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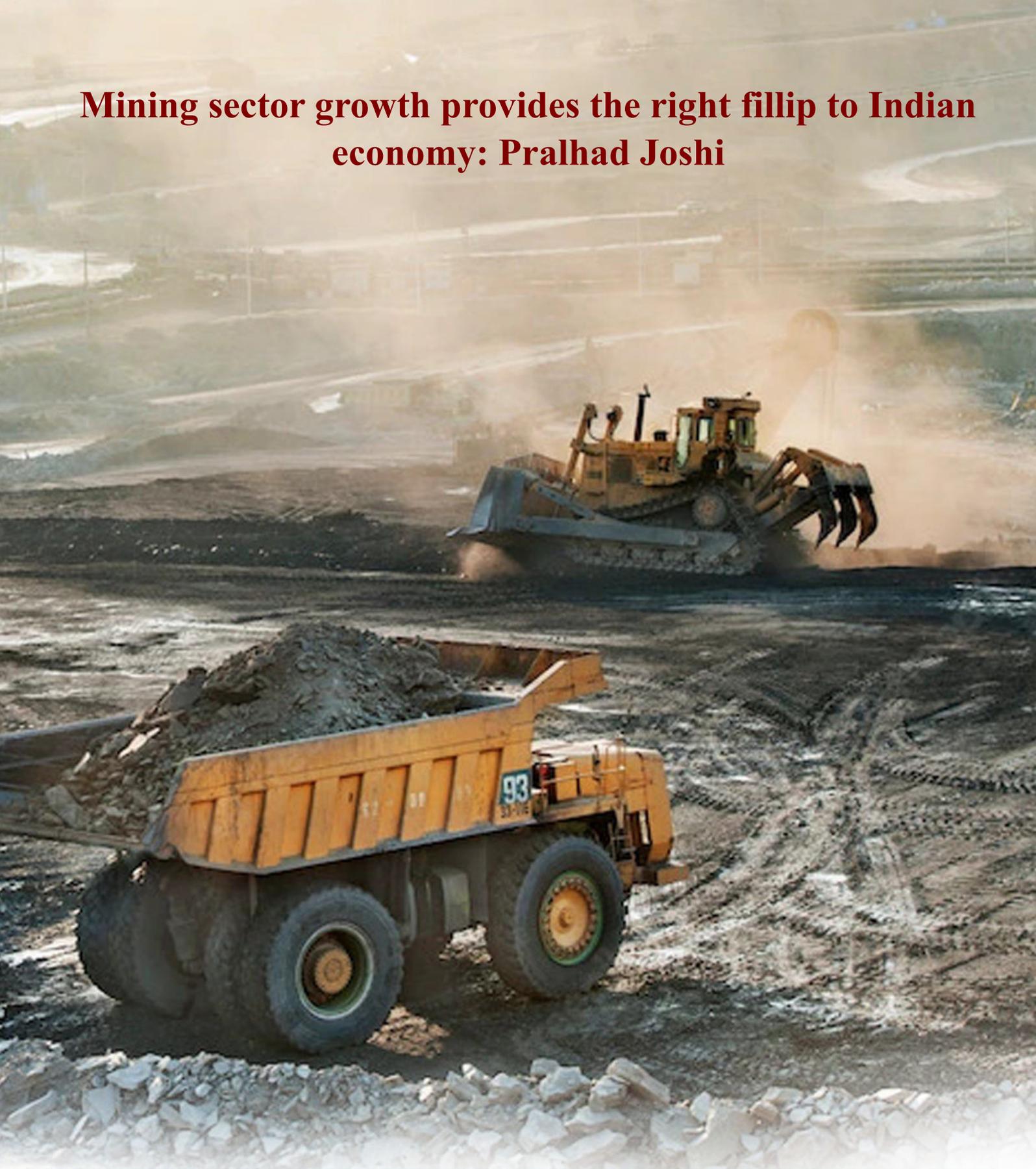
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Indian Mining & Exploration Updates

Mining sector growth provides the right fillip to Indian economy: Pralhad Joshi



Mining sector growth provides the right fillip to Indian economy: Pralhad Joshi

Union of Minister of Coal, Mines and Parliamentary Affairs Pralhad Joshi said that India's total geographical area under mining has increased substantially during the last few years and the sector is providing employment opportunities to 12 million people across the country, both directly and indirectly.

