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Indian Mining & Exploration Updates

Explained: What are critical minerals, the centrepiece of a new India-Australia collaboration?

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The Eclipse has Ended: India's Coal Sector Witnessing Rays of Development : PRALHAD JOSHI

The achievements and contribution of the coal sector to fulfil India's energy needs are significant. Coal is the very source from where India gains its strength

In the 75th year of independence, Hon'ble Prime Minister has given us a call to come together and celebrate Azadi ka Amrit Mahotsav and make it a mass movement. Indiahas come a long way in the past 75 years. Coal sector of India, however, saw major development and reforms only in last 8 years. India's energy and industrial ecosystem are witnessing extraordinary scenario today.With scorching heat waves, record-breaking temperature, and industries booming with a promising economic recovery after the global pandemic, there is an unprecedented growth in the power demand. Because of our positive reforms, today we are well equipped and confident to face this situation and turn challenges into opportunities.The achievements and contribution of the coal sector to fulfil India's energy needs are significant. Coal is the very source from where India gains its strength.

Behind the record numbers of electricity connections provided in the last eight years, behind the industrial and manufacturing sector operating non-stop 24 x 7, behind the economy's stellar performances, Coal has played the role of industrial backbone.

From darkness of opacity towards Boosting Transparency

A slew of policy interventions and bold steps, since 2014, have helped the Indian coal and mineral mining sector grow in a responsible, sustainable & industry friendly manner. The Coal Mines Special Provision Act was enacted in 2015, putting an end to the decades of malpractices and arbitrary allocation of resources. CMSP enactment played a vital role in ensuring availability of coal for sectors such as steel, cement, and power utilities, which are necessary for the development of the country and to augment coal production by transparent allocation of coal mines through auction.10 tranches of auctions have been held between 2015 to 2020. 35 coal blocks have been successfully auctioned through these tranches. A total of85 coal blocksstand allocated – including auctioned and non-auctioned blocks, with a total Peak Rated Capacity (PRC) of 440.6 MT.

In order to ensure availability of coal to the power sector, the government introduced Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI) policy in 2017. Coal linkage was extended to power sector under SHAKTI policy for just and efficient distribution of coal.

Dawn of a New Era: Commercial Coal Auction

Hon'ble Prime Minister launched the auction for Commercial Coal Mining in 2020. Launch of commercial coal auction was like a fresh breeze to the entire coal sector by bringing transparency, ease of doing business, investment opportunities, and helping open the sector.

End use restrictions for utilization of coal were removed, 100% FDI was allowed for more investment and healthy competition. The 2020 reforms resulted in creation of a free market for coal with private participation, bringing competition and greater efficiencies. A number of procedural changes were also introduced for the 1st time towards the development and regulation of coal sector, such as incentive of 50% rebate for early production, allowing single bid, liberal entry norms etc. Since the launch of Commercial Coal Auctions in June 2020, 4 tranches have been completed. 47 blocks have been auctioned so far with a peak rated capacity of 101.5 MTPA. These blocks will generate approx. Rs. 11,172 crore revenue and potential employment for more than 1.17 lakh people. Captive coal producers have been allowed to

sell 50% of their production in the open market after meeting the demand of their end use plants.

Mining with Responsibility: Mission Coal Gasification& Green Initiatives

The government is also conscious about the fact that while coal is going to remain the most important source of energy in the country, clean coal technologies and diversification is the only way forward. We are committed to scaling up mining activities in the country in an environmentally sustainable way.

National Coal Gasification Mission took a definite direction with Hon'ble Finance Minister announcing 4 pilot projects, during her budget speech this year.In order to incentivize more participation and increase coal production, the rebate of 20% was increased to 50% for successful bidders using their coal for coal gasification and liquefaction.

Coal PSUs have prepared an investment plan of almost Rs. 2.5 Lakh crore by 2030 in new business areas, clean coal technologies and new mine development projects. NLC India is the first CPSE in the country to achieve solar power generation capacity of more than 1 GW. Till now, Coal/lignite PSUs have planted almost 100 million trees/saplings.

