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NURTURING COOPERATION IN THE CRITICAL MINERALS SUPPLY CHAINS



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NURTURING COOPERATION IN THE CRITICAL MINERALS SUPPLY CHAINS

The world is experiencing a crucial shift; a new industrial revolution. This time, the colour is green, and the aim is a cleaner, more livable world for future generations. This industrial revolution will require unprecedented access to critical minerals like graphite, cobalt, lithium, and copper, used for some of the most advanced technologies of our time. Many of these minerals are scattered around the globe, and states that do not have the natural reserves must build new industrial partnerships with those that do—in some cases, between states that may otherwise view one another as competitors or even threats. In other cases, western countries must determine how to engage fairly with states—mainly those in Africa—who have been on the end of extractive relationships with wealthier nations for decades. As the global race for critical minerals and leadership in the green energy transition escalates, this brief highlights idea to ensure that competition does not stymie progress.

The global order, it seems, was in constant turmoil in the last decade, barely held together by a web of complicated partnerships and alliances and weakening multilateral institutions. Major powers like the United States (US) and China are competing with one another for global economic dominance; Russia has upended the United Nations Charter and sent shockwaves throughout the global community by annexing Crimea in 2014 and conducting a full-scale invasion of Ukraine in February 2022; and Hamas’s attack on Israel on 7 October (and Israel’s prolonged military response) shows that the Middle East is anything but stable.

Amid the unease, danger, and destruction, it is easy to forget that the world is also in the middle of another crucial shift: a new industrial revolution. This time, the colour is green, and the aim is a cleaner, more livable world for future generations. This industrial revolution looks different from those that came before and will require unprecedented access to global critical minerals “essential to the functioning and integrity of a wide range of industrial ecosystems”, such as solar and wind farms, energy-efficient lighting, and electric vehicle battery production.

These minerals include, but are not limited to graphite, cobalt, lithium, and copper used for some of the most advanced technologies of our time. The uses go beyond just clean energy, and include national defence technology as well—fighter jets, precision-guided missiles, aircraft engines, and control rods in nuclear reactors, all require access to such critical raw materials. Current statistics around these minerals are nothing short of astounding: “Global demand for lithium and graphite, two of the most important materials for electric vehicle (EV) batteries, is estimated to grow by more than 4000 percent by 2040 in a scenario where the world achieves its climate goals.” Demand for cobalt is expected to more than double by 2030, driven by the upside swing of the EV market.

Many of these minerals are scattered throughout the globe. Chile holds the world’s largest lithium reserves, followed by Australia, Argentina, and China. Türkiye and China are home to the world’s largest graphite reserves. The Democratic Republic of the Congo—where mines are the subject of attention from human rights groups for their use of child labour—possesses the world’s largest cobalt reserves and the seventh-largest copper reserves. And finally, South Africa has unchallenged dominance in the production of manganese, a mineral used in both wind and solar farms and for EV batteries.

Of these countries, those that can successfully harness the production of raw materials (and the supply chain logistics for those raw materials) could lead the world in both technology and clean energy into the next century. For their part, states that do not have comparable natural reserves of these materials must build new industrial partnerships with those that do. In some cases, these partnerships must be between states that may otherwise view one another as competitors or even threats. In other cases, western countries must determine how to engage fairly and equally with states—mainly those in Africa—who have been on the end of extractive relationships with wealthier nations for decades. Unprecedented levels of cooperation between the Global North and the Global South will be key. Taking all this together, the task may appear daunting. As the global race for critical minerals and leadership in the green energy transition heats up, there are a few issues that must be kept in mind to ensure that chaos

and competition do not stymie growth, progress, and achievement.

U.S.-China Competition: A Bump in the Road to Securing Critical Minerals

In January 2021, United States President Joe Biden issued Executive Order 14017 as one of his first orders of business upon assuming office, directing “each department in the administration to assess potential supply-chain risks within their jurisdiction and come up with strategies to mitigate or overcome these.” The aim was to “minimise supply chain disruptions domestically and internationally.” The results of the directive were concerning: China was estimated to control 55 percent of global rare-earths mining capacity in 2020 and 85 percent of rare-earths refining. More specifically, as professor of environmental studies, James Morton Turner, highlights: “China control[s] 58 percent of the global production of lithium compounds in 2022, 69 percent of nickel sulfate, 69 percent of synthetic graphite, 75 percent of cobalt, 95 percent of manganese and 100 percent of spherical graphite. China plays a similarly outsize role in the supply of materials used in solar panels and wind turbines.”