Addressing the 36th International Geological Congress inaugural session virtually, Minister Joshi stated that the pace of mineral exploration has increased manifold under the present Government. Highlighting the recent reforms undertaken in the Mining Sector that provided the right fillip to the Indian economy, Joshi praised the noteworthy strides made by the Geological Survey of India (GSI) in making use of the latest technologies for scaling greater heights in excellence.

Touching upon the importance of the 36th International Geological Congress, the Minister said that the three-day event, hosted by India after 58 years, will provide the right platform for geoscientists from across the globe to formulate more effective tools in the field of sustainable development.

Minister of State for Coal, Mines and Railways Raosaheb Patil Danve, Minister of State for Communications Shri Devusinh Chauhan and Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions,

Atomic Energy and Space Dr Jitendra Singh also addressed the event virtually. The other eminent persons who graced the function include Secretary, Ministry of Mines, Dr. Alok Tondon, Secretary, Ministry of Earth Sciences Dr. M Ravichandran, DG: GSI Shri Rajendra Singh Garkhal among others.

The 36th International Geological Congress is based on the theme "Geosciences: The Basic Science for a Sustainable Future". IGC is a joint endeavour of the Ministry of Mines, Ministry of Earth Sciences, Indian National Science Academy and the Science Academies of Bangladesh, Nepal and Sri Lanka. Described as the Olympics of Geosciences, the IGCs are held quadrennial, under the aegis of the International Union of Geological Congress (IUGS), the Scientific Sponsor of the IGCs. The three-day event will witness the participation of 5000 – 7000 delegates from all over the world.

The event would provide a unique platform for knowledge and experience sharing in the field of geosciences and professional networking. It



would give first-hand information on the latest technologies in mining, mineral exploration and management of water, mineral resource and the environment. On the inaugural day of the IGC, commemorative Postage Stamps, First Day Cover and multi-colour coffee table books on Geo tourism hotspots were released

India, leading its regional partners had bid in the 34th International Geological Congress at Brisbane in 2012 to host the 36th IGC in India in the year 2020. The present Congress, originally scheduled to be held during 2-8 March 2020 was postponed due to Covid Pandemic. 58 years ago India had hosted the 22nd session of the IGC which was the first IGC on Asian soil.

Source: India Infoline News Service

Ensure greater transparency in mineral concession auction: Parliament panel

A parliamentary panel has suggested that greater transparency should be ensured in the auction of mineral concessions with pre-embedded clearances to give a fillip to the auction process

A parliamentary panel has suggested that greater transparency should be ensured in the auction of mineral concessions with pre-embedded clearances to give a fillip to the auction process and to achieve optimal utilisation of India's mineral resources for rapid industrial growth

and socio-economic development of the country.

The Standing Committee on Coal, Mines and Steel in its report tabled in Parliament appreciated the efforts of the government to ensure the

contribution of the mineral sector in achieving the national policy goals.

"...the committee recommend that greater transparency should be ensured in the auction of mineral concessions with pre-embedded clearances to give a fillip to auction process," the report said.

The committee also noted that India is well endowed with natural resources, particularly minerals which serve as raw material for many industries, paving a path for rapid industrial, infrastructural and economic development.

Minerals being valuable natural resources, constitute the vital raw materials for many basic industries.

The wide availability of minerals provides a base for the growth and development of the mining sector in India, which is an important segment of the Indian economy, it said.

India, it said, produces as many as 95 minerals, which includes four fuels, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals (including building and other minerals).

"The government has introduced important reforms to open up the mineral sector to ensure its contribution in achieving the national policy goals like introduction of Right of First Refusal for RP/PL holders, encouraging the private sector to take up exploration; transfer of mining leases and creation of dedicated

mineral corridors to boost private sector mining areas proposes to make efforts to harmonise taxes, levies and royalty with world benchmarks to help private sector, etc," the report said.

Major reforms included the enactment of the Mines and Mineral (Development & Regulations) (Amendment) Act, 2021 which made the process of allocation of mineral concessions completely transparent by introducing public auctions with active participation of the state governments.

Source: Business Standard

Minister for Mines Pralhad Joshi urges GSI to reduce time frame in submitting mineral exploration reports



Minister for Mines Pralhad Joshi has urged the Geological Survey of India GSI to reduce the time taken in completing field survey and submission of reports on potential mineral resource deposits in the country. The Minister asked GSI to complete survey and preparation of report in an year's time using latest technologies.

