Hanamgond, welcomed the gathering. Secretary Sagar Waghmare introduced the team. The first session of Basic Life Support and CPR hands-on training, on 13 Sept 2025, was conducted for the workers of Doddannavar Brothers Hiremagi Sulebhavi Aihole Iron Ore Mines, Bagalkote, by PP Rtn Dr Prakash Phadnis and his team from Rotary E Club, Dist 3170 Belgaum. The team constituted – PP Rtn Anant Nadagouda, Rtn Ashutosh David. Rtn Anant Nadagouda elaborated the usefulness of the BLS-CPR and why it's essential and important to create awareness among the society. About 40 mine workers including few lady workers participated in the training each one did the CPR on the mannequins.

On 14th Sept 2025, soon after the monthly meeting of the Belgaum Chapter, the Basic Life Support – CPR hands-on training was conducted by PP Rtn Dr Prakash Phadnis and his team for the MEAI Belgaum Chapter Members. About 20 members got the benefit of the training with hands on experience on the mannequins.

Shri Rachappa, VP-III, while felicitating Dr Phadnis and his team, expressed that such training should be extended to nearby schools for creating awareness.

The meeting ended with vote of thanks by Mr Sagar Waghmare. The meeting was hosted by DB Mines, Bagalkote.



PP Rtn Dr Prakash Phadnis, conducting the CPR Hands-on Training for the mine workers.

BELLARY – HOSPET CHAPTER

ANNUAL GENERAL MEETING-2025

Date: 20.08.2025

Venue: Hotel Malligi, Hosapete

Shri. S.H.M. Mallikarjuna opened the meeting with a warm welcome to all distinguished guests, members, and participants. He extended special greetings to the Director of Mines Safety, the Deputy Director of Mines Safety, Ballari region, Past President Shri. K. Madhusudhana, Council Member Shri. K. Prabhakar Reddy, along with other senior officials and esteemed life members of MEAI. He emphasized that their gracious presence added immense value and inspiration to the gathering, strengthening the spirit of unity within the chapter.

In his address, the Chapter Chairman expressed gratitude for the continued support and guidance of the dignitaries, acknowledging their role in shaping the growth and progress of the mining community. He highlighted that the collective wisdom, experience, and active participation of members have been instrumental in the chapter's accomplishments.



PP Rtn Anant Nadagouda, conducting the CPR Hands-on Training for the mine workers.

With this spirit, he urged everyone to work together in setting new objectives, upholding the values of MEAI, and striving towards a stronger, progressive future.



Welcome to Shri Krishnendu Mondal, DMS, Ballari Region-I by Shri. S.H.M. Mallikarjun, Chairman, Bellary-Hospet Chapter



Welcome Shri Nagendra Kumar Sriram, DDMS, Ballari Region-I by Shri P. Venkateswara Rao, Secretary, Bellary-Hospet Chapter

Confirmation of the Minutes of AGM for the year 2024-25

The Annual General Meeting (AGM) of the Mining Engineers Association of India, Bellary- Hospet Chapter, for the year 2024-25, was held on 20.08.2025. The meeting was chaired by Shri. SHM Mallikarjuna Chairman, BH Chapter, who welcomed all members and presented the agenda.

The minutes had been circulated to all members prior to this meeting. The minutes of the previous AGM were reviewed. Members were given an opportunity to review and suggest corrections if any.



Shri. S.H.M. Mallikarjun, Chairman, Bellary-Hospet Chapter addressing the members

During the Annual General Body Meeting (AGM) of the Bellary-Hospet Chapter, held on 20.08.2025, Shri K. Madhusudhana, former President of MEAI, delivered a

significant address. His insights and perspectives were highly anticipated and contributed greatly to the meeting's agenda.

In his address, he suggested arranging training or offline coaching classes for DGMS competency examinations, specifically for Mine Mates and Foremen working in mines. He also emphasized the need to increase the membership strength of the Chapter. Furthermore, he highlighted the forthcoming 50th Year Celebration of the Chapter and the upcoming International Seminar, advising that all government bodies and organizations be invited to participate. He further stressed that the Bellary-Hospet Chapter should take an active role in all these activities.



Shri K. Madhusudhana, former President of MEAI, addressing the members

Dr.Meda Venkataiah, Nominated Owner of M/s.MSPL Limited and Past President of MEAI, addressed the gathering with great admiration for the Chapter. He highlighted the Chapter's active participation in various seminars, workshops, and professional activities organized by MEAI.He expressed his appreciation for the consistent achievements of the BH Chapter, which has been recognized repeatedly with the Best Chapter Award.