From China’s vantage point, there is no better place to be. Not only does it give the country ample control over the role it plays in the global green transition, but it also means it can use that position to gain concessions from other countries that may challenge its dominance. Indeed, on 1 December 2023, China began “government approval for exports of graphite...in an apparent counter to US-led curbs targeting China’s tech sector.” This came only two months after China restricted the export of germanium and gallium, both critical to semiconductor manufacturing.

The United States is also trying to secure its spot at the top of the global critical minerals supply chain. In 2022, Congress passed a landmark legislation known as the Inflation Reduction Act (IRA), described by the White House as “the most significant action Congress has taken on clean energy and climate change in the nation’s history” which “sets forth a new era of American innovation and ingenuity to lower consumer costs and drive the global clean energy economy forward.” The IRA also commits to increasing the US supply of critical raw materials to vastly expand EV production, batteries, and infrastructure for renewable power production. While the law does not say so specifically, it is clearly designed to counter China in this space. Unfortunately, as the US and China continue to try to out-invest, out-subsidise, and challenge one another’s global economic dominance, their push-and-pull risks becoming zero-sum—if it is not already so. According to Zongyuan Zoe Liu of the Council on Foreign Relations: “US-led critical mineral supply chains initiatives that aim to counter China’s dominance inevitably clash with the Chinese government’s interests in securing mineral resources for China’s industrial development.” The same goes for Chinese efforts aimed at curbing US dominance. Going forward, as difficult as it may be, it is imperative that the US and China try to find ways to cooperate in this domain. Everyone loses in a scenario where the two are locked in a classic geopolitical game of the Prisoner’s Dilemma, where each side is waiting to see if the other makes a move, and the rest of the global community gets caught in the crossfire.

The November 2023 meeting in San Francisco between presidents Joe Biden and Xi Jinping was a first step towards opening lines of communication. According to the White House, “The two leaders

underscored the importance of working together to accelerate efforts to tackle the climate crisis in this critical decade;” they agreed to continue cooperation through “high-level diplomacy and interactions, including visits in both directions and ongoing working-level consultations in key areas.” The US and China must include discussions on global critical raw materials supply chains as part of these high-level diplomatic efforts.

The More the Merrier: Global Partnerships are Key

The race for access to critical raw materials goes beyond just the United States and China; it is global. In a visit to the United States in May, for example, Australian Prime Minister Anthony Albanese announced a landmark plan to both mine and process critical raw materials on the continent. The two sides also announced a significant step in bilateral cooperation: “a Climate, Critical Minerals and Clean Energy Transformation Compact...establishing climate and clean energy as a central pillar of the Australia-United States Alliance.” This is in addition to a high-level bilateral taskforce between the two countries focused on deepening cooperation on critical raw materials and working “with industry leaders to develop and expand reliable, responsible and secure global access.” Similarly, the US and Japan signed a critical minerals agreement in March 2023, which builds on the 2019 US-Japan trade agreement and highlights the “shared commitment of the United States and Japan with respect to the critical minerals sector to facilitate trade, promote fair competition and market-oriented conditions for trade in critical minerals.”

The European Union (EU) is also implementing its own critical minerals policies. In March 2023, the EU proposed the Critical Raw Materials Act, which will ensure EU access to a secure and sustainable supply of critical raw materials, enabling Europe to meet its 2030 climate and digital objectives. Like the US, Europe relies heavily on imports, mostly from single third countries. The Act sets out ways for the EU to create secure and resilient supply chains, lays out ways to prepare and mitigate supply chain risk, improves the sustainability of critical raw materials on the EU market, and diversifies the EU’s imports of critical raw materials.

There is no doubt that access to critical raw minerals is a top-of-mind agenda for countries around the world. What is less clear, however, is where global cooperation goes from here, and whether these bilateral and EU frameworks will be able to launch the type of partnerships that are truly needed. This is where multilateral partnerships become key. In response to European panic over the IRA’s effects on countries in the continent, European Council President Charles Michel and US President Joe Biden in March 2023 announced plans to create an EU-US Critical Minerals Agreement. The objective, of course, is to secure supply chains needed in the production of EV batteries. In addition, the aim is to give the EU “a status equivalent to US free trade agreement partners pursuant to the US Inflation Reduction Act.”