Addressing the 61st meeting of Central Geological Programming Board CGPB in New Delhi yesterday, Mr Joshi said that GSI having a legacy of 175 years of existence as a prestig-

ious institution is expected to contribute to the recent efforts of the Ministry of Mines to attain self-sufficiency in mineral resources. He said that efforts of GSI and the private sector can contribute considerably towards this.

The Minister pointed out that India is having vast deposits of minerals, however, it is importing different types of minerals in big quantities and this is true in the case of fertilizers also. Mr Joshi called upon the scientists of GSI to analyse global trends in preparing potential mineral deposit reports. Stressing upon the importance of latest technology in mining exploration, He promised all kinds of assistance to GSI from the Ministry of Mines.

On the occasion, the Minister handed over seven resource-bearing geological reports G2

and G3 stage of commodities like copper, bauxite, potash, limestone and iron and manganese to the representatives of the state DGMs of Odisha, Chhattisgarh and Rajasthan. Potential G4 mineral blocks, for auction as Composite License have been handed over to the representatives of 11 states of Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, Telangana and Rajasthan. These potential blocks consist of mineral commodities like base metal, bauxite, phosphorite, gypsum, limestone, graphite, gold, nickel, chromium, iron, manganese, PGE and diamond. A few publications and a video on Marine Mineral Exploration by GSI were also released during the meeting.

Earlier, addressing the meeting during the concluding session Mines Secretary Alok Tondon said that a number of new projects are being taken up by GSI based on the request from state Governments. He said that India is at par with any other rich nation as far as mineral resources are concerned.

Source: News on air

India to invest in exploring lithium, cobalt mines in Australia



India has committed to jointly invest \$6 million with the Australian government to explore lithium and cobalt mines in Australia over the next six months, in a bid to firm up supplies of key minerals needed to further its electric vehicle plans.

Critical Minerals Facilitation Office (CMFO), the Indian government said on Tuesday.

The move comes at a time when India is offering \$2.4 billion of incentives for companies to build battery cells locally for electric vehicles.

India's KABIL, a mining joint venture between state-run firms National Aluminium Co (NALU.NS), Hindustan Copper Ltd (HCP.NS) and Mineral Exploration Corp Ltd, has signed a preliminary agreement with Australia's

Lithium, whose price has surged in the recent days, is a key raw material used to make electric vehicle batteries.

CMFO and KABIL will carry out "joint due diligence of select greenfield and brownfield projects to identify Lithium and Cobalt mineral assets for final joint investment decisions and acquisition," the Indian government said in a statement.

The agreement also provides for inclusion of any other Indian state-run firm as an investment partner, and envisages the due diligence process will be completed and further investment decisions taken over the next six months.

India has also shortlisted Latin American countries such as Argentina, Bolivia, Chile for exploring mines of strategic minerals abroad, the statement said.

By Sudarshan Varadhan

Govt opens up mining of new set of minerals to reduce imports

The government on Wednesday opened up mining of new groups of minerals as part of its strategy to boost domestic production and push import substitution.

The Union cabinet approved the proposal of the ministry of mines for amending the Second Schedule of the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR) to specify the rate of royalty for Glauconite, Potash, Emerald, Platinum Group of Metals (PGM), Andalusite, Sillimanite and Molybdenum.

Glauconite and Potash are used as fertilizer in agriculture. Platinum group of metals and Andalusite and Molybdenum are high-value minerals used across industries.

This approval will allow auction of these mineral blocks, thereby reducing imports and generating opportunities in mining and manufacturing sectors, a government statement on the

cabinet decision said.

The rate of royalty for Andalusite, Sillimanite and Kyanite, which are mineral polymorphs, have been kept at the same level.

The approval will lead to import substitution in respect of many important minerals, thereby saving valuable forex reserves. It will also reduce country's foreign dependency through local production of minerals, the statement said.

The approval would ensure auction of mineral blocks in respect of Glauconite, Potash, Emerald, Platinum Group of metals, Andalusite and Molybdenum for the first time in the country.

The MMDR Act was amended in 2015 to usher in a new regime of granting mineral concessions through auction to ensure transparency and non-discrimination in allocation of mineral wealth of the country.

The auction regime has matured since then. To give further impetus to the mineral sector, the Act was further amended in 2021.

The government has given a major boost to the auction of mineral blocks, increasing production, improving ease of doing business in the country and increasing contribution of mineral production to gross domestic product (GDP).

The ministry of mines has also taken steps to increase exploration of minerals, which has led to the availability of more blocks for auction.

Exploration activities have increased not only for traditional minerals such as iron ore, bauxite, limestone but also for deep-seated minerals, fertilizer minerals, critical minerals and minerals which are imported.



