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Indian Mining & Exploration Updates



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# ANNIVERSARY

## Government panel approves mining on non-forest land without lease clearance

According to minutes of a FAC meeting dated October 28, which was uploaded on the ministry's Parivesh website earlier this month and seen by HT, the committee approved commencing of mining in non-forest land but also imposed certain conditions.

The Union environment ministry's Forest Advisory Committee (FAC) has decided to approve mining in non-forest land even before forest clearance is granted to allow the activity in contiguous forest land in blocks where mining involves both types of lands, people familiar with the matter said.

According to minutes of a FAC meeting dated October 28, which was uploaded on the ministry's Parivesh website earlier this month and seen by HT, the committee approved commencing of mining in non-forest land but also imposed certain conditions.

The panel ruled that plans for mining in non-forest areas of a coal block will not involve any forest area; no component of mining activity in the non-forest land shall have any dependency in the forest area of the same block; such permission in the non-forest area shall not create any obligation or fait accompli with regard to clearances for the forest land involved; and if mining is intended in the forest area of the coal block, no reference of mining already taken up in non-forest area shall be made in such proposals.

In case of any violation over forest area, the matter shall be dealt with as per provisions in the Forest Conservation Act, 1980, the panel added.

"The minutes are self-explanatory, so I do not want to comment on them," a FAC member said, seeking anonymity.

Experts believe that permitting mining in non-forest land before prior clearance to contiguous forest land could set a wrong precedent.

"Mineral extraction and greater privatisation

of mining operations, including that of coal, has been at the front and centre of the government's economic priorities.

These policy decisions are neither assessed for their ecological or social justice outcomes, nor are they evaluated for they may exacerbate global climate justice concerns. The changes to environment regulation mirrors this outlook. The present decision needs to be understood as another legal subsidy offered to the mining sector. The mitigation measures and conditions offered legitimise the overturning of precaution which were built in forest diversion procedures. The FAC's final advice falls short of its own caution. Eventually, this decision, despite all the caveats, will allow for fragmentation of habitats and put undue pressure on regulators to approve forest diversion to protect the investments already carried out," Kanchi Kohli, legal researcher at Centre for Policy Research, said.

HT in July had reported that the environment ministry is considering requests by the coal ministry to allow mining in non-forest areas where clearance has not been granted for the entire lease area, which includes forest land. To avoid "fait accompli" situations where mining begins before requisite permissions are granted, the FAC had directed the environment ministry's regional office to prepare a briefing paper on the inter-dependency of forest and non-forest land where mining involves both land types.

The ministry, in its guidelines, says that work on non-forest land should not be started till the final forest clearance (Stage-II approval) of the Centre is granted. In light of the FAC decision, these guidelines are likely to be changed.

Environment ministry's secretary, RP Gupta, however did not agree with FAC's caution on preventing a 'fait accompli' situation. "I don't agree with the recommendation of FAC. Even though lease area may include forest area, we are under no obligation to grant forest

clearance. There can be no fait-accomplis.

If a project proponent undertakes mining operations in non-forest areas, it is none of our business to stop it and certainly casts no obligation on us to grant forest clearance. If some expenditure of the project proponent becomes infructuous, so be it," he said.

Following the secretary's observations, the FAC had directed the regional office of Bhopal to prepare a comprehensive briefing paper on an all-India basis on the matter.

The regional office recommended that in case of violations, the mining company should forgo a bank guarantee which may be prescribed, for such cases; relevant State Forest Act/Indian Forest Act whatever is relevant for such violation may be made applicable; and a penal compensation provision for violation of guidelines may be prescribed. The office had also recommended that the mining company give an undertaking that it will not claim a fait accompli plea in case of rejection of forest area for diversion.

These views were taken into consideration by the FAC before deciding on the matter.

At the Glasgow climate change conference earlier this month, India had objected to a draft text of the COP26 decision on phasing out coal and fossil fuel subsidies, suggesting that dependence on coal and fossil fuel subsidies be gradually reduced in line with national circumstances and recognising the need for support towards a just transition.

"We are dependent on coal, we probably have to enhance it and we are giving subsidies to poor people to help them have a basic subsistence level. To compare that with general utilisation, 20 times of the kind of energy (used) in some developed countries, is unfair," a senior government official said.

**Source: Jayashree Nandi, Hindustan Times**

# The Mineral Conservation and Development (Amendment) Rules, 2021 Notified

New Delhi : Ministry of Mines has notified the Mineral Conservation and Development (Amendment) Rules, 2021 on 3<sup>rd</sup> November, 2021 to amend the Mineral Conservation and Development Rules, 2017 [MCDR].

The MCDR have been framed under section 18 of the Mines and Minerals (Development and Regulation) Act, 1957 [MMDR Act] to provide rules regarding conservation of minerals, systematic and scientific mining, development of the mineral in the country and for the protection of environment.

The amendment rules have been framed after extensive consultations with the State Governments, industry associations, miners, other stakeholders and general public. The highlights of amendments in the Rules are as follows:

(i) Rules prescribed that that all plans and sections related to mine shall be prepared by combination of Digital Global Positioning System (DGPS) or Total Station or by drone survey in relation to certain or all leases as may be specified by Indian Bureau of Mines (IBM).

(ii) New Rule inserted to provide for submission of digital images of mining area by lessees and Letter of Intent holders. Lessees having annual excavation plan of 1 million tonne or more or having leased area of 50 hectare or more are required to submit drone survey

images of leased area and up to 100 meters outside the lease boundary every year. Other lessees to submit high resolution satellite images. This step will not only improve mine planning practices, security and safety in the mines but also ensure better supervision of mining operations.

(iii) Requirement of submitting satellite images obtained from CARTOSAT-2 satellite LISS-IV sensor on the scale of cadastral map deleted in view of the insertion of provision for submission of high resolution Georeferenced Ortho-rectified Multispectral satellite and use of drone survey as per Rule 34A.

(iv) Provision of daily return omitted to reduce compliance burden. Power of taking action against incomplete or wrong or false information in monthly or annual returns given to IBM, in addition to State Govt.

(v) Allowed engagement of a part-time mining engineer or a part-time geologist for category 'A' mines having leased area below 25 hectares. This will ease compliance burden for small miners.

(vi) In order to increase employment opportunity, diploma in mining and mine surveying granted by duly recognized institute along with a second class certificate of competency issued by the Director General of Mines Safety is added in qualification for full time Mining Engineer. Also, qualification for part time Mining Engineer added.

(vii) Penalty provisions in the rules have been rationalized. Previously, the rules provided for penalty of imprisonment upto 2 years or fine upto 5 lakh rupees or both for violation of each and every rule irrespective of the severity of the violation. Amendment in the rules categorized the violations of the rules under the following major heads:

- I. Major Violations: Penalty of imprisonment, fine or both.
- II. Minor Violations: Penalty reduced. Penalty of only fine for such violations prescribed.
- III. Violation of other rules has been decriminalized. These rules did not cast any significant obligation on the concession holder or any other person. Thus, violation of 24 rules has been decriminalized.

(viii) Provision of forfeiture of financial assurance or performance security of the lease holder added in case of non-submission of final mine closure plan within the period specified.

(ix) Amount of financial assurance increased to five lakh rupees for Category 'A' mines and three lakh rupees for Category 'B' mines from existing three and two lakh rupees, respectively.

Notification of the Amendment Rule is available in the website of Ministry of Mines ([www.mines.gov.in](http://www.mines.gov.in)).

**Source: Orissadiary**

## Odisha government to auction six more mineral blocks

The Uskalvagu limestone block spread over 5.47 sq km has the highest reserve of 189.52 million tonnes among the four blocks.

After completing the auction of nine mineral blocks in the current financial year, the State government has issued a notice inviting tender for grant of mining lease to six mineral blocks through e-auction.

The six blocks include one iron ore and manganese, four limestone and one graphite mines. While the limestone and graphite blocks are unmined, it is the government's second attempt to auction the Teherai iron and manganese block. Tarama Apartment Private Limited (TAPL) is barred from participating in the auction of this particular block.

TAPL was the successful bidder for Teherai composite block on February 15, 2020. However, the company surrendered the block by forfeiting security deposits after finding it unsustainable. The four limestone blocks to be auctioned are located at Piplamunda under Kantabanji tehsil of Balangir district, Garamura under Kharia tehsil of Nuapada,



→ Uskalvagu in Malkangiri and Behera-Banjipalli in Ambabhona block of Bargarh district.

The Uskalvagu limestone block spread over 5.47 sq km has the highest reserve of 189.52 million tonnes among the four blocks. The only graphite block at Naringpanga with a geological reserve of 0.142 million tonnes is in Rayagada district. The auction will be held in electronic mode.

The Directorate of Mines of the Steel and Mines department has invited the financial bid only in digital format while technical bid has

been invited through both digital and physical formats. While the last date for purchase of tender documents is November 29, bids can be submitted by December 6, 2021.

The price of tender documents for each limestone block is Rs 2 lakh and Rs 5 lakh for the Teherai iron ore and manganese block. The State government had invited tender for auction of 11 mineral blocks including seven iron ore mines, two iron ore and manganese mines, one iron ore and dolomite and one bauxite block.

Auction of nine of the 11 blocks was

completed by October 5, 2021. Rungta Mines was the most successful bidder by winning three virgin iron ore mines.

ESL Steel, a subsidiary of Vedanta Resources, bagged Nadidih iron ore block (BICO) and Nadidih iron ore and manganese block in Sundargarh district. The other successful winners were Jindal Steel and Power (Kasia iron ore and dolomite block), Tata Steel - Gandhalpada iron ore block, Kashvi Power and Steel - Doltapahar iron ore block and Raga Tradecon Ltd - Netrabandha Paha (West).

**Source: The New Indian Express**

## West Bengal: Mining a controversy

The Deocha Pachami coal mining project will be West Bengal chief minister Mamata Banerjee's biggest challenge yet

The state government has posted two officers in Birbhum, including one in the rank of additional district magistrate, to solely look after proceedings related to the proposed Deocha Pachami coal mine project in the district.

