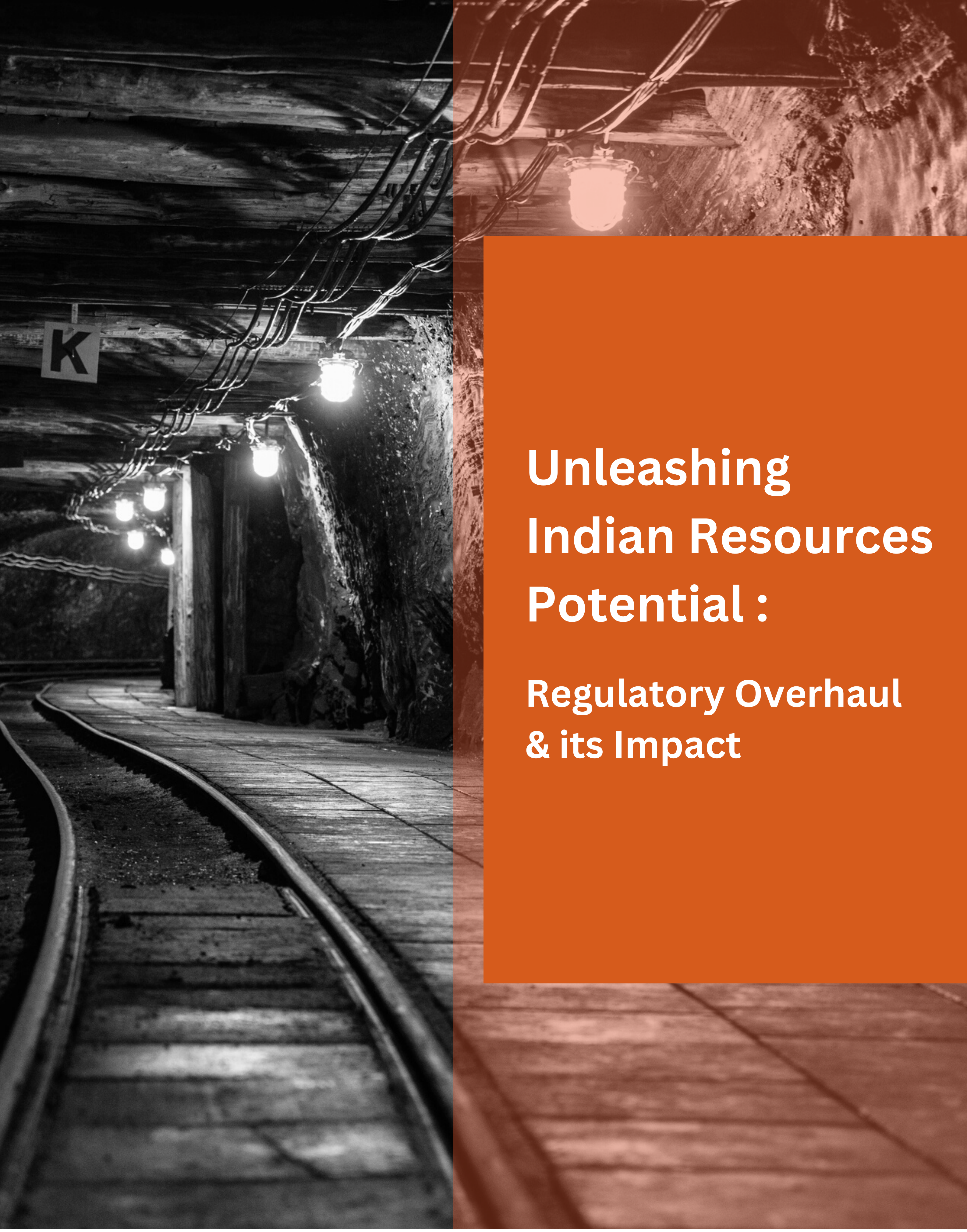

Unleashing Indian Resources Potential :

Regulatory Overhaul & its Impact

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ReVal Consulting partners with businesses to tackle their most significant challenges and capture their greatest opportunities in the Mineral and Mining Sector. We work closely with our esteemed clients to embrace a transformational approach aimed at benefitting all stakeholders across the value chain and driving positive business outcomes.