→ In the last 4-5 years, central agencies such as the Geological Survey of India and Mineral Exploration Corporation Ltd have carried out exploration and handed the reports to the states.

India is currently dependent on imports of Glauconite/ Potash, Emerald, Platinum Group of Metals (PGM), Andalusite and Molybdenum. As a step towards self-sufficiency, states have identified such mineral blocks for auction.

However, the rate of royalty for these minerals were not separately provided and was not

appropriate for giving impetus to mining of these minerals.

Accordingly, the ministry proposed reasonable rates of royalty in order to encourage better participation in auction, which has been approved by the Union cabinet.

These rates have been fixed after extensive consultations with the states and the various ministries/departments of the central government, the statement said, adding that the ministry of mines will also provide methodology for calculation of average sale price (ASP) of these minerals required for enabling auction of

these mineral blocks.

With the active cooperation of states, more than 145 mineral blocks have been successfully auctioned in the country.

With further impetus given by the reforms made in 2021, more than 146 blocks have been put up for sale in fiscal 2022. Of these, 34 have been successfully auctioned.

Specification of royalty and ASP for the new set of minerals would increase the number of blocks for auction.

Source: Live Mint

New tech makes eco-mining a reality for Rare Earths

They're the driving force behind electric vehicles and crucial to the manufacture of many high-tech products, but while rare earth elements are highly valued across many sectors, they're extremely hazardous to extract, posing significant issues for the environment.

Now, new research from the University of South Australia could transform the way rare earth elements and other vital battery metals are recovered from the earth, enabling safer extraction with fewer environmental impacts.

Dr Richmond Asamoah from UniSA's Future Industry Institute is developing new ways to safely extract critical minerals from downstream ore processing, tailings reprocessing, and wastewater treatments. He is also developing mechanisms to safely recycle spent products from scrap batteries and magnets.

"Rare earth minerals and battery metals are vital for the economic wellbeing of the world's major and emerging economies, yet, their supply is not reliable because of geological scarcity, geopolitical issues, and trade policy," Dr Asamoah says.

"Accumulated mining wastes are becoming an increasingly valuable source of metals and energy, but because there's a lack of productive and economically viable extraction technologies, there's also a notable loss of valuable metals.

"The process of extracting these critical materials is very damaging to the environment, with conventional mining methods generating large volumes of toxic and radioactive materials.

"Our research will identify new technologies that have the capability to both extract minerals from existing industrial wastes and mineral tailings, and recycle and source minerals and metals from spent batteries and magnets.

"As a result, we should be able to significantly reduce the amount of waste and harmful materials that can seep into the environment."

The project will test two metal recovery processes – resin in pulp and resin in moist mix – to extract target metals from low grade ores, fine minerals and wastes such as tailings. These processes can also be used to remove harmful substances from water and soils to minimise their environmental impact.

Funded by the Australia-India Strategic Research Fund, Dr Asamoah says that the research will deliver significant benefits to both countries.

"We're not only talking about environmental benefits, but also economical and sustainable technologies that both countries can use to extract rare earth and battery minerals from



current mining operations," Dr Asamoah says.

"Rare earth elements contribute nearly \$200 billion to the Indian economy, yet despite India having the world's fifth largest reserves of critical metals, they mostly import their rare earth needs from China.

"This project hopes to enable Australia to export rare earth minerals to India, as an alternative to China, as well as to empower India to establish eco-technologies to extract minerals and metals within their own borders.

"Importantly, the research will build capacity for processing critical minerals in Australia and India and creating many new eco-efficient opportunities for economic growth, employment and investment."

Source: unisa.edu.au

Ministry of Coal puts 122 mines on auction

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Addressing the fifth tranche of auction launch, Union Minister of Coal, Mines and Parliamentary Affairs Pralhad Joshi said 42 coal mines have already been auctioned successfully so far.

In a statement, the ministry said it "has placed on offer 122 coal/lignite mines today under commercial auction of coal mines, including 18 new coal mines."

Sharing the details of mines under different tranches for auction, it said there are 109 coal

mines under 15th Tranche of Coal Mines (Special Provisions) Act, 2015 and 5th Tranche of Mines and Minerals (Development & Regulation) Act, 1957.

Of the 109 mines on offer, 59 are fully explored mines and 50 are partially explored mines.

Four coal mines are under second attempt of 14th Tranche of Coal Mines (Special Provisions) Act, 2015 and Second Attempt of 4th Tranche of Mines and Minerals (Development & Regulation) Act, 1957.

