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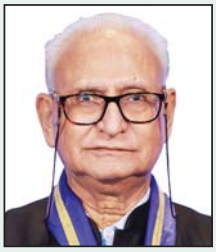

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Dr P.V. Rao

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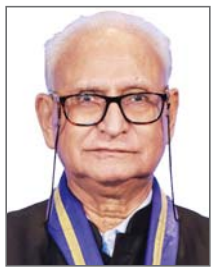
President's Message.....



Dear members..

NITI Aayog has constituted an Inter-Ministerial Committee (IMC) comprising Ministries of Mines, Finance, Legal affairs, MOEF & CC, Atomic Energy and NITI Ayog on Minor Mineral Taxation and other related issues. A meeting of this IMC was conducted recently with the Stakeholders under the chairmanship of Dr. V K Saraswat, Member NITI Aayog at Delhi on 20th May 2024. The meeting was attended by organizations like FIMI, FEMMI, FAMR, MEAI and GUJMIN who made presentations advocating the uniformity of the Minor Mineral Taxation. The meeting was also attended by Dr. C H Rao, an MEAI Council Member and Secretary General of FEMMI and Shri Deepak Gupta, Chairman, MEAI Delhi Chapter.

Dr. C.H. Rao made a presentation in the meeting advocating the "Necessity for Tax Reform" & made a unified call for "One Nation, One Mineral, and One Tax & No Auctions for Minor Minerals in India". He emphasized for immediate amendments to the MMDR Act to establish a centralized, predictable taxation system to support the minor mineral sector's viability and level playing field across the country.

Shri Deepak Gupta advocated for the minimum size of the lease areas granted for minor minerals. He said "how such small leases having areas even 0.5 Ha, be able to comply with the statutes, including the Mines Act that provides for health and safety of mine workers and suggested that the minimum size of such lease areas should be 10 hectares."

The response of the IMC committee was positive and they have understood the gravity of the problem. Let's hope for some favorable outcome.

Earlier a very unfortunate accident occurred on 14th May at Kolihan Mine, Khetri Copper Complex, Hindustan Copper Limited, caused by snapping of the winding rope, involving 15 persons. A team consisting of the Chief Vigilance Officer (CVO) of HCL from Kolkata, Kolihan MIne GM, Mines Manager and other senior officers had gone down the mine for inspection. The accident happened when they were returning to the surface. The HCL CVO was fatally injured while 3-4 other team members received very serious injuries. The exact cause of the accident is not yet known and it will be clear only when the enquiry is completed. But everyone is doubting about some serious human lapses. Let us pray for the eternal peace of the pious soul and for speedy recovery of others injured. Rescue operations took about 15 hours. A rescue team was also deputed from Hindustan Zinc Ltd., Udaipur.

The Rajasthan Chapter- Udaipur recently organized a Technical session on "Courage under Pressure: Rescue Operation" on 19th May when the Rescue team leader himself presented the talk highlighting the efforts made under adverse conditions. It was really a commendable effort made by the entire team and they deserve a big applause. Jodhpur and Jaipur chapters are also planning to have similar technical sessions soon for awareness of their members. I am trying to get a full technical paper on the incident and the rescue operation carried out to be published soon in our MEJ for the knowledge of our members. I also make an appeal to all MEAI members to have un-biased & serious safety audit of their respective mines.

S.N. Mathur
President

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Dr. P.V. Rao
Editor, MEJ

William Gleason, Editor of Mining Engineering Magazine, USA wrote an stimulating article on the future of mineral exploration entitled "Innovation and tradition shape the future of mineral exploration" in the January 2024 issue, wherein he highlighted the importance of data collection, data integration and need for skilled professionals. Glimpses of this article are presented below. He wrote…

The need to find new deposits of minerals is at an all-time high in order to meet the current and predicted demand for minerals. All of this comes during a time when the majority of easy-to-find deposits have been discovered, meaning the mineral deposits of the future will be found deeper underground or in areas not yet fully explored. Working on a brownfield project increases the likelihood of discovering a deposit that might one day become a profitable and producing mine. But proximity to a known deposit alone does not guarantee success.

We wanted to have as much data as possible, including historical data of past activity and mining claims before starting drilling. It's like getting pieces of a puzzle and you are able to buy another piece of the puzzle by doing new work. Some of the pieces might come from handwritten notes from 100 years ago and other pieces from geochemical reconnaissance surveys or airborne geophysical surveys. All of this data are collected to narrow the search to targets with rich potential.

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Exploration geologists have always played a vital role in the early stages of mineral development by identifying and assessing the feasibility of deposits, but uncovering new deposits will require new tools and techniques. The U.S. Geological Survey (USGS) is working to develop tools that will help identify mineral resources potential throughout the United States, as part of an effort to better understand the mineral landscape of the United States.

USGS Earth Mapping Resources Initiative (MRI) generates new high-quality data from sources such as airborne geophysics, geologic mapping and geochemical mapping and it brings in other mineral resource information like historical data such as 43-101 reports, legacy geophysical data or other mapping that might not be at an ideal resolution, but might be of value. The goal of the combined data is to identify the common traits of a mineral deposit, whether that be surface conditions or geochemical data.

The primary goal of the Earth MRI program is to provide national resource assessment for undiscovered mineral commodities in the United States, to provide the data to help others explore in a more efficient manner. It aims to collect, integrate and disseminate high-quality geoscience data across the nation to meet core science needs related to critical mineral resources. It aims to modernize the surface and subsurface geologic mapping of the United States, with an initial focus on identifying areas that may have the potential to contain critical mineral resources.

With the massive amount of data collected comes the challenge of organizing and analyzing the data. Integration is everything because a good assessment depends on all sorts of things. Each assessment has different needs. The mineral systems that host cobalt, for example, might have very different footprints or characteristics than the mineral systems that host lithium. So for lithium, you might be looking at things that are associated with a basin where you might find lithium, whereas for another commodity you might be looking at a different geologic environment. It all starts with bringing the information together. In addition to searching for potential targets of deposits still in the ground, the USGS has invested to better map the locations of mine waste, add new information to the National Mine Waste Inventory, and measure the potential for critical minerals that might exist in that mine waste.

The integration of big data to traditional mineral exploration has helped many mining companies identify potential deposits. KoBold Metals is a leader in this space and it is turning mineral exploration into a repeatable science by using geoscience, comprehensive data aggregation and the use of artificial intelligence (AI).

Big data integration and the use of AI is a step change in the field of mineral exploration, but that does not mean that the geologists in the field are a distant memory. ***The boots-on- the-ground work of the exploration geologists remains as important today as it did more than 100 years ago***, when prospectors were scouring the land for gold and silver. You still have to put people on the ground to map the geology and do some more detailed work. You still need to drill and log the core to understand the geology that can be so complex. If you don't have somebody figuring out the anomalies you're going to be missing something.

There is perhaps no better example of the convergence of traditional methods with leading-edge innovation in the mining industry than in the field of mineral exploration, where rock picks and decades-old handwritten surveys are merged with artificial intelligence (AI) and big data (BD) in efforts to locate valuable mineral deposits.

- Editor


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NEWS FROM THE MINERAL WORLD

Critical Minerals Summit Concludes on a note of Strategic Collaboration and Policy Insights to Advance India's Critical Mineral Agenda

Critical Minerals Summit Concludes on a note of Strategic Collaboration and Policy Insights to Advance India's Critical Mineral Agenda.

The 'Critical Minerals Summit: Enhancing Beneficiation and Processing Capabilities' concluded today in New Delhi on a note of strategic collaboration and policy insights, marking significant strides towards India's critical minerals objectives. The summit was organised by the Ministry of Mines in collaboration with the Shakti Sustainable Energy Foundation (Shakti), Council on Energy, Environment and Water (CEEW), and International Institute for Sustainable Development (IISD).

On the second and final day of the summit, panel discussion on policy incentives and the benefits of investing in India showcased a robust dialogue among stakeholders. Invest India presented the Critical Mineral Processing - opportunity in India, shedding light on fiscal and non-fiscal incentives available in the country. Leading mining states such as Odisha and Andhra Pradesh shared incentives provided by these states for the industry, underlining the nation's growth trajectory and state-level interventions to foster enabling infrastructure.

Emphasis was placed on a cluster-based approach to promote synergies in mineral extraction, refining and end-use, particularly in low-carbon technologies. The discussion underscored the importance of regulatory certainty, financing frameworks and ESG standards to attract investors. Panellists highlighted facilitation services offered by organizations like Invest India and the Industrial Promotion and Investment Corporation of Odisha (IPICOL), facilitating the establishment of processing and beneficiation capabilities in India.

Dr. Veena Kumari Dermal, Joint Secretary of the Ministry of Mines, delivered the closing remarks, encapsulating the summit's key takeaways and future directions. She emphasized both domestic and international efforts to secure the critical mineral supply chain, enhance skill development in India and focus on critical minerals recycling. Dr. Dermal highlighted India's available processing technologies for these minerals and referenced amendments to offshore mining regulations.

The objective of the Summit was to equip government and industry stakeholders with the knowledge, connections and tools necessary to accelerate the domestic production of Critical Minerals, supporting India's economic growth and sustainability objectives. The Summit served as a platform for transformative dialogue and collaboration, setting the stage for further conversations for short listing the steps required to be taken for India's emergence as a global leader in critical mineral sector.

PIB Delhi / 30 APR 2024

India considers incentives for lithium processing

India is considering offering incentives to encourage private companies to set up lithium processing facilities, as New Delhi tries to develop its nascent lithium mining and boost supplies of the EV battery metal, three government sources said. It would offer incentives to companies to set up lithium processing plants under a new critical minerals policy that was being worked out by the mines ministry, the sources said. "The critical minerals policy will be comprehensive and will cover all aspects from exploration to mining to value addition," one of the sources said. "It will also cover incentives for beneficiation and refining within the country," the source said.

The sources, however, said it was a little early to know the exact form of incentives the government would offer, but New Delhi would try to take a cue from countries such as Australia and Canada.

Responding to Reuters queries, the Ministry of Mines said the government was taking various steps to ensure the availability of critical minerals for the downstream industry. It did not elaborate.

The government could offer subsidies and tax benefits to encourage investment in lithium processing, said Karthik Bansal, research analyst at the New Delhi-based Centre for Social and Economic Progress. Last year, India, the world's third-biggest carbon emitter, listed 30 minerals, including lithium, as "critical" to meet the country's ambition for cleaner technologies in sectors such as electronics, telecommunications, transport and defence. It found its first lithium reserves only last year and industry experts say the country needs to set up facilities to process lithium locally. Companies including SoftBank-backed e-scooter maker Ola Electric, and miner Vedanta Ltd and Jindal Power are among those bidding for critical minerals blocks, which include lithium, with a shortlist expected by July. Winners will receive licences to explore and mine lithium, and will also be responsible for processing it into lithium concentrates or lithium chemicals for the battery industry.

Reuters / May 09, 2024

➤ The man who took on the coal industry to save a forest - and won

Environmentalist Alok Shukla has dedicated more than a decade to saving trees in central India

The moment Alok Shukla first saw the forest in central India stretching out before him, he knew two things instantly.

One: that this forest - known as the lungs of Chhattisgarh, home to thousands of tribespeople, endangered animals and rare plants - was one of the most beautiful places he had ever seen.

And two: that he would dedicate his life to stopping the multi-billion dollar companies hoping to uproot it in search of the coal beneath its soil.

The only question was, how? Twelve years later, Alok can smile at the memory. After all, what he has achieved in the intervening years has been impressive.

On Monday, the 43-year-old was awarded the Goldman Environmental Prize, otherwise known as the green Nobel.

But it started with small steps. Back in 2012, the Hasdeo Aranya forest in Chhattisgarh state and its 657 bio-diversity rich square miles (1,071km sq) were under threat, thanks to its massive coal deposits - totalling an estimated 5.6 billion tonnes. In India, the world's second largest consumer of coal after China, those deposits are a highly valuable commodity.

But the value to the tribespeople - known collectively as the Adivasi - and the animals like elephants, sloth bears, leopards and wolves, not to mention the tigers which use it as a corridor between habitats, or the birds which live in the trees, was incalculable to Alok.

He wasn't the only one to recognise the value of the land: local authorities had declared it protected a few years earlier - although this was never formal.

The Hasdeo Aranya forest is a haven for rare plants and animals...

Despite this, so-called coal blocks in the forest were put up for auction. The powerful multinational Adani group would apply to build five mines in the area between 2010 and 2015. More companies, and more mines, would follow.

"I still vividly remember the day I went there," Alok says. "It's such a beautiful forest - and unfortunately that forest is going to be destroyed by coal mining. "But much worse than that, the local tribal communities there who have been conserving the forest for centuries - they're not even aware of what the impacts of mining would be... or what the legal provisions and protections [are that would help them save it]."

The loss of their traditional home, Alok feared, would be devastating. "The Adivasis have been living there for several centuries. They know nothing else, but these forests. It's part of their identity."

And they were already trying to fight back - the problem was, each village was fighting alone. Alok realised they were doomed to lose the battle unless everyone came together. Two mines had already begun production because the resistance had failed. "It's not just a fight for one village in fact, it's a fight for the entire region," he says.