Officials said the decision to appoint these officials for the project showed how keen the government was to start it without hiccups.

"The state wants to take up the process of rehabilitation work for land-losers at the earliest after it announced a Rs 10,000 crore rehab package for land-losers in the area (earlier this month). This is the reason why two senior officials have been sent to the district. The officers are at the disposal of DM and they would be given responsibility according to the ground requirements," said a senior official.

Sources said it appears that these officials have been sent to look after the basic work related to land so that the project can start smoothly.

"They can be given responsibility to handle the queries of the affected people. There will be a need for more officials in future once mining work starts," a source said.

Sources said the state can send few additional police officers in the district to handle law and order, if the need for it arises.

The Deocha-Pachami coal mine is the largest coal block in the state and has a stock of around 2.2 billion tonnes of coal underneath the stone layer and it has the potential to generate over one lakh direct employment.

Chief minister Mamata Banerjee on November 9 announced the rehabilitation package for those who will be affected by the mega project. It offered details of the government's land rates and government job of junior constable to a member of each affected family, among others. Officials said the two additional officers are Dina Narayan Ghosh, additional district magistrate (development) in Jhargram, and Shibaji Adak, another WBCS officer posted in the clinical health department in Calcutta.

Birbhum has three posts of additional district magistrates, ADM (general) ADM (development), ADM (zilla parsihad) and ADM (land). The newly appointed Ghosh, the fourth ADM, will be deployed in tasks meant for the coal mine.

"He could be assigned directly to look after the land and rehabilitation related issues or he

would replace one of the existing ADMs to take care of coal mine matters," said an official in Birbhum.

Sources said the government wants to start mining very soon as it will help them solve unemployment to an extent and generate revenue.

A recent initial survey by Nabanna revealed that the government could slash production cost of electricity by 74 paise per unit once it starts mining coal from the Deocha-Pachami coal mine.

The government has already held meetings with tribal heads of 18 hamlets which are likely to be affected by the coal mine and is waiting for response from people in those villages on the rehabilitation package.

"We have already opened offices where the doubts or grievances of villagers are being addressed. We would first want to read the pulse of the local people before taking any step in the project," said an official.

**Source: India Today**

# Scope for development of new gold mines in Karnataka under MSME business model - V.N. Vasudev & Vivek Ranganathan

The Department of Commerce, Govt. of India together with the Ministry of Mines has identified a list of 10 mineral / metal commodities that have exhibited consistently high growth rate in imports and / or high share in India's import basket. To improve the domestic availability of these mineral commodities, the Ministry has called for suggestions on measures to be initiated and an action plan from professional bodies to identify domestic production opportunities (or enhancement thereof) for reducing the import dependence of our Nation. This initiative of the Govt of India falls under the vision set out under Atmanirbhar Bharath. Karnataka State is at the very top of all other States in the country in terms of the existing drilled Resources of Gold.

The mineral prospectivity of Karnataka for discovering and/or finding the extensions of the known Gold Mineral Resources is excellent. There also exist immense scope for conversion of the known resources of gold into productive mines in the next 2-5 years. The purpose of this NOTE is to highlight the locations where drilled resources or previously developed Resources of these metals exist which could be progressed into new mines in the interest of not only creating sources of employment in rural areas but also to contribute to reducing the country's dependence on imports. A new Vision and Policy on gold mining in the State is the need of the hour which is being addressed by a Committee on Karnataka Mineral Policy.

## Scope for development of 69 new gold mines in the State within the next 2 to 5 years:

The existing Resource-Base (Reserves + Resources) of gold metal in the country is 868 tonnes of which Karnataka is endowed with 439 tonnes of gold. This includes 142 tonnes of drilled Resources + Reserves and 48 tonnes of Prognosticated Resources outside the 3 currently operating gold mines located in the Hutti Greenstone belt in Raichur dt. The 190 tonnes (142+48 tonnes) of Reserves and Resources are spread over 69 gold Prospects. The

current price of gold in the Indian market is around Rs.5000 per gram. The spot price of gold in INR for the period January 2015 to June 2021 is shown in Fig.1 below.

At a fall back price of Rs.4,000 per gram all the 69 gold prospects could be developed into new gold mines. Amongst the 69 prospects, 44 could be developed into new mines on priority. 8 among the 44 have already passed through pre-feasibility and feasibility studies and 5 among the 8 were mines whose operation was suspended due to low gold price prevailing over 2 decades ago. Please see the ANNEXURE for a detailed LIST of all the gold Prospects with their Resources/Reserves. This list was first published in "Gold Mining in India: The Way Forward. Editors: V.N.Vasudev, H.M.Ramachandra & N.Rajendran, Special Publication No.11 (2021), Geological Society of India, Bengaluru.

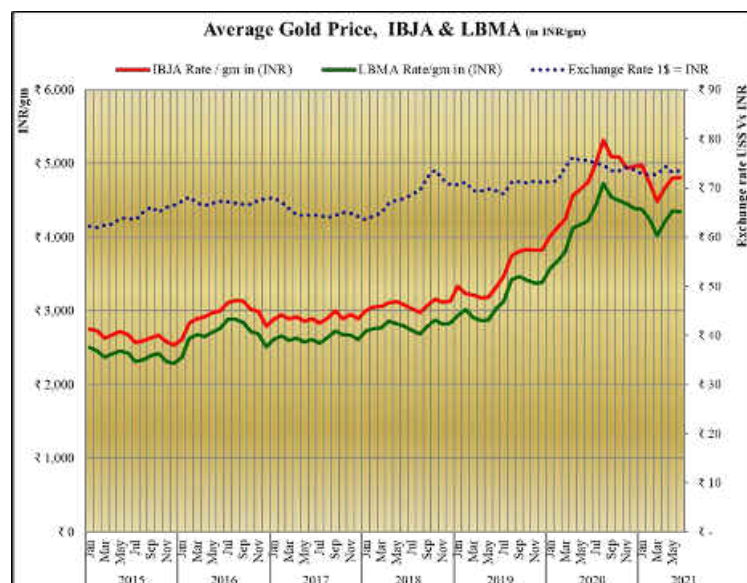
36 among the 44 known drilled gold prospects which have resources of <5 tonnes of gold metal could be developed as small operations under MSME business model with distinct possibility of several of them eventually developing into large scale operations like at KGF and Hutti. Detailed drilling concurrently with development of new mines would definitely augment the gold Resources.

## Categories of Mines under Gold MSME

**Model:** The following brief proposal gives an idea of the possible scenarios under MSME system of developing gold mines. The investment figures refer to the cost of integrated gold processing plant (ie., Gravity cum Cyanidation gold extraction process) + related infrastructure (water & power). Cost of Land, buildings, roads, mining machinery, transport trucks etc are excluded. The project proponent and/or the investor (MDO) has to raise funds from his own sources for financing all costs other than the Processing plant. We suggest that the cost of Processing Plant should be financed by NMET. By so doing NMET becomes a business partner in the development process. 20 to 30% profit is expected to accrue depending upon the grade of gold (=content of gold in a tonne of rock) in the Resource/Reserve.

(a) **Micro Enterprise:** To mine In-ground Resource of <0.5 tonnes of gold. There are **25 such gold prospects** which await development into new gold mines. The envisaged investment is in the range of **Rs.2 to 4Cr.** and the annual turnover is up to Rs.20 Cr =**50 kg gold**. The operating cost (Mining + Mineral Processing) per annum will be about **Rs.4Cr.**

(b) **Small Enterprise:** To mine In-ground Resource of >05 t & <2 tonnes of gold. There are 19 such gold prospects which await development into new gold mines. The envisaged investment is in the range of Rs.10 -15 Cr. and the



→ annual turnover is up to Rs.80 Cr =200 kg gold. The operating cost (Mining + Mineral Processing) per annum will be about Rs.15Cr.

(c) **Medium Enterprise:** To mine In-ground Resource of >2t and <5 of gold. There are **17 such gold prospects** which await development into new gold mines. The envisaged investment is in the range of **Rs.20 Cr to 90Cr.** and the annual turnover is in the range of Rs.100 Cr to 200 Cr =**250 kg to 500 kg gold.** The operating cost (Mining + Mineral Processing) per annum will be **Rs.34 Cr.**

(d) **Large Enterprise:** (Outside the purview of MSME): There are 8 gold prospects having resources / reserves of more than 5 tonnes of gold.

The recent reforms in the Policy and amendments to the Act are inadequate in so far as mineral exploration is concerned specifically precious metals and base metals. Fast-tracked implementation of the Act & Rules has been the need since decades to enable investors, both PSUs and Private, to freely and effectively operationalize their planned programmes of exploration and mining. Considering the importance of gold production from mines to the National Economy, gold Exploration and Mining in the State deserves to be dealt with under a separate State Authority-**Precious Metals Authority of Karnataka (PMAK).** PMAK would facilitate and monitor both exploration and mining and maintain an inventory of gold resources and related commercial data. Through gold mining, the State could contribute significantly to the GDP of the country and the rural economy of the State. PMAK would

serve to facilitate and focus private investment, including FDI, obtain clearances, and facilitate land acquisition and fast track the currently stagnating exploration and development of new gold mines in the Country.

#### Recommendations:

We are not suggesting for any major amendments to the already overly amended MMDR Act. The following are the minor changes being suggested to facilitate fast tracking of gold mining in particular and development of non-bulk Mineral Resources in general, (Non-ferrous metals, Strategic metals and RM-REEs) under MSME System.