The European Council has also proposed a “Brussels Buyer’s Club”—a centralised purchasing mechanism for critical

minerals open to the United States and other like-minded countries. As Cullen Hendrix of the Peterson Institute for International Economics points out, though, there are flaws in the “buyer’s club” approach. He states: “Supply chains for critical minerals desperately need widening to meet projected global demand and tackle climate change mitigation. A purchasers club would not be a step in the right direction.” Further, it could potentially set up distributive conflicts within the EU, and have adverse effects for just transitions in developing and middle-income economies.

What would then be a better approach? As nations like the US, Australia, and Japan, as well as multilateral organisations like the EU pursue partnerships to secure global critical minerals supply, they must ensure that the net is cast as wide as possible. States and institutions must do everything they can to avoid a “cartel-like” approach to critical minerals. Instead, global cooperation should take precedence over stove piping which could shut potential producers out, make prices more volatile, and in turn, slow down the green transition. The Minerals Security Partnership—a group of 13 countries working together to catalyse public and private investment in responsible critical minerals supply chains globally—is a good example of where to start, and potentially where to expand.

Strengthening Transatlantic Partnerships with Africa

For years, countries in Africa have been on the receiving end of extractive relationships with the US and Europe. Given the urgency and speed of the global green transition, both are at the top of the customer list in terms of securing access to critical raw minerals and building partnerships with mineral-rich Africa—a feat that China has clearly succeeded in. China is not exactly “geologically lucky”; quite the opposite is true, in fact, as it is not home to that many critical raw materials. Instead, it has “systematically invested in overseas and domestic mines that feed into Chinese-owned refineries, where raw materials from around the world are processed into the high-grade materials needed for advanced manufacturing.” China has steadily built its presence in the African continent through infrastructure projects and no-strings-attached investments that are attractive to leaders who want to build their own economies.

If countries want to truly prioritise the green transition, it means not only increasing policy dialogue with Africa, but also coming to the table with worthwhile partnerships. This is particularly true for the US and EU. Both must fundamentally change their relationships with African countries and put an end to what is often a hypocritical approach. As this author, along with Théo Pouget Abadie wrote in early 2023, “As Europe weans itself off Russian gas, for example, it has ramped up oil and gas investments in Africa to meet its ongoing needs. Regardless of these investments, Europe continues to press Africans to stick to renewable energy targets, despite them being unable to provide electricity, clean or otherwise, to their own populations.” It is clear that Western countries tend to hold African countries to standards that are impossible to meet.

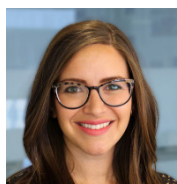
Moving forward seems simple enough: If the West wants to build better relationships with Africa, it must offer something of value in exchange. This means building genuine industrial partnerships that enable states to move up the global value chain, from purely extractive activities to refining of critical raw materials or even manufacturing panels and batteries. The Biden Administration is now pursuing this path by investing in projects in Africa that help shore up supply chains in the US and assist various countries in moving up the global economic ladder, which is mutually beneficial for both sides. One such investment is a cross-continent railroad system in Africa. The US has also signaled political support for a nickel processing plant in Tanzania. However, these industrial partnerships will need more private sector investment. The bilateral and multilateral global critical minerals partnerships already mentioned must also include ways to reduce risk and provide incentives for private capital to flow to the Global South.

There must be increased policy dialogues between the West and Africa. Currently, for instance, no permanent dialogue platform exists between the EU and the African Union (AU). Most discussions are taking place in ad-hoc channels, which does not allow for the kind of long-term planning required to build genuine partnerships. Expanding the Minerals Security Partnership to include the AU would be a step in the right direction. Including the AU as a permanent member of the G20 is also a welcome achievement.

Western partners should find ways to provide financing or debt relief support to help African nations achieve their own energy transition: not one of transitioning to renewable energy, but one of transitioning from no energy to energy. As debt levels rise across the continent, for example, African nations are increasingly at risk of debt distress and default. A massive 600 million of the continent’s 1.2 billion people still lack access to electricity, a problem that will require trillions of dollars to solve. More investments are also desperately needed to adapt to the impacts of climate change, which are already disproportionately affecting Africa. Western countries should expand the support for public infrastructure in the form of grants and broaden country-specific support to lower income economies across the African continent which can “couple decarbonization with the expansion of energy for industrialization, manufacturing, and other economic activities.”