Dr. Meda Venkataiah emphasized that the success of BH Chapter is a reflection of the collective efforts of its members and leadership. He praised the dedication and commitment shown by the Chapter in promoting professional growth and knowledge sharing. He elaborated in detail on the remarkable journey of the BH Chapter since its inception. He noted how the Chapter has grown into a vibrant and dynamic platform for mining professionals. He acknowledged the valuable services rendered by MEAI to the mining industry, academia, and professionals in the mining sector. He underlined the role of the BH Chapter in strengthening the bond between industry and professional bodies. While concluding his address, he conveyed his best wishes for the Chapter's continued excellence and future endeavors.



Dr. Meda Venkataiah (sitting 4th from left), former President of MEAI, addressing the members

The General Body approved to continue M/s K Manjunatha & Co., for auditing of the chapter accounts for the financial year 2025-26.

The Secretary's Report for the financial year 2024 - 25 was presented by Shri. P Venkateswara Rao. This report provided a comprehensive overview of the Chapter's activities, achievements, challenges, and financial status over the past year.

The Chapter successfully launched and completed several key programs, including New Site Purchase for MEAI BH Chapter. These initiatives had a positive impact on our community and advanced our mission.

Increasing Membership, reflects the Chapter's growing influence and outreach efforts. The report highlighted various membership drives and recruitment strategies that contributed to this growth.



Shri. P Venkateswara Rao (sitting 1st from right), Secretary of BH Chapter, presenting the report

Awards and Recognition

The Chapter received following awards

- i. Best Chapter Award For the year 2024-25
- ii. Special Award for celebration of Indian Mining Day 2024
- iii. Service Excellence Award for the Year 2024-25 to – Shri. S.H.M. Mallikarjun & Shri. P. Venkateswara Rao.
- iv. Winner of MEAI “NMDC Excellence Gold Medal Award” to - Shri K. Madhusudhana for the Year 2024-25
- v. Winner of the “MEAI – Smt. Bala Tandon Award for the Year 2024 -25” To Shri K. Prabhakara Reddy
- vi. MEAI – “Smt. Kiran Devi Singhal Award” to – Dr. P. Sharath Kumar For the Year 2024-25
- vii. MEAI Council Member Service Excellence Award 2024-25 to Shri K. Prabhakara Reddy
- viii. Scholarship Awarded for two Diploma students with appreciation certificate
- ix. Rs 10,000 presented to Single Girl in Diploma Mining College

Established partnerships with various organizations related to the mining industry to enhance the chapter's activities and outreach.



Presentation of Audited Financial Accounts for the year 2024-25

The audited financial accounts for the financial year 2024-25 were presented to the members of the BH Chapter by Shri. J Srikanth. This report summarizes the key points of the presentation and the outcomes of the discussion.

Shri. J Srikanth, in his capacity as the auditor, provided a comprehensive overview of the Chapter's financial status for the year 2024-25. The presentation included a detailed review of the financial statements, which comprised: Income Statement, Balance Sheet, and Cash Flow Statement.

EXECUTIVE & DEVELOPMENT COMMITTEE OF THE BH CHAPTER FOR THE TERM 2025 - 27.

OFFICE BEARERS:

1. Chairman: Sri. S.H.M. Mallikarjuna, M/s JSW Limited.
2. Vice-Chairman: Sri. Deepak Kukke M/s SMIORE Ltd.
3. Secretary: Sri. P. Venkateswara Rao, M/s MSPL Ltd.
4. Jt. Secretary: Sri. Basavaraj, M/s KSMCL.
5. Treasurer: Sri. J. Srekanth, M/s ZTC.

EXECUTIVE COMMITTEE MEMBERS

1. Sri. Anil Kumar, GM (Mining) M/s NMDC.
2. Sri. Vinay Kumar, M/s NMDC.
3. Sri. Nishant Natiye, M/s SKME Pvt. Ltd.
4. Sri. R. Shivanada Reddy, M/s VNK Menon.
5. Sri. Venkateswara Reddy, M/s HRG & Co.
6. Sri. Jitendra Reddy, M/s MSPL Ltd.
7. Sri. Pramod, Geologist, M/s BKG Pvt. Ltd.
8. Sri. Rakesh M.M. M/s KSMCL.