1) The need of the hour is partial amendments to the Act to attract private investors to join hands as JV partners with PSUs and carry on stand-alone commercial exploration and mining. Section 17A(2A) & (2B) of the MMRD Act-2015 read with recent amendments in March 2021 provides for grant of mineral concession to PSUs such as HGML, KSMCL, BGML, MECL, HCL and NMDC. On obtaining either a CL or ML as the case may be, the PSUs shall begin to function as Project Promoter. The Promoter will select a Mine Developer & Operator (MDO) through a transparent process of selection. The MDO jointly with the Project Promoter will undertake Bankable Feasibility Studies to convert the existing Resources into Reserves and undertake development of mines and construction of mineral processing plant. **The Act must be amended to permit MDO to acquire 76% of equity through an earn-in process.** The PSU-Private JV Model is discussed in the paper by Pichamuthu, D.V., Ramakrishna Sawkar &

Vasudev.VN. (2021) published in *Mining Engineers Journal, Hyderabad, Sept.21 issue.*

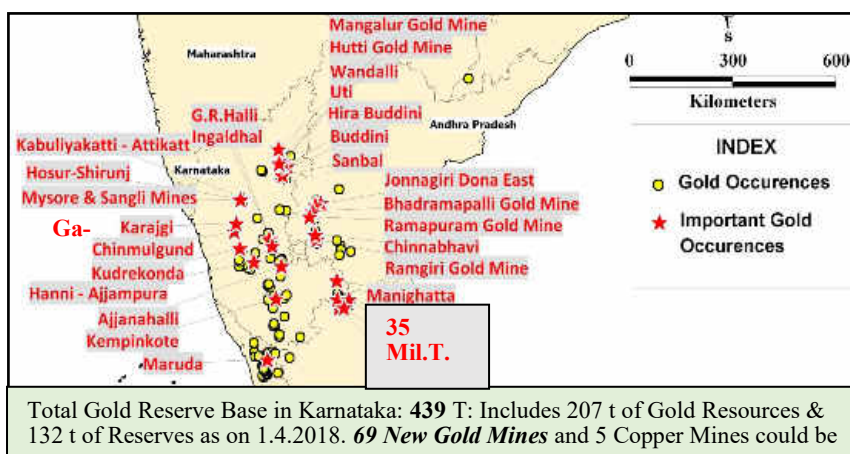
2). Any area, be it reserved or granted for Prospecting cum Mining (=CL) or Mining (ML), in favour of PSUs be available for development under the PSU-Private JV model.

3) The Auction mode of granting mineral concessions be restricted to fully-explored blocks (drilled by Govt agencies) of so-called deep-seated non-bulk minerals such as precious metals, base metals and strategic minerals as defined by the IBM, holding Mineral Resources of UNFC 111, 121 and 211 categories.

4). The Act must be amended to grant any area, outside those prospects holding drilled Resources, on Reconnaissance Permits (RPs) on FCFS basis with provision for seamless transition to PL and ML. The maximum limit of an RP per concession should be restricted to 1,000 sq km, per Company per State. The RP shall have unambiguous security of tenure and provision for transfer, trading and listing on stock exchanges at any stage during the tenure of RP/PL/CL/ML.

5). The Tax policy needs to be reformed as suggested by NITI Aayog in 2018 to bring the total tax on par with the global average of ~40%.

6). Suitable incentives and tax holidays be incorporated into the Act and Rules to encourage Micro, Small and Medium Enterprises (MSMEs) for undertaking mining of marginal grade deposits of gold (Resource grade of less than 1g/t); base metals (Resource grade of less than 1% Cu+Co, 2% Pb+Zn and associated metals) and mining of all Strategic Metals (Molybdenum, Tungsten, Tin, RM-REEs etc.).



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Name of Gold Mine/ Prospect	RESERVES (A)			RESOURCE (B)			Total (A)+(B)	Prognosticated Resource Gold (t)	Remarks
	Ore		Gold	Ore		Gold	Gold (t)		
	Mt	g/t	metal (t)	Mt	g/t	Metal (t)			
<b>KARNATAKA STATE</b>									
<b>HUTTI BELT</b>									
Hutti Mine (HGML)	19.72	4.25	83.81	9	4	36	119.81	105	Prognosticated Resource of 105t (35Mt@3g/t) of Au was estimated by HGML Exploration Team on the basis of the geological continuity of all the 9 gold-reefs from 32nd L to 54th Level (2000m depth).
Hutti North Prospect				1	3.5	3.5	3.5		Application for PL filed by M/s DESPL
Hirabuddini Mine (HGML)	0.78	3.99	3.11	-		-	3.11		HGML's Working mine. 65 kg gold produced as on 1.4.2019
Uti Open pit Mine (HGML): (i) Lode 4: (ii) Lodes 2 & 3:	2.18	2.64	5.76	(i)4.50 (ii)0.547	(i) 2.5 (ii)2.3	(i)11.25 (ii)1.26	10.285		HGML's working mine. 10.285 t of Au is the remaining Resource-Base excluding the 2.225t of gold produced by HGML till 1.4.2019. 5.76 t of Reserve is part of the 10.285t of Resource.
Uti Mine(Southern Extension)			-	0.16	4.72	0.755	0.755		
Wondalli			-	0.469	2.76	1.29	1.294		HGML holds the ML.
Hirenagnur			-	2.207	2.72	6	6		Discovered & Resource estimated by DESPL. Application for PL filed by M/s DESPL.
Maski-Buddini			-	0.21	2.16	0.45	0.454		Application for PL filed by M/s GMSI
Tuppapur			-	0.089	3.92	0.349	0.349		
Kadoni				0.064	8	0.51	0.512		
Chinchargi	-		-	0.06	2.1 to 23.2	0.126	0.126		
Topaldoddi				0.06	3.13	0.187	0.187		
Yatkal	-		-	-		-	-		Explored but Resource NA.
<b>Total Hutti Belt</b>			<b>92.66</b>				<b>146.382</b>	<b>105</b>	<b>3 Mines + 10 Prospects</b>



<b>MANGALUR BELT</b>									
Mangalur Gold Mine	0.1	4.6	0.46	-	-	0.46			The Mine awaits reopening by the ML holder M/s HGML
Jainapur Prospect	-		-	-		1	1		Application for PL filed by M/s GMSI
<b>Total</b>	-		0.46	-		1	1.46		2 Prospects
<b>CHITRADURGA BELT:</b>									
<b>Ajjanahalli Gold Field (AGF)</b>									
Ajjanahalli Main Mine		-		1.51	1.76	*2.65	1.65		*About a tonne of gold was mined by M/s HGML from Oxidized Ore in an open pit. The mine was suspended in Sulphidic Ore.
Ajjanahalli West				0.76	1.49	1.13	1.13		
<b>Ajjanahalli East: The following 6 Blocks are important.</b>									The total metal content of ore-grade gold Resource is 2.53 tonnes contained in 1.06Mt @ 2.39g/t gold ore, as estimated by MECL (This volume).
Block - A	-		-	0.58	1.76	1.02	1.02		
Block- B	-		-	0.37	1.35	0.5	0.5		
Block-C	-		-	1.26	0.88 to 3.25	1.11	1.11		
Block-D	-		-	1.38	0.86	1.18	1.18		
Block-E	-		-	1.21	0.87	1.05	1.05		
Block-G	-		-	0.27	1.63	0.44	0.44		
<b>TOTAL gold in AGF</b>	-			-			<b>8.08</b>		
<b>Chitradurga Gold Field (CGF)</b>									
GR Halli South Block:Lode-1	-	-	-	0.655	0.655	0.655	2.21	2	GR Halli mine was operated by HGML.Currently Suspended. The ore contains high Silver Av.164g/t. Drilled by GSI & State DMG.
GRHalli South Block Lode-2.	-	-	-	1	2	2	2		
Kotemardi	-		-	1.06	3.44	3.646	3.65		
C.K.Halli Prospect:	-		-	0.948	3.07	2.91	2.91		
CK Halli North:				0.78	2.71	2.113	2.11		
Paramanahalli:	-		-	0.4	2	0.8	0.8		
Other Prospects: Hon-nemardi; Kanakuppe; Jajikalgudda RF; Gonuru NW; Sasulahatti; Kallenhalli; M.N.Halli; Gollarhatti, Hosahatti; Ram-jogihalli; Sondkere. Annesidri: Old Bellara Gold mine									All the Prospects have been drilled. Resource Data not available.
<b>Total: CGF</b>							<b>13.68</b>	<b>2</b>	<b>1 Mine + 17 Prospects</b>



**DHARWAR-SHIMOGA BASIN:**

Ganajur Main ML Block	2.51	3.38	8.48	0.453	2.58	1.17	9.65		Discovered, drilled, Resource assessed & Feasibility Reserves established by DESPL. MoM has approved the State's recommendation for grant of ML in 2015 & 2017. LoI was not issued by the State Govt.
Karajgi Main Prospect				0.268	3.06	0.824	0.82		Drilled and Resource assessed by DESPL.
Ganajur SE Prospect	-	-		0.358	3.04	1.069	1.07		Discovered, drilled and Resource assessed by DESPL.
Ganajur Central Prospt.	-	-				0.5	0.5		Discovered, drilled and Resource assessed by DESPL.
Karajgi Hut Prospect	-	-				1	1		Discovered, drilled and Resource assessed by DESPL.
Mangalgatti (DESPL)	-	-		1.5	1.63	2.786	2.786		Discovered, drilled and Resource estimated by DESPL
Bhavihal (DESPL)	-	-		1.3	1.76	2.301	2.3		Discovered, drilled and Resource estimated by DESPL
Lakkikoppa	-	-						1	Discovered & drilled by GSI. Prognosticated Resource assessed by DESPL.
Chinmulgund	-	-		13.39	1.07	14.32	14.32		GSI & MECL have drilled & defined the gold Resource.
Bangargatti Prospect	-	-		-		4.31	4.31		GSI discovered & drilled the Prospect. GMSI estimated the Inferred Resources.
Solarikoppa Prospect	-	-		-		0.806	0.806		
Hesarambi Prospect	-	-		-		0.837	0.837		
Other 22 Clusters of Gold Prospects:	-	-		-				5	Await drilling.
<b>Total of D-S Basin</b>			<b>8.48</b>				<b>38.399</b>	<b>6</b>	<b>1 Mine + 33 Prospects.</b>