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India is bestowed with large amount of mineral resources spread across the length and breadth of the country. While more than 90 different minerals are found in India, mining sector is predominated by Coal, Iron Ore and Limestone in terms of volume. With total coal resources of 361.41 billion metric tons, as published by the Geological Survey of India on 1st April, 2022, our country has the fourth largest resources in the world. India is also endowed with considerable resources of critical and strategic minerals albeit most needing further exploration to prove. The Ministry of Mines identified and declared 30 minerals as critical minerals depending upon their criticality assessment on the basis of factors like availability, importance, cross cutting applications, import dependencies and usage in cleaner technology and declared them to be of strategic importance for the country. Similarly, huge reserves of base metals and other major and minor minerals are also found across the length and breadth of the country comprising of iron ore, limestone, manganese ores, chromite ores,

Fig: Y-o-Y growth of Mining sector's contribution towards GDP

Source: Ministry of Mines

sand etc. which are the building blocks of any economy. Thus, the presence of these vast indigenous reserves, over the years, have propelled the mining sector in the country to greater heights. With a total value of mineral production of approximately INR 2 lakhs crores+ in FY 2022-23, the industry has been growing at a CAGR of 12% and is steadily poised further to increase its contribution towards the GDP of the country.

Further, with the advent of technology and rapid globalization, the need for these precious resources embedded in the earth's crust, be it coal for power, Cu for electric mobility solutions or precious metals like Au & Ag for our lifestyle needs, have an important role to play to satiate our ever-increasing demand for wellbeing and luxury. Hence, it's a mandate at this juncture for the government machinery to carry out exploration activities across the length and breadth of the country, identify important and critical blocks of deposits and commercialize them through PPP routes.

The Ministry of Mines & Ministry of Coal through the Mines and Minerals (Development and Regulation) Act, 1957 and The Coal Mines (Special Provisions) Act, 2015 have been at the forefront of governing and regulating the mines and their deposits. It needs to be acknowledged that without the presence of these esteemed entities and regulations, overseeing the entire gamut of operations pertaining to mine exploration till commercialization would have been a challenging task. Not only that, these governing bodies are steadily forging a path for India to become self-reliant thereby helping it to secure its own needs of raw material and energy.

Ever since COVID, and coupled with the evolving geo-political relations between countries, the global supply chain has been fraught with numerous encumbrances and unentangling them isn't easy. Hence aligning with the Government's aim of becoming self-reliant i.e. 'Atmanirbhar' is the only way forward for India to achieve its goal of economic growth and prosperity.

Both the acts till the last decade have played a crucial role in the mining sector but as time passed, the acts needed serious reforms in order to align with the government's intention of improving the 'Ease of Doing Business' Index. Also, before 2015, only 10% of the sites of mineral reserves in the country were explored. Thus, the need of the hour was to make the process of exploration, allocation of mines and their commercialization more transparent by adopting digital technologies, formulating new policies, mobilization of funds and enabling the participation of private entities into a space that was dominated by PSUs to bring in advanced practices and newer technologies without compromising on the revenue share of the governing bodies. Hence, keeping in mind these priorities, the incumbent government undertook the task of making a series of amendments to the Acts since 2015 onwards on a rolling basis. In this article, we will highlight on the important amendments that have been introduced over time and their resultant impact on the overall mining industry.

Mineral Amendments & their Impacts Over the Years

In **2015** , the three of the most important reforms discussed below were introduced focusing on generating more revenues for the government, well-being of the community and enabling private participation in an area dominated by PSU's.

Introduction Of Auction Regime

The inclusion of auction regime superseded the restrictive model and opened up the mines of the country for private participation through a two-tier structured auction process. Not only that, it also granted the private players the right to commercially sale mined reserves in the open market and gave them more freedom in terms of operationalization, revenue sharing and transparency. As a result,

415 mines in total of both coal and other minerals have been auctioned in a short span of three years.

Further, the commercialization of the sector has helped in generating huge revenues for the government to the tune of,

₹21,000 Crores in the form of royalty and taxes.

Introduction Of National Mineral Exploration Trust (NMET) & District Mineral Foundation (DMF)

The NMET trust was introduced with the idea of pooling in funds that can be used by the governing body for the purpose of giving an impetus to mining related activities such as exploration, extraction, beneficiation & refining of deep-seated mineral deposits.