MEAI COUNCIL MEMBERS

1. Sri. K. Madhusudhana (Past President MEAI)
2. Sri. K. Prabhakara Reddy, M/s SUMS
3. Sri. G. Laxminarayana, M/s RBSSN

DEVELOPMENT COMMITTEE MEMBERS

1. Sri. Mallikarjuna Sarapur
2. Sri. Paleti Srinivasa Rao

3. Sri. Gopal Joshi
4. Sri. Yoganand T.L.
5. Sri. Prakash Babu
6. Sri Dasharatha R.
7. Sri. Bharath Kumar
8. Sri. S. Satyanarayana
9. Sri. Nanda Kumar
10. Sri. Y.V.R. Krishna Reddy
11. Sri. Chendrasekhar Halli
12. Sri. Ram Koteswara Rao
13. Sri. Satya prakash, M/s Kirloskar
14. Sri. T. Ramesh, M/s BKG

FIRST AID COMMITTEE

1. Chairman: Sri. Vinay Kumar, M/s NMDC
2. Vice-Chairman: Sri. K. Krishnudu, M/s MGVTs
3. Secretary: Sri. M.M. Rakesh, M/s KSMCL
4. Jt. Secretary: Sri. S. Ravindara, M/s MGVTs
5. Member: Dr. Swarupa Padhi, M/s NMDC
6. Member: Smt. Madhurima, M/s NMDC

The Vote of Thanks was delivered by Shri P. Venkateswara Rao, Chapter Secretary, with special acknowledgement to the DMS and DDMS of the Bellary Region, who were present at the Annual General Body Meeting 2025. He also extended gratitude to the Council Members of the MEAI Bellary-Hospet Chapter, all Life Members, and other distinguished guests who attended the meeting. His address highlighted the collective efforts and support that contributed to the success of the AGM. The message emphasized the importance of collaboration and expressed optimism for continued progress in the coming year. The Secretary's heartfelt acknowledgments and reflections were warmly received by all attendees, reaffirming the Chapter's commitment to its members and stakeholders.

HYDERABAD CHAPTER

Executive Committee Meeting and Technical Meet

The Hyderabad Chapter successfully conducted its Executive Committee Meeting along with a Technical Meet on "Green Technologies in Mining: Innovations for Sustainable Operations" on 13th September 2025.

Mr. Lakkarsu Krishna, Secretary of the Chapter, formally commenced the programme with a warm welcome to the distinguished guests, members, and delegates. The event was sponsored by GTS Limited - CKA Birla Group and witnessed active participation from members, industry professionals, and experts. Distinguished speakers shared insights into sustainable mining practices and highlighted the role of emerging technologies in reducing environmental impact while enhancing operational efficiency.

The meet concluded with a vote of thanks, acknowledging the contribution of speakers, members, and CKA Birla Group

GTS Limited for their generous sponsorship. The discussions emphasized innovative approaches for eco-friendly mining, energy efficiency, waste reduction, and advancements in digitalization for sustainable operations. The programme provided a valuable platform for knowledge exchange and interaction, strengthening MEAI's commitment to promoting responsible and future-ready mining practices.

Glimpses of the program

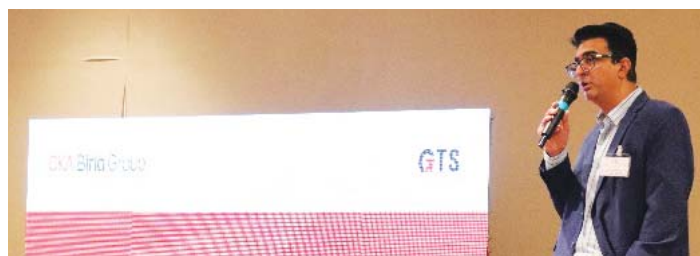


Dignitaries on the dais L to R – Shri. M. Narsaiah, Secretary General, Shri. V. S. Rao, Past President, MEAI, Shri. Vinay Kumar, Chairman, Hyd Chapter & Shri. Manvender Bharti - COO at GTS



Shri. Vinay Kumar, Chairman, Hyderabad Chapter & Director Technical, NMDC Ltd addressing the event

GTS team presented its technical capabilities and engaged in meaningful discussions on how its cutting-edge and innovative solutions can drive sustainable mining practices



Presentation by Shri. Manvender Bharti – COO, GTS



Presentation by Shri. Malleswara Rao, Head – Mine Planning, GTS



Presentation by Shri. Amol Bhosale, Head - Engineering Services, GTS



Presentation by Shri. Karthik Shankar, Head- Technology Solutions, GTS



Felicitating Shri. Vinay Kumar, on receiving the Service Excellence Award 2024



Felicitating Shri. B. Surender Mohan on receiving Service Excellence Award 2024



Recognition of Hyderabad Chapter with various Awards over the past FY 2024-25



Shri. L. Krishna, Secretary, Hyderabad Chapter proposing the Vote of Thanks



Delegates, MEAI Members, industry professionals and experts that participated in the event

(Continued from Page 25)

tonnes within two to three years. "India's production of gold as of today is 1.5 tonnes... once our mine starts, nearly one more tonne will be added," he explained.