**SHIMOGA BELT**

Hanni-Ajjampura	-	-		-				3	Hanni was discovered by GMSI.
Kudrekonda old gold mine	-	-		-				2	An o/w exist. DMG has carried out prospecting. GSI has done drilling. Resource NA.
Nandi Gold Prospect	-	-		-				0.6	Data not available.
<b>Total Shimoga Belt:</b>	-	-						<b>5.6</b>	<b>3 Prospects</b>

**SARGUR BELTS in Southern Karnataka.**

Kempinkote Big Pit (Nuggihalli) 6 Lodes	-		-	3.5	1.2	4.2	4.2		Drilled by GSI. MECL developed the old mine and estimated the Resource.
Kempinkote East.	-		-	0.65	4.1	2.66	2.66		
<b>SARGUR Belt: Amble-Volgere</b>	-	-		-				0.4	Big pit o/w exist. State DMG has prospected. GSI did drilling. Resource is Prognosticated.
<b>Total of Sargur-Nuggihalli Belt:</b>							<b>6.86</b>	0.4	3 Prospects

➔ **GADAG BELT: Gadag Gold Fields (GGF)**

Sangli Mine (RMML)	2.34	2.27	5.311	1.78	2.15	3.827	9.14	19	GSI/MECL did drilling after British time o/w. RMML drilled & Estimated Reserves (see JGSI V.76.Sept.2010).
Hosur Champion Mine (BGML): Champion East & West Lodes				4.43	3.44	15.24	15.24		This mine was operated by BGML till April 2001. Extensions explored by GSI & M/s RMML.
Mysore Mine	-		-	0.809	5.09	4.118	4.12		Mine was operated by HGML. Operations suspended over a decade ago.
Kabuliyatkatti	-		-	1.34	4.07	5.45	5.45		The mine was operated by British miners. Explored by GSI. Bulk sampled by HGML & RMML.
Nagavi	-		-	0.065	2	0.13	0.13		Explored by RMML.
Block No.23	-		-	1.03	3.7	3.81	3.81		o/w Explored by GSI & RMML
Attikatti Main Lode	-		-	0.525	4.07	2.14	2.14		o/w Explored by GSI & RMML
South Kabulyatkatti & Attikatti F/W Lode	-		-	0.55	6.25	3.42	3.42		Explored by RMML.
<b>GGF Total:</b>							<b>43.45</b>	<b>19</b>	43.45 of Au includes MECL's estimate of 2.81Mt of ore of grade varying from 2.07g/t-3.70g/t. This was based on MECL's drilling in Hosur Champion East Prospect; Hosur Champion West; Hosur Sector; Mysore Mine & Sangli Mine. <b>3 of these mines could be reopened + 6 prospects.</b>

**KARNATAKA State: KOLAR BELT: The main Kolar Gold Fields + Old Tailings and Surapalle Old Mine Prospect etc**

Nandidurg Champion Reef Mines:	1.312	4.81	6.28	-			-	6.28	ML held by BGML. The 6.28t Reserve is categorized as the Remaining Reserve blocked in O/W & Crown Pillars, estimated by <b>BGML</b> .	
WESTERN Sulphide rich Lodes.	-		-	-			-	NA	ML held by BGML. The gold Resource is in Crown pillars of McTagaarrt & Orinetal Lodes and in the southern extn of Oriental (West) Lode located about 800m west of the Edgar's Shaft (Mysore Mine). GSI has done drilling.	
NEW QUARTZ LODE	-		-	-			-	NA	Located 2km west of Champion Lode. No data.	
Auriferous Sulphidic BIF along the Western margin of Kolar Belt.	-						-	NA	Old mines exist as at Volagamadi. No data	
KGF Tailing Dumps (BGML's estimate)	35	0.72	19				-	19	Recoverable gold is 17t @ 0.55g/t. BGML/MECL	
Surapalle Mine				0.114	4.91	0.56	0.56	2.5	Primary gold was explored and Resource assessed by GSI (0.56t of gold). BGML did 2 level underground development and defined a Reserve of 71,000 tonnes @ 5.61t of gold= 0.4t of gold. M/s GMSI. explored the block under a RP and discovered significant gold in Soil within the Surapalle-Bainepalle Prospect (0.4sq km area). Gold in Soil was tested by panning and fire assay and an Inferred Resource of 1.75Mt@0.86g/t =1.50t of gold and a tonne of Primary gold Resource were assessed.	
<b>TOTAL of KGF:</b>	-		<b>25.28</b>					<b>25.84</b>	<b>2.5</b>	<b>2 Mines +3 Prospects</b>

**KARNATAKA State: NORTH KOLAR GOLD FIELDS**

Manighatta Prospect				1.42	1	1.42	1.42	3	2 km Long Zone with a British time open pit & an U/Gr mine exist. GSI + GMSI drilled & estimated the Resource over a 600m long and 30m wide mineralized zone. JORC Inferred.Res. assessed is 1.42 tonne Au . V.High (60-80g/t) gold values were detected in QVs in the northern extension of the 2km long Manigatta -Syagatur Prospect. Based on trenching and sampling of the northern extension of Manigatta, a Prognosticated Resource of 3 tonnes has been assessed.
Arikere East									
Jaderi,East									The entire North Kolar Belt is marked by several ancient and British-time mine pits. The Prospects were the result of exploration by GSI+MECL and GMSI, the latter explored the entire North Kolar Belt under a RP and made a few new discoveries. The Jaderi-Arikere Central Prospect is 3km long with gold values upto 48g/t. Core drilling by MECL and RC drilling by GMSI has revealed 20 to 50m wide zones of gold mineralization. Arikere East to Syagatur South and Manigatta is a 10km long gold-bearing tract. GMSI has quantified the potential of the Prospects in North Kolar Belt (excluding Manigatta Prospect) and came up with a Prognosticated Resource of 10 tonnes of gold.
Vadigehalli									
Banamgur									
Syagatur North									
Syagatur South									
Nayakanhati East & North									
<b>Total of N. Kolar Belt</b>			<b>31.76</b>				<b>1.42</b>	<b>13</b>	
<b>Total Karnataka Drilled Resources + Reserves of Gold: 69 Prospects + 3 existing Mines</b>							<b>285.9t</b>		<b>69 Prospects +3 operating mines in Hutti Gold Field.</b>
<b>Total Karnataka Prognosticated Resources</b>							<b>153.5</b>		
<b>TOTAL</b>							<b>439</b>		

# Impact on Karnataka Iron ore mining due to the recent Amendments Rakesh MM (BE, ME & FCC) - Rakesh M.M.

In the recent years, mining sector has witnessed several regulatory reforms which has both positive & negative impacts. Whenever there are such amendments or reforms in the existing laws, there exists certain crucial issues or points which remains unaddressed. This is because such issues will be either state specific or mineral specific. State specific issues can be discussed by taking Karnataka as an example.

## Why Karnataka?

Mining operations especially iron ore in Karnataka is monitored directly by the Honorable Supreme court through Central Empowered Committee. E-auction procedure is in practice for sale of iron ore & Manganese produced in three districts which is unique compared to other states. Initially, leases were put up for auction based upon the orders of Honorable Supreme Court.

## Let us discuss with an example,

In the recent MMDR Amendment, captive

miners were allowed to sale their fifty percent-age of production and in future, no leases shall be granted for captive use as the concept of 'captive lease' was omitted. However, Honorable Supreme Court vide its order dated: 30.07.2015, directed to allocate C Category leases amongst end users only. In this order it is specifically told, only end-users engaged in production of sponge iron and/or pig iron and/or steel and/or pellets will be eligible to take part in the auction.

Accordingly, Department of Mines & Geology of Karnataka had come up with a notice inviting tender Dated: 31.08.2021 for five C Category leases, restricting the participation of end users only. The department of Mines & geology might have come up with this decision in complying with the orders of Honorable Supreme Court (HSC), but the amendment says different. In this regard, Ministry of Mines had issued a letter to Secretary, Commerce & industries Department (MSME & Mines), Govt

of Karnataka to modify the tender conditions in the tender document to comply with the extant law provided in the section 10B of MMDR Act with rule 6 of the Mineral Auction rules, 2015. However due to lack of clarity & confusions, the auction process is getting delayed.

If the process is delayed because of such reasons, bidders may not show interest towards the projects. The above mentioned is one such issue and there are many such issues which needs to be addressed before bringing any amendments. Government before bringing any such reforms or amendments, it should take collective opinion from all the other departments which involves in regulating mining operations, or else it will further add up to the delay in seeking clarifications and guidelines.

Here are the few analysis on Karnataka Iron ore mining due to the recent amendments in Mineral Auction & concession rules (2021).