Conclusion

Green industry is revolutionising the world in the same way that oil did in the 20th century. As Morgan Bazillian and Gregory Brew has observed: Where the 20th century featured battles over access to oil, the 21st century is starting to be defined by a struggle over critical minerals. While competition is inevitable, cooperation must win the day. As the climate heats up, as the Earth experiences more and more unpredictable weather patterns due to climate change, the race is on to build a more sustainable and green world.



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Source : ORF (Observer Research Foundation)

TO BOOST PRIVATE INVESTMENT IN MINING SECTOR, INDUSTRY AWAITS SHIFT TO INVESTOR FRIENDLY MINERAL REPORTING CODE

Mines ministry asked to consider adoption of JORC model in place of UNFC

In a bid to spur private investment in India's mining sector, representatives of Vedanta Group pushed the Mines Ministry to shift to an investor friendly resource classification code during a meeting on October 18, 2023. The representatives asked the ministry to consider the adoption of Joint Ore Reserve Committee (JORC) classification, developed by mining experts in Australia, as opposed to the currently used United Nations Framework Classification (UNFC), which does not mandate disclosures pertaining to the economic viability of mining exploration projects.

According to experts, India's current resource classification rules based on the UNFC have made the prospect of mineral exploration unattractive to private companies as it fails to provide any degree of economic certainty, which in turn has hindered the flow of private investment in the sector. Between FY19 and FY23, the mining industry recorded foreign direct investment (FDI) in equity valuing \$1.1 billion, just 4 per cent of gross equity inflows worth \$259 billion.

A resource classification code is necessary to assess resources and reserves in a mineral block, to prepare geological reports to facilitate its auction for both exploration and mining, and for a mining company to evaluate its assets.

In the meeting, the mines ministry secretary proposed a joint working group involving Geological Survey of India (GSI) and Indian Bureau of Mines (IBM) to study the issue, as per the meeting minutes obtained by The Indian Express through the RTI. Experts point out that India's mining industry has already developed and recommended the Indian Mineral Industry Code (IMIC) in 2019, which is based on the same template as the JORC classification, however the ministry is yet to formulate rules in line with the IMIC despite informal assurances.

The mines ministry, GSI, and IBM did not respond to emails asking for comments.

"Unlike other sectors, the mining sector deals with natural processes, the knowledge of which remains incomplete prior to the commencement of mineral extraction. It is critical for the Indian mineral sector to communicate effectively and transparently with the investment community using internationally accepted terminology and definitions, which are essential to earn their trust. This internationally accepted terminology is incorporated in the IMIC," said Peter Stoker, deputy chairman of Australia's JORC and principal geologist at the Brisbane office of AMC Consultants. While the UNFC framework allows for the reporting of resources in general, which include undiscovered and uneconomic resources, the IMIC and the JORC classification, both aligned with the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) template, also require the reporting of reserves, which are economically viable deposits with high geological confidence confirmed through studies at least to a pre-feasibility level. In other words, reserves indicate the likelihood of profitably mining a mineral block at the time of reporting. "You cannot report resources in the CRIRSCO system unless you establish that there is a reasonable prospect for eventual economic extraction," explained Dr P V Rao, co-chair of the National Committee for Reporting Mineral Resources and Reserves in India (NACRI), which developed and maintains the IMIC code.

In determining the economic viability of mining projects, the CRIRSCO template considers ten modifying factors including legal, infrastructural, processing, metallurgical, marketing, environmental, and governmental factors. Globally, CRIRSCO consists of 15 members including the USA, Australia, Brazil, Canada, Chile, South Africa, and the European Union. Membership to CRIRSCO requires countries to produce reporting codes that comply with the CRIRSCO template. India was admitted to CRIRSCO in 2019 following the recognition of the IMIC as a CRIRSCO-compliant code.

"The CRIRSCO framework's primary function is to ensure that investors and their advisors have comprehensive information that is relevant to make financial and technical decisions. This data is

crucial for forming reliable opinions on the results and estimates being reported, thereby promoting informed decision-making in the mining sector," according to Vikram Mehta, partner at EY India's metals and mining division.