The gold mine is located near Jonnagiri, Erragudi and Pagadirayi villages within the Tuggali Mandalam in the Kurnool district of Andhra Pradesh. DGML was established in 2003 by promoters with deep roots in the exploration and mining sector. DGML has been involved in gold exploration activities in India and overseas.

The company has mining assets spread across the Indian peninsula, Kyrgyzstan, Finland and Tanzania.

Press Trust of India New Delhi | Sep 18 2025



Mining Engineers' Association of India

SIXTH COURSE OF MPDP - VI (MEAI PROFESSIONAL DEVELOPMENT PROGRAM)

Enthused by the phenomenal success of the previous courses MPDP-I to MPDP-V, MEAI launches the SIXTH Course in the month of November 2025, online.

The previous courses were successfully held online on Webex platform on three consecutive week-ends and were well attended by 48 participants from 53 participants from 12 mining organizations including NMDC, SAIL, Tata Steel, MSPL, GMDC, JSW, SKMEL, BGR, Vedanta, ERM Group, KSMCL, Vensar besides a few independent consultants.

24 technical sessions were held by 16 eminent faculties and industry experts covering 20 relevant subjects. Participants were awarded Certificates of participation.

Attendance and Assessment test are mandatory for all participants to be eligible for the "MPDP Certificate".

An added attraction of the MPDP Course is that the RCPs who attend the course would get a credit of 40 points!

TOPICS	FACULTIES
1. Mineral Policy 2019	Mr. BRV Susheel Kumar Former Director, DMG, Hyderabad
2. MMDR Act, 1957 & Its Amendments	Mr. AR Vijay Singh, BE (Mining), FCC (R), FCA, Chartered Accountant, Bangalore
3. Hyperspectral Remote Sensing & It's Applications	Prof. Anup Prasad IIT (ISM), Dhanbad
4. Mineral Resources & Reserves - Classification & Reporting	Dr Abani R Samal Principal, Geo Global LLC, USA
5. Strategic and Tactical Mine Planning for Opencast Mines	Mr. Suryanshu Choudhury Head, Mine Planning, GMDC, Ahmedabad
6. Mineral Auction	Mr. Sabyasachi Nayak Director Mine Magma, Bhubaneswar
7. Building High Performing Teams to Navigate Business Challenges	Dr. Debabrata Dash, Head Human Resources Eastern India, ArcelorMittal Nippon Steel India
8. Environment Clearance	Mr. AR Vijay Singh BE (Mining), FCC (R), FCA, Chartered Accountant, Bangalore
9. Technological Trends in Large Mining Tucks	Mr. Suresh Nair, VP, Tata Hitachi Sales & Marketing, Bangalore

10. Preparation of Mining Plan, Mine Closure Plans and approvals from IBM	Dr. Vivek Lal Consultant, Jaipur
11. AI & IOT in Mines	Mr. Lalit Mohan Soni, Chairman MEAI Jaipur Chapter
12. Geo statistics in Mineral Industry	Prof Bhabesh C. Sarkar IIT(ISM), Dhanbad
13. Application of modern tools & Technology for Mine Planning & Monitoring	Mr. Shanto Mukherjee, Corporate Consultant, MTCS (Adani Enterprises)
14. MCDR, 2017	Mr. AR Vijay Singh, BE (Mining), FCC (R), FCA, Chartered Accountant, Bangalore
15. 9 Judge Bench judgement of Hon'ble Supreme Court in MADA vs, SAIL	
16. Mine Safety Management	Dr. I Satya Narayana DMS Ajmer
17. Digitalization for Productivity Enhancement in Mines	Mr. Mahesh Kumar, Consultant IT, Minematics, Hyderabad
18. Forest Clearance of Mining Projects	Mr. K. Madhusudhana Past President MEAI; CEO, MSPL Limited, Hospet

WHO SHOULD ATTEND

The MPDP Course will benefit Mining Professionals, Engineers, Geo-technical Engineers, Mineral Exploration Geologists working in the mineral industry (mid level to senior level)

Additional attraction for RCPs:

Those who attend the course will get a credit of 40 points!!!