SL No	Statutory Law	Revised Section/Rule/Regulation	Impacts on existing Karnataka Mines
1	Mineral Auction Rules - 2021	<p>The State Government shall not reserve any mine for captive purpose or any specific end use or partial specific end use in the auction.</p> <p><b>Amendment:</b> This sub rule shall be applicable in all cases of auction, notwithstanding any order or direction to the contrary, passed by any court or authority, prior to the commencement of the MMRD Act, 2021.</p>	<p>Earlier, as per the HSC order Dated: 30.07.2015, Only end users were allowed to participate in the auction. In MMRD amendment - 2021, reservation of leases for captive purpose was removed.</p> <p>However, there was no clarification/direction in case of any specific orders exists (taking an example of Karnataka *C Category leases). This Amendment made it very clear that there will be no such reservation even there are specific orders from Courts or any authority.</p> <p>*Supreme Court categorized 166 leases of Karnataka into A,B &amp; C Categories based upon the percentage of illegality in terms of encroachment, Dump etc.,</p>



SL No	Statutory Law	Revised Section/Rule/Regulation	Impacts on existing Karnataka Mines
2	Mineral Auction Rules – 2021	<p>Where the State Government has auctioned a mine as a captive mine for any particular specified end use before the commencement of the Mineral (Auction) Second Amendment Rules, 2021, up to fifty per cent. of total mineral produced in such captive mine in a financial year may be sold in market while ensuring that not less than fifty per cent. of total mineral produced in such captive mine shall be used during the financial year for meeting the requirement of the end use plant linked with the mine and on payment of such additional amount as specified in the Sixth Schedule to the Act.</p> <p><b>Amendment:</b> This sub rule shall be applicable in all leases where mineral is required to be used for captive consumption, notwithstanding any order or direction to the contrary, passed by any court or authority, prior to the commencement of the MMRD 2021.</p>	<p>Earlier, as per the orders of HSC Dated: 30.07.2015 material produced from the C Category mines should be consumed only for Captive Purpose.</p> <p>But In earlier amendment in 2017, 25% sale was permitted but the sale should happen in the next Financial year.</p> <p>However, With this amendment, 50% of the sale from the captive mines is allowed ensuring their 50% requirement of the plant. This may benefit sponge &amp; pellet plants to sale material (fines) &amp; other steel companies to sale such material which do not meet their plant requirements.</p> <p>There is no such compulsion that, we have to sale 50% material, this is applicable only if lessee is interested.</p>
3	Mineral Auction Rules - 2021	Payment of Interest	Payment of Interest is reduced from existing 24% to 12%. The time period of 60 days of the expiry of the date fixed by the government for payment is removed. Earlier, the interest payment used to be calculated for such payments delayed beyond 60 days.
4	Mineral Concession Rules – 2021	Computation of Average Sale Price	<p>While computing average sale price, along with the non-captive mines, any merchant sale done by the captive mines also will be considered. IBM is already considering the sale from captive mines for arriving Average Sale Price.</p> <p>Earlier, While computing average sale price, only weighted average details provided by non-captive mines used to be considered.</p>

SL No	Statutory Law	Revised Section/Rule/Regulation	Impacts on existing Karnataka Mines
			However, comments/suggestions on approached paper on developing National Mineral Index are invited by Ministry of Mines.
5	Mineral Concession Rules – 2021	It shall be lawful to the new lessee to commence and continue mining operations, on the land in which mining operations were being carried away by the previous lessee, after the execution of the lease till expiry or termination of mining lease granted.	Earlier, two years period was provided to obtain all the necessary consents, approvals & clearances. Now it will be extended till expiry or termination of mining lease granted. Note: Forest clearances will be transferred, only if the validity of the currency is valid during the expiry of the lease Period. Or else Fresh FC must be taken. Time duration should be specified if any compliance to be submitted as the two years clause is taken out. Environmental clearance in line with the recent notifications to be obtained, however it may not have any impact on Mining operations.
6	Mineral Concession Rules – 2021	If any changes proposed in change of any conditions attached to the approvals, clearances, licenses, permits and the like, transferred under vesting order, the lessee will obtain the approval of the same, under the laws for the time being in force.	While proposing any changes, extreme precautions to be ensured or else approvals, clearances, licenses, permits and the like, transferred under vesting order may not be valid.
7	Mineral Concession Rules – 2021	The material below the threshold value, the lessee can dispose the material by paying such payment as may be decided by the state Government. The state Government may allow this in consultation with IBM.	There was no such condition earlier, to dispose the material below the threshold value as there was particular slab of 0-55% Fe. Now this amendment says in particular that any material below the threshold value can be sold/disposed at the Price offered by State Government in consultation with IBM.  (Presently, most of the available ore is low grade/siliceous/BHQ, which needs further processing to meet integrated steel plant's requirement at a significant cost.



SL No	Statutory Law	Revised Section/Rule/Regulation	Impacts on existing Karnataka Mines
			<p>Beneficiation plants and integrated steel plants will be interested to utilize low grade, siliceous ore, BHQ &amp; other cut-off grade ore by processing with advanced machineries and technologies at feasible cost).</p> <p>Government may also think "separate pricing mechanism" for low grade, siliceous ore, BHQ &amp; 'other cut-off grade ore which will obviously help lessees to dispose such material having market demand. Special Incentives &amp; recognitions should be awarded for such integrated steel plants, Beneficiation &amp; Sponge plants for utilizing the sub grade ores which will be a major reform in mineral conservation</p>
8	Mineral Concession Rules – 2021	<p>The lessee can make an application for surrender if the entire area or a part area of the mining lease after giving a notice in writing of not less than 06 months from the intended date of surrender.</p> <p>The other provision is also provided in the amendment where, the state government may refuse to accept such surrender of the entire or part area of the mining lease for the reasons to be communicated in writing to the lessee.</p>	<p>The new Provision has been inserted, saying that the state government may refuse to accept such surrender of the entire or part area of the mining lease for the reasons to be communicated in writing to the lessee.</p> <p>The Actual procedure is not defined for surrendering of the lease as there are different formats (2014 &amp; 2020 guidelines) published by IBM.</p>

But, it is also important to note that the government of India is emphasizing more on mineral sector to ensure that the sector will be able to fulfill raw material requirement to meet the demands of domestic market. Vari

ous initiatives like seamless transfer of clearances, allowing five star rated iron ore, manganese ore, bauxite & limestone mines to enhance production capacity up to 20% with public consultations instead of in site hearing,

transfer of leases etc., are also taken up by Ministry of Mines to ensure "ease of doing business" and also to develop positive atmosphere for mining sector.

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# Snapshot– National Mineral Index Approach Paper

## -Abhinav Sengupta

Sl. No	Sections of Approach Paper	Suggestions Given in the Approach Paper	Remarks / Comments
1	What was the objective behind the exercise?	<ol style="list-style-type: none"> <li>To examining the double calculation of royalty due to inclusion of royalty in calculation of Average Selling Price (ASP) of minerals</li> <li>To develop a National Mineral Index (NMI) for valuation of mineral resources</li> <li>To determine the value for auction of mineral concessions</li> <li>To determine the statutory payments like royalty, DMF and NMET for future auctions of mineral concessions</li> </ol>	<ol style="list-style-type: none"> <li>The effective tax rate (ETR) in Indian Mineral Regime is). The attempt has been made to rationalize the mineral taxation along with discovery of a fair and transparent mineral pricing for creation of an investment presently is the highest due to presence of multiple number of taxations, cess and considerations (like royalty allowance regime in Indian Mining sector</li> <li>Moreover, with amendments in MMDR 2021; scrapping of section 10A 2(b) &amp; 10A 2(c) there will be more than 500+ mineral leases to be put up for auctions in next 2 years</li> </ol>
2	What is the Purpose of Index?	<ol style="list-style-type: none"> <li>The National Mineral Index for the country will reflect the movement of the price of that mineral as a composite of all grades and quality of the mineral in the domestic market. In an ideal conditions, it should reflect the national price of the mineral.</li> </ol>	<ol style="list-style-type: none"> <li>An indexing will help in capturing in quantification of the average change in level of any parameter (here it is prices of various minerals) when there is multiple number of data sources (here the value will be computed for multiple grades of same minerals from multiple mines including the imports)</li> </ol>
3	Theoretical multiple uses of NMI	<ol style="list-style-type: none"> <li>Use of NMI as a parameter for calculating the auction premium for mineral auctions</li> <li>NMI to be use determination of statutory liabilities like Royalty, NMET &amp; DMF</li> <li>NMI can be used as an indicator for national price for any mineral at any point of time for use in other indices</li> <li>Use of NMI for commodity trading as an index which can be traded on (akin to BSE index or NSE index</li> </ol>	<ol style="list-style-type: none"> <li>The suitability of the NMI is yet to be evaluated due to various challenges:</li> <li>Computation of NMI for all the minerals mentioned in Schedule I (except Part A) &amp; Schedule IV for MMDR Act 2015</li> <li>There would be overlapping of NMI as an index for commodity trading w.r.t determination of spot prices of minerals</li> <li>Forecasting of NMI for determination of value of mineral resources over the life of mining lease</li> <li>Inclusion of minor minerals under the purview of NMI</li> <li>Effectiveness in determining the national trend of mineral prices &amp; its movement</li> </ol>
4	Formulation of the State Mineral Index (SMI) for ease in estimation of Royalties & Other Statutory dues	<p>It was recommended that states to formulate analogous index i.e., State Mineral Index (SMI) wherein only the mineral sales of that State are being reflected as NMI may not be a suitable index for determining the statutory payments such as Royalty, DMF &amp; NMET</p>	<ol style="list-style-type: none"> <li>The mineral rich states would eventually get the rationalized sell value of the minerals</li> <li>Removal for ASP will capture the seasonal &amp; geographical volatility of mineral prices</li> <li>It would align the national will with political will and might become an indicator for keeping checks &amp; balances of cartelization of prices of mineral commodities</li> </ol>