Also, as the industry is moving towards sustainable practices, advanced research and technological studies related to clean mining practices, mineral extraction & development and metallurgical processes are supported by the same. As of now, the NMET has been capped at 2% of the royalty that a lessee needs to pay to the governing body of the mine.

₹4906 Crores have been collected under NMET till Sept'23. Also, 11 more mineral blocks funded through NMET have already been auctioned with a potential of generating revenues worth approximately

₹1,69,000 Crores for the exchequer.

On similar lines, another fund named DMF too has been set up with the purpose of improving the areas and lives of people affected by mining activities. It's a non-profit body working at the district level to ensure fast disbursement of funds for carrying out developmental and rehabilitation activities to restore normalcy in the lives of the people affected. Till date, DMF's have been setup in 626 districts across 23 states. The fund is supported by the fee paid by the holder of mining lease which is equivalent to an agreed upon percentage of the 10% of the royalty paid but not exceeding 1/3rd of the former.

₹84,884 Crores has been collected in this fund under Pradhan Mantri Khanij Kshethra Kalyan Yojana (PMKKKY) till July'23 for the purpose of developmental activities in the mine affected regions. Already, a host of activities are underway to preserve and improve the lives of the affected communities.

2020

Seamless transfer of valid rights and clearances to new leases

To sustain the mineral production in the country, easy transfer of rights, approvals, clearances and licenses from the lessee were approved by the government thereby allowing the mining operations to continue even after their expiry or termination of lease. This helped in tackling pernicious problems related to staggered mining operations and ensured sustained production of important minerals in the country.

Also, previously private companies shied from participating in the auction process of running mines because of the tedious and cumbersome process of transfer of credentials but the addition of such a reform further fueled the private sector's interest in this industry.

2021

De-Clogging the System

The restrictions on the end use of coal and other minerals were lifted, thereby giving mine owners the freedom to choose the market and the rate at which they want to sell. Besides, captive mine owners were also offered the freedom to commercialize 50% of their production thereby resulting in substantial generation of revenues.

₹3000 Crores; that's the best case in hand to look at the volume of revenue generated by the centrally owned Public Sector Unit (PSU), Steel Authority of India Limited (SAIL) by selling 50% of its reserves from the captive mines in the open market.

Declassifying Previous Illegalities

Earlier over-mining i.e. mining beyond the approved mine plan was described as an illegal act. Also, there were a lot of pending cases against existing mines due to varied reasons ranging from habitat destruction to geo-politics, thus resulting in either halting of the operational activities or preventing them from being tabled for auction. The government took the initiative of solving these problems by resolving all the pending cases and scrapping the earlier over-mining law.

500 such mines have now been brought under the purview of the amended act thereby making them eligible for auction.

Propelling Operationalization

A sector which is universally characterized as crippled and sluggish, needed a ramp up. Thus, timeline was introduced to ensure a proper time frame within which a mine has to be auctioned and commercialized. This was a welcoming step as earlier mine allocation to commercialization was not time bound, and the process was intriguingly slow.

2023

A significant step was taken by the government to implement the OAMDR (Offshore Areas Mineral Development and Regulation) Act, formulated in 2002. While the act was promulgated almost two decades back, to date, the reforms haven't been implemented until the intervention of the Rajya Sabha in August 2023. This statute aims to bring in the much-needed transparent auction process, similar to the ones introduced for both coal, critical and strategic minerals, that gives the necessary impetus to the sector and also provides the private players the opportunity to participate in the mining of essential minerals in the country's Exclusive Economic Zones (EEZ).

India has a coastline of approximately two million square kilometers that holds significant reserves of these minerals:

OFFSHORE DEPOSITS	
ESTIMATED RESERVES (MMT)	**OFFSHORE MINERALS**
79	Heavy mineral placers in the inner shelf and mid shelf off Odisha, Kerela, Andhra Pradesh, Tamil Nadu and Maharashtra
30	Phosphorite in the Eastern and Western continental margin
92.59	Polymetallic Fe-Mn nodules and crusts in Andaman & Lakshadweep Sea
1,53,996	Lime mud within the EEZ of Gujarat & Maharashtra coasts
745	Construction grade sand off Kerela coast