SCHEDULE

The 6th Course (MPDP - VI) is scheduled as follows:

06-11-2025 (Thursday)	20-11-2025 (Thursday)
07-11-2025 (Friday)	21-11-2025 (Friday)
08-11-2025 (Saturday)	22-11-2025 (Saturday)
13-11-2025 (Thursday)	27-11-2025 (Thursday)
14-11-2025 (Friday)	28-11-2025 (Friday)
15-11-2025 (Saturday)	29-11-2025 (Saturday)

SESSIONS: 4:00 PM / 5:30 PM & 5:45 PM / 7:15 PM

INAUGURATION

NOV 6th (Thursday): 04:00 PM / 04:30 PM

VALEDICTORY FUNCTION

NOV 29th (Saturday): 7:30 PM

Followed by

PARTICIPANTS FEEDBACK & ASSESSMENT

COURSE FEE

For MEAI Members: Rs. 20,000.00 + 18% GST

For Non-Members of MEAI: Rs. 25,000.00 + 18% GST

Interested professionals may please contact the:

Shri. Lalit Mohan Soni, Secretary, Training, Development & Program Committee at lalitmohansoni@hotmail.com or Shri. M. Narsaiah, Secretary General, MEAI at meai1957@gmail.com Phone no: 040-23200510 Mob: 7780117320 of MEAI at for more details.

Payment of Course fee may be made on line at A/c No. 037810100028696 IFSC: UBIN0803782 Bank: UNION Bank of India, Nampally Station Road, Hyderabad Telangana-500 001

GST Registration No: 36AAATM7472Q1ZT

Hurry up! We have limited Seats!! Allotment would be on First Come First Served Basis!!!

Lalit Mohan Soni,

Secretary, Training Development and Program Committee,
& Course Coordinator, MPDP

CONFERENCES, SEMINARS, WORKSHOPS ETC.

INDIA

10-11 Oct 2025: International Conference on Next Generation Mining (NextGen Mining 2025). Organised by MEAI Bellary-Hospet Chapter. Venue: Hotel Malligi, J.N. Road, Hosapete 583201, Karnataka, India. Contact Email: meaibhconference@gmail.com.

9 Nov 2025: International Seminar on Critical & Strategic Minerals for ViKSIT Bharat @2027. Organised by Hindustan Copper Limited at Hotel Taj Taal Kutir, Kolkata. Eco Contact Email: Park, Eco park Road, DEshbandhu Nagar, New Town, Kolkata 700156. Contact: Mr Umesh Singh, ED (Mining), +91 94701 97256, umesh_s@hindustancopper.com

ABROAD

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-on-sustainable-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.

9-12 February 2026: Mining Indaba 2026 in CTICC, Capetown, South Africa. Contact Birgit Hupe, Head of Delegate Registration at registration@miningindaba.com

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.

11-12 April 2026: International Conference on Mining, Material, and Metallurgical Engineering (ICMMME - 2026) in Barcelona, Spain. Mail: info@academicsworld.org. Web: www.academicsworld.org.

21-22 April 2026: International Mining Geology Conference 2026. Brisbane Convention and Exhibition Centre, Brisbane, Australia. Contact AusIMM at T: 1800 657 985 or +61 3 9658 6100 (if overseas); <https://www.ausimm.com/conferences-and-events/mining-geology/>.

24-25 May 2026: International Conference on Mining and Economic Geology (ICMEG 2026). in London, United Kingdom. Website URL: <https://waset.org/mining-and-economic-geology-conference-in-may-2026-in-london>.

24-26 June 2026: The 27th World Mining Congress and exhibition in Peru. Contact details: Phone: +48 32 324 66 03; e-mail: wmc@gig.katowice.pl.

29-30 June 2026: International Conference on Geological and Earth Sciences ICGES in Istanbul, Turkey. Website URL: <https://waset.org/geological-and-earth-sciences-conference-in-june-2026-in-istanbul>.

20 - 21 July 2026: Accelerating Commercial Exploration, Discovery and Extraction in Cairo, Egypt. Conference Enquiry: conference@egyptminingforum.com.