5	NMI for use in determination of Auction Premium	<ol style="list-style-type: none"> <li>1. As ASP is an artificial construct for a State (and does not actually reflect the revenue earned in any specific sale), a percentage of the same as premium would only be an approximation of revenue sharing model</li> <li>2. The NMI, being moderated through sales data throughout the country (instead of being limited to any particular State) will be theoretically more stable than a State level ASP</li> <li>3. NMI to be publish on monthly basis</li> </ol>	<p>NMI being a more stable index as it removes the drawbacks of ASP like volatility in State specific mineral sales and hence the State's revenue</p> <ol style="list-style-type: none"> <li>2. With NMI the bidders would be able to have a better assessment of their liabilities at the time of bidding, leading to more informed decision</li> <li>3. As NMI trends would be less volatile as compared to the ASP trends still the forecasting of NMI will have its own challenges and it would at least require 4 to 5 to consolidate</li> </ol>
6	Other uses of NMI	<ol style="list-style-type: none"> <li>1. NMI can be an indicator of National price for any mineral at any point of time for use in other indices</li> <li>2. Exchanges may also design products for commodity trading with NMI as an index which can be traded on</li> </ol>	<ol style="list-style-type: none"> <li>1. For all the non-statutory uses the parties may</li> <li>2. adopt the index based upon their suitability</li> <li>3. For initial years post implementation of the NMI, the present commodity trading products would prevail as</li> <li>4. Subsequently there would be a need to evaluate setting up a separate mineral exchange for NMI Index based commodity trading or existing exchanges like MCX, NCDEX etc. will suffice</li> </ol>
7	Structuring of the NMI & SMI System	<ol style="list-style-type: none"> <li>1. The SMI and NMI would be then calculated separately every month, based on central value of sales/imports of that month, as compared to the central value in the base month</li> <li>2. For estimation of SMI: A ratio of weighted median of sales made from the mines within the State (either for domestic consumption or exports) in any month, as compared to the central value of sales in the base month</li> <li>3. For estimation of NMI: A ratio of weighted median of sales taking into account both all the sales made within the country (either for domestic consumption or exports), and also imports of the specified month, as compared to the central value of sales in the base month</li> <li>4. Govt. will decide the base month period and that will reflect the normal business activity in the sector and its value to be fixed as 100</li> </ol>	<ol style="list-style-type: none"> <li>1. The computation of the base month would be a real challenge. As in case of National Coal Index (NCI) has considered April 2017 as base year and the initially NCI index value has been given up to Feb 2020 post which normal business activity got hampered due to pandemic. The challenge faced by the bidders for the commercial coal auctions was to forecast the NCI projections</li> <li>2. Since the mineral auction regime has started only 6 years back in 2015 the Govt. may adopt the year 2015 as the base month for NMI computation.</li> <li>3. The backward estimation of NMI from 2015 to 2019 will indeed reflect an actual price movement. However, due to pandemic two years 2020 &amp; 2021 will be an aberration to the price movement. This would require a suitable mechanism to include the computation of NMI for year 2020 &amp; 2021 as the sector is still recovering from the perils of the pandemic</li> <li>4. Role of WPI indices for mineral commodities (including Ores /concentrates) needs to justified in presence of NMI as presently price movements for mineral commodities are estimated by WPI indices only</li> </ol>
8	Principle for NMI & SMI Calculations	<ol style="list-style-type: none"> <li>1.The approach is to fix a basket of quantities of different grades of a mineral and evaluate the price of this basket at different time points. Since the quantities are pre-fixed, this change in the value of the basket represents the average price change only</li> <li>2.For State Mineral Index: There is a need to ascertain the quantities of different grades of the minerals that will be/ have been extracted from the mines in the State over different points of time. A time average of these quantities can be taken to be the basket of choice</li> </ol>	<ol style="list-style-type: none"> <li>1. The shift from determination of ASP to fixing up of basket (with different time of selling points) will promote the market forces for price determination as mineral rich states with abundant resources will have better price realization</li> <li>2. The volatility of market will be captured efficiently and will protect investor interest</li> <li>3. Though India has fewer resources for critical minerals (Lithium &amp; Cobalt) and Rare Earth Elements. In next 5 years special impetus will be given towards mining of these minerals through</li> </ol>

		<p>2. Fixing one base period and comparing the relative values of the basket, to get the state price index of the mineral. This index can be used to evaluate the potential revenue stream of a mine, assuming that the demand conditions across grades remain stable</p> <p>3. For National Mineral Index: All the States together along with imports with specific grade shaving national proportions as weights to compute the national index</p>	<p>auctioning. Framing SMI &amp; NMI for the above mineral categories would be a challenge and would require a separate exercise altogether</p>
9	Methodology for NMI & SMI Calculations	<p>1. In order to arrive at the basket of various grades for any particular mineral which would constitute different weights of various grades their sale value of last 4 years may be taken into account</p> <p>2. Based on relative use of various grades over the past 4 years, the basket for any particular mineral would be decided. This basket can be revised once in three years by Government, to capture the changing trends in consumption in the country</p> <p>3. There would be a separate basket for each State (for purpose of SMI) and a separate basket for the country (for purpose of NMI)</p> <p>4. Weighted median is being used for calculation of prices instead of weighted average. After weighted median for each grade is calculated, then the value of the basket would be calculated as the weighted average of the unit values all such grades in the basket, based on already assigned weights in the basket</p> <p>6. For calculation of NMI weighted median of each grade based on all sale in the country and import of the particular grade will be calculated</p> <p>7. This becomes the value of the basket, which would be assigned the base value of 100, for that month. For subsequent months, a similar calculation for the value of the basket would be done, and same would be compared to the basket value of the base month to arrive at the SMI for that particular State and NMI for the country.</p>	<p>1. The use of weighted median (50th percentile value) instead of weighted mean will result in realistic determination of the selling price. As in case of upward / downward commodity cycle the median prices will shift accordingly</p> <p>2. On the other hand, an exercise may be done for the computation of sale price of a particular mineral with the help of 'Weighted Mode' value. This will give even more realistic sell value. The estimation of mode value will have other inherent challenges and may expose the price cartel done against the mineral</p>
10	Methodology towards uses of NMI for calculation of premium in mineral auction	<p>1. The unit price of various grades for the month of auction (or combination of grades) will be the base price for that particular auction, and the NMI for that month would be the base NMI</p> <p>2. For determination of future prices, instead of calculating actual ASPs of those grades, the sale price would be arrived at by multiplying the Base price with the ratio of NMI of the month to the base NMI</p> <p>3. During the auction, the auction issuing authority may define the base price to be that of a particular grade or a combination (weighted average) price of certain grades or the price of the SMI basket or NMI basket</p>	<p>1. The genesis of NMI &amp; SMI is related to the auctioning of mineral resources and aims to provide a National trend for mineral prices</p> <p>2. The calculation is similar to any index-based calculation</p> <p>3. For Bulk mineral commodity like Iron Ore, Bauxite, Limestone, Manganese, Rock Phosphate etc. the weighted median would be calculated with greater confidence due to large number of mines.</p> <p>4. For calculation of price movement of Base Metals i.e., Lead, Zinc, Copper whether LME price for Metal in Concentrate (MiC) will be considered or Cost of ROM/Concentrate will be taken into the account for calculation of weighted median of a particular state</p> <p>5. Similarly for precious metals like Gold, Silver, Diamond, etc. the determination of weighted median would be skewed and SMI and NMI will vary heavily</p>
11	Methodology towards uses of SMI for calculation of statutory payments like Royalty, DMF and NMET	<p>1. The SMI of the base month (which is 100) would relate to the weighted median value of all grades of the mineral in the state basket.</p> <p>2. For any future month, the price can be calculated by multiplying the weighted median of value that month by ratio of the SMI of that month to the SMI of the base month</p>	

The Ministry of Mines (MoM) on 24th November 2021 has published an approach paper seeking suggestions/comments for structuring and setting up an approach for formulating National Mineral Index.

- Prepared By  
Abhinav Sengupta

## Lloyds Metal spurts on extension of mining lease

Lloyds Metals and Energy hit an upper circuit of 5% at Rs 83.60 after the mining lease granted to the company for iron ore mines in Gadchiroli district in Maharashtra has been extended up till 2 May 2057.

Lloyds Metals and Energy informed that its mining lease for iron ore mine over an area of

348.09 ha. in Surjagad (Wooria Hill), Gadchiroli district in Maharashtra is extended for 30 years till 2 May 2057.

The mining lease deed for Surjagarh iron ore mine (Wooria Hills) was first executed on 3 May 2007 for 20 years.

Net profit of Lloyds Metals & Energy declined

80.86% to Rs 0.31 crore on 36.12% rise in net sales to Rs 100.32 crore in Q2 September 2021 over Q2 September 2020.

Lloyds Metals and Energy is engaged in the manufacturing of sponge iron and steel, and generation/distribution of power.

Source: **Business Standards**

## Union Minister Pralhad Joshi inaugurates E-portal of accreditation scheme for minerals exploration

52 Mining Block Reports of GSI handed over to 15 States Governments 5-star rated awards presented for sustainable Mining

Union Minister of Coal, Mines and Parliamentary Affairs Shri Pralhad Joshi said that Ministry of Mines is open to considering further policy reforms to bring about more growth in the mining sector of the country. Addressing the fifth National conclave on Mines and Minerals here today, Minister Shri Joshi said that the Centre can consider more incentives to the State Governments to give more fillip to mining process across the Nation. He urged the State Governments to strengthen available mineral infrastructure for attaining this goal. The Minister pointed out that during the first seven months of this financial year, Odisha Government has generated Rs.10000 Crore through proactive auction process of mines. He added that the focus should be on reducing import of minerals to the very minimum.

During the day-long conclave, Minister Shri Joshi gave away awards to 5-star rated mines for sustainable mining practices and all round performance. In all 149 awards for the last three years have been given away to different

public and private sector firms from across the country. Handing over of 52 Geological Survey of India (GSI) approved mine blocks to 15 State Governments was one of the major highlights of the National Conclave. The Minister also inaugurated an E-portal of accreditation scheme for Mineral exploration.

Earlier, panel discussions on recent amendments in Mineral Act and rules and presentation by state Government Mining department officials have been held as part of the conclave. GSI has presented a technical session on advanced exploration technology and the on-going strategy for identifying more mineral blocks.

Secretary Ministry of Mines Shri Alok Tandon, senior functionaries of the Ministry, GSI, NMET, different PSUs and representatives of State Governments and industrial sector participated in the brain storming sessions.



The first ever national conclave on Mines and Minerals was held at Raipur in 2016. Subsequently similar conclaves have been held annually in Delhi and Indore. At the onset of the Mines and Minerals (Development and Regulation) Amendment Act, 2015, the regime of auction for grant of mineral concessions has brought about transparency and removed discretion to a great extent. This has not only resulted in substantial increase in the revenue to the State Governments but also brought about paradigm of 'ease of doing business' in mining sector.