Total 9 coal mines are under 2nd attempt of 13th Tranche of Coal Mines (Special Provisions) Act, 2015 and Second Attempt of 3rd Tranche of Mines and Minerals (Development & Regulation) Act, 1957.

Key features of auction process include introduction of National Coal Index, ease in participation with no restriction for prior coal mining experience, full flexibility in coal utilisation, optimized payment structures, efficiency promotion through incentives for early production and use of clean coal technology.

Further, incentives are being contemplated by Ministry of Coal.

"The commencement of sale of tender document shall start from Wednesday. Details of the mines, auction terms, timelines etc. Can be accessed on MSTC auction platform. The auction shall be held online through a transparent two stage process, on the basis of Percentage Revenue Share," the coal ministry said.

- Source: Economic Times

Set up special courts to punish illegal mining, Odisha advocate general to govt

The setting up of special courts under the Mines and Minerals (Development & Regulation) Act would not just lead to speedy trial of the illegal mining cases pending in subordinate courts, but also help the government in dealing with the theft of minor minerals, officials said.

The Odisha advocate general has urged the state government to establish special courts to resolve several cases pending under the Mines and Minerals (Development & Regulation) Act in different courts of the state.

In a letter to chief secretary early this week, advocate general Ashok Parija said as Odisha leads the country in the production of iron ore, bauxite and chromite and has significant reserves of coal, limestone, dolomite, and sand, the state government should set an example for ensuring speedy trial of offences under the Mines & Minerals (Development & Regulation) Act, 1957.

The special courts can be established under

section 30 (B) of the MMDR Act which was inserted in 2015 following detection of illegal mining in Odisha, Karnataka and Goa by mining mafia in the preceding years. According to the amendment, the prescribed penalties for illegal mining have been hiked to ₹5 lakh per hectare and imprisonment up to 5 years for violation of sections 4(i) and 1(A) of the Act. Karnataka was the first state to set up special courts by empowering the district judges to try such cases under the Act.

Section 4(1) of the Mines and Minerals (Development & Regulation) Act, 1957 prohibits reconnaissance, prospecting or mining operations in any area except under and in accordance with a license/ lease under the Act. Section 4(1A) of the Act prohibits the transport or storage of any mineral otherwise in accordance with the provisions of the Act and the Rules made under it.

In his letter, the advocate general referred to the judgement of the single-judge bench of

Orissa high court last month where the court underlined the necessity of such courts. "This court expects the state government to take necessary effective steps in that regard at the earliest in consonance with the provision under section 30-B of the Mines & Minerals (Development and Regulation) Act, 1957 for constitution of special courts for speedy trial of offences," justice SK Sahoo had observed while rejecting the prayers for anticipatory bail of a person in a case involving theft of minor minerals.

Officials said the setting up of special courts in districts under the MMDR Act would not just lead to speedy trial of the 943 illegal mining cases pending in subordinate courts, but also help the government in dealing with the theft of minor minerals like sand, gravel, stones, laterites, ballasts and rock fines. Of late, the minor mineral mafia have taken to attacking the revenue department officials



→ during enforcement activities forcing the government to deploy armed policemen in 10 places.

Officials said the state government may follow Karnataka model and request the chief justice of Orissa high court to empower the district

judges to try the mining cases under MMDR Act.

- Source: Hindustan Times

Taliban using Afghanistan's natural resources as bargaining chip for international recognition

Searching for a way to benefit from Afghanistan's natural resources, the Taliban are pursuing diplomatic efforts but it's not that easy.

If Afghanistan had not been a victim of a decades long external and civil war, by now it would have become a leading economic player through the prudent use of its natural resources. Several scientific reports and surveys have suggested that the value of Afghanistan's natural resources could be anything between \$1 trillion and \$3 trillion. Germany and the United Kingdom conducted many surveys back in the 19th and early 20th century, and then the USSR conducted a geological survey of Afghanistan in the 1960s, which is considered a far more systematic and scientific survey. Professor John F. Shroder of the University of Nebraska also conducted extensive research and published his three-decade study in 2014 that identified accurate locations on maps and provided scientific evidence of these resources. The Ashraf Ghani-led Afghan government then published the first-ever government policy paper to tap into these resources. With the Taliban in power, the future of Afghanistan's natural resources once again is faced with uncertainty and delay.