In a more recent step, one time windowhas been granted to PSUs for surrendering Non-operational coal mineswithout penalty. Around 16 coal blocks will be freed by Central/state PSUs. Another particularly importantreform includes merger of e-auctions and offer of coal through a single e-auction window. 5 types of e-auction windowswere merged together. Coal offered has been made transport mode agnostic with default option being through rail mode.

To utilise mined out land that isunsuitable for coal mining we approved the policy for optimal use of land acquired under CBA Act. The policy provides for utilisation of such land for the purpose of development and setting up infrastructure relating to coal and energy. The policy will unlock land for various coal and energy infrastructure development activities that would encourage investment in backward areas of the country. With this recent-most reform, and many more underway, Coal sector is ready to take all challenges coming its way and continue playing the parental role of fulfilling India's burgeoning energy needs.

As a result of these slew of reforms the coal mining sector stands transformed today. In the last 8 years domestic Coal Production has increased by 37.3% and Domestic Coal Offtake has increased by 43%. Domestic Coal Production has increased from 716 MT in FY21 to 777 MT in FY22, a growth of 8.5%. Coal Production from Captive mines during the same period has increased from 66 MT to 86 MT, a growth of 30%. Domestic Coal Offtake has increased from was 691 MT in FY21 to 818 MT in FY22, a growth of 18.4%.

In the 8 years of good under the leadership of Hon'ble PM, India's Coal sector has seen unprecedented growth and emerged from an eclipse which was cast upon them for far too long.

(The writer is Union Minister of Coal, Mines and Parliamentary Affairs)

Source: Rising Kashmir

Explained: What are critical minerals, the centerpiece of a new India-Australia collaboration?

As countries around the world scale up their transition towards clean energy and digital economy, these critical resources are key to the ecosystem that fuels this change.

India and Australia Monday decided to strengthen their partnership in the field of projects and supply chains for critical minerals.

As part of his six-day tour of Australia, Union Coal and Mines Minister Pralhad Joshi met his counterpart, Resources and Northern Australia Minister Madeleine King, after which Australia confirmed that it would "commit A$5.8 million to the three-year India-Australia Critical Minerals Investment Partnership".

"Australia has the resources to help India fulfil its ambitions to lower emissions and meet growing demand for critical minerals to help India's space and defence industries, and the manufacture of solar panels, batteries and electric vehicles….Australia welcomes India's strong interest and support for a bilateral partnership which will help advance critical minerals projects in Australia while diversifying global supply chains," King said.

What are critical minerals?

Critical minerals are elements that are the building blocks of essential modern-day technologies, and are at risk of supply chain disruptions. These minerals are now used everywhere from making mobile phones, computers to batteries, electric vehicles and green technologies like solar panels and wind turbines. Based on their individual needs and strategic considerations, different countries create their own lists.

However, such lists mostly include graphite, lithium and cobalt, which are used for making EV batteries; rare earths that are used for making magnets and silicon which is a key mineral for making computer chips and solar panels. Aerospace, communications and defence industries also rely on several such minerals as they are used in manufacturing fighter jets, drones, radio sets and other critical equipment.

Why is this resource critical?

As countries around the world scale up their transition towards clean energy and digital economy, these critical resources are key to the ecosystem that fuels this change. Any supply shock can severely imperil the economy and strategic autonomy of a country over-dependent on others to procure critical minerals.

But these supply risks exist due to rare availability, growing demand and complex processing value chain. Many times the complex supply chain can be disrupted by hostile regimes, or due to politically unstable regions.

As a US government statement in February noted: "As the world transitions to a clean energy economy, global demand for these critical minerals is set to skyrocket by 400-600 per cent over the next several decades, and, for minerals such as lithium and graphite used in electric vehicle (EV) batteries, demand will increase by even more — as much as 4,000 per cent."