Source: **Byscoop.com**

## Bolster mining infra: Coal min

Union Minister of Coal and Mines, Pralhad Joshi on Tuesday said that the Ministry of Mines is open to considering further policy reforms to bring about more growth in the mining sector of the country. Addressing the fifth National Conclave on Mines and Minerals here today, Joshi said that the Centre can consider more incentives to the State governments to give more fillip to mining process across the nation. He urged the state governments to strengthen available mineral infrastructure for attaining this goal. The minister pointed out that during the first seven months of this financial year, Odisha Government has generated Rs 10,000 crores through a pro-active auction process of mines. He added that the focus should be on reducing imports of minerals to the very minimum.

During the day-long conclave, Minister Joshi gave away awards to 5-star rated mines for sustainable mining practices and all-round

performance. In all, 149 awards for the last three years have been given away to different public and private sector firms from across the country.

The Ministry of Mines in a press release informed, "Handing over of 52 Geological Survey of India (GSI) approved mine blocks to 15 State Governments was one of the major highlights of the National Conclave." The minister also inaugurated an E-portal of accreditation scheme for Mineral exploration. Earlier, panel discussions on recent amendments in Mineral Act and rules and presentation by state Government Mining department officials have been held as part of the conclave. GSI has presented a technical session on advanced exploration technology and the ongoing strategy for identifying more mineral blocks.

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Source: The Shillong Times

## Up to 8 mining blocks to be auctioned by Dec 15

Process to be carried through Goa Mineral Development Corporation (GMDF); State Bank of India to be onboard

Chief Minister Dr Pramod Sawant on Wednesday announced that six to eight mining blocks in the State would be auctioned before December 15 this year.

Speaking to the media at the Minister's Block, Porvorim, Sawant said that the auction process would be carried through the Goa Mineral Development Corporation (GMDF). However, State Bank of India (SBI) too would be onboard, he said.

Sawant said that the government has sought the help from the Mineral Exploration Corporation Limited (MECL) in identifying the

leases to be auctioned. On July 19 this year, Directorate of Mines and the Mineral Exploration Corporation Limited (MECL), a public sector undertaking from Nagpur had signed a Memorandum of Understanding (MoU) for carrying out exploration of mineral resources and allied works by conducting an array of geo-scientific exploration and finalise mineral blocks to be auctioned in the State. MECL will also establish the State's mineral inventory.

The Chief Minister said that the MECL has already started the initial work of geological mapping and field related studies for demarcating the mineral blocks by collecting data in the field and will soon submit its report to the State government for auctioning of the blocks.



Mining operations in the State have been stopped since March 2018 after the Supreme Court quashed the second renewal of 88 mining leases and ruled that fresh leases be allotted through auction if mining is to restart.

Source : Goa Herald



## Bihar district in spotlight after Centre's largest gold reserve remark

On being contacted, Jamui District Magistrate Avneesh Kumar Singh revealed that it would prove a game-changer for the entire Naxal affected belt.

Karmatia village under Sono block in Bihar's Maoist-infested Jamui district has hogged the limelight following Union minister Pralhad Joshi's statement in the Lok Sabha that the sleepy hamlet claimed to have India's largest gold reserves.

On Wednesday, the Union minister in a written reply to a question raised by BJP Bihar state president Sanjay Jaiswal, MP, revealed that around 222.885 million tones of gold metal is available, including 37.6 tones of

mineral-rich ore, in Jamui district alone.

"The country has a total primary gold ore reserve of 501.83 tonnes. Of which, 654.74 tonnes are gold. Of this, 44% gold has been found only in Bihar," said Jaiswal, quoting the reply of the union mining minister in his letter in the lower House.

On being contacted, Jamui District Magistrate Avneesh Kumar Singh said, "I sought a report from Sono Circle Officer Rajesh Kumar after the matter was raised in the parliament. The CO's report is based on a survey earlier conducted by a Geological Survey of India (GSI) team in the Karmatia goldfield in the district, near the Jharkhand border."

GSI had last visited the area to conduct a survey in 2015.

"The team stayed at the Sono block headquarters for several months after which it submitted its report to the Union government. Since then there is no development on this front," the DM told TNIE.

He, however, revealed that it would prove a game-changer for the entire Naxal affected belt, if the high-ups in the union ministry took up the matter and excavation started in the goldfield.

Karmatia village under Churhait panchayat is spread over 1,000 acres of land, which has a strong possibility of having gold reserves, the DM said.

### Chart: How Much Gold is in the World?

#### How much gold is in the world?

Gold has retained its value throughout history, partly due to the fact that it is indestructible.

That means that virtually all the gold in the world that has been mined is still around in one form or another. Some of it may have turned into jewelry, while some might be sitting inside vaults as bullion. So, just how much gold have we mined, and how much of it is left beneath the ground?

#### Where is all the gold?

The World Gold Council estimates that miners have historically extracted a total of **201,296 tonnes** of gold, leaving another 53,000 tonnes left in identified underground reserves.

If all of the above-ground gold were stacked beside each other, the resulting cube would only measure 22 meters on each side, which is a testament to the metal's rarity. But where exactly is all of this mined gold?

Nearly half of all the gold ever mined is held in the form of jewelry. India and China have been the largest markets for gold jewelry consumption, combining for more than **50%** of global jewellery demand in 2020.

Category	Gold stocks held (tonnes)	% of above-ground stocks	Dollar value* (US\$, trillions)
Jewelry	93,253	46%	\$5.8T
Private investment	44,384	22%	\$2.8T
Official holdings/Central banks	34,211	17%	\$2.1T
Other	29,448	15%	\$1.8T
<b>Total</b>	<b>201,296</b>	<b>100%</b>	<b>\$12.5T</b>

\*Dollar values are based on gold's price of \$1756.66/oz as of close on Sept. 30, 2021.

Investors across the globe buy gold because of its ability to deliver value, and when inflationary pressures are high, gold often acts as a flight to safety. Consequently, investment is one of gold's biggest end-uses, with over **44,000 tonnes** of gold held as bars, coins, or bullion for gold-backed exchange-traded funds (ETFs).

Besides investors, central banks are also among the biggest holders of gold. Unlike foreign currency reserves, equities, and debt-backed securities, gold's value largely depends on supply and demand. Therefore, central banks often use gold to

diversify their assets and hedge against fiat currency depreciation. Central banks' gold holdings account for almost one-fifth of all above-ground gold; as of 2021, official holdings exceed **35,000 tonnes**.

Although gold is widely coveted as a precious metal, it also has various industrial uses, with applications in electronics, dentistry, and space. In

fact, it's estimated that a typical iPhone contains about **0.034 grams** of gold, in addition to other precious metals. It is these industrial uses that account for **29,448 tonnes** or roughly 15% of all above-ground gold.

**Underground gold reserves**

Before it turns into jewelry and bullion, gold goes through several stages in the supply

chain, beginning with mineral exploration and mining of underground reserves. As of 2020, the world had 53,000 tonnes of gold in identified reserves. Here's where all this gold lies:

Given their availability of reserves, it's no surprise that Australia, Russia, U.S., and Peru are among the world's largest gold producers, with only China having produced more in

2020. These reserves not only help determine current production but can also provide an idea of where gold mining could occur in the future.

In 2020, miners produced just over 3,000 tonnes of gold, and at this rate, underground reserves will last less than 18 years without new discoveries. However, it's important to note that reserves can change and grow as explorers find gold in different parts of the world.

**A golden future**

Gold has been around for thousands of years, and it will likely remain that way in the future.

With rising concerns over the growth in money supply and inflation, gold will continue to deliver value and protect investors in times of volatility while preserving wealth for the long term.

Country	Gold reserves (tonnes)	% of total
Australia	10,000	19%
Russia	7,500	14%
U.S.	3,000	6%
Peru	2,700	5%
South Africa	2,700	5%
Rest of the World	27,100	51%
<b>Total</b>	<b>53,000</b>	<b>100%</b>



Source: Visual Capitalist

# Why Myanmar is important for India-Japan-Australia trilateral supply chain initiative

The article below was written by me last year 2020 in October. Things on the ground have changed with the Military coup on 1st February 2021 in Myanmar. But to me there does not appear to be a reason for falling in line with the western democracies because in the larger interest of India, Japan and Australia our presence in a meaningful way in Myanmar will be the only way to prevent Myanmar becoming a pariah state, deep entrenched in Chinese lap now, but on verge of becoming an enigmatic fragmented states. The safety, national integrity, connectivity, trade of India and some likeminded democracies of Asia, & the ecosystem of the seas in SCS( South China Sea) cannot be separated with that of Indian Ocean. It is four months on since the clamping of the military autocratic regime, followed by civil disobedience movement, violent clashes with some of the armed ethnic group carrying the legacy of armed insurgencies, tactic support by China & Russia to the junta, and slapping of economic sanctions by the US,UK & Western economies are all adding up to the creation of enigmatic situation in Myanmar.

To compound the enigmatic situation, the NUG has lost faith in the questionable efforts by ASEAN members, & Myanmar continues to reel under deadly crackdown on protestors, economic stalemate, violent resistance from armed ethnic groups, & now guerrilla style civil resistance across the country.

Post Covid19 cold war which has already set in the with the U.S-China trade war and the expansionist design of China under the influence of the Middle Kingdom Syndrome at the center. This has lead to the need of creating a non-Sino centric world order and this act has already started to roll. At the onset I would state that Myanmar - a member of BIMSTEC ( Bay of Bengal Initiative for Multi sectoral Technical & Economic Cooperation), may be one of the key countries in the Indo-Pacific Region where the newly forged partnership

of India-Japan-Australia may be robustly developed for a new sustainable supply chain. From Indian perspective any such venture in Myanmar assumes special significance that it is in immediate vicinity of the NER of India and hence fulfill the two fundamental pillars of India's foreign policy viz the Neighborhood first and Act East. Such a step will also be in the interest of Myanmar because its rich store house of some very strategic minerals like Titanium, Tin, Tungsten, Molybdenum, Tantalum, REE & Lithium(?) may be a source of raw material for modern day high-tech industries including solar energy, wind energy, green energy, automobile, military hardware, space science, electronic industry, and also semiconductor chip etc in a new world order which is transparent, believes in multilateralism, security of the territorial boundaries, employment, secured eco-system, equitable distribution of resources of all hues.