Afghanistan's natural resources are not only massive in quantity but some of them are very rare and important for a high technology-led global economy. Afghanistan has a massive amount of iron ore, perhaps the fourth-largest reserves in the world. According to the United States Geological Survey (USGS) and Afghan Geological Survey (AGS), the iron and copper reserves alone may be worth \$700 billion. Afghanistan has the second-largest lithium reserves after Bolivia, to the extent that some

experts call Afghanistan the Saudi Arabia of lithium. As lithium is an essential component for mobile batteries, and the coming electric automobile revolution will largely rely on lithium, the global economy is set to enter its "lithium era."

Afghanistan also has significant reserves of gold, oil, natural gas, uranium, bauxite, coal, rare earth, chromium, lead, zinc, gemstones, talc sulfur, travertine, gypsum and marble. All plans and opportunities to extract these resources were lost in the decadeslong wars and political instability. The Ghani government once presented a policy document to extract these resources. According to this document, the government had tried to create an online database. It divided these resources into sectors, subsectors and interests like construction material, industrial minerals and precious metals. The government provides a legal framework to exploit these resources. The document suggested a new ministry, the Ministry of Mining and Petroleum.

However, given the colossal corruption, continued violence and geographically landlocked nature of the country, the Ghani government failed in its plans. In 2017, the United States Institute of Peace (USIP) published a special report on how these resources were being looted at the industrial level. After the withdrawal



of the U.S.-led NATO force from Afghanistan, the Ghani government fell like a house of cards. Now the Taliban government is in discussions with key stakeholders to develop these resources. Though they have not presented a vision document so far, the Taliban leaders are inviting companies to develop Afghanistan's natural resources.

Related ties with the others

As a land-locked country, Afghanistan depends on its neighbours, mainly Pakistan and Iran, to become an export economy. For many reasons, Pakistan remained the most convenient country for most of its trade and import. However, Pakistan lacks the necessary resources and technology to help the Taliban government extract natural resources. China has established itself as an undisputed leader in rare earth elements. According to American geoscience, even in 1993, China was No. 1 with 38% of rare earth element production while the U.S. remained second to China with

33% production globally. The Australian share was 12% in the same period, whereas India and Malaysia accounted for 5% each. After nearly two decades, in 2011, China controls 97% of the global production of rare earth elements. China looks to Afghanistan as a guarantee for all earth material demands and to dominate the global market. China is the biggest investor in Afghanistan's mining industry. In 2007, China and the Afghan government signed a 30-year contract worth \$2.9 billion to develop the Mes Aynak copper deposit. China is already working on a 400-megawatt coal power plant and a railway track to Pakistan. China can rescue the Taliban government from the imminent collapse of a cash-deprived economy. The Taliban leadership is using natural resources as a bargaining chip for international recognition. Interestingly, some of the most valuable resources like lithium, copper, gold and cesium are located near the

Afghanistan-Pakistan border. Nevertheless, Pakistan lacks the financial and technological capacity and industrial base to develop and exploit these resources. China's mega transport and connectivity projects in Pakistan aim to use Pakistani territory to enable the massive transfer of raw materials, without helping the local Afghan or Pakistani industries.

The Taliban government looks at India more favourably as India has both the financial and technological capacity to help Afghanistan's mining industry and economy. To enable India to invest in Afghanistan, the Taliban government needs to speak with Iran for connectivity. The Taliban government is in a tight competition between an aggressive Chinese economy and its resource- and capability-deprived neighbours. That is why the Taliban are opening every possible communication channel with Western and Middle Eastern countries.

The Taliban's desperation for international recognition is also designed to avoid being dependent on China. Turkey, along with Qatar and other Gulf countries, have been approached by the Taliban. These countries have the technological and financial capacity to invest in Afghanistan's natural resources. If a consortium comprising of key Muslim countries, India and other European countries emerges, the Taliban will have an incentive to moderate their politics and be more inclusive in their governance and society. In extreme conditions, the Taliban may impose a ban on the export of lithium as a raw material and would ask investors to export lithium-based products to generate jobs for Afghan citizens. For the Taliban, any investment in Afghanistan's natural resources that does not generate jobs will be politically unsustainable and a potential source of unrest against their newly established regime.

- Source: Auto. Economic Times

Mining sector has critical role in the green energy transition

Growth opportunities for countries that have key metals and alloys required by new technologies

The green energy transition is the global agenda or pathway stakeholders across the world are pursuing in an attempt to transform the global economy from a pure fossil-based to a carbon-neutral energy sector.