Out of this, the Save Hasdeo Aranya Resistance Committee - an informal alliance of grassroots movements - grew, teaching people about the local laws and rights available. It also linked the different groups together effectively for the first time. But it wasn't easy. In 2020, more coal mines were proposed.

With Covid racing across India, Alok once again began organising.

Community pressure led to three of the mines being shelved that September. The next month, the community fought to have almost a million acres designated as an elephant reserve. Then central government stepped in to push forward plans to auction off 21 coal blocks under emergency provisions.

Alok has worked with local tribespeople to protect the forest

It would take another 18 months - along with an online campaign united under the hashtag #SaveHasdeo, a march on the state capital, and even a tree hugging sit-in - for the 21 coal blocks to finally be cancelled. None of it has been easy. The 12-year battle, he admits, has taken a steely resolve on his part, and on the part of the forest communities.

"This is a fight in some sense between the people's lives and livelihoods and forests on the one hand, and the corporate profits on the other hand," he explains. "Naturally any company whose profits and viability is at stake will try to do all kinds of steps to make sure that they get the land." And even now, there are still fights to be won - land which needs to be rejuvenated after being destroyed and trees which are still in danger.

Alok hopes winning the Goldman prize, which recognises a handful of grassroots campaigners from around the world each year, will inspire other movements globally - and once again focus attention on the forest. "Any tree being cut in Hasdeo Aranya is wrong, and our effort will be to save every tree," he vows.

BBC News, London / 12 May 2024

➤ **Mines Ministry Organizes Workshop on Offshore Mining**

The Ministry of Mines held a workshop on Offshore Mining at New Delhi today. The occasion was graced by Secretary, Ministry of Mines, Shri V.L. Kantha Rao; Secretary, Ministry of Earth Sciences, Dr. M. Ravichandran and Additional Secretary, Ministry of Mines, Shri Sanjay Lohiya. Officials from other Central Government Ministries and Departments and from various State Governments, Government organizations, PSUs, mining companies, potential bidders and members of industry associations also attended the workshop.

Secretary, Ministry of Mines Shri V.L. Kantha Rao, in his keynote address, emphasised on the importance of offshore mining in creating strategic advantage for the country by fuelling industrial growth, generating employment and providing energy security. He also assured the gathering that the future outlook of the offshore mining is positive and that the Ministry of Mines is undertaking various strategic initiatives for development of this nascent sector. He also encouraged start-ups and private companies for developing technology for undertaking offshore mining activities in India and highlighted that the Ministry of Mines and Ministry of Earth Sciences would facilitate funding for such initiatives. Further, he welcomed more suggestion and feedback from industry bodies on the draft rules to facilitate ease of doing business and for promoting development of offshore mining sector in India. He also urged the industry to start preparing and planning for participating in the upcoming auction and undertaking offshore mining activities.

Dr. M. Ravichandran, Secretary, Ministry of Earth Sciences in his address emphasised on sustainable and environment friendly offshore mining development in India. He highlighted the importance of developing technology to harness the maritime potential of India and requested collaboration, knowledge sharing from industry stakeholders to make India a pioneer in offshore mining.

Officials from Ministry of Mines gave an overview of the Offshore Areas Mineral (Development and Regulation) Act, 2002 (OAMDR Act) and the draft rules which were placed in public domain for stakeholder consultation. The draft rules framed are available in the website of Ministry of Mines (mines.gov.in). The Ministry also informed that some identified offshore mineral blocks in the Exclusive Economic Zone of India for mining lime-mud, polymetallic nodules (containing critical minerals like cobalt and nickel) and construction sand will be put up for auction soon.

During the workshop, sessions were conducted by experts from Geological Survey of India, Ministry of Earth Sciences, Directorate General of Hydrocarbon, National Institute of Oceanography, Goa and National Institute of Ocean Technology, Chennai.

Domestic and international players also participated actively in the workshop and provided key insights into the technology available for offshore exploration and mining, industry expectations and suggestions. The workshop concluded with questions and answers session wherein Additional Secretary, Ministry of Mines addressed queries raised by various stakeholders who attended the workshop physically and virtually.

PIB Delhi / 15 May 2024

➤ **Coal India, NMDC, ONGC Videsh to actively scout for critical mineral assets abroad: Govt**

"A group of secretaries (on resources) has decided that these companies (Coal India, NMDC, ONGC Videsh Ltd) move forward and look at critical mineral assets abroad also.

The government on Wednesday said public sector companies – Coal India, NMDC and ONGC Videsh Ltd (OVL), will start looking actively for critical mineral assets overseas. ONGC Videsh Ltd (OVL) is the overseas investment arm of state-owned Oil and Natural Gas Corporation. These PSUs already have some kind of presence abroad.

“A group of secretaries (on resources) has decided that these companies (Coal India, NMDC, ONGC Videsh Ltd) move forward and look at critical mineral assets abroad also. It is an easy method. These companies are already doing business abroad,” Mines Secretary V L Kantha Rao told reporters on the sidelines of a Workshop on Offshore Mining.

State-owned Coal India, he said, is actively pursuing some lithium blocks in Chile. “So, Coal India is getting active… NMDC is already active in Australia. They have some gold mines in Australia and are also looking at lithium mines in Australia,” Rao explained.

Meanwhile, Khanij Bidesh India Ltd (KABIL) is a joint venture of three PSUs formed to scout for mineral assets overseas. It is owned by three public sector undertakings — National Aluminium Company Ltd (Nalco), Hindustan Copper Ltd (HCL) and Mineral Exploration and Consultancy Ltd (MECL). India, he said, is looking for tie ups with Chile for getting access to copper and lithium mineral assets in the country.

“We are looking at expanding the current FTA with Chile to include a chapter on critical minerals. So that we can get G to G (government to government) access to those assets,” Rao explained. India has been looking at Australia for lithium blocks for a long time. This year, the secretary said “we aim to do something in Australia.” India, he also said, is looking at some coal and copper assets in Mongolia and the government is studying trade routes with the landlocked country.

The secretary explained that India is also exploring joint exploration with Zambia for critical minerals, including lithium. Critical minerals such as copper, lithium, nickel and cobalt are important components in rapidly growing clean energy technologies –- from wind turbines and electricity networks to electric vehicles. PTI

PTI New Delhi / May 15, 2024

➤ **Govt developing policy for low grade iron ore beneficiation: Steel Secy**

When asked about the timeline, he said the policy on the beneficiation of low grade iron ore is expected to be completed within three months' time.

The Government Is Working On A Policy For Low Grade Iron Ore Beneficiation, A Move That Will Increase The Usage Of Iron Ore With Less Iron Content In Steel Production. The government is working on a policy for low grade iron ore beneficiation, a move that will increase the usage of iron ore with less iron content in steel production.

Speaking to PTI, Steel Secretary Nagendra Nath Sinha said the Ministry of Steel along with the Ministry of Mines and the Ministry of Environment, Forest and Climate Change of India is working on the policy. When asked about the timeline, he said the policy on the beneficiation of low grade iron ore is expected to be completed within three months' time.

"There may be some concessions on the royalty (on production of fines in the policy)," Sinha said without elaborating further. While lump ore or high-grade iron ore contains 65.53 per cent Fe (iron), fines are inferior grade ore and have 64 per cent and less Fe content. The use of iron ore with less iron content needs beneficiation which adds to the cost of steel production.

Earlier, Union Steel Minister Jyotiraditya Scindia had asked the domestic steel industry to adopt low-carbon emitting steel-making processes, while cautioning that key raw materials coking coal and iron ore may not be a viable option in the future based on environmental, social, and governance (ESG) parameters.

Press Trust of India New Delhi /May 17 2024

➤ Green chemistry process helps recover noble metals from e-waste

Researchers at the University of Helsinki have developed sustainable dissolution methods for extracting noble metals from computers, cell phones, solar panels and other discarded electronics.

In a paper published in the journal Angewandte Chemie International Edition, the scientists introduce a three-stage process where copper is first dissolved from electronic waste, followed by silver and, finally, gold. This way, metals can be selectively separated from plastic, ceramics and other materials, yielding pure noble metals. In addition, the solvents used can be easily recycled.

The team tested organic solvents on crushed circuit boards, successfully extracting the gold and copper contained in them. Silver was separated from crushed old solar panels. This result is interesting because solar panels are a high-volume product whose recycling has thus far been extremely challenging.

"In this study, we used what is known as deep eutectic solvents, liquids, that are made from substances that are solid at room temperature and under normal pressure, such as choline chloride—also used in poultry feed—and urea, as well as other safe organic compounds," Anže Zupanc, co-author of the study, said in a media statement.

Deep eutectic solvents are a special type of solvent composed of two or more simple compounds that form a mixture with a low melting point. These solvents are known as deep eutectic, as their melting point is considerably lower than the melting point of each component on its own.

Deep eutectic solvents are environmentally friendly, renewable and in many cases biodegradable. They have many applications including in chemical reactions, catalysis and extraction techniques.

In this study, lactic acid and hydrogen peroxide were used as solvents as well.

"An important result was that the solvents could be reused, putting the principles of green chemistry into practice," lead researcher Timo Repo said.

Staff Writer, Mining.Com / May 17, 2024

➤ Chile to seek bidders for preferential pricing on lithium by July

Chile will open calls by the end of July for lithium component producers to obtain preferential pricing on lithiumproduced by Albemarle through 2043, government officials said on Thursday.

Albemarle and SQM are the two current lithium operators in Chile, and their contracts stipulate that a part of their output will be awarded at preferential prices to companies that keep investment in Chile, the world's second largest lithium producer.

The strategy announced by President Gabriel Boric last year is in part aimed at spurring local investment in technologies using lithium, including batteries and battery components.

The head of Chile's economic development agency CORFO, Jose Miguel Benavente, said a dozen companies from various countries are interested in obtaining lithium through the Albemarle offering, positioning Chile to take a bigger role in the global supply chain of battery components, whether for electric vehicles or other types of energy storage.

CORFO last year awarded preferential pricing contracts for lithium produced by SQM to Chinese electric-vehicle maker BYD and China's Tsingshan Holding Group, both contingent on plans from the companies to develop battery parts in Chile.

On Tuesday, BYD told Reuters it was postponing plans for a 2025 lithium cathode plant in Chile over "uncertainty," without providing details.

Benavente told reporters that government officials were helping BYD search for a site to build the plant, and said that the EV maker has the option to negotiate directly with SQM over pricing.

He said BYD has so far fulfilled its obligations to access the SQM preferential pricing, but must begin production in 2025 to maintain the contract.

Chile initially had a bidding process for preferential prices on Albemarle production in 2018 with three companies, but the deal fell through following problems with supply and prices.

The new process follows the resolution of a four-year dispute between CORFO and Albemarle, in which Chile gave Albemarle the ability to increase its lithium production by nearly 50%, contingent on developing new technology aimed at more environmentally friendly extraction.

Reuters / May 16, 2024

➤ **Coal India, NMDC exploring lithium mines overseas**

State-run miners Coal India and NMDC are exploring lithium mines in Chile and Australia, Secretary of Mines V.L. Kantha Rao said on Wednesday.

The Indian mines ministry is also encouraging other state-owned companies, such as ONGC Videsh, to scout for critical minerals overseas, Rao told reporters at the sidelines of an industry conference in New Delhi.

"We are looking at four state-owned companies to become active," he said.

Last June, NMDC's unit Legacy Iron Ore had signed a lithium exploration pact with Australia's Hancock Prospecting Pty Ltd.

India will additionally take a delegation to Zambia in June, with executives from the Tata Group and Vedanta, the secretary said. The two governments will discuss the joint exploration of critical minerals such as lithium.

A separate delegation will head to Congo, he added.

India is analysing whether an existing trade pact with Chile can be expanded to include critical minerals for government access, Rao said, as well as studying trade routes with Mongolia to explore copper and coal assets there.

"Mongolia has good coal, copper assets, and some of the companies have shown interest," he said, adding that a panel had been formed to study the trade routes.

The government is studying Bolivia as well for critical minerals and Argentina for more lithium blocks, he said.

Domestically, India is likely to conduct an auction for 10 offshore minerals blocks in two to three months and a fourth tranche of critical minerals auction of about 20 blocks by June-end, Rao said.

The government will also announce the auction results of the first tranche of critical minerals by June 15, he said.

Reuters / May 15, 2024

➤ **US lukewarm on G7 Russian diamond ban after industry backlash**

The United States is re-evaluating the strictest elements of a ban on Russian diamonds from the Group of Seven major democracies, after opposition from African countries, Indian gem polishers and New York jewellers, seven sources said.

The sanctions package, agreed in December and including a ban across the European Union, represents one of the industry's biggest shakeups in decades.

Image from Alrosa.

Two of the sources familiar with the negotiations said the Americans had disconnected from G7 working groups on the stringent controls, with one describing them as "there but not engaging".

The US State Department declined to comment. A senior Biden administration official said Washington had not changed its position and that the United States would keep working with the G7. "We will want to make sure that we strike the right balance between hurting Russia and making sure that everything is implementable," said the official, who spoke on condition of anonymity.