In addition to the mineral reporting template, CRIRSCO also provides a governance system to ensure competent and ethical reporting by industry professionals.

On the other hand, the UNFC framework, which is more comprehensive and diverse, has a wider application in policymaking. "UNFC is a useful tool for national governments to see beyond the horizons of an investor's point of view and allow formulating informed policy decisions, country-specific strategic decisions, and maintenance of a national inventory," said Shameek Chattopadhyay, managing director and principal consultant at SRK Mining Services. "Under UNFC, all resources including mineral occurrences and mineral zones that have reconnaissance level or very low level of confidence in terms of estimation of quantity and quality are also reported, albeit under separate categories," explained Pankaj Sinha, managing director at UK-based DMT Consulting Limited.

Importantly, while the CRIRSCO framework can be mapped onto the UNFC framework, given that the latter has a much broader scope, the reverse is not possible as CRIRSCO is far more specific in scope.

In 2015, the mines ministry notified the Minerals (Evidence of Mineral Contents) (MEMC) Rules, for which they used the CRIRSCO definitions for resources and reserves, while the framework for classification of resources was borrowed from the 1997 UNFC framework. "At the time, we told them that you cannot mix oranges and apples to say that they are one. The two are not compatible in that manner," Rao explained.

Then, in 2021, the ministry amended the MEMC Rules and removed the definitions stated in the 2015 version. "The amended rules totally ignored the CRIRSCO definitions and the UNFC framework. At present, India is also not following the UNFC framework in toto, which was updated in 2019," Rao added. MEMC Rules are used for the purpose of preparing geological reports for the auction of mineral blocks. Mining companies have to rely on such reports for the valuation of mineral blocks and to determine whether or not they should participate in a given auction.

According to Stoker, a shift to the IMIC will allow the Indian mineral sector to communicate effectively and transparently with the investment community. "It is another step towards realising the immense potential for private investments in exploration and mining in India, which has largely not been successful under the current UNFC mineral reporting system as the prescribed terminology and definitions are not acceptable to the global investment community," he said.

"If the IMIC was also adopted for internal or non-public reporting, then the information available in tenders and for joint ventures and takeovers, would comply with the requirements of international banks which require reporting in accordance with one of the major codes for due diligence studies," Stoker added.

According to Chattopadhyay, adapting India's mining rules to the IMIC code will attract private investment to the sector by providing greater clarity on the economic feasibility of exploration projects. "The IMIC will help the Indian mining industry with access to capital for mining and exploration companies for undertaking scientific exploration, project development, and mine expansion programmes by allowing potential investors to take informed decisions to invest in a particular project, through appropriate transparency, materiality, and competency," he said. Moreover, the IMIC also sets minimum public reporting standards for listed mining companies, which can further streamline the process of raising funds from the equity market.

Source : The Indian Express

KARNATAKA, RAJASTHAN BEGIN EXPLORATION LICENSES' AUCTION FOR CRITICAL MINERALS

According to the Ministry of Mines, the two states launched the auction of exploration licenses on March 6. Exploration licence blocks are being auctioned for the first time in the country, it said

Karnataka and Rajasthan have launched an auction of exploration licenses for critical and deep-seated minerals, according to an official statement on Thursday.

Karnataka launched the auction of one block each of gold, copper and lithium while Rajasthan launched the auction of three blocks of rare earth elements, rare metal and potash minerals, it said.

According to the Ministry of Mines, the two states launched the auction of exploration licenses on March 6. Exploration licence blocks are being auctioned for the first time in the country, it said.

The Mines and Minerals (Development and Regulation) Act, 1957, was amended through the MMDR Amendment Act, 2023, with effect from 17.08.2023, inter alia, to introduce new mineral concession of exploration licence for 29 critical and deep-seated minerals to further boost exploration and mining of critical and deep-seated minerals in the country.

Critical and deep-seated minerals such as cobalt, lithium, nickel, gold, silver, and copper are difficult to explore and mine as compared to surficial or bulk minerals.

The exploration licence granted through auction shall permit the licensee to undertake reconnaissance and prospecting operations for critical and deep-seated minerals.

Exploration license aims to create an enabling mechanism wherein junior mining companies will bring in expertise from around the world in the acquisition, processing and interpretation of exploration data, and leverage the risk-taking ability in the discovery of deep-seated mineral deposits through the adoption of expertise and latest technologies.