Before elaborating the key status of Myanmar for the development of SCRI (Japan-India-Australia Supply Chain Resilience Initiative) it would be prudent to refresh the enlightened readers of two facts viz 1 Myanmar remained a Tributary state to the Qing Empire (1644-1912) of China. (2) ever since mid-19th Century- just after the independence of Myanmar from the British rule (1824-1948), this country has remained a pariah for decades. The rich resources of strategic minerals of Myanmar were ignored by the world & particularly India. But the Dragon walked into its erstwhile Tributary state and made deep foot prints over its mineral and other natural resources. At this stage it would not be out of place to define "Tributary State" as an independent state technically in pre-modern times with internal autonomy but some degree of subordination to a more powerful state in the vicinity. China is one country which lays all its territorial claims and business rules as per its own set of rules and in the process has drawn leaves from its history to frame the rules.

A few sentences about the history of Myanmar-China relation in historical past may be prudent before elaborating the present day behavior of China. Myanmar was always an independent nation. Though Chinese emperors of Ming & Qing Dynasty and Mongol( 1287) kings did invade Myanmar several times in 13th to 19th Century but could never conquer, though succeeded in making Myanmar a tributary state.( Ref Wikipedia ) and create substantial influence on it. Even after Anglo -Burma wars when Myanmar came under British Rule, tributes were sent to China by Myanmar. This pre-modern times system discontinued after the independence of Myanmar from the British rule in January 1948. But the International geo-political events then, left Myanmar as a pariah state, making it a happy play ground for the Dragon to move forward under the Middle Kingdom Syndrome. For decades it continued with unbridled exploitation of the rich mineral and other land resources of that country. The mineral resources from Myanmar were the raw materials for the fast changing modern day industry and technology in China. But this is 21st Century when the collective conscience of the world would revolt against the idea of any country claiming, wanting/threatening to occupy, land and maritime areas that are not its own as well as any country that tries to enforce a status of satellite for the smaller or weaker country.

Shortly after the end of World War-2, an era of Cold War between the U.S & Soviet Union set in. This was a period of heightened tensions and competition for global influence between the U.S & U.S.S.R which lasted till 1991

After the end of the U.S- USSR cold war era, the insularity of the erstwhile guardians of the global economy exposed the unattended global commons to the assertiveness of the Dragon which had started developing supply chain in which trade & technology became more & more China centric & simultaneously numerous geostrategic platforms, initiatives like BRI (Belt & Roads Initiative), String of Pearls, CPEC, CMEC( China



→ Myanmar Economic Corridor) were floated and finally a deeply Sino centric world order came into being which was not fair, free, inclusive, transparent. In my previous article I had elaborated upon some mining/mineral exploration projects by Chinese company belonging to Chinese Government with a junior Australian partner wherein norms on environmental, human welfare, forest etc. were flouted, information were put under the warp and local commune was ignored and deprived of their rights. The advantage with China is that it has been steadily exploiting its numerous mineral resources for decades and in that process it has got geological data to explore for more minerals that are critical to a host of modern high-tech industries. A classic case has its clandestine operation in targeting some highly critical metals like Titanium, REM (Rare Earth Metals), Chromite etc in Rakhine State in early 2000s. Titanium minerals & other critical minerals which were hitherto unknown to be occurring in Myanmar is now reported to be hosted in the Beach sand of Rakhine state & hence caught the attention of the Chinese companies who have carried out exploration around Rathidaung Tsp, Aungmaw coastal belt in the Rakhine state for almost 7 years before 2013. They were given permission to do exploration by the local state government but never made the findings public or known to the government. There was a local resentment against this exploration. So it was stopped but reportedly took off in 2010 again. "BNI MULTI MEDIA GROUP" REPORTED on 28th January 2016 that a Burmese company, backed by the Chinese government started exploratory studies for the presence of Titanium & other aluminum minerals (nearly 20 odd). Geologically, this itself is deliberately hiding the information of the mineralogy of the beach sand.

The special interest of China in the HMBS resources of Rakhine State should have been looked into very carefully because it gives the Dragon the access to not only the highly touted strategic metal Titanium but also some other equally highly strategic metals, which were never disclosed. A discussion with a

Geologist suggests that the HMS of that beach could also contain either Monazite / Xenotime / Bastnesite, which are source materials for REMs. Interestingly, in the immediate adjoining coastal tract of Bangladesh, in the vicinity of Cox Bazar, Teknaf, Bdarmokam fair amount of geological and geochemical studies were done by the scientists of Bangladesh and considerable amount of HMS like Ilmenite, Zircon, Garnet, Leucosene, Monazite etc along with. REM like Neodymium, Yttrium etc have been identified and an AUSTRALIAN COMPANY is already engaged in prospecting of these strategic HMS & REM. The distribution of HMS & REM in Bangladesh & Myanmar may have fair amount of similarity with respect to its provenance on the land and the long shore currents

As per the study report of Global Environmental Institute (GEI), the State owned Chinese companies in Myanmar under their Investment programme in that country have preferred investments, have tied up with the Govt of Myanmar Enterprises (under MONREC). The Chinese companies listed in the Report do not figure in any mining or exploration activities in Rakhine State and more over their target minerals include Cu & other Base metals, Au, Sn, W, Coltan, but does not include HMBS or ilmenite. While on the other hand the ground truth reveals that small unlisted or unknown Chinese companies like Ray Myaeshin, Yemyaeshin, Shwe Shepway, (meaning Gold finder in Burmese) had prospected in 2007 and they got one year permit from the Ministry of Mines. The profile of these unlisted companies are not found in public domain. It was reported that the samples were taken to Beijing and elsewhere for mineralogical and chemical test but the results were never made available to the public domain. Beach sand was also purchased by some Chinese company.

According to a report titled "Western Burma State Government Mining Projects ....." written by Ms. Nyein Nyein, Senior Reporter in the Irrawaddy on 7th October 2013, a Chinese firm Shwe Shepweye & Luxembourg firm (Boulle Mining Group) were granted permit for mining of Al & Ti deposits in the beach sand located in Northern Rakhine by the

Regional Government. These deposits are along Rathedaung & Maungdaw Township. The owner of the Luxembourg firm, Jean Raymand Boulle, is a controversial person with complaints about his business practices by a U.N Panel. Wunlatt Foundation - a Civil Society group, objected to the project by the Chinese in a shady way but one of the ministers from the Region was in favor of the project

A discussion about the clandestine activity of China in Rakhine State needs special attention in the interest of Myanmar, India & perhaps even Bangladesh because whatever China does, is not happenstance. China bats for multilateralism order every now and then but its aggressive action as seen in South China Sea, Taiwan, termination of Hong Kong autonomy, encroachment & hostilities on India-China border, Tibet, Mongolia, and Nepal- the latest in this long list, belie all International rules & co-operation. China was signatory of UNCLOS in December 1982 and ratified it in May 1996 but has blatantly violated this Convention of Sea Laws there by infringing upon the sovereign rights of SCS member countries on their marine resources, EEC & trade etc. It created numerous artificial islands in SCS within disputed maritime boundary with Vietnam, Malaysia, without any proper environmental impact assessment. It will thus cause damage to the sea floor ecosystem which has been essential for the human life in the coastal regions of the member countries, their nutrient recycling, pollution filtration. This may also influence the coastal erosion, wave pattern, long shore current pattern and in turn may affect the distribution and replenishment of Heavy Minerals Sand on the beaches of Vietnam, Malaysia, Cambodia. Similarly, its surreptitious activities in Myanmar as a whole and in some states like Rakhine, Chin etc needs not only to be watched with caution by India, & Myanmar both, but the same should be follow up action on the ground, because the Dragon wants a weak & closed Myanmar with poor humanitarian record. Promoting insurgency in the country by supplying arms and money to at least 7 armed ethnic insurgent groups including Arakan Army on one hand, and sluicing massive investments under various geopolitical platforms and initiatives like OBOR, CMEC, BRI, perhaps may be termed a mix





→ of Debt trap warped under Dollar Diplomacy with Wolf Warrior Diplomacy or a prelude to Wolf Warrior Diplomacy followed by forceful subjugation of the territory .By this it wants to keep India, West and some East Asian Countries at bay.

Some of the critical mineral resources are the key to the development of all stable sustainable supply chain that would strengthen a Sino centric world order. And Rakhine State is incidentally rich not only in Oil & Gas but hosts minerals like Wollastonite, Titanium, Garnet etc, REE as placer deposits. It would be very pertinent to point out that Myanmar

is not known to be on the Titanium & REE map of the world .Myanmar would do well to have a greater and transparent say in the exploration and exploitation & basic value addition of these critical metals. The dubious behavior of China in prospecting of Beach sand has been far from transparent and thus there is need for Myanmar to ensure transparency and equitable distribution of the benefits. **In this context ,Rakhine, Chin, Kachin, Shan, Tanintharyi, Kayien & Mon State assumes very special significance for Myanmar as well as member countries of Quad nations and a few other initiatives, who want to be a key component in the development of a new**

resilient initiative leading to the formation of a new World Order minus China in the Indo-Pacific Region. This resilient initiative would be transparent and would be based on equitable distribution of the resources and the benefits accrued from the judicious utilization of all resources.

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## SWASTHA

*A GEMCOKATI EMPLOYEES INITIATIVE*

# Help for a Smartphone-Addicted Generation : A Global Epidemic

Safeguard our essential humanity in the digital age!!!!

A college professor, noticed how attached his students have become to their smartphones. They check them before the class begins, then dash out of class, scanning their phones for any new messages. While walking across campus, he saw at least eight out of ten students staring down at their phones. "They're addicted," says neuroscientists.

All this electronic addiction is unhealthy. In recent years, health experts have identified an alarming rise in anxiety, loneliness, and depression among adolescents globally . Latest findings indicate that high school students now spend an hour less each day in personal social interactions than their counterparts in the 1980s. That means less time socializing with family and friends, going to play outdoor games , parties