(Continued on Page 32)

A UNIFIED FRAMEWORK: HARMONIZING NATIONAL MINERAL (MINOR) TAXATION FOR EQUITABLE DEVELOPMENT

Dr. C.H. Rao

Abstract

Across India, the minor mineral mining industry faces existential threats from disproportionate taxation, which not only hampers its viability but also adversely impacts rural economies and employment. This report, drawing from various sources including state department portals and district survey reports, calls for urgent, harmonized tax reform under the banner "One Nation, One Mineral, One Tax" to safeguard and stabilize this crucial sector.

1 INTRODUCTION

This introduction aims to seamlessly connect the significance of minor minerals with the central issues of taxation irregularities and the need for a unified policy approach, setting a comprehensive agenda for the detailed discussions that follow in the report.

Minor minerals, often referred to as Developmental Minerals in frameworks such as those provided by the United Nations Development Programme (UNDP), represent minerals of low individual value but collectively contribute 40-50 percent of the Gross Domestic Product from all minerals in India. These minerals—encompassing aggregates, sand, building stone, clay, limestone, quartz, feldspar, mica, quartzite, granite totalling 55 minor minerals… are pivotal for infrastructure development and sustain various key industries, including construction, agriculture and manufacturing.

Ninety percent of minor mineral mining is managed by Micro, Small, and Medium Enterprises (MSMEs) which includes Artisanal small mines too (ASM's). These enterprises are crucial to India's broader mining ecosystem, driving rural employment, supporting local economies, and fostering grassroots-level exploration and development activities. Their operations, while vital, face unique challenges and opportunities, particularly in terms of sustainable and profitable management.

Despite their critical role, the regulatory and taxation framework governing these minerals exhibits marked inconsistencies across different states, leading to a lack of uniformity that can hinder efficient management and equitable growth of this sector.

This report aims to explore these irregularities in detail, presenting a comparative analysis of dead rents and royalties, examining the tax policies and their impact on these enterprises, and recommending policy and legislative reforms.

The significant growth in minor mineral leases, from 5,500 twenty-five years ago to over 55,000 mines today (excluding river/stream sand mines), underscores the urgency for a systematic review and overhaul of the existing frameworks.

2 SOCIO-ECONOMIC PROFILES OF MINOR MINERAL INVESTORS

Minor mineral investors, often involved in the extraction of materials such as sand, gravel, clay, and stone, play a vital role in the construction and local industries. Typically characterized as "entrepreneurs of sustenance," these individuals operate on a small scale, primarily to support their livelihoods rather than to scale up into large enterprises.

2.1 Socio-Economic Characteristics

These entrepreneurs of small medium enterprises (SME's) constitute artisanal and small-scale mining (ASM), which is often driven by poverty and located in rural areas. The workforce in this sector generally consists of unskilled labourers earning low incomes. SME and ASM activities are crucial for the survival of these individuals and their families, offering essential, albeit modest, economic opportunities in their communities.

2.2 National Policy and Poverty Eradication

Mainstreaming poverty eradication into national policymaking, particularly in the mineral sector, is vital. Promoting small-scale mining can serve as a catalyst for other productive activities, fostering economic growth and sustainability in impoverished regions. By adopting a bottom-up approach through pro-poor strategies and participatory methodologies, policies can be more effectively tailored to the needs of these communities, enhancing their impact.

2.3 Role in the Mineral Sector

The role of these small and micro-entrepreneurs is both foundational and transformative within the mineral sector. They are often at the forefront of discovering and developing

Secretary General, Federation of Minor Minerals Industry (FEMMI) and Chairman, Visakhapatnam Chapter, MEAI

new sources of minor minerals, which are crucial for various industrial applications. Understanding their socio-economic profiles helps in appreciating their contribution and the challenges they face.

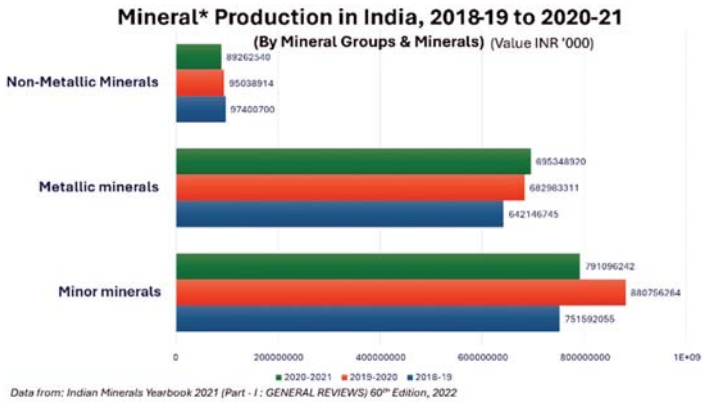
2.4 Implications for Uniform Mineral Taxation

Incorporating an understanding of the socio-economic dynamics of minor mineral investors into the framework for uniform mineral taxation is essential. A nuanced approach to taxation, which considers the economic realities of these entrepreneurs, can help in designing policies that do not disproportionately burden them but rather support their growth and sustainability. The policy should aim to create a conducive environment that promotes fair practices and equitable growth opportunities across the sector.

3 MINOR MINERALS VIS-À-VIS METALLIC & NON-METALLIC MINERALS

3.1 Mineral Production in India (2018-2021)

The bar graph detailing mineral production in India from 2018 to 2021 shows the production values for non-metallic minerals, metallic minerals, and minor minerals. Despite minor minerals being categorized differently from major metallic and non-metallic minerals, they show substantial production values. In 2020-2021, for instance, minor minerals had a production value close to those of metallic minerals, underscoring their significant contribution to India's Gross Domestic Value. This robust output highlights their crucial role, especially in construction and manufacturing sectors that are pivotal for infrastructure development.

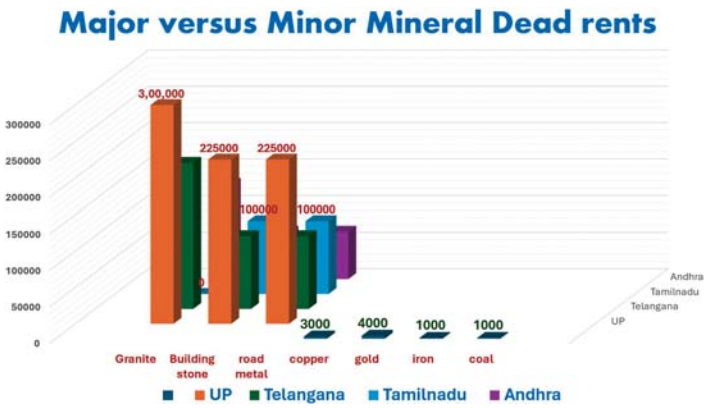


3.2 Export Figures for Iron Ore and Granite Products

The infographic on export figures provides insights into the economic value derived from specific minerals such as iron ore and granite products. It shows that despite the comparatively lower market prices or global recognition, the export value of these products is substantial. The data for 2020 indicates significant revenue generation, emphasizing that minor minerals like granite have a strong presence in international markets, contributing to India's foreign exchange earnings.

3.3 Major versus Minor Mineral Dead Rents

This bar graph comparing dead rents for major and minor minerals across different states (Andhra Pradesh, Telangana, Tamil Nadu, and Uttar Pradesh) illustrates a disparity in financial burden. Minor minerals often have lower dead rents compared to major minerals such as granite and metal ores, but given their volume and usage, the overall financial impact is considerable. This visualization serves to point out the relative underemphasis of minor minerals in policy considerations despite their high utility and contribution to the domestic economy.



The comparison of major and minor minerals shows a significant financial burden placed on the minor minerals sector, which, despite its lower individual commodity value, contributes nearly 40 percent to the Gross Domestic Value of the overall mineral sector. This highlights a discrepancy in government focus, which often prioritizes more lucrative or globally recognized minerals like metals, potentially overlooking the foundational role minor minerals play in the economy.

4 NATIONAL MINERAL POLICY 2019 AND THE DRIVE FOR UNIFORM MINERAL TAXATION

In response to the Supreme Court of India's judgment in "Common Cause vs. Union of India", which called for comprehensive reform and a more coherent framework in

the mining sector, the National Mineral Policy 2019 (NMP-19) was formulated. This policy sets out to address various systemic issues within the mineral sector, with a significant focus on creating a uniform taxation system that aligns India with global mining practices.

4.1 Fiscal Aspects of NMP-19

Fiscal measures play a crucial role in the promotion and sustainability of mineral exploration and development. Point 8 of the NMP-19 specifically states the government's commitment to designing fiscal measures conducive to this end. The policy highlights the necessity of periodic examinations of fiscal changes, ensuring they are consistent with global standards and the general tax structure through the normal budgetary process. This approach aims to make India an attractive destination for mineral exploration and mining by benchmarking and harmonizing royalty and all other levies and taxes with those prevalent in other significant mining jurisdictions.

4.2 Inter-Ministerial Mechanism for Sustainable Development

The Inter-Ministerial Mechanism established under the Ministry of Mines as per NMP-19 involves members from various ministries, including Coal, Earth Sciences, and MoEFCC, along with state governments. This body aims to promote sustainable mining by addressing environmental and socio-economic issues in mining areas and advising on royalty and dead rent rates.

The NMP-19 seeks to comply with Supreme Court directives and promote equitable growth in the mining sector by advocating for uniform mineral taxation. This policy aims to remove discrepancies and create a level playing field across states, fostering a stable and predictable regulatory environment for investors and operators.

5 MISINTERPRETATION AND EXPLOITATION OF SECTION 15 BY STATES IN TAXING MINOR MINERALS

The Section 13 and the Section 15 of MMDR Act provide the Central and State Governments, respectively, the authority to regulate major and minor minerals. These sections are crucial for maintaining a balanced and legal framework for mineral extraction and taxation. While Section 13 (for major minerals) specifies the terms for fees and charges clearly, Section 15 (for minor minerals) has been interpreted more loosely by various state governments, leading to inconsistent and often excessive taxation practices.

5.1 Comparison of Section 13 and Section 15

Both sections contain similar stipulations regarding the governance of mineral resources; however, there are critical differences in the clarity and definition of terms. In Section 13, fees associated with reconnaissance permits, prospecting licenses, or mining leases are well-defined. Conversely, Section 15 lacks such specificity, particularly under clause (g), which discusses the "fixing and collection of rent, royalty, fees, dead rent, fines, and other charges." The absence of detailed definitions and boundaries has led some states to interpret this as a carte blanche for imposing additional taxes, such as the 'consideration tax' in Andhra Pradesh and the 'permit tax' in Telangana. These taxes are viewed by many in the industry as arbitrary and beyond the legal scope of the statute.

Similarity of Section 13 for Major Minerals & Section 15 for Minor Minerals

13.Power of Central Government to make rules in respect of minerals.	15. Power of State Governments to make rules in respect of minor minerals.
The Central Government may, by notification in the Official Gazette, make rules for regulating the grant of 1[reconnaissance permits, prospecting licenses and mining leases] in respect of minerals and for purposes connected therewith.	The State Government may, by notification in the Official Gazette, make rules for regulating the grant of quarry leases, mining leases or other mineral concessions in respect of minor minerals and for purposes connected therewith.
(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-	(2) (1A) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely: -
....(a), (b), (c), (d) (e),(f), (g), (h),	...(a), (b), (c), (d), (e), (f).
(i) the fixing and collection of fees for [reconnaissance permits, prospecting licenses or mining leases], surface rent, security deposit, fines, other fees or charges and the time within which and the manner in which the dead rent or royalty shall be payable;	(g) the fixing and collection of rent, royalty, fees, dead rent, fines or other charges and the time within which and the manner in which these shall be payable;

5.2 Legislative Context and Need for Amendment:

The introduction of the District Mineral Fund (DMF) through amendments to both sections in 2015 illustrates the necessity of parliamentary approval for any new taxes on minerals. This precedent underscores that any imposition of additional taxes beyond royalties should require similar legislative endorsement. Whereas, the misuse of Section 15 by states underlines the urgent need for revising and strengthening this section to make its provisions clear and unambiguous, ensuring that state-level taxation aligns with national legal standards and does not unfairly burden the minor minerals sector.

To prevent further misinterpretation and ensure fair taxation practices, Section 15 (g) should be explicitly revised to define the scope of permissible charges and the methodology for their application. This clarification will protect minor mineral enterprises from undue financial burdens and contribute to a more consistent regulatory environment across states.

6 ANALYSIS OF VARIABILITY IN ROYALTY RATES

To understand the variability of the royalty rates of various minor minerals across the Indian state, we have compiled the data from various State Government published Gazette notifications. The data provides a variable royalty rate across the mineral spectrum. Almost all the minor minerals are presented in the main report, however in this report we choose only a few industrial minor minerals as examples to indicate the variability of the royalty rates.

6.1 Barytes

The royalty rates for Barytes show an extreme range from Rs. 45 per ton in Gujarat to Rs. 2,000 per ton in Karnataka. Other states like Andhra Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu, and Telangana also display varied rates, spanning from Rs. 66 to Rs. 780 per ton. Such disparities create a non-uniform cost base for businesses involved in the extraction of Barytes.