Source: Busniess Standard

RAJ GOVT EXPECTS TO ATTRACT INVESTMENT WITH E-AUCTION OF IRON ORE BLOCKS

Rajasthan is one of the richest states in terms of availability and variety of minerals in the country, producing over 57 different minerals

The e-auction of iron ore blocks started by the Rajasthan mines department in Karauli will attract new investments in steel and cement sectors in the surrounding area as well, the state government expects. The move will also help create employment opportunities and boost revenue.

The state mines department recently started the e-auction for the composite licence of four iron ore blocks in Karauli and has made the tender document available for sale on the central government's MSTC portal.

Rajasthan is one of the richest states in terms of availability and variety of minerals in the country, producing over 57 different minerals.

Rajasthan Chief Minister Bhajan Lal Sharma, who holds the mining portfolio, said there had been indications of more than 840 million tonnes of iron ore deposits in Khoda, Dadaroli, Todupura, and Liloti near Hindaun city in Karauli. "New deposits of iron ore will also create new opportunities for industrial development and employment in the state," he said.

The CM said many industries, including the coal washing, ferroalloy, foundries, ceramic, and cement industry, would be able to get raw mate-

rial for years. Employment and income opportunities would also develop with the setting up of new industries in the state.

The mines department is running a statewide campaign against illegal mining activities for the past 15 days while the auction of major and minor blocks is ongoing.

"The department has issued a notice for e-auction of all four blocks of Karauli iron ore. Detailed information in this regard can be obtained from the department's website and the MSTC portal," said State's Secretary of Mines Anandhi. Bhagwati Prasad Kalal, director of mining & geology department, said the department was making efforts to set a new record for the e-auction of major and minor blocks. "By making the auction system transparent, people sitting anywhere in the country and the world can participate in the auction by registering on the e-portal of the central government," he said.

Initial exploration has found indications of magnetite and hematite iron ore in Karauli district. Iron ore deposits have been found in 462.3 hectare area in Khoda, 754.38 hectare area in Dadaroli, 260.71 hectare area in Todupura, and 410.94 hectare area in Liloti. According to an estimate, there are more than 840 million tonnes of iron ore deposits in the district.

Source: Busniess Standard



INDIA'S CRITICAL AND STRATEGIC MINERAL AUCTIONS FACE THREE-MONTH DELAY

Final date to select the preferred bidders for remaining seven mineral blocks has been deferred to July 8

India's bid for self-sufficiency in critical minerals is facing another setback because the government has delayed the selection process for preferred bidders by three months for the first round of critical mineral blocks.

This decision comes shortly after the government in March scrapped the auction process for 13 blocks due to a lacklustre interest from potential investors.

According to a Ministry of Mines notice, the final date to select the preferred bidders for the remaining seven mineral blocks has been deferred till July 8 from April 18.

With the initial auction round, valued at Rs 45,000 crore, encountering obstacles, industry experts anticipate delays in the timeline for the second auction round as well.

"Not just this round but also the next round is likely to struggle to attract bidders due to the lack of clarity regarding available resources," an industry expert said.

The query sent to the ministry, seeking reasons for delaying the auction process, remained unanswered until the time of going to press.

While government sources attribute the delay to the Lok Sabha elections, experts disagree. An expert said this raised questions as to why technically qualified bidders (TQBs) had not been selected thus far.

"Why has the government postponed the announcement date of TQBs instead of simply halting the announcement of qualified bidders?" the person asked.

The Centre inaugurated the first round of critical minerals auction in November, with March 11 initially set as the final date for the selection of preferred bidders. However, it has been amended twice since then.

On March 13, the government announced cancelling 13 blocks, with two receiving no bid and 11 having fewer than three TQBs. The two blocks that

did not attract any bids are molybdenum minerals in Tamil Nadu.

The maiden auction of critical minerals by the Centre has faced a setback with close to seven blocks, including the lithium block in Jammu & Kashmir (J&K), finding almost no takers, Business Standard recently reported.

A total of 56 physical bids and 56 online bids were received for 18 of the 20 blocks, a ministry statement said.