At this point the aim is to achieve this by 2050. The transition is underpinned by several international agreements and undertakings, including the 17 UN sustainable development goals and those provided in the Paris Agreement.

While conversations surrounding the transition often focus on the actions governments are taking to reduce nationally determined contributions in the global response to climate change (including reductions in greenhouse gas emissions), nonstate stakeholders also play an important role in the energy transition. These include the actions of civil

society, the private sector, financial institutions, cities and other subnational authorities.

The global community's ability to achieve the ambition of net zero by 2050 is, however, contingent on whether different sectors of the global economy are able to reduce their greenhouse gas emissions without any further delay. The success of stakeholder efforts will largely depend on the development and implementation of green energy technologies. These include renewable power, electric vehicles and green hydrogen. The pace at which green technologies are developed and supplied to the market in many respects hinges on the production capacity of the global mining sector.

For many, the central role the mining sector must play in the green energy transition is counterintuitive. However, the point is easily illustrated if one considers that the average large wind turbine of 3.6MW contains nearly 29 tonnes of copper. In fact, all green energy technologies require specific metals and

alloys, which are produced by processing mineral-containing ores. Examples of key minerals required for green energy technologies include chromium, copper, major battery metals (such as lithium, nickel, cobalt, manganese and graphite), molybdenum, platinum group metals, zinc, rare earth elements and aluminium.

Axiomatically, the rapid deployment of clean energy technologies implies a significant increase in demand for these strategic metals and minerals. At this juncture analysts estimate production rates of graphite, cobalt, vanadium and nickel are inadequate and that a two-thirds gap may exist when current production rates are compared to growing demand. Copper, lithium and platinum supplies are also inadequate to satisfy future needs, with a 30%-40% gap versus demand.

The shortage of these key minerals presents significant economic growth opportunities for nations that have deposits of the relevant minerals. A salient example includes the countries that are

located on the Arabian-Nubian shield, including Egypt, Eritrea, Ethiopia, Saudi Arabia, Somalia, Sudan and Yemen.

The Saudi Arabian lithology seemingly houses the lion's share of these minerals as the kingdom reportedly possesses more mineral resources than any other country in the Gulf region, valued at about \$1.3-trillion. It has an abundance of energy-related minerals and is rich in gold, copper, phosphate, cobalt, lithium, titanium, zinc, Saudi silica and rare earth elements.

Whether everyone agrees on the role of mining is not important. What matters is whether different stakeholders are able to come together to ensure we are able to procure the required minerals in a sustainable manner to enable the green energy transition to proceed at the required pace. The applicable mineral law regime obviously plays a critical role in this regard.

To promote the exploitation of the required minerals countries need to develop fiscal and mineral law regimes that are conducive to investment. In this regard it is important to bear in mind that legal frameworks attract investors if they impose clear requirements that give rise to stable and predictable outcomes. With the rise of the environmental, social & governance obligations, the laws must also promote sustainable development.

In 2020 and 2021 we advised the Saudi ministry of industry & mineral resources as international legal advisers on the kingdom's mineral law reform process. In collaboration with the World Bank we advised the ministry on international best practice in respect of: good public governance, including accountability, transparency, efficiency, effectiveness, responsiveness and the rule of law; a predictable and fair licensing regime to build trust and provide stability; sustainable mining operations in

respect of matters related to the environment, health and safety, mine-affected communities, rehabilitation, and mine closures; fiscal regimes, including royalties and surface rental; and monitoring, inspections, corrective action plans, sanctions and dispute resolution.

The mineral law reform process culminated in the promulgation of the new Mining Investment Law, issued under Royal Decree No (M/140), which came into effect on January 1 2021. The law sits at the apex of a detailed pyramid of mineral law reforms, supported by the Implementation Regulation of the Mining Investment Law, a comprehensive set of executive regulations and guidelines that likewise came into force on January 1 2021. The law and regulations include several best-in-class mechanisms that collectively create a mineral law framework that should promote investment.

An important example of a best practice approach prescribed under the regulation concerns the licence application process, which stipulates a clear set of substantive and procedural requirements, limits government discretion and imposes strict time limits within which applications for reconnaissance, exploration and exploitation licences must be processed. A further example is the strict sustainability regime, which sets clear and predictable performance standards for mining companies while laying a foundation for a strong social licence to operate.

Among other things, the law and regulations now provide that applicants for certain exploitation licences must submit environmental and social impact studies (including social impact management plans, grievance management mechanisms, and environmental impact management plans) with their applications. Applicants are also expected to submit a rehabilitation and closure programme that satisfies inter-

national technical and operational standards and is supported by a financial guarantee.