6.2 Quartz

For Quartz, the royalty fluctuates from Rs. 20 per ton in Chhattisgarh to Rs. 500 per ton in Karnataka, with intermediate values in other states like Andhra Pradesh, Gujarat, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, Telangana, and Uttar Pradesh. This variance could potentially redirect investments and operations towards more financially favourable jurisdictions, undermining resource management strategies.

6.3 Dolomite

The Dolomite royalty rates range dramatically from Rs. 20 per ton in Chhattisgarh to Rs. 500 per ton in Karnataka. Other states have their rates set within this range, creating a diverse and inconsistent taxation landscape that impacts both local businesses and broader economic planning.

6.4 Implications of Royalty Rate Discrepancies: Lack of uniformity in royalty rates across states can lead to several challenges:

6.4.1 Economic Inefficiency: Varying costs can lead to inefficiencies where resources may not be utilized optimally. Companies might prioritize mining in states where the cost (royalty rate) is lower, potentially leading to overexploitation or underutilization based purely on financial rather than environmental or supply considerations.

6.4.2 Competitive Imbalances: Enterprises operating in states with higher royalty rates are at a competitive disadvantage, which can skew development opportunities and hinder fair market competition.

6.4.3 Regulatory Arbitrage: The variability invites regulatory arbitrage, where businesses may choose to operate in jurisdictions with lower royalty demands, affecting local economies and state revenues.

7 CASE STUDIES

7.1 Andhra Pradesh

7.1.1 Overzealous Taxation and Its Impact on Andhra Pradesh's Minor Mineral Sector

The narrative of mineral taxation in Andhra Pradesh serves as a cautionary tale of regulatory excess, where the pursuit of immediate revenue enhancement through ad-hoc government orders has led to dire consequences for the minor mineral sector. This case study not only reflects the unsustainable fiscal practices but also highlights the urgent need for central intervention to prevent similar future scenarios in other states.

7.1.2 Escalating Government Measures

In a series of rapid and aggressive regulatory changes beginning December 17, 2000, with G.O 90, the Andhra Pradesh government implemented a policy to appropriate security deposits based on production performances that did not meet projected quantities in the mining plan. This approach failed to consider market conditions, buyer demand, and operational challenges, setting a precarious financial precedent for mine owners.
Subsequent orders intensified the financial burden on the sector:

February 26, 2021: Introduction of G.O 13 by the Andhra Pradesh Pollution Control Board, which escalated the CFO and CFE rates by exorbitant amounts.

June 7, 2021: Amidst the economic disruptions caused by COVID-19, the state introduced a consideration fee, essentially doubling the existing royalty rates for each mineral.

Royalty Rates of Minor Minerals – State Wise

Mineral	ANDHRA	CHATTISGARH	GUJARAT	KARNATAKA	MADHYAPRADESH	ORISSA*	RAJASTHAN	TAMILNADU	TELANGANA	UTTARPRADESH
Granite	1533	500	210	2,750	666	1,300	290	1,680	1,600	1,666
Marble	120	250	230	5,000	333	592	500		130	206
Agate	145	20	100	1,500	66	120	145	135	156	50
Ball Clay	75	20	60		66	120	150	100	78	50
Barytes	1,100	-	45	2,000	66		90	540	780	0
Calcarious Sand	90	60	45		66	12 percent advol	44	110	97	50
Calcite	90	60	60	400	66	15 percent adv	160	110	91	50
Chalk	95	60	95		66	15 percent adv	80	100	104	50
China Clay	60	20	200	400	66	12 percent advol	500	100	78	50
Clay (Others)	60	20	45		66	70 cbm	65		52	50
Corundum	120	20	45		66	12 percent advol	435	3,510	78	500
Diaspore	415	20	45		66	12 percent advol	160	540	351	
Dolomite	100	20	75	500	66	75 ton	265	110	130	
Dunite or Pyroxenite	60	20	45	300	66	30 ton	55	150	52	
Felsite	130	20	45	600	66	12 percent advol	105	150	143	
Feldspar	100	20	40	500	66	15 percent adv	235	135	97	
Fire Clay	60	20	45	400	66	12 percent advol	80	45	65	
Fuschite Quartzite	90	20	40		66	12 percent advol	90	135	91	
Gypsum	150	20	45	750	66	20 percent	160	175	91	
Jasper	145	20	45	750	66	20 percent	125	230	156	
Kaolin	60	20	45		66	8 precent		45	78	
Laterite	200	20	70	800	66	25 percent	80	285	130	
Limekankar	90	20	50	400	66	130 ton		110	123	
Mica	2,000	20	45	7,500	66	1,000	625	2,700	2,600	
Ochre	60	20	45	300	66	20	45	36	45	
Pyrophyllite	200	20	45	1,000	66	50	100	270	234	500
Quartz	90	20	60	500	66	300	320	230	78	100
Quartzite	90	20	40	500	66	120	4,350	100	78	
Sand (Others)	100	20	40	400	66	15	50	80	78	
Shale	180	20	45	750	66	80 ton	145	160	169	100
Silica Sand	100	20	45	500	66	10 percent of sale price	90		78	
Steatite or Talc or Soapstone	550	20	45	1,000	66	18 percent advalorium		100	390	
Limestone (Minor)	90	41	50	250	66	90		180 cbm	130	
Mosaic Chips	90		45		66	105	110		58	
Ballast	60	41	50		66	65	50	60		106
Boulders	60	41	50		20	65	50	60		106
Building Stone	60	41	50	350	20	65	155	60	65	106
Gravel	30	13	40		66	15	50	28	20	106
Murram	30	13	25	200	33	15	32	28	20	100
Ordinary Earth	30	20	25		33	15	50	28	20	44
Road Metal	60	41	50	200	40	65	50	500	65	106
Rough Stone	60	41	50	200	40	65	44	500	65	73
Manufactured Sand	60	20	50		40			500	65	
Limestone Slabs - Black	120	41	50		200	200	155	60	130	
Limestone Slabs - Colour	120	41	50		200	200	155	60	130	
Chacedony Pebbles	60		60		66			60		

August 4, 2021: G.O 65 was issued, introducing a premium tax of 10 times the dead rent for Letters of Intent on pending applications, alongside a levy of five times the security deposit of dead rent on the overall lease extent.

7.1.3 Consequences of Regulatory Overreach

This barrage of taxation and regulatory measures has significantly increased operational costs, directly impacting pricing and competitiveness. The attractiveness of Andhra Pradesh as an investment destination for mining has starkly diminished, leading to:

7.1.4 Widespread Mine Closures: Within just two years, approximately 42 percent of minor mineral mines in Andhra Pradesh were forced to shut down.

7.1.5 Economic and Social Fallout: The closure of mines triggered widespread unemployment, pushing thousands of workers out of jobs and leading many mining enterprises towards insolvency and bankruptcy.

7.1.6 Long-Term Sector Damage: The heavy-handed approach to taxation during a global pandemic exemplifies a short-sighted fiscal strategy focused more on immediate revenue generation than sustainable economic growth.

7.2 Telangana's Taxation Tactics: A Mirror to Andhra Pradesh's Fiscal Folly

The case of Telangana adopting similar tax measures to those of its neighbour, Andhra Pradesh, exemplifies a troubling trend among state governments of exploiting minor mineral taxation as a quick fix to revenue challenges. This pattern of "policy replication" reveals a broader regional issue in the mining sector, where short-term financial gains are prioritized at the expense of long-term industry health and sustainability.

7.2.1 Policy Replication and Its Impact

Taking a page from Andhra Pradesh's playbook, Telangana implemented similar aggressive taxation measures through government orders, with only minor variations. This mimicry has led to comparable economic downturns within its mining sector, mirroring the adverse effects witnessed in Andhra Pradesh. Such replication of fiscal policies underscores a shared regional challenge, where states view minor mineral taxes as low-hanging fruits—easily accessible sources of revenue.

7.2.2 The Draw of *"Low-Hanging Fruits"*

Describing minor mineral taxes as ***"low-hanging fruits"*** aptly captures their appeal to state governments desperate

for funds. These taxes are often seen as an expedient means to bolster state coffers, ostensibly to support welfare schemes and other government programs. While this may address immediate fiscal shortages, the approach is inherently flawed, short-sighted, and unsustainable. It risks the long-term viability of the mining sector, which is pivotal for economic stability and growth.

7.2.3 The Dangers of Short-Sighted Fiscal Policies

The allure of quick revenue from minor mineral taxes leads to a cycle where states compete in a downward spiral of tax increases and regulatory burdens, often copying one another's policies without regard to the broader economic or environmental repercussions. This can stifle investment, deter business development, and ultimately lead to industry decline—as evidenced by the downturn in both Andhra Pradesh and Telangana.

7.2.4 Political Motivations and Economic Consequences

The tendency of states like Telangana to adopt such fiscal measures can often be traced back to political motivations—securing quick funds to fulfil short-term promises at the expense of long-term economic health. This strategy, while perhaps providing temporary political gains, does substantial damage to the sector's competitiveness and sustainability, affecting countless livelihoods and economic opportunities in the process.

7.2.5 Inferences from these two States

The experiences of Telangana and Andhra Pradesh serve as clear indicators that without a strategic rethink on minor mineral taxation, states risk the long-term vitality of their mining industries for short-lived financial relief. It is imperative for central and state governments to collaborate on crafting policies that balance immediate fiscal needs with sustainable economic growth strategies.

The excessive taxation on minor minerals in India, with rates surging to as high as 360% on commodities like gravel, ordinary earth, and road metal, and similarly exorbitant rates on other essential construction materials, is having profoundly detrimental effects on the mining industry. These taxation policies not only burden mine owners and mining enterprises but also have broader socio-economic and environmental ramifications. Here's a comprehensive narrative that highlights the cumulative and effective taxation and its adverse impacts:

8 DETRIMENTAL EFFECTS OF HIGH CUMULATIVE TAXATION ON MINOR MINERALS

8.1 Exorbitant Tax Rates

8.1.1 Staggering Taxation Levels: Minerals essential for construction and infrastructure, such as limestone slabs, manufactured sand, and rough stone, are subjected to taxation that cumulatively results in an effective tax rate ranging from 127% to an overwhelming 540%. Such high rates drastically increase the cost of raw materials, making them less accessible for various sectors, especially housing and construction.

8.1.2 Specific Impacts: For instance, gravel and ordinary earth, fundamental in everyday construction, face a cumulative tax effect of 360%, while limestone slab mines endure a 267% tax. Manufactured sand and rough stone are even more heavily taxed at 387%.

8.2 Economic Consequences

8.2.1 Inflationary Pressures: These excessive taxes contribute significantly to inflation in the construction sector, escalating the costs of housing and infrastructure development. This inflation disproportionately affects low and middle-class families, who rely on affordable building materials for housing.

8.2.2 Competitiveness and Viability: For mining enterprises, such high tax rates undermine economic viability and competitive positioning. Many mines, unable to sustain operations under such fiscal pressure, are forced to reduce their workforce or shut down entirely, leading to job losses and decreased economic activity in mining-dependent regions.

8.3 Impact on Sustainable Development Goals (SDGs)

8.3.1 Undermining SDG Achievements: The adverse effects of mineral taxation not only impact economic activities but also hinder progress towards achieving the Sustainable Development Goals (SDGs). By escalating costs and reducing the availability of essential minerals, these tax policies adversely affect efforts to reduce poverty, improve health and education, and promote gender equality by limiting job opportunities and economic inclusivity.

8.3.2 Community and Environmental Sustainability: Over-taxation threatens the sustainability of mining practices, as it encourages rapid extraction to compensate for financial pressures, potentially leading to environmentally destructive practices and community disengagement.

9 CONCLUSIONS

9.1 A Vision for Uniformity in Mineral Taxation

The diverse and disparate taxation rates on minor minerals across different states not only create economic inefficiencies but also perpetuate market distortions and investment hesitancy. It is imperative, therefore, that India moves toward a unified taxation framework—encompassing the principle of "One Nation, One Mineral, One Tax." This approach mirrors the successful implementation of the Goods and Services Tax (GST) and seeks to establish similar uniformity and predictability across the nation's mining industry.

9.2 Urgent Need for Legislative Amendment

The current state of affairs, characterized by volatile mineral prices and inconsistent tax policies, underscores the urgent

need for amending the Mines and Minerals (Development and Regulation) Act. Specifically, Section 15 of the MMDR Act requires revision to allow for a centralized taxation system that ensures fairness and streamlines regulatory processes. This change would not only mitigate regional disparities but also bolster national economic stability.

9.3 Benefits of a Centralized Taxation System

9.3.1 Economic Stability: It would cushion the mining industry from the abrupt shocks of price fluctuations and policy shifts, fostering a more stable business environment conducive to long-term planning and investment.

9.3.2 Encouragement of Investments: Predictable tax rates are essential for attracting both domestic and international investors, who are often deterred by the current unpredictability and complexity of state-specific tax regimes.

9.3.3 Support for SMEs: By harmonizing tax rates, the financial burden on small and medium-sized enterprises (SMEs) within the mining sector would be significantly reduced. This would enhance their operational viability, promote local development, and facilitate equitable wealth distribution.