They are critical as the world is fast shifting from a fossil fuel-intensive to a mineral-intensive energy system.

What is the China 'threat'?

According to the 2019 USGS Mineral Commodity Summaries report, China is the world's largest producer of 16 critical minerals.

China, according to a report on the role of critical minerals by the International Energy Agency, is "responsible for some 70% and 60% of global production of cobalt and rare earth elements, respectively, in 2019. The level of concentration is even higher for processing operations, where China has a strong presence across the board. China's share of refining is around 35% for nickel, 50-70% for lithium and cobalt, and nearly 90% for rare earth elements."

It also controls cobalt mines in the Democratic Republic of Congo, from where 70% of this mineral is sourced.

In 2010, China suspended rare earth exports to Japan for two months over a territorial dispute. The decision, according to the Brookings Institution, made the market prices of RREs jump anywhere between 60% to 350%. The prices returned to normal only after a year of China resuming shipments.

What are countries around the world doing about it?

In 2021, the US ordered a review of vulnerabilities in its critical minerals supply chains and found that an over-reliance on "foreign sources and adversarial nations for critical minerals and materials posed national and economic security threats". Post the supply chain assessment, it has shifted its focus on expanding domestic mining, production, processing, and recycling of critical minerals and materials.

India has set up KABIL or the Khanij Bidesh India Limited, a joint venture of three public sector companies, to "ensure a consistent supply of critical and strategic minerals to the Indian domestic market". Announcing the formation of KABIL in 2019, Coal and Minister Pralhad Joshi had said: "While KABIL would ensure mineral security of the nation, it would also help in realizing the overall objective of import substitution."

Australia's Critical Minerals Facilitation Office (CMFO) and KABIL had recently signed an MoU aimed at ensuring reliable supply of critical minerals to India.

The UK on Monday unveiled its new Critical Minerals Intelligence Centre to study the future demand for and supply of these minerals. It also said that the country's critical mineral strategy will be unveiled later this year.

Source: The Indian Express

Global iron ore production growth to accelerate until 2026 – report

Global iron ore production growth will accelerate in the coming years, bringing an end to the stagnation that has persisted since iron ore prices hit a decade-low average of $55 a tonne in 2015, market analyst *Fitch Solutions* asserts in its latest industry report.

Continued, albeit slower, growth in Australia, faster growth in Brazil and stabilisation in Mainland China's ore output will be the main drivers of growth, *Fitch* says. China will invest heavily in overseas mines to improve security of iron ore import supply, and Guinea will be an important beneficiary of this trend via the Simandou project.

Fitch forecasts global mine output growth to average 2.7% over 2022-2026 compared to -1.3% over the previous five years. This would lift annual production by 361.7mn tonnes in 2026 compared to 2022 levels, roughly the equivalent of Russia, India, and South Africa's combined 2022 output.

Supply growth will be primarily driven by Brazil and Australia, while Brazilian miner Vale has aggressive expansion plans, *Fitch* notes, adding that miners in Australia including BHP, Rio Tinto and Fortescue will reinvest currently buoyant profits into additional production.

In Mainland China, iron ore production will rise once again in the next three to four years as the country works to increase its self-sufficiency and reduce Australian imports, having declined significantly over recent years, the analyst predicts.

As China's miners operate at the higher end of the iron ore cost curve and domestic ore grades will continue to decline, *Fitch* expects Chinese firms to prioritise investment in overseas iron ore mines, such as the giant Simandou deposit in Guinea.

Australia

Fitch forecasts iron ore production in Australia to grow at an annual average of just 0.4% over 2022-2026. The significant slowdown compared to the previous five years comes from the launch of the limited new sources of supply from new projects available. This would lift annual output by just 19.3 million tonnes compared in 2026 compared to 2022 levels.