To attract investors the ministry of industry & mineral resources has also implemented a basket of fiscal incentives, including the provision of co-funding up to 75% of investment (supported by the Saudi Investment Development Fund), a five-year royalty holiday for miners, discounts on royalties for local downstream production and support for Saudisation costs. The law reform process Saudi Arabia concluded during 2021 provides a useful case study of the approach a developing mining jurisdiction could (and should) consider, for a number of reasons:

- Collectively the mineral deposits, as well as the fiscal and mineral law regimes, would result in the jurisdictions becoming significant markets for mineral extraction and processing.
- The increased production may suggest mid-stream and upstream opportunities such as manufacturing opportunities to develop high value products for the growing demand of several advanced industries, such as automotive, aerospace, solar, oil and gas.
- Greater access to deposits of strategic minerals and metals (such as copper or lithium) would help satisfy the ever-growing demand for these resources.

Finally, and perhaps most important, this approach will support and accelerate the global community's efforts to combat climate change.

Source : Business Day

• *Leon is partner and Africa chair, and Müller senior associate, at Herbert Smith Freehills.*

SWASTHA

A GEMCOKATI EMPLOYEES INITIATIVE

Calm a restless mind before going to sleep Tips to turn off your mind at bed time.

We all seem to ask ourselves or sometimes tell others about our sleep the previous night or many consecutive nights. The question is almost as if we are taking note of our overall state of mind.

It can be really discouraging as, all we actually want is the soothing balm of sleep to heal the stress and burnout from our daily routine, but unfortunately when we lie down to sleep, our brains just won't shut off. It's a paradox that sometimes if the days are more stressful, the harder it is to quiet the brain for a peaceful sleep.

Studies and research shows that over 30 percent of people have bouts of insomnia, the medical term for sleeplessness, and the alarming part is that the overall rate of insomnia is going up. Now certainly you think you are not alone, but kindly don't take it as a consolation.

There may be few chosen ones who may fall asleep pretty painlessly, but they also once a while experience nights where you toss and turn, unable to turn off your brain with to do lists, worries, plans, doubts and replays of embarrassing moments reminded by someone.

Human brain is always busy and unlike an electrical or electronic item, its very normal to struggle to shut it down.

Our human brain is designed to be buzzing all the time to help us to remember, anticipate, analyze, plan, solve problems, and do all the things that make us human.

So its futile to blame the brain for being active even when we would like it to be quiet, because

our brains are just doing what they are meant to do.

Instead of fighting against brains well intentioned and persistent effort, its always wise to work with the brain to protect our sleep.

Below are few helpful ways for quieting the mind.

Before we get into different ways, a special disclaimer for the 10% of people who need medical intervention due to their chronic insomnia disorder who have tried sleep hygiene guidelines, meditation etc.

The rest of us who have occasionally trouble shutting off their minds the techniques are a welcome for sound sleep.

1] give yourself a "worry window" during the day.

Set aside a 15-30 minute window during the day - and not at bed time - especially for worrying.

During this window, you will do nothing but worry.

Whenever you find your mind creeping outside the worry window, remind yourself sternly that you have already done this during the prescribed time duration. Now its time over and it can be taken over only next day.

This gives a special place for your worries to live in and not running loose all through the day and night.

2] download your worrying thoughts from your brain to paper.

By writing down your thoughts you are assuring your brain that you are not going to forget it, but of course its not to be carried thorough out the day till late night, but if still needs to be fixed, it will be taken care only the next day unless its an emergency.



3] getting out of your mind and getting into body.

Focus on your breathing first. Now start concentrating on your each and every body part like scanning, starting from toes. Just notice what your toes feel like. Are they warm, cool, relaxed? Move them around to see what that feels like. Take your time.

Now move your attention to rest of your feet. gradually move upwards to ankles, calves, knees, thighs, and rest of legs. Gently move your attention like this upwards, through each part of your body, taking as much time you would like.

These are few techniques, but perhaps on a very worst night none of these will be enough to tame your mind to a peaceful sleep. thats okay. It happens to all of us and it doesn't mean you are doomed to chronic insomnia. It is always beneficial to let go off the goal oriented approach to sleep for the night and instead do something meaningful.

That's when gradually your bodys natural sleepiness will override the anxieties, calm the brain and eyelids will start to droop and you will enjoy your sweet dreams.

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Your suggestions and feedback is awaited at :-

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