9.3.4 Strategic Imperatives for Policy Change

The compelling need for policy change is driven by the necessity to sustain the mining sector's viability and its critical contribution to the broader economy. The impact of taxation and fiscal policies must be carefully considered to ensure the health and growth of this sector. Therefore, it is not just advisable but essential for the central government to take decisive action to reform mineral taxation.

10 CALL TO ACTION

We urge policymakers to recognize the critical situation and initiate immediate steps to amend the relevant sections of the MMDR Act. Implementing "One Nation, One Mineral, One Tax" is not merely a fiscal reform but a transformative shift that will secure the future of India's mineral wealth and ensure its benefits are maximized for all stakeholders involved.

In conclusion, the pathway to a thriving, equitable, and sustainable mining sector in India lies through the corridors of uniform policy and taxation. Let this be the moment for bold reforms that will lay the groundwork for a prosperous future.

11 REFERENCES

1. A Unified Framework: Harmonizing National mineral (minor) Taxation for Equitable Development- An analysis of Minor Mineral Taxation across Indian States – A FEMMI publication 2024.

"UNVEILING EXCELLENCE: THE JOURNEY OF PROFESSOR LALA BEHARI SUKLA IN SCIENTIFIC EXPLORATION"

Professor Lala Behari Sukla
Life Member:
5644/ Bhubaneswar

Professor Lala Behari Sukla's journey is marked by extraordinary achievements and unwavering dedication to scientific exploration. His recognition among the top two percent of scientists globally, by Stanford University, underscores his exceptional contributions to academia. Serving as Director at the Biofuels and Bioprocessing Research Centre (BBRC) within Siksha 'O' Anusandhan University, Bhubaneswar, his tenure spans over 45 years of research and development.

Beginning with a passion to unravel nature's mysteries, Prof. Sukla's career encompasses various distinguished roles. Formerly, he served as Chief Scientist and headed the Bioresources Engineering Department at CSIR-IMMT, Bhubaneswar. Additionally, he held positions as an Emeritus Scientist at CSIR and an Emeritus Professor at AcSIR, New Delhi, showcasing his versatility in navigating scientific inquiry.

Driven by a relentless pursuit of excellence, Prof. Sukla's pioneering work in Bio-mineral Processing and Hydrometallurgy has expanded scientific frontiers and led to tangible real-world advancements. With over 250 publications in esteemed journals, five authored books, and 10 patents, his scholarly contributions resonate profoundly in the scientific community.

Prof. Sukla's remarkable contributions have been recognized through prestigious awards such as the International Education Awards 2021 and the Global Teaching Excellence Awards 2021. His dedication to excellence in education and research is celebrated on both national and international platforms.

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INDIAN MINERAL RESOURCE SECTOR RISES TO THE OCCASION: OVERWHELMINGLY BACKED THE 5TH NACRI/MEAI ORGANISED IN-PERSON TRAINING PROGRAM ON IMIC: 6-10 MAY 2024, HYDERABAD

SN Mathur
President MEAI
& Co-Chair NACRI

Dr PV Rao
Founder Co-Chair NACRI

Mining Engineers' Association of India (MEAI), the trusted voice of the Indian Mineral Resources sector, is the only Professional Organisation (PO) recognised by CRIRSCO and NACRI in India. As partial fulfilment of its obligations as PO, NACRI in collaboration with MEAI, has been conducting Professional Development Programs periodically for the mineral industry professionals, registering Competent Persons (CP) under the CRIRSCO approved Indian Mineral Industry Code for reporting Mineral Resources and Reserves in India (IMIC) and overseeing their code of conduct. The four training programs held hitherto on IMIC were successfully accomplished in January 2021, April 2021, April 2022, and April 2023.

The IMIC training program has been receiving awesome response from the mineral resources sector with an average participation of nearly 25 professionals in each program, the highest being 43 in the 4th program, represented by several leading **Central & State Governments controlled mining companies** viz. NMDC Limited, Coal India Limited, Hindustan Copper Limited (HCL), MOIL Limited, NLC India Limited, Mineral Exploration and Consultancy Limited (MECL), Hutti Gold Mines Company Limited (HGML), Odisha Mining Corporation Limited (OMCL), Odisha Mineral Exploration Corporation Limited (OMECL), Singareni Collieries Company Limited (SCCL), Andhra Pradesh Mineral Development Corporation (APMDC), Karnataka State Minerals Corporation Limited (KSMCL)etc.; **Private mining companies** viz. Tata Steel Limited, Hindustan Zinc Limited (HZL), JSW Steel Limited, ArcelorMittal Nippon Steel India (AM/NS), Adani Enterprises Limited, MSPL Limited, ERM Group, Deccan Gold Mines Limited, BGR Mining & Infra Ltd, Lloyds Metals and Energy Ltd, Orient cements etc., and **Consulting companies** viz. DMT Consulting Private Limited, SRK Mining Services (India) Pvt Ltd, GMMCO Technology Services Ltd, Capstone Geo consultants, World Consultancy Services Odisha, Geovale Services etc.

The 5th (current) version of IMIC training was attended by 64 delegates from 23 organisations.

Registration of delegates, beyond 64, had to be suspended under duress for want of additional space in the auditorium of MEAI at its Headquarters, Hyderabad.

View of Participants attending the training program 6-10 May 2024

The list of delegates that attended all the five training programs on IMIC and subsequently registered/ renewed as CPs may be found on the MEAI website at www.meai.org.

About the 5th Professional Development Program on IMIC

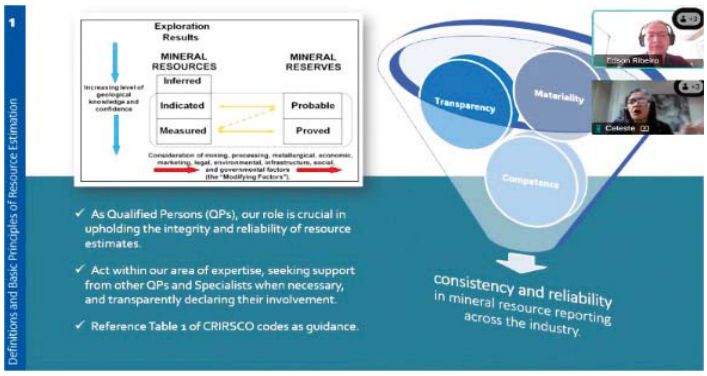
NACRI has formulated a 40-hour (5-day) in-person training program on IMIC on 6-10 May 2024. This training course, conducted by the domain experts from NACRI & Industry and online guest faculty from CRIRSCO, included sharing of knowledge on all relevant aspects of IMIC and Code of ethics, mineral industry Best Practices in exploration, estimation and reporting, and general guidance to the prospective RCPs. The course has been formulated in line with the JORC Code training program conducted by The AusIMM and imparted under six major modules viz. Why the IMIC standard? Context and Principles, Exploration Results and Exploration Targets reporting, How to properly inform Technical Studies to investors, Reporting of Mineral Resources, Reporting of Mineral Reserves, and The role of Regulatory Environment.

The objectives of the training program would be appraising the obligations and liabilities of the Competent Person under the IMIC, Role played by the IMIC in the Resources sector, Interpretation of the IMIC within the context of your working environment, Recognise and counter common misconceptions about the IMIC, Identify good and poor technical reporting, Risk & Uncertainty of mineral projects, and Demonstrate the correct application of the IMIC.

The special attraction of the 5th version of IMIC training has been the participation of overseas domain experts as guest faculty from JORC (Australasia), PERC (Europe and UK), CBRR (Brazil), SAMREC (South Africa), and USA to speak on Best/ Good practices and present practical examples on reporting of Exploration results, Mineral Resources and Mineral Reserves, wherever possible. The following esteemed overseas guest faculties made exciting technical presentations on their receptive topics:

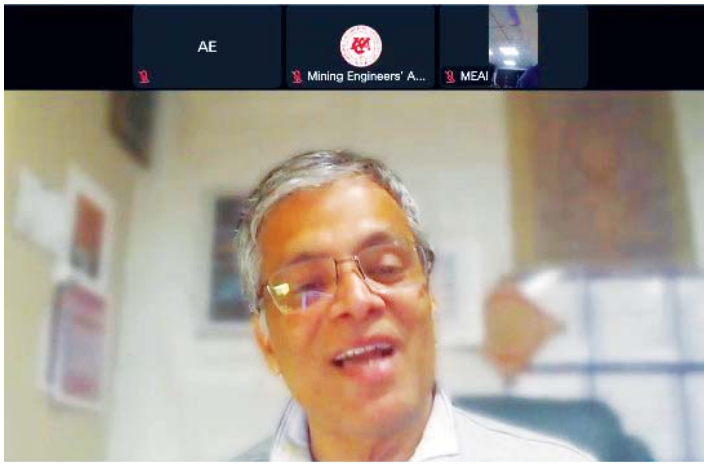
Mr Peter Stoker, Dy. Chairman JORC, Rep of Australasia on CRIRSCO, CRIRSCO Executive as Treasurer, Principal Geologist AMC Consultants Australia. Recipient of Medal of the Order of Australia for services to the mining industry in 2020. Contributor for Monograph 23 (Mineral Resources and Ore Reserves Estimation: The AusIMM Guide to Good Practice) & Monograph 30 published by AusIMM.

May 6, 2024: "The Role of the Competent Person under the CRIRSCO Template"



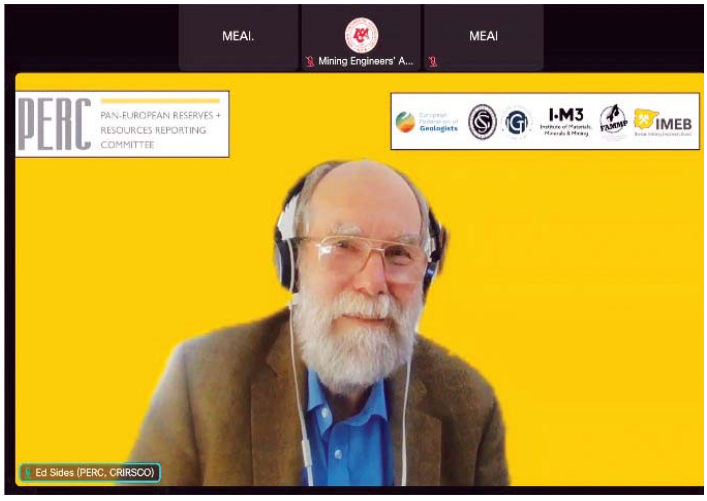
Mr Edson Ribeiro, Past Chair CRIRSCO, CBRR Brazil Rep on CRIRSCO since 2015, leading the Exploration and Mineral Projects area at Vale S.A.
&
Ms Celeste Queiroz, Founding member and Director at CBRR (Brazilian Commission for Mineral Resources and Reserves).

May 8, 2024:"Best Practices in Mineral Resources Estimation & Reporting"



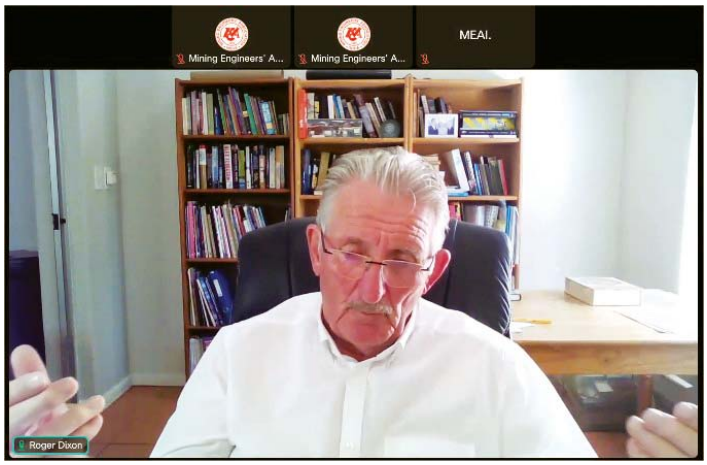
Dr Abani Samal, Former Co-Chair NACRI, Member NACRI Managing Committee, Principal, GeoGlobal, USA.

May 9, 2024: "Mineral Resource Reporting, Practical Examples of Mineral Resources Reporting"



Dr Edmund Sides, PERC Chairperson, PERC Rep on CRIRSCO, Deputy Chair CRIRSCO, Director-Orebody Risks Limited.

May 9, 2024: "Non-Public Reporting; CRIRSCO-UNFC Relationship; Uncertainty and Risk Aspects"



Mr Roger Dixon, SAMREC, Past Chair CRIRSCO, Rep of South Africa on CRIRSCO, CRIRSCO Rep on UNECE, Director SRK Consulting, Chairperson & Founder member of SAMREC. Received the 2020 Brigadier Stokes award by the Southern African Institute of Mining and Metallurgy (SAIMM) bestowed for its recipients' outstanding and unique contribution to mining.

May 10, 2024: "Reporting Mineral Reserves - A Team Approach"

In addition to the above 5 overseas guest faculties, another twelve in-house faculties from NACRI & Industry participated in the program. Evaluation test was conducted at the end of every day program.