The analyst believes Australia's seating at the lowest-end of the global iron ore cost curve will provide a healthy buffer against falling prices in the coming years despite the slowdown. On average, the cost of producing iron ore in Australia is $30/ tonne, compared with $40-50/tonne in West Africa and $90/tonne in China, the analyst notes.

Brazil

Brazil's iron ore production growth will rebound in the coming years following contraction and stagnation over 2018-2020, *Fitch* predicts, noting that low operating costs, a solid project pipeline and Brazil's high-quality iron ore increasingly favoured by Chinese steel producers will all contribute to higher output. Fitch forecast Brazil's iron ore production to increase at annual average rate of 2.6% from 2022-2026 from 409.6mnt this year to 473.5mnt in 2026.

The Brumadinho dam collapse sparked a flurry of investigations into Vale's operations, leading to executive removals, idling operations, and fines on the horizon. The disaster triggered an initiative by Vale to decommission its remaining upstream tailings dams over the next three years, effectively cutting off 40mnt of iron ore per annum. Since the

announcement, multiple operations have been idled, causing further supply disruptions.

The Brucutu mine (30mtpa) was idled for six weeks, allowed to reopen, then idled again days later following another court ruling, then finally reopened in June. *Fitch* expects to see continued regulatory scrutiny over Vale and the iron ore sector as the government grapples with the deadliest environmental disaster in the nation's history.

In December 2020, The Samarco joint venture, owned by BHP and Vale, restarted. Production is initially aimed at 26% of its 30.5mnt capacity with a 60% nameplate utilisation target set for 2026.

Production growth will stagnate over the long er term and *Fitch* forecasts production to peak around mid-decade just shy of 1 billion tonnes.

This production slowdown will be due to mothballing of mines by junior miners and a pullback in capital expenditure by larger firms as iron ore prices decline, says *Fitch*.

Majors continue to decrease costs and increase production in the longer term focusing on higher quality ores as much as possible to improve margins and supply 'green' steel production.

Source: Mining.com

Uganda finds 31 mt of gold ready to be mined; signs up Chinese firm

The Ugandan government has licensed Chinese firm Wagagai to start production in Busia district; the value of 31 mt of gold ore stands at $12.8 trillion

In a move that could overhaul its economy, Uganda has discovered 31 million tonnes of gold following a series of surveys. The gold can be mined with immediate effect. The country now looks forward to attracting gold miners and investors.

The Ugandan government has already licensed Chinese firm Wagagai Gold Mining Company to start production in Busia district.

A tweet posted by the Uganda Investment Authority read: "Ground breaking ceremony of Busia's gold mine project, largest gold deposit so far quantified in Uganda estimated @ 12.5 tonnes of mineable gold, investor Wagagai's initial investment is USD50 million, 3,000 direct jobs."

Over 3,000 jobs to be generated

According to the Ugandan government, the value of 31 million tonnes of gold ore stands at $12.8 trillion. The tweet said refining gold locally can lead to the generation of 3,000 direct jobs and other opportunities. The government predicts that local mining can boost the country's economy in a big way.

As per reports, Ugandan President Yoweri Museveni has called for the local refinement of the discovered gold, calling any external refinery 'criminal'.

The President said: "It is criminal for anybody to argue for the continued exports of raw materials in Africa when there is 90% more value in that product that you are giving to the outsiders."

Quoting the general manager of Wagagai, media reports said the company's investment has reached $60 million. The company faced a delay in construction as it needed two licences – a gold production license it obtained in March and a 21-year lease to mine gold in the country.

Chinese firm begins work

As per reports, the Chinese firm has invested $200 million in constructing a refining facility. According to the spokesperson of the Ministry of Energy and Mineral Development, Solomon Muyita, the Chinese-run firm expects to mine and start refining around 5,000 kg of gold a day in Busia by the end of the year.

Uganda's gold exports have reportedly been on the rise since the opening of the Africa Gold Refinery in Entebbe. Pointing to six local gold refineries, the President has said that the time for Uganda to ship unprocessed raw gold exports is at its end. The Africa Gold Refinery in Entebbe was sanctioned by the US over alleged illicit gold sourcing.