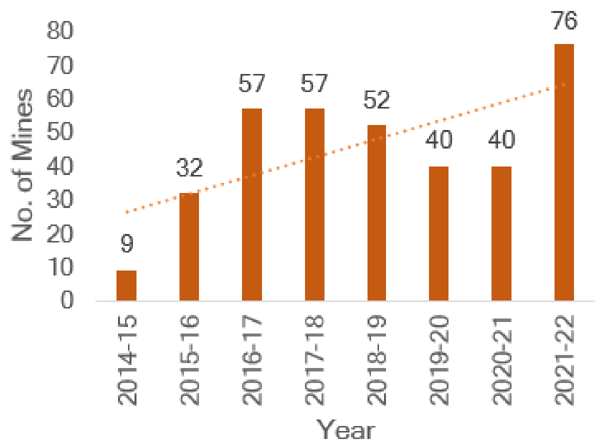
Other significant reforms that were introduced along with the OAMDR Act were the reduction of the bid security amount and net worth requirements of participating entities to ensure more participation, allowed drone surveys to be conducted for better mine planning and improved regulations, easy transfer of letter of intent in case a developer wants to back out and introduction of an incentive structure for early production and dispatch of mined minerals by harnessing sustainable operations and end use of the resources.

31 Mines have availed the rights so far for transfer of valid credentials and clearances, with 26 mines in Odisha and 5 mines in Karnataka.

6,88,000 lakh sq. km of Obvious geological potential (OGP) a 30% increase in the OGP from the earlier estimates through deployment of funds for exploration activities mandated under the OAMDR Act, 2002.

Also, aligning with the COP goals, the government in collaboration with the Indian Bureau of Mines is encouraging the deployment of advanced technologies in mining operations and this has led to the introduction of a Sustainable Development Framework through online evaluation system of Star rating of Mines.

Following chart shows the number of mines that had achieved excellent rating of '5' over the years:



Way Forward

While the new amendments have indeed provided the much-needed impetus that the mining sector needed, thereby liberating all the classes of minerals mining from the clutches of the PSU by allowing private entities to collaborate and bring in newer technologies that aim to gear the mining operations towards efficiency and sustainability, a few grey patches still exist and debottlenecking them would help in further propelling the sector to newer heights.

Currently, mining contributes to 1.5% of the country's overall GDP, and the government aims to take it up to 2.5%. For that the areas that are still restricted for private participation needs to be opened up. Point by point, let's have a look at the some of the salient features of the amendments which can be further improved upon.

Quality of Data for Assets on Auction

In certain cases, it has been observed that the mines put on auction have very low extractable reserves. Further to amplify the problem, G4 category mines are at times tabled for auctions with no sufficient data or preparatory reports for due diligence. This has led to less participation of developers for such mines due to anticipation of financial and project viability risks.

Government should ensure that sufficient ground work has been done and preliminary reports of such studies conducted are made available to the interested developers during the tendering process. An option that the apex body can think upon is to devise an alternative model for G4 level assets to make it easier for prospective bidders to reach decisions on tabled blocks. This will ensure apprehensions related to revenue sharing, exploration and development timelines and employment generation commitments are smoothened out for these entities by framing a methodology that would help prospective bidders work sedulously from the available data and reaching a well thought out conclusion. Also, in cases where the asset sizes are small, further exploration work needs to be carried out in the adjacent areas to ascertain the economically exploitable mineable deposits and these reserves too must be pooled into a single bidding process to make the tender lucrative and ensure both productivity and profitability for the developers.

Developmental funds for Offshore Minerals

Coastal ecosystems are highly sensitive and must be preserved for maintaining an ecological balance in the biosphere. While mining of the recently discovered maritime mineral resources in the territorial waters, continental shelfs and Exclusive Economic Zones (EEZ) are of paramount importance, at no cost should the act lead to the destruction of the coastal sociological stability. The OAMDR Act, 2002 has already been passed by the Parliament in 2023, however it's yet to setup a fund similar to that of NMET or DMF to ensure mitigation of the environmental impacts caused by mining in such sensitive zones. Not only that, the fund should have the provision of being used for other allied purposes too in the fields of exploration, research and development and disaster relief for the overall well-being of the communities.

Statutory Clearances & Obligations

Numerous cases of allottees backing out at the last moment from carrying out the mining activities of the allocated blocks have been noticed in the last few years. Such cases are majorly due to hurdles posed by unfavorable labor laws, bureaucratic sloth and complex rules and regulations in relation to environment, rehabilitation and resettlement. Further, even after opening up the sector for 100 percent Foreign Direct Investment (FDI) in the year of 2000, till September 2021, the sector could only garner a meagre 0.54% of the total FDI inflows in the country, a strikingly painful picture highlighting the ineffectiveness of the policies formulated.