While kicking off the event, Mr TR Rajasekar, PDP Coordinator of this program from NACRI, welcomed all the dignitaries and the participants to the program. Dr PV Rao, Co-Chair NACRI fondly reminisced the invaluable mentoring and guidance received from Late Dr Harry M Parker, former Chairperson of CRIRSCO and Chairman of SME R&R Committee, USA and also recalled the support extended by Dr Abani Samal, USA, Mr A Bagchhi, T Victor and all Presidents of MEAI that were intimately associated with the formation and nurturing of NACRI. Mr Shameek Chattopadhyay, founder member of NACRI, also spoke on this occasion.

Mr TR Rajasekar presenting welcome address

Dr PV Rao speaking about IMIC training

The IMIC training program was inaugurated by Mr B Sahoo, Executive Director (Production Coordination), NMDC Limited as the Chief Guest.

Mr M Narsaiah, Secretary General, MEAI proposed a vote of thanks to the Chief Guest and other dignitaries.

Address by the Chief Guest

Felicitation to Chief Guest Mr B Sahoo

Vote of thanks by Mr M Narsaiah

IMIC Training Sessions

The faculties commenced their presentations immediately after the inaugural function. Mr TR Rajasekhar, NACRI PDP Coordinator assumed the overall responsibility of conducting the IMIC training program. He was ably supported by Dr A Srikant, the former PDP Coordinator of NACRI. Mr M Narasaiah & team of MEAI took the total responsibility of coordinating with various internal and external agencies in conducting the program.

The day-wise training schedule and faculties photos of the 5-day IMIC training program is given below:

NACRI Professional Training Program - IMIC:5.0 Schedule Date: 6th May 2024 Module -1 Why the IMIC Standard? Context and Principles			
10.30-11.15	45 min	1.1 Introduction to MEAI/ NACRI / IMIC / CRIRSCO &Scope of CRIRSCO Template 2019	Dr PV Rao, Co-Chair NACRI
11.30-13.00	90 min	The role of the Competent Person under the CRIRSCO Template, look at the variation in requirements for Competent/Qualified Persons of CRIRSCO NROs, Codes of Ethics and enforcement and the importance of disciplinary processes to credibility of the CRIRSCO governance system	**Mr Peter Stoker - JORC, Australasia (Guest Faculty)**
13.00-14.00	**60 min**	**Lunch Break**	
14.00-14.45	45 min	1.2 Scope of IMIC- Principles governing application of IMIC (clause-1), the importance of Public Reports (clause-2), Applicability (clause-3), General relationship between Exploration Results, Resources and Reserves (clause-5)	Mr Shameek Chattopadhyay MD, SRK-India
15.00-15.45	45 min	1.3 Competence and responsibility- (clauses-6, 7, 8, 9-RCP) & Code of Ethics (clause-9 & NACRI Article-2.iii & MEAI Rule-4)	Dr PV Rao Co-Chair NACRI
16.00-16.15	**15 min**	**Tea Break**	
16.15 -17.00	45 min	1.4 Introduction to UNFC & Discussion on UNFC, MEMC, and IMIC	Dr PV Rao, Co-Chair NACRI
17.15-17.30	**15 min**	**Evaluation test**	

Dr PV Rao's presentation

Evaluation test in progress

Date: 7th May 2024 Module -2 Exploration Reporting			
9.30-10.15	45 min	2.1 Concept of RPEEE (clause-19) 2.2 Generic Terms and Equivalents (Appendix-1)	Mr Shameek Chattopadhyay MD, SRK-India
10.30-10.45	**15 min**	**Tea Break**	
11.00-11.45	45 min	2.3 Reporting Terminology (clauses-10,11, 12, 13, 14), Reporting of Exploration Targets (clause-15) & Reporting of Exploration Results (clauses-16, 17, 18)	Mr Shameek Chattopadhyay MD, SRK-India
12.00-12.45	45 min	2.4 Criteria for Sampling Techniques and Data (Table-1, section-1)	Mr Parijat Nandi, Sr.Consultant, DMT- India
13.00-14.00	**60 min**	**Lunch Break**	
14.00-14.45	45 min	2.5 Criteria for Reporting of Exploration Results (Table-1, section-2)	Mr Shameek Chattopadhyay MD, SRK-India
15.00-15.45	45 min	2.6 Practical examples on reporting of exploration targets/ results & Best Practices on Exploratory drilling, sampling , Storage etc.	Mr Parijat Nandi Senior Consultant, DMT- India
16.00-16.15	**15 min**	**Tea Break**	
16.15 -17.00	45 min	2.7 Best practices in Geophysical exploration	Dr Suman Mandal MD, Capstone Pvt Ltd
17.15-17.30	**15 min**	**Evaluation test**	

Mr Shameek Chattopadhyay's presentation

Mr Parijat Nandi's presentation

Dr Suman Kumar Mandal's presentation

Date: 8th May 2024 Module -3 Mineral Resources Reporting			
9.30-10.15	45 min	3.1 What is a Mineral Resource? (Clause-19), Mineral Resource Classes - Inferred Mineral Resources (clause- 20), Indicated Mineral Resources (clause- 21), Measured Mineral Resources (clause- 22)	Mr Kuldeep Singh Solanki GM Exploration, Vedanta
10.30-10.45	**15 min**	**Tea Break**	
11.00-11.45	45 min	3.2 Selection of Mineral Resource class (clause- 23, 24, 25, 26, 27)	Mr Kuldeep S Solanki GM Expln, Vedanta
12.00-12.45	45 min	3.3 Criteria for estimation and reporting of Mineral Resources (Table-1, Section-3)	Mr Kuldeep S Solanki GM Expln, Vedanta
13.00-14.00	**60 min**	**Lunch Break**	
14.00-15.15	75 min	3.4 Best practices in modelling of geology & orebody, and Geostatistical estimation	Dr VK Rao DGM (IT), NMDC Ltd
15.15-15.30	**15 min**	**Tea Break**	
15.30 -1700	90 min	Best practices in Mineral Resources estimation & reporting	**Mr Edson Ribeiro- CBRR, Brazil (Guest Faculty)**
17.15-17.30	**15 min**	**Evaluation test**	

Mr Kuldeep Singh Solanki's presentation

Dr V Kameswara Rao presentation

Date: 9th May 2024 Module -4 Mineral Reserves Reporting			
9.30-10.15	45 min	Mineral Resource Reporting, Practical examples of Mineral Resource reporting	**Dr Abani Samal- Principal, GeoGlobal (Guest Faculty)**
10.30-10.45	**15 min**	**Tea Break**	
11.00-11.45	45 min	4.1 What is a Mineral Reserve? (Clause- 28), Probable Reserve (clause- 29), Proved Reserve (clause- 30), Mineral Reserves classes and selection (clause- 31, 32, 33)	Dr SK Sinha DGM (Planning), NMDC Limited
12.00-12.45	45 min	4.2 Criteria for estimation and reporting of Mineral Reserves (Table-1, Section-4), 4.3 Reporting of Mineralised Fill, Pillars, low-grade mineralisation, Stockpiles, Dumps and Tailings (Clause- 39)	Dr A Srikant Coordinator, IMIC PDP
13.00-14.00	**60 min**	**Lunch Break**	
14.00-15.30	90 min	Consideration of risk and uncertainty aspects of mineral projects, The CRIRSCO-UNFC relationship and the updated CRIRSCO-UNFC Bridging Document, Effective use of the Table- 1 Checklist	**Dr Edmund Sides- PERC, UK & EU (Guest Faculty)**
15.45-16.00	**15 min**	**Tea Break**	
16.00-16.45	45 min	4.4 Reporting of Exploration Results, Resources and Reserves of Coal: (Clauses- 40, 41, 42), Diamond: (Clauses- 43, 44, 45, 46), Industrial minerals: (Clauses- 47, 48)	Mr TR Rajasekar Coordinator, IMIC PDP
17.15-17.30	**15 min**	**Evaluation test**	

Dr SK Sinha's presentation

Mr TR Rajasekar's presentation

Date: 10th May 2024 Module -5 Technical Studies (How to Properly inform Investors)			
9.30-10.15	45 min	5.1 Technical Studies: Scoping study (clause-35), Pre-Feasibility study (clause-36), Feasibility study (clause-36), Feasibility study (clause-37) 5.2 Study accuracy ranges for Capital and Operating cost estimates (Table-2)	Dr AK Sarangi Former Executive Director, UCIL
10.30-10.45	**15 min**	**Tea Break**	
10.45-11.30	45 min	5.3 Calculation of Capital and Operating costs	Mr R Karthikeyan Director, DMT-India
11.30-13.00	90 min	Reporting of Mineral Reserves- A team Approach	**Mr Roger Dixon- SAMREC, South Africa (Guest Faculty)**
13.00-14.00	**60 min**	**Lunch Break**	
14.00-14.45	45 min	5.4 Best Practices in Technical Studies - Mine Design & Rock mechanics	Dr A Srikant Coordinator, IMIC PDP
15.00-15.45	45 min	5.5 Regulatory environment, Permitting and Legal issues in India	Mr AR Vijay Singh Independent Mining Consultant
15.45-16.00	**15 min**	**Evaluation test**	

Dr AK Sarangi's presentation

Mr R Karthikeyan's presentation

Dr A Srikant's presentation

Mr AR Vijay Singh's presentation

The IMIC training program was concluded on May 10, 2024 at 5:30 Pm (IST) with a valedictory function, where Mr B Venkateswara Reddy, Director SCCL was the Chief Guest. Mr DB Sundara Ramam, President elect, MEAI & Vice President (RM), Tata Steel, and Mr V Balakoti Reddy, Director, BGR group were the Guests of Honour.

Felicitation to dignitaries in the valedictory function (3rd from Right: Chief Guest Mr GV Reddy)

Participants with the dignitaries

Chief Guest Mr BV Reddy addressing the gathering

Felicitation to the Chief Guest

Mr DB Sundara Ramam, GH addressing..

Mr V Balakoti Reddy, GH addressing..

The Guests of Honour Mr DB Sundara Ramam (Left) and Mr V Balakoti Reddy (Right) presented IMIC training Certificates to all the 64 successful participants. A few representative photographs of certificate recipients are shown below.

Ms Sulagna Banerjee, participant

Ms Lalima Priya Darshani Sahoo, participant

Dr Suman Kumar Mandal, participant

Mr Y Shiva Kumar Reddy, participant

In the feedback session, the following eight participants representing different companies, while commending the content of the IMIC training program, appreciating the presentations made by overseas and in-house expert faculties, and the arrangements made by MEAI, expressed their honest observations/ suggestions for further improvements.

Mr Lalit Chordia, HZL

Mr Pradeept Mohaptra, WCS

Mr T Malleswara Rao, GTS

Mr Vivek Chebolu, NMDC

Mr Atree Bandopadhyay, SRK

Mr Dubasi Akshay, SCCL

Mr Pinku kumar, Tata Steel

Mr Swapnendu S Panada, Tata Steel

The 5-day IMIC training program ended on May 10, 2024 at 5:30 pm (IST) with a vote of thanks proposed by Mr M Narsaiah, Secretary General MEAI. He thanked the Chief Guest and Guests of Honour for accepting our invitation to grace the occasion, the participants for their irrefutable cooperation, the overseas guest faculty from Australia, Brazil, the UK, South Africa and the USA for their generous gesture to share their expertise with the participants, NACRI & Indian faculty for their continued support to IMIC PDP and the Association staff for their unrelenting services.

(Prepared and submitted by)
Dr PV Rao, FAusIMM
Co-Chair NACRI
May 17, 2024

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- Mining Plan/ Scheme and Mine Survey, LOI
- Mining Feasibility Study, Mining Risk Management
- Slope Stability for Mine Pit & Dump
- Topographical, Volumetric, Land Demarcation Survey
- UAV (Drone) Survey

Laboratory
- Mineral and Ore Testing
- Chemical & Microbial Analysis of Water& Waste Water
- Environmental Monitoring & Testing

Environment
- Environmental Clearance, SPCB consent, NOC from CGWA
- Environmental Auditing, Green Audits
- Conservation Plan for Scheduled Animals & NBWL Clearance
- Water Conservation through Rain Water Harvesting
- Consultancy for Installation of STP/ETP

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(Continued from Page 14)

The G7 sanctions aim to hit another stream of revenue for the Kremlin's war effort in Ukraine, even though at around $3.5 billion, according to Russian state-run miner Alrosa's 2023 results, diamonds represent a small fraction of the profits Moscow earns from oil and gas.

Since March, importers to G7 countries must self-certify that diamonds do not originate from Russia, the world's leading producer of rough diamonds. Sanctions were imposed on direct imports of Russian gems in January.

From September, the EU ban will require diamonds of 0.5 carats and above to pass through Antwerp, a centuries-old diamond hub in Belgium, for traceability certification using blockchain – the digital ledger used by cryptocurrencies.

Sources said G7 powers had agreed that Antwerp would be the logical first hub, with others to be added later. But three of the sources said Washington had cooled on enforcing traceability and that discussions on implementing tracing had stalled. The Biden administration official said the commitment to implementing a traceability mechanism by Sept. 1 applied to the European Union, not the United States, citing the language in a G7 leaders' statement in December.