Source: Rising Kashmir

Process to auction iron ore mining leases to start in 2-3 months: Goa CM

Mining has been standstill in Goa since early 2018 after the Supreme Court cancelled 88 leases and prohibited the extraction of fresh ore

The process of auctioning of iron ore mining leases will start in the next two to three months, Goa Chief Minister Pramod Sawant said on Tuesday.

He said the state department of mining and geology had been directed to fast-track formalities so that the process can start as quickly as possible.

Mining came to a standstill in Goa in early 2018 after the Supreme Court cancelled 88 leases and prohibited the extraction of fresh ore.

Earlier, the state government had formed Mineral Exploration Corporation Limited to explore the possibility of auctioning 90 mining leases.

"The State Bank of India has been appointed as a consultant to oversee the entire process of auctioning of mining leases in Goa. We will start the process of auctioning in next 2-3 months, Sawant said after holding a review meeting on the issue.

Talking about illegalities in the mining sector, which was pointed out by a panel of chartered accountants, Sawant said notices for recovery of Rs 300 crore were issued to mining firms.

"A total of Rs 120 crore has been recovered, while notices of Rs 180 crore have been challenged by mining firms in the court," the CM informed.

He added that a Special Investigation Team of the state police's Crime Branch, which was formed to investigate the illegal mining scam, has been asked to submit its report as soon as possible.

Source: The Federal

The Future of More Sustainable Rare Earth Mining

Many of the required materials for renewable infrastructure and electronics come from rare earth minerals. Yet, mining has not been considered an environmentally friendly industry. New funding between Australia and India, and research at the University of South Australia, may establish ways of sustainably mining rare earths to support our electronics and green energy sectors.

Despite their name, rare earth elements (REEs) are not rare. Also known as rare earths, they comprise 17 metallic elements, including lanthanides, scandium and yttrium. These materials are used in many of our electronics and modern-day technologies, making up many high-tech products such as computer hard drives, electric and hybrid vehicles, flat-screen monitors and televisions, and even other forms of electronic displays, lasers, radar and sonar systems.

World Supply of Rare Earths

Rare earth minerals and other metals used for batteries are important for global economies. However, supply is not reliable due to geological scarcity, politics and trade policy.

Most of the production of REEs comes from China. The U.S. Geological Survey's news release: "Going Critical" explained that: "in 2008, China accounted for more than 90 percent of world production of REEs, and by 2011, China accounted for 97 percent of world production. Beginning in 1990 and beyond, supplies of REEs became an issue as the Government of China began to change the amount of the REEs that it allows to be produced and exported. The Chinese Government also began to limit the number of Chinese and Sino-foreign joint-venture companies that could export REEs from China."

While there is a limited supply of REEs, there is also a projected increase in demand due to the green transition as more rare earth minerals will be needed to create sustainable infrastructures such as wind turbines and car batteries.

For any minerals, mining techniques have not been known to be particularly environmentally friendly, sometimes causing pollution in natural waterways or disturbing local biodiversity.

The extraction process for minerals such as rare earths is very damaging to the environment, as conventional mining techniques have produced great volumes of toxic and radioactive materials.

Australia Leading the Way in Sustainable Mining

What if there was a way to mine sustainably for these much-needed minerals of the future? Currently, researchers from the University of South Australia are developing eco-friendly mining techniques for rare earth extraction.

The team is studying two metal recovery processes for extracting metals from ores, involving resin in pulp or moist mix, to help remove harmful substances from water and soil. If these methods indeed help to cut negative environmental impacts, REE mining could see an increasingly prosperous future during the green transition.

Mineral and resource engineer Dr. Richmond Asamoah, and research fellow at the Future Industry Institute (which is part of the University of South Australia) is finding new ways of safely extracting these minerals from ore processing, tailings reprocessing, and wastewater treatments. He is also finding ways to recycle products from scrap magnets and batteries in a safe manner.