The government needs to step out from its coordinating and facilitating role and ensure that hurdles related to clearances and regulations shouldn't act as a barrier and impede the participation of allottees. Moreover, it should take a step ahead and formulate new methodologies to ensure these tedious and cumbersome processes are superseded with faster methods thereby ensuring a seamless process of transfer of rights and clearances.

Restrictions & Confinements

While the whole idea behind introducing the amendments was to open up the sector for encouraging private participation, the government has not let go off its leash on mining of certain minerals. One such area is keeping the rights of the mining of six atomic minerals restricted to PSU's even after the introduction of the auction regime. The apex body is still skeptical about handing out of mining rights to private players for the exploration and production of atomic minerals concerning the economic value and imminent dangers they possess while handling. Barring a few of them, most of these minerals aren't radioactive in nature and also needs to be mined in huge quantities to ensure their ready availability. Some of these minerals even outweigh their non atomic use than atomic applications and finds usage in a wide variety of industries ranging from aviation to energy sector.

In today's times, private entities boast of a wealth of experiences, technological prowess, extensive capital reserves and quality manpower that's needed to execute critical projects. Considering all these credentials, the government should urgently forego the restrictions and allow participation of private players in such areas and let them bring in their expertise for harnessing these high valued resources.

Levies & Charges

One of the prime concerns in the mining sector is the exorbitantly high taxes that the government levies from the mining operations in the country. While nations like Australia and Canada charge taxes in the range of 30-34%, in India the same stands between 60-64%, solely contributed by the high stamp duty expenses of 15-18%. Not only that, there's no homogeneity in the stamp duty payments across the states; instead, each is at its own liberty to frame these charges. As a result, these high levies are passed down the value chain, resulting in increased cost of domestic raw materials, which subsequently increases the price of the finished goods and thus leads to import dependency, lowering the gross domestic product in mining.

The government and the regulatory bodies must ensure that the ecosystem remains conducive for the sector by bringing about homogeneity in the statutory charges levied across the country. Moreover, on the one hand, the government intends to increase the overall contribution of the mining sector to the GDP by inducing consumption, whereas, on the other hand, such high taxes act as a deterrent. Thus, it's of paramount importance for policymakers to look at all these discrepancies that exist and ease them out for the sector's prosperity.

Embracing Technological Advancements

Modernization is of utmost importance for the mining sector at this juncture. For long the sector has remained accustomed to traditional operational methods but now, more than ever, it needs to undergo a complete transformation by harnessing the potential of new age technologies like artificial intelligence (AI), machine learning (ML), web-based techniques (WBT) and data analytics.

Countries like Australia, Canada and USA have leveraged AI and Web Based Technologies to improve efficiency and productivity of mining operations, thereby reversing the declining trend a decade back, from -2.5% in between 2000 –10 to +0.2% in between 2010-13. Also, introduction of modern equipment and machinery with embedded IOT technology, wireless software and physical peripherals have further bolstered d-t-d activities and decision making thereby making tedious tasks like exploration at depths and data collection easier. India too needs to embrace such technologies just like its counterparts to enhance efficiency, productivity and safety.

All in all, a delicate balance needs to be maintained in the tripartite ecosystem formed between the government, the private entities and the communities. The government should deploy judicial prudence of the highest quality while dealing with mine related issues and set standards of highest nature for years to come.

Similarly, private entities who want to gain by participating in the gamut of activities related to mining should not only be focused on extracting profits rather they should be the forebearers of showcasing how industries, government and communities can exist side by side. Today, we stand at the precipice of a mining revolution which is solely focused on adopting sustainable practices and it's the foremost responsibility of the private players to implement the same.

Also, it's the duty of the stakeholders to jointly ensure that rehabilitation and resettlement activities are carried out with utmost care.

While strides are being taken in this direction with over 90% deployment of NMET and DMF, execution of the projects are still lagging. Similarly, engagement of the parties in the activity of spreading awareness, disseminating necessary information and educating people about the importance of the sector and its positive impact on their lives is the need of the hour. In this manner a harmony can be achieved which will be beneficial for all the stakeholders involved and help in bolstering the economic prosperity of the nation as well as its peoples.

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