"We need to do this in a way that takes into account concerns from African partners and African producers, takes into account Indian and UAE partners … and makes sure we can also make it workable for US industry," said the official.

"Is there a traceability mechanism that satisfies all of that? We're still engaged, we haven't walked away from the idea… on the other hand, we couldn't sign up to definitely having this in place by Sept. 1st."

The presidents of Angola, Botswana and Namibia wrote to G7 leaders in February to say that a pre-determined entry point for the G7 market would be unfair, impinge on freedoms, and hurt revenues. The three nations account for 30% of diamond output. Italy, which holds the presidency of the G7, declined to comment on the US position.

Any softening of the phased ban risks leaving loopholes and allowing Russian diamonds into boutiques in New York, London and Tokyo – a threat highlighted when Belgian authorities seized suspected Russian stones worth millions of dollars in February.

Advocates of the sanctions say a traceability mechanism is needed to deliver a robust ban and that without the full engagement of the United States, which accounts for 50% of the G7 diamond jewellery market, it cannot be effective. They blamed some of the industry pushback on fears of greater market transparency. A Belgian official familiar with the negotiations said it was paramount to maintain the determination to keep loopholes firmly closed.

Certifying at source

A previous US ban on Russian diamonds excluded stones polished elsewhere, allowing diamonds processed in India and traded in hubs like Dubai to reach the US market. The G7 ban followed months of wrangling between Western capitals.

Diamond miners such as De Beers, a unit of Anglo American, Indian cutters and jewellery retailers have strongly lobbied against the ban. They say the measures are poorly designed, will increase bureaucracy and inflate prices.

De Beers told Reuters it supported a ban but that diamond-producing countries should certify origin at the source. "The opportunities for, and likelihood, of Russian diamonds infiltrating the legitimate supply chain are in fact higher when you move further away from the source," the company said. Virginia Drosos, chief executive of Signet, the world's largest retailer of diamond jewellery, urged the US government in a letter seen by Reuters to "stand against… the G7 Belgian solution."

Belgium has introduced a pilot tracing scheme based in Antwerp in which some 20 diamond buyers are participating, among them French luxury groups LVMH and Kering as well as Switzerland's Richemont, one of the sources said.

An LVMH spokesperson said its Tiffany & Co brand was participating. Kering and Richemont did not comment. Belgian Prime Minister Alexander De Croo told Reuters in March that he was open to additional hubs being established for certification if they matched Antwerp's standards, and that concerns were inevitable. "If you implement something that is changing the game, (it) takes some time to iron out some issues."

Reuters / May 17, 2024

MEAI NEWS

BAILADILA CHAPTER

Technical seminar held at Bacheli Complex, NMDC Limited

In association with NMDC Limited, Mining Engineers Association of India (MEAI), Bailadila Chapter has organized a Technical Seminar cum 3rd Council Meeting on April 13, 2024 under the guidance of Shri B. Venkateswarlu, Executive Director, BIOM, Bacheli Complex.

The technical seminar started in the morning with the welcome address of Shri B. Venkateswarlu, Chairman of Bailadila Chapter, where he informed the gathering about the working of NMDC Limited TD & Bailadila Chapter as well. He also informed that this type of Technical Seminar cum Council Meeting has been organized for the first time in the Bailadila region.

Subsequently, Shri B. Sahoo, Treasure MEAI, Shri M.Narsaiah, General Secretary, MEAI, Shri Dhananjaya G Reddy, Vice President-II, MEAI & Shri S.N. Mathur, President MEAI addressed the gathering. All have praised & appreciated BIOM, Bacheli Complex for organizing a Technical Seminar cum 3rd Council Meeting in a befitting manner.

The following technical papers have been delivered:

1	Applicability of MMDR Act 1957 in Day to Day OC Mining Operation (Government Owned Merchant Mine)	Shri Satyabrath Rath, DGM (Mining), NMDC LTD
2	Beneficiation of Iron Ore in the Indian context. Key challenges & Techno Economics	Shri IVVSS Prasad, General Manager Ms. AM/NS
3	Iron Ore: quality Parameter, Management and Challenges.	Dr. Mahesh Kumar Verma, AGM (geology), NMDC LTD
4	Future of Indian iron and steel Industry	Shri Jai Prakash, AM (Mining)
5	Mine Automation & Digitization: A Global scenario	Shri Alok Ranjan, Manager (Min), NMDC LTD
6	Importance of adopting IMIC reporting standard in India: Role played by CRIRSCO	Dr PV Rao, FAusIMM, Co-Chair NACRI

Later on, the speakers of the technical seminar were felicitated by President MEAI Shri S.N. Mathur.

The Technical Seminar ended with a vote of thanks proposed by Shri Shiva Kumar, GM (Mining), NMDC Limited and Secretary, Bailadila Chapter.

In the 2nd half, the 3rd Council Meeting of MEAI was organized at the Conference hall of the administrative Office of BIOM, Bacheli Complex. The meeting was presided over by Shri S.N. Mathur, President, MEAI.

The Glimpses of both the technical Seminar and the 3rd Council meeting are presented below.

Mr SN Mathur, President MEAI lighting the lamp

Other Dignitaries joining Mr B Venkateswarlu, Chairman, Bailadila Chapter in lighting the lamp

Dignitaries on the dais: Inaugurating the Technical seminar

(L to R): Mr B Sahoo, Mr M Narsaiah, Mr Dhananjaya G Reddy, Mr SN Mathur, Mr B Venkateswarlu, Mr B Surender Mohan

A section of audience participating in the Technical seminar

Mr Alok Ranjan, Manager (Min), NMDC LTD making his presentation

Dr. Mahesh Kumar Verma, AGM (geology) presenting on iron ore…

Dr PV Rao, FAusIMM, Co-Chair NACRI speaking on IMIC Reporting Standard

Mr Shiva Kumar proposing vote of thanks

Mr B Venkateswarlu with the MEAI Executive conducting the 3rd Council Meeting

Council members and invited guests that participated in the 3rd Council meeting

BELLARY-HOPSET CHAPTER

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

Date: 13TH MAY 2024
Venue: Shiv Vilas Palace, Sandur

Members Present

Office Bearers

1. Sri S H M Mallikarjuna (Chairman)
2. Sri P Venkateswara Rao (Secretary)
3. Sri J Srikanth (Treasurer)

Ex-officio & Council Members

4. Sri K Madhusudhana (Past President)
5. Sri K Prabhakar Reddy
6. Sri G Laxminarayana

Executive Committee Members

7. Sri T Jitender Reddy
8. Sri Vinay Kumar
9. Sri A Venkteshwara Reddy
10. Sri. Shreedhar Hegde

11. Sri. Shivanand Reddy
12. Sri. Pramod Ritty
13. Sri. Bachlappa K

Development Committee Members

14. Sri. Y V R Krishna Reddy
15. Sri. Yoganand T L
16. Sri. Prakash Babu
17. Sri. Jagadish M T
18. Sri T Ramesh
19. Sri Bharat Kumar R S
20. Sri. Nand Kumar
21. Sri Gopal Joshi
22. Sri Sreekatha Reddy
23. Sri Ram Koteshwar Rao

First-Aid Committee Members

24. Sri K Krishnudu
25. Sri S Ravindra

Members Present In the Meeting

Agenda for the Executive Committee Meeting

- Welcome Address
- Approval of Previous Meeting Minutes
- Discussion on upcoming National Mining Conclave-2024 to be held at Bangalore on 28th and 29th June, 2024
- Purchase of Plot for MEAI BH Chapter
- Financial position as on date
- Discussion on Upcoming events of BH Chapter
- Fixing the next meeting
- Any other matters with the permission of the Chair
- Vote of thanks

Following points were transacted during the Meeting:

Welcome Address: Sri S H M Mallikarjuna, welcomed the Members Present for the Meeting, and addressed the gathering on this occasion. He expressed his gratitude for their dedication, and hard work throughout the year. He highlighted the Chapter's achievements, and outlined key objectives for the upcoming events.

Sri. S H M Mallikarjuna briefed the financial status of the Chapter and discussed he arrangement of upcoming Nature walk in Sandur area, and Plantation in Sandur and Hospet. The Chairman remembered that The Chapter is going to complete its 50 years soon, and spoke about arranging the golden jubilee function. He requested all the mining companies to enroll membership of MEAI for the new engineers, geologist employed in their mines.

Approval of Previous Meeting Minutes: Sri. K Prabhakar Reddy, Council Member suggested that the event be conducted in the Chapter and thanked all the Members for their co-operation. All the members present in the meeting discussed previous meeting minutes and approved unanimously.

Discussion on upcoming National Mining Conclave-2024: Shri. K Madhusudhana has briefed about organizing the "National Mining Conclave-2024 in Bangalore" on June 28th & 29th 2024. He has informed the discussions held on the arrangement to be made for the event, participation of DGMS Officials, the papers to be presented, etc.

Shri. K Madhusudhana has told about the co-operation to be extended by the MEAI in conducting the Conclave in a Grand manner. He has informed the forum about the expected participants from the Zone 1 of MSAK. He has outlined the objectives and arrangements for the event, emphasizing the importance of participation from each zone, and different mining organizations, as the Director General, Sri. Prabhat Kumar has consented to his presence at the event as the Chief Guest along with all other various DGMS officials. He insisted all the Mining companies to support the event by sponsoring generously to ensure the success of the National Conclave. Offering platinum sponsorship to companies running more than two mines is a smart strategy to incentivize greater financial contributions from key players in the industry.

Purchase of Plot for MEAI BH Chapter: Sri K Prabhakar Reddy initiated discussion about purchasing a plot in Sankalapur, Bellary Road. During the discussion, he briefed the details of the plot purchased by the Bellary-Hospet Chapter in the Sankalapur area of Hosapete, and the challenges encountered during the purchase process. The site is situated just beside the plot purchased by the MSAK and he acknowledged the efforts made by Sri G. Laxminarayana, the council member in buying the plot.

Financial position as on date: Sri P. Venkateswara Rao has presented the financial status of the Chapter, and the

allocation of funds for the Chapter events to be held in the future.

Discussion on Upcoming events of BH Chapter: Sri P. Venkateswara Rao & S H M Mallikarjuna have presented the members about the organizing of the upcoming events of the Chapter, such as Nature walk, Plantation, Annual General Meeting 2024, Golden jubilee Celebrations of the BH Chapter**,** included National Mining Conclave-2024**.**

Address by Sri. K Madhusudhana, Past President MEAI: Sri. K Madhusudhana highlighted significant achievements, and the milestones accomplished the Chapter and emergence of the Bellary-Hospet chapter as the Best Chapter.

Sri. K Madhusudhana, has mentioned the need for the training of the Fresh Mining Engineers / New entrants with a view of bridging the gap between the Academic knowledge, and the Industry requirement by the experts in the field of Mining and he wished that the Chapter will take up the short Trainings to develop the Engineers to meet the requirement of Mining companies in the region. This training may include the Basics in Mining & Geology, Statutory requirement & compliance, etc., to maintain safety standards and operational efficiency in the mining industry.

He has informed the members about the availability of the Senior Citizen Members Fund with the MEAI and members in need may apply for the financial support on the medical grounds.

Address by Sri. K Prabhakar Reddy, Council Member: Sri. K Prabakar Reddy put his thoughts to improve the membership of the Chapter. While emphasizing the importance of winning the Best Chapter Award, he suggested organization of small events to engage members, and encourage attendance at programs like MTS (MEAI Tech. Series) programs. He has highlighted the benefits of Student Chapter membership, and encouraged students to participate actively. He suggested the Chairman of the Chapter donate some amount to the Senior Citizen Member Fund from the BH Chapter.

Any other matters with the permission of chair: Sri. Yoganand, HOD of Mining, TMAES Polytechnic asked to conduct First aid training to the 53 Mining Diploma Students. The committee decided to conduct training in two batches for Students, and the field personnel continuously, and the First aid committee will declare the dates of the Training. In this connection, Sri. Vinay Kumar, Executive Member from the NMDC Ltd has asked the committee to give the details of the candidates & batches to arrange for the training and the dates.

Vote of Thanks: Sri J Srikanth, Treasurer has proposed a vote of thanks to all the members present for the meeting and thanked everyone for attending in good numbers.

RAJASTHAN CHAPTER- UDAIPUR

Report on Technology Day Celebration

On the auspicious occasion of Technology Day 2024, a collaborative effort was undertaken by the Rajasthan Chapter-Udaipur, Science Committee Udaipur, Institution of Engineers (India) Udaipur, and Jain Engineers Society Udaipur. Held on the 11th of May 2024, the event was aimed at celebrating innovation and technological advancements, while also acknowledging the significant contributions of pioneers in the field.

The event was graced by esteemed guests, including Dr. M.S. Mangal, Vice Chancellor of Pacific Medical University, as the chief guest, and Prof. B.P. Sharma, President of Pacific University Group, as the chief speaker.