Asamoah commented in an IT News article that "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."

"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," he added.

It will be interesting to see what happens next after the news that the University of South Australia gained funding from the Australia-India Strategic Research Fund, helping Australia and India to raise their bar on sustainability.

The research grant will offer major benefits to both countries, particularly as rare earths contribute nearly $200 billion to the Indian economy, which mostly imports these materials from China. This could allow Australia to export rare earths to India as an alternative to China while allowing India to sustainably extract minerals on their own territory.

Sustainable Rare Earths in the UK

Saltend Chemicals Park will be the UK's first rare earth processing facility, breaking dependence on China while also cutting the associated transportation costs and emissions.

Located in the Humber Local Enterprise Partnership, in collaboration with Wood Group, the project will create the world's first fully sustainable magnet metal supply chain.Gerry Grimstone, UK Minister for Investment said in a news release by Powder Metallurgy Review: "We very much welcome the proposal to establish a fully-sustainable rare earth oxide magnet metal processing facility in the Humber region. This facility is an important step in the establishment of a permanent magnet supply chain in the UK which could support a range of industries important to building back greener and our Net Zero ambitions."

By Clarissa Wright

Source – AZO Mining

Odisha Mining Corporation adamant on floor price even as steel industries stare at closure

On May 22, the Union government imposed export tax of 15 per cent on steel and stainless steel products and 45 per cent on iron ore pellets.

Pellet, sponge iron and steel industries in Odisha are on the verge of closure due to the non-reduction of floor price of iron ore by the State-run Odisha Mining Corporation (OMC), the industries' body of Kalinga Nagar cluster said.

President of Kalinga Nagar Industries Association (KNIA) PL Kandoi said non-reduction of iron ore floor price to a viable level will result in closure of industries, loss of revenue to the State and retrenchment of thousands of direct and indirect employees.

E-auction for the iron ore is scheduled to be held this week. On May 22, the Union government imposed export tax of 15 per cent on steel and stainless steel products and 45 per cent on iron ore pellets. On iron ore, the export tax has been increased to 50 per cent. Due to this, the price of steel has fallen sharply by Rs 7,000 to Rs 10,000 per MT while that of sponge iron sharply reduced from Rs 36,000 to Rs 30,000 per MT.

The National Mineral Development Corporation (NMDC) too have reduced the prices of iron ore CLO (calibrated lumpy ore) and fines by Rs 2,000 per MT. However, the reduction of the floor price of iron ore CLO by OMC for the June e-auction is much less. Kalinga Nagar-based industries are likely to suffer the most as OMC has reduced the floor price of Daitari CLO by only Rs 550 per MT. Similarly, the floor price of Gandhamardhan CLO has been reduced by Rs 900 and Jiling/Guali by Rs 1,300 per MT, industry insiders said.OMC, which is the largest merchant mining company, has fixed the price of Daitari and Gandhamardhan iron ore CLO at `5,050 per MT despite poor market demand and diminishing product price, they added.

In Odisha, the recent iron ore CLO auction conducted on June 10 by JSW received a poor response as only 11,850 MT was booked against an offered quantity of 102,700 MT (approximately 11 per cent). The auction conducted by the Steel Authority of India (SAIL) on June 11 for selling iron ore CLO from its Odisha mines failed to attract any buyer as no response to the request for tender auction was received.

Kandoi said, "The NMDC has reduced the price of iron ore CLO by Rs 2,000 per MT in view of the fallen steel price. We demand the OMC should follow the NMDC for the survival of pellet, sponge iron and steel industries in the State."

Source – New Indian Express

Captive and commercial coal blocks production in India surges by 79%

Coal production from captive and commercial coal blocks surged by 79 per cent to 27.7 million tonnes in the first quarter of the current financial year as compared to 15.5 MT recorded in the corresponding period of the last fiscal, the government data showed on Thursday.

At present, a total of 36 captive and commercial mines are under production and it is expected that at least 12 more new mines will start production during the year. This will significantly contribute to meet the coal demand in the country, the Ministry of Coal said in a statement. Additional secretary and nominated authority of the Ministry of Coal on Wednesday reviewed the production from coal blocks for the first quarter of 2022-23.

During the review meeting the Ministry of Coal officials appreciated the efforts of coal blocks allottees in achieving such high growth and expressed hope that target production of 32 million tons from coal blocks during the second quarter of FY 2022-23 will be achieved, the statement said.

It was also noted with appreciation that two mines auctioned in 2021 under commercial auction reforms have become operational and produced 1.57 million tonnes in the first quarter.

Source – The Print

Rajasthan enters uranium mining, issues LoI to Uranium Corporation

The Rajasthan government has forayed into the field of uranium mining by issuing a letter of intent (LoI) to Uranium Corporation of India.

Rajasthan has come on the world map with huge reserves of uranium, found at Rohil (Khandela Tehsil) in Sikar district, which is over 120 km from state capital Jaipur.

After Jharkhand and Andhra Pradesh, Rajasthan is the third state where uranium — which is considered one of the rare minerals in the world — has been found.

The Rajasthan government has forayed into the field of uranium mining by issuing a letter of intent (LoI) to Uranium Corporation of India. The LoI is for excavation of ore of this rare mineral in the state. Mining of the rare mineral will start after fulfilling necessary formalities.

Mines and petroleum minister Pramod Jain Bhaya called the decision of uranium excavation a big achievement in the field of mining in the state.

Additional chief secretary — mines and petroleum — Subodh Agarwal said uranium mining has opened up new opportunities for investment, revenue and employment.

He said chief minister Ashok Gehlot, during review meetings of the mines department, always emphasised on expanding mineral exploration and mining activities.

According to initial estimates, there may be around 12 million tonnes of uranium deposits.

A senior official of the mines department said Uranium Corporation will invest around Rs 3,000 crore for mining activities. This project will give direct and indirect employment to around 3,000 people. It would also pave the way for setting up ancillary industries, based on the by-products in the area.

Currently, excavation of uranium is going on at Jadugoda in Jharkhand as well as Andhra Pradesh.

The largest producers of uranium in the world are Kazakhstan, Canada and Australia, while this mineral has also been found in Niger, Russia, Namibia, Uzbekistan, the US and Ukraine.

Uranium is mainly used for generating electricity and also for nuclear energy, medicines, defence equipment and photography, among others.

Source: Business Standards

WWF director calls deep-sea mining proposals "terrifying"

The WWF director has criticised the idea of deep-sea mining as a UN body works to establish regulations for the potential industry.

The leader of the World Wildlife Fund (WWF) has denounced current proposals for deep-sea mining as "terrifying".

Marco Lambertini, WWF director general, made the remarks to *Reuters* at the UN Ocean Conference in Lisbon. He also said he believes that mineral extraction on the seabed would have unforeseen consequences. "We simply don't know what we will unleash by going down hundreds, thousands of metres to the bottom of the ocean," he said.

The deep-sea ecosystem is currently very poorly understood. Lambertini has remarked that clouds of sediment created by large-scale disturbances of the ocean floor could affect fish migration patterns. In turn, this could affect fisheries thousands of miles away, as well as having massive consequences for the rest marine life.

Instead of deep-sea mineral extraction, Lambertini has advocated that authorities should improve their recycling efforts. In the meantime, the WWF has proposed a moratorium on deep-sea extraction.

Lambertini has said that he believes several countries will object to the regulations proposed later this year. He continued: "Without having a common governance mechanism, I think it will be very difficult to coordinate action."

Current deep-sea mining technologies would extract fist-sized rocks from the seabed in deep ocean areas. These rocks contain high levels of cobalt and rare earth metals used in the production of batteries.

Potential seabed miners await decisions from the UN's International Seabed Authority (ISA) on how to approach extraction in international waters. Meeting in Kingston, Jamaica, the ISA has responsibility over non-territorial seas, and must decide regulations before any extraction can start.

Council members discussed potential regulations in March and April. Committees will meet throughout July, with an assembly meeting in August and a second council meeting in October.

Several small island nations, such as Fiji, Samoa, and Palau have called for a moratorium on deep-sea mining. Earlier this week, Palau President Surangel Whipps told the United Nations Ocean Conference: "How can we in our right minds say 'let's go mining' without knowing what the risks are? We believe it is not worth the risk."

Several large companies, including Google, Samsung, BMW, and the Volvo Group have backed the WWF's call for a moratorium on deep-sea mining.

At the same time, some island nations have advocated for quick licensing of deep-sea mining. The decision-making process was

started after representatives of Nauru, in the Pacific Ocean, notified the ISA of its intent to start licensing deep sea miners.

While no large-scale deep-sea mining company currently exists, mineral extraction companies have shown interest in starting operations. The ISA has already granted 22 contractors licenses for deep-sea mineral exploration, including to the governments of India, South Korea, and Poland. Multiple Chinese and Japanese companies have received licenses, alongside companies in the UK, Jamaica, and several Pacific nations.

Source: Mining Technology

SWASTHA

A GEMCOKATI EMPLOYEES INITIATIVE

Meditation: a great tool, not just good for you, but for your relationships too….

Human beings are genetically designed to live in synergy with other fellow beings. It is rightly said relationships are key to life of meaning and purpose. Yet what we often see is that one of the major sources of pain, suffering, stress, and confusion are caused by the so called relationships.

There are great many ways or secrets to maintain good relationships, to keep our love alive as well as sustain affection towards each other throughout our life.

A simple key or technique which research and studies suggest is – MEDITATION.

Now the question is how does something, that you do for and by yourself help in improving your relationships. The answer is of course, it helps in many ways: by filling your cup through this profound act of self care, it ends up overflowing and deeply benefitting each and everyone you love.

People who religiously meditate are more Emotionally Intelligent.

All the negative emotions: anger, irritation , frustration ,jealousy , anxiety , fear, nervousness and more are the result of challenges in relationships. It becomes next to impossible to control our emotions during challenging circumstances, which ultimately reflects and affects people around us.

Studies have shown that regular meditation improves emotional intelligence, thus leading to a greater self awareness, eventually bringing in control our undesired negative emotions , and making us capable to connect and empathize with others.

Everyone loves a parent , a partner , a friend , a colleague , a boss , a senior , who is not just emotionally intelligent , but also wise . Even research has proved that meditation is associated with overall wisdom.

Meditation always keeps you in a gratitude state of being .

As years pass by , we get used to the things we have as well as the people we are with. We start to take them for granted very much related to Hedonic Adaptation. That's when people start to focus on what's wrong with their partner or forget why they fell in love in the first place. However, grateful people are more satisfied in their relationships and feel closer to one another. Feeling grateful strengthens the bond in any form of union. A really strong reason to meditate is to be more self- aware of all the blessings in life and therefore be more grateful.

Meditation helps to curb daily stress.

Our day to day stress is directly affecting our most close people and our mood swings gives rise to a very negative atmosphere in our surroundings. Simple breathing exercises not only curb the stress but also helps to preserve relationships with loved ones.

Meditation boosts happiness.

People who regularly meditate have more positive emotions overall , which in turn is linked to slower aging , and keeping you more energetic , enthusiastic , upbeat and a person who is mostly vibrates in a state of bliss and happiness.

Thus meditation helps you to connect with the self, even when leading a life full with hectic schedules , having very little time to spend together ,which in turn boosts your connection to others in the most significant way.

About Author:

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Your suggestions and feedback is awaited at :-

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