According to the Mineral (Auction) Rules, 2015, if the number of TQBs is less than three, no TQB is considered a qualified bidder, and the first attempt of the auction is annulled. Since the ministry failed to secure a minimum of three bids for these blocks, it announced a second auction round for seven blocks on March 14.

During the launch of the auction process on November 29, Union Mines Minister Pralhad Joshi expressed confidence that India would achieve self-sufficiency in critical minerals. He estimated the value of these blocks at Rs 45,000 crore.

However, experts expressed scepticism regarding India's ability to achieve self-sufficiency in critical minerals. This is due to lack of clarity on the potential data of the reserves.

According to the United Nations Framework for Classification of Resources, the exploration of minerals is divided into four stages — G4 (reconnaissance), G3 (prospecting), G2 (general exploration), and G1 (detailed exploration).

In addition to the lack of clarity on reserves, the high cost of investment in exploration has deterred potential investors from participating in the bidding process.

This setback raises concern about India's ability to reduce its reliance on import.

Most of these minerals are imported from China, which is the leader in the global production and supply of these resources.

With investors failing to bid, experts suggest India continue to rely on China for securing its raw materials.

The Centre has initiated the auction of 38 critical and strategic minerals to date. The initial tranche included 20 blocks, while the subsequent tranche had 18.

Source: Financial Express

INDIA CUTS ROYALTIES FOR MINING 12 CRITICAL MINERALS, INCLUDING VANADIUM

India's Cabinet has approved new royalty rates for mining of 12 critical and strategic minerals -- Beryllium, Cadmium, Cobalt, Gallium, Indium, Rhenium, Selenium, Tantalum, Tellurium, Titanium, Tungsten, and Vanadium -- which will allow the government to auction mining blocks for these minerals in the country.

A meeting of the Union Cabinet, chaired by Prime Minister Shri Narendra Modi, approved amendments of the Second Schedule to the Mines and Minerals (Development and Regulation) Act, 1957 for specifying rate of royalty in respect of the 12 critical and strategic minerals, the Press Information Bureau said. The new rates are:

MINERALS	ROYALTY RATES
Beryllium, Indium, Rhenium, Tellurium:	2% of the ASP of relevant metal chargeable on the relevant metal contained in the ore produced.
Cadmium, Cobalt, Gallium, Selenium, Tantalum (produced from ores other than Columbite-tantalite), Titanium (produced from ores other than occurring in Beach Sand Minerals):	4% of the ASP of relevant metal chargeable on the relevant metal contained in the ore produced.
(i) Primary	2% cent. of the ASP of relevant metal chargeable on the relevant by-product metal contained in the ore produced.
(ii) By-product	
Tungsten:	3% of the ASP of Tungsten Trioxide (WO ₃) on contained WO ₃ per tonne of ore on pro rata basis.
Vanadium:	4% of the ASP of Vanadium Pentoxide on contained V ₂ O ₅ per tonne of ore on pro rata basis.
(i) Primary	
(ii) By-product	2% of the ASP of Vanadium Pentoxide on contained V ₂ O ₅ per tonne of ore on pro rata basis.

The Geological Survey of India and Mineral Exploration & Consultancy Ltd, both Government of India authorities, are currently conducting explorations for these minerals.

In addition, the Ministry of Mines has formulated a methodology for calculating the average sale price (ASP) of these minerals. This clarity in methodology and rationalization of royalty rates will help both the government and the prospective bidders determine parameters of the bid.

The Cabinet decision completes the government's exercise to rationalize royalty rates for all the scheduled 24 critical and strategic minerals. The Center had earlier notified royalty rates for four critical minerals, viz, Glauconite, Potash, Molybdenum and Platinum Group of Minerals, on March 15, 2022, and three critical minerals -- Lithium, Niobium and Rare Earth Elements -- on October 12 last year.

India's amended mining regulations, as laid out in the Mines and Minerals (Development and Regulation) Amendment Act, list 24 critical and strategic minerals for which the Center can issue mining lease and composite licences. The act also provides royalty rates for various minerals, including a default royalty rate of 12 percent of the Average Sale Price (ASP) for minerals whose royalty rate is not specifically provided therein.

Critical minerals -- such as Beryllium, Titanium, Tungsten, Tantalum and Vanadium -- cater to the requirements of sectors such as renewable energy, defence, agriculture, pharmaceutical, high-tech electronics, telecommunications, transport, creation of gigafactories etc.