Prof. Sharma delivered a poignant keynote address and explained about the technology available in India 2000 years ago citing references of our holy books with chanting shlokas. He also said that India is a young country having 37 crores young people, aged between 15 to 29 years. It is also evident that GDP is directly proportional to the young population of any country so it is the right time to realize the opportunity of the young generation of India. Working age population in India that is from 15 years to 65 years is highest in the world. It is also a dividend for our country. He also said that entrepreneurship is the only remedy for removing unemployment.

He shed light on the historical significance of May 11th, commemorating India's landmark achievements in technology, including the successful nuclear test in Pokhran, the maiden flight of the indigenous aircraft Hansa-3, and the testing of the Trishul missile.

The theme for National Technology Day 2024, "From Schools to Start-ups: Igniting Young Minds to Innovate" was elucidated, emphasizing the pivotal role of educational institutions in nurturing innovation from an early age.

The importance of encouraging new ideas and innovations was underscored, with an emphasis on providing students with the necessary resources and opportunities to explore their creative potential.

Dr. D.S. Kothari Excellence Awards were conferred on Dr. P.S. Talesra of Pyrotech Electronics and Dr. Lakhan Poswal, Senior Professor of RNT Medical College, in recognition of their significant contributions to science and technology.

Eng. Arun Kothari and Dr. Anurag Talesra highlighted the achievements of the awardees, followed by expressions of gratitude from Dr. P.S. Talesra and Dr. Lakhan Poswal.

The event witnessed a notable presence of over 100 members, including eminent personalities such as Dr. KL Totawat, Dr. BL Chavat, Shri Prakash Tated, Dr. IL Jain, Eng. RK Chatur, Eng. RK Nebhnani, Eng. SC K Vaid, Dr. Surendra Singh Pokharna, and Shri Vardhman Mehta.

Dr. Maheep Bhatnagar provided insights into the mobile science laboratory and science committee projects, showcasing initiatives aimed at fostering scientific curiosity and innovation among students.

Eng. CP Jain expressed gratitude on behalf of the organizing committee, acknowledging the collective efforts that made the event a resounding success.

Dr. KP Talesara, Chairman of the Science Committee, extended a warm welcome to the guests, emphasizing the significance of Technology Day in fostering a culture of innovation and progress.

The Technology Day celebration served as a platform to commemorate India's technological prowess, while also inspiring the next generation of innovators to continue the legacy of progress. It reaffirmed the importance of collaboration, education, and recognition in driving technological advancement and societal development. As we reflect on the achievements of the past and look towards the future, let us continue to nurture and support innovation in all its forms, ensuring a brighter tomorrow for generations to come

(L to R): Sh KL Kothari, Sh MS Paliwal, Chairman, MEAI-UDR, Dr PS Talesra, Dr MS Mangal, Dr BP Sharma, Dr Lakhan Poswal, Sh CP Jain & Sh AK Kothari, Former President, MEAI

LETTER TO THE EDITOR – MEJ

Dear Dr. P.V. Rao,

Your Editorial of MEJ for the month of May 2024 was euphonious to me which took me back to the1980s when several seminars and conferences were held on 'Exploration for Ocean Resources' and 'Off shore Mining'! That was the time the recovery of manganese nodules for the first time in 1981 by Indian Scientists was in the news.

The editorial must have kindled the minds of the Geoscience professionals to think differently on exploration of essential minerals and the sustainable mining to meet the demands of an era of New India.

After the successful projects of India's lunar mission Chandrayaan-3 and the solar mission Aditya-1, India is now geared up to launch the country's first manned deep ocean mission 'Samudrayaan mission' to explore the deep ocean. The mission aims to support the Blue Economy Initiatives of the India Government and subsequently help India in achieving the target of over Rs.100 billion "Blue Economy" through its ocean resources.

I am sure more such editorials will enthuse many of our geo science professionals in MEAI to apply their eminence to this new mission on 'Blue Economy'!

T. Victor
Former National President, MEAI
24 May 2024

CONFERENCES, SEMINARS, WORKSHOPS ETC.

INDIA

24-28 Jun 2024: **Short term training program on Value addition in aggregates sourced from industry rejects for sustainable construction**. VNIT, Depatment of civil engineering, Nagpur. Contact: vaidehidakwale@civ.vnit.ac.in

ABROAD

12-14 Jun 2024: **10th International Conference on Tailings Management - Tailings 2024**. Sheraton Santiago, Avenida Santa María 1742, Santiago, Chile. Contact: enquiries@globalminingreview.com

17-19 Jun 2024: **Molten 2024**. Brisbane, Australia and Online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

17 Jun - 7 Oct 2024 (Online): **JORC Reporting: Certification and Code Reporting Courses**. 40 PD hours. Fee: Members A$ 2644 – 2890 + GST; Non-members: A$ 3454 + GST. Contact: AusIMM T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.

18-19 Jun 2024: **Direct Lithium Extraction Summit 2024**. Denham Grove Hotel, Tilehouse Ln, Denham, Uxbridge, UB9 5DG United Kingdom. Website:http://energy.apexevents.cn/

22-23 Jul 2024: **International Conference on Green Coal Mining Techniques and Waste Disposal ICGCMTWD 2024**. Berlin, Germany. Website URL: https://waset.org/green-coal-mining-techniques-and-waste-disposal-conference-in-july-2024-in-berlin

5-6 Aug 2024: **International Conference on Civil, Environmental and Geological Engineering ICCEGE**. Amsterdam, Netherlands. Website URL: https://waset.org/civil-environmental-and-geological-engineering-conference-in-august-2024-in-amsterdam. Program URL: https://waset.org/conferences-in-august-2024-in-amsterdam/program. Contact URL: https://waset.org

11-15 Aug 2024: **International Mine Ventilation Congress 2024**. The heartbeat of mining, Sydney, Australia. For details contact conference@ausimm.com.

16-17 Aug 2024: **International Conference on Mine Mechanization and Mining Policies ICMMMP 2024**. Tokyo, Japan. Website URL: https://waset.org/mine-mechanization-and-mining-policies-conference-in-august-2024-in-tokyo

29-30 Aug 2024: **International Conference on Geology and Geophysics ICGG**. Sydney, Australia. Website URL: https://waset.org/geology-and-geophysics-conference-in-august-2024-in-sydney. Program URL: https://waset.org/conferences-in-august-2024-in-sydney/program. Contact URL: https://waset.org

29-31 Aug 2024: **International Conference on Graphene and 2D Materials**. Valencia, Spain. Website: https://www.pagesconferences.com/2024/graphene-materials

2-4 Sep 2024: **International Future Mining Conference 2024**. #FutureMining2024, Sydney, Australia. 24 PD Hours. Contact: AusIMM T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.

13-15 Sep 2024: **International Conference on Mining, Materials, and Metallurgical Engineering**. Johannesburg, South Africa. Website URL: http://www.cmmme.org. Contact E-mail: contact@cmmme.org

7-8 Oct 2024: **International Conference on Design Methods in Underground Mining ICDMUM 2024**. New York, United States. Website URL: https://waset.org/design-methods-in-underground-mining-conference-in-october-2024-in-new-york

21 – 23 Oct 2024: **Mill Operators Conference 2024. #MillOps2024**, Perth, Australia. 24 PD Hours. Contact: AusIMM T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.

7-8 Nov 2024: **International Conference on Geology and Geophysics ICGG**. Istanbul, Turkey. Website URL: https://waset.org/geology-and-geophysics-conference-in-november-2024-in-istanbul. Program URL: https://waset.org/conferences-in-november-2024-in-istanbul/program. Contact URL: https://waset.org

7-8 Nov 2024: **International Conference on Geological Engineering ICGE**. Tokyo, Japan. Website URL: https://waset.org/geological-engineering-conference-in-november-2024-in-tokyo. Program URL: https://waset.org/conferences-in-november-2024-in-tokyo/program. Contact URL: https://waset.org

21-23 Nov 2024: **International Professional Geology. Zaragoza**, Spain. Website URL: http://www.icog.es. Program URL: http://www.icog.es. Contact URL: http://www.icog.es

18-19 Feb 2025: **International Conference on Geology and Geophysics ICGG**. Manila, Philippines. Website URL: https://waset.org/geology-and-geophysics-conference-in-february-2025-in-manila. Program URL: https://waset.org/conferences-in-february-2025-in-manila/program. Contact URL: https://waset.org

8-9 Apr 2025: **International Conference on Geological Engineering ICGE**. Rome, Italy. Website URL: https://waset.org/geological-engineering-conference-in-april-2025-in-rome. Program URL:https://waset.org/conferences-in-april-2025-in-rome/program. Contact URL: https://waset.org

10 – 13 Aug 2025: **Application of Computers & Operations Research in the Mining Industry**. #APCOM2025. PCOM Conference 2025, Perth Convention and Exhibition Centre, Perth, Western Australia. AusIMM T: 1800 657 985 or +61 3 9658 6100 (if overseas). Po Box 660 Carlton, VIC 3053, Ground Floor, 204 Lygon St, Carlton VIC 3053.

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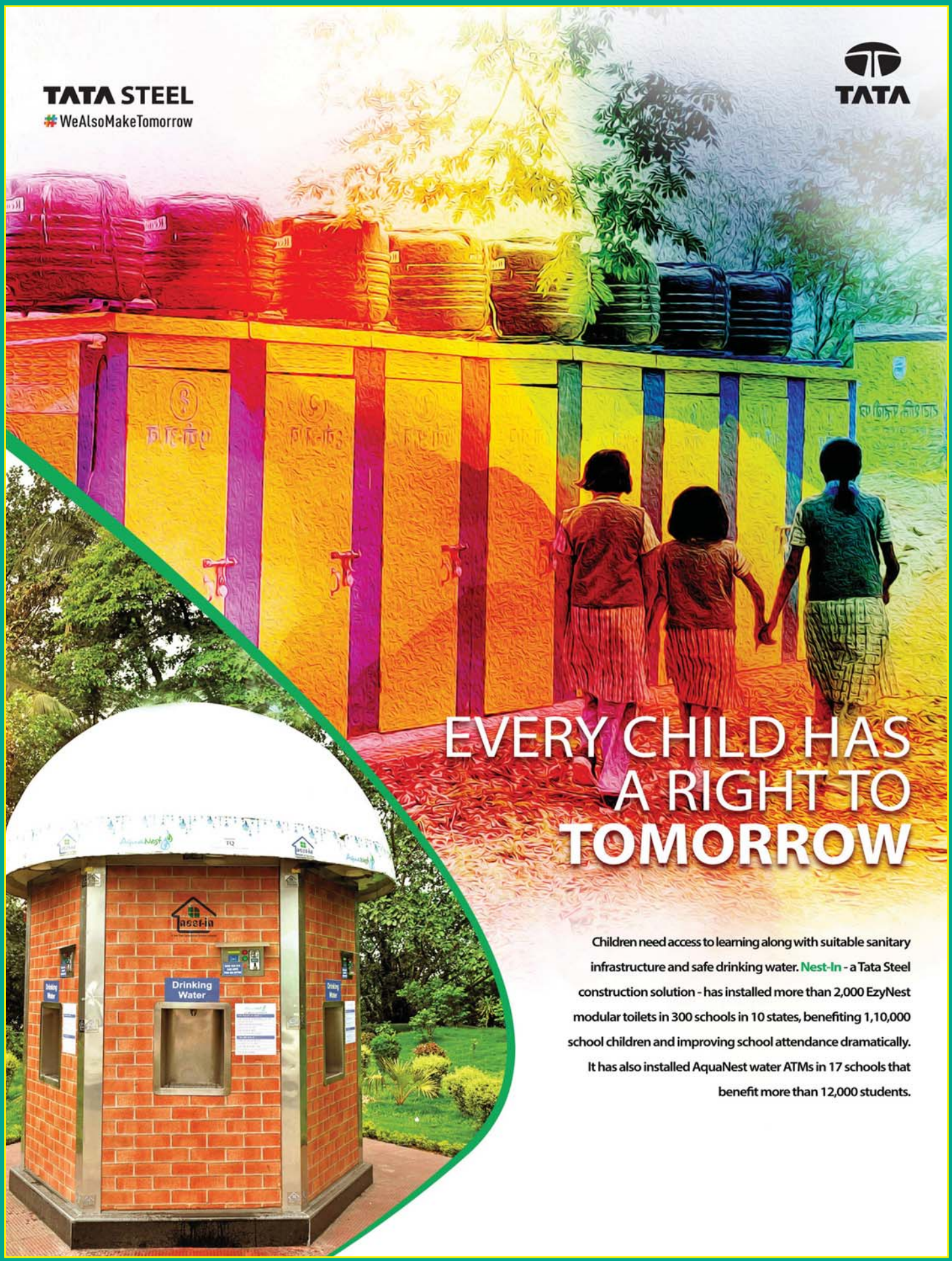

EVERY CHILD HAS A RIGHT TO TOMORROW

Children need access to learning along with suitable sanitary infrastructure and safe drinking water. Nest-In - a Tata Steel construction solution - has installed more than 2,000 EzyNest modular toilets in 300 schools in 10 states, benefiting 1,10,000 school children and improving school attendance dramatically. It has also installed AquaNest water ATMs in 17 schools that benefit more than 12,000 students.