9-10 August 2026: International Conference on Geology, Geophysics and Earth Sciences ICGGES in New York, United States. Website URL: <https://waset.org/geology-geophysics-and-earth-sciences-conference-in-august-2026-in-new-york>.

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Printed and Published by M. Narsaiah, Secretary General, Mining Engineers' Association of India, on behalf of Mining Engineers' Association of India and printed at Deepu Printers, Raghava Ratna Towers, Chirag Ali Lane, Nampally, Hyderabad - 500 001. and published at F-608 & 609, 'A' Block, VI Floor, Raghavaratna Towers, Chirag Ali Lane, Abids, Hyderabad - 500 001. **Chief Editor: Dr. P.V. Rao**



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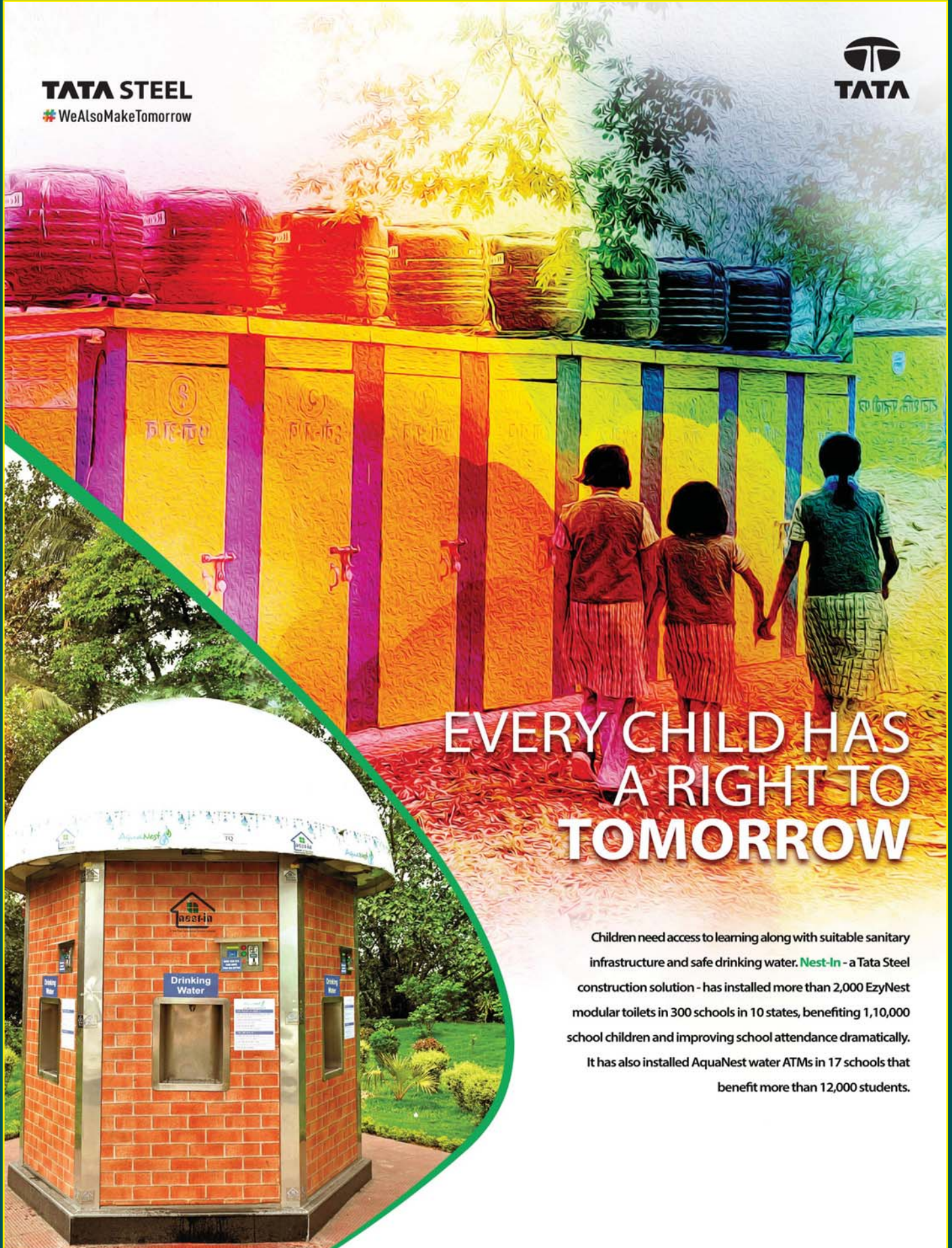
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