They play a pivotal role in development of electric vehicles and batteries, and will play an important role in helping India meet its commitment towards energy transition and achieving net-zero emission status by 2070.

The Centre is looking to encourage indigenous mining of these minerals to reduce imports and set up related industries and infrastructure projects in a localized ecosystem.

Source: Economic Times

CSIR-IMMT & KABIL TEAM UP FOR CRITICAL MINERAL EXPLORATION MINERALS

It will also facilitate joint research and expedite the sharing of scientific information between the two parties, according to a statement.

The Council of Scientific and Industrial Research – Institute of Minerals and Materials Technology (CSIR-IMMT) has signed a Memorandum of Understanding (MoU) with Khanij Bidesh India Limited (KABIL) for technical and knowledge cooperation to enhance the exploration of critical minerals in India, a PIB press release stated.

The MoU will help KABIL in the design and analysis of metallurgical test workplans, development and review of process flowsheets, and the selection of process technologies for mineral processing, beneficiation, and metal extraction. It will also facilitate joint research and expedite the sharing of scientific information between the two parties, according to a statement.

The signing ceremony of the MoU was held in the presence of CMD, NALCO & Chairman, KABIL, at NALCO Corporate Office in Bhubaneswar. The Director of Commercial at NALCO, Sadashiv Samantaray, and the Director of CSIR-IMMT, Ramanuj Narayan, signed the agreement in the presence of CMD, NALCO & Chairman, KABIL, at NALCO Corporate Office in Bhubaneswar.

The collaboration between CSIR-IMMT and KABIL is expected to create a conducive environment for the exploration of critical minerals, which will, in turn, support the growth and sustainability of the Indian mining industry and eventually play a pivotal role in meeting the country's mineral security needs, both domestic and export-oriented.

Source: The Print

FOOL'S GOLD MIGHT ACTUALLY BECOME VALUABLE

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Source: Gizmodo.com





HEALTH FOR ALL, ALL FOR HEALTH : FROM LOCAL TO GLOBAL, UNITED IN HEALTH

We celebrate 7th April as World Health Day across continents. In 1948, the WHO held the First World Health Assembly. The Assembly decided to celebrate 7 April of each year, with effect from 1950, as the World Health Day. The World Health Day is held to mark WHO's founding and is seen as an opportunity by the organization to draw worldwide attention to a subject of major importance to global health each year.

The principle of "Health for All, All for Health" stands as a beacon of collective aspiration and action. This ethos, transcending borders and cultures, calls for an inclusive, equitable approach to health and well-being, recognizing health as a universal right rather than a privilege. As we navigate from local communities to the global stage, the imperative to unite in health has never been more critical.

United in Health

The philosophy of "Health for All, All for Health" is more than a slogan; it's a call to action. It requires commitment from all stakeholders - governments, private sector, civil society, and individuals alike. By pooling our resources and expertise, we can tackle the complex health challenges of our time, from eradicating infectious diseases to addressing mental health and wellness.

At the heart of "Health for All" lies the belief that every individual, regardless of their socioeconomic status, deserves access to quality health care services. This vision begins in our local communities, where the groundwork for global health initiatives is laid.

Transitioning from local to global health efforts involves scaling up successful interventions and fostering international collaboration. It's about taking what works in one community and adapting it to another, across countries and continents. This leap requires robust health systems, resilient in the face of global challenges such as pandemics, climate change, and the rising burden of non-communicable diseases.

International health organizations and alliances are at the forefront of this global movement, working to bridge the gap between nations. By sharing knowledge, resources, and technologies, they aim to create a world where no one is left behind in the pursuit of health.

In the quest for universal health, technology and innovation play pivotal roles. Digital health solutions, from telemedicine to AI-powered diagnostics, have the potential to revolutionize health care delivery, making it more accessible, efficient, and personalized.

By embracing a spirit of unity and cooperation, we can build a healthier world for future generations, where health is a reality for all, not just a fortunate few. The journey from local to global health is ambitious, but together, we are up to the challenge. United in health, we can transform the vision of "Health for All, All for Health" into a lived reality.

ABOUT AUTHOR

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DISCLAIMER: This is a compilation of various news appeared in different sources. In this issue we have tried to do an honest compilation. This edition is exclusively for information purpose and not for any commercial use. Your suggestions are most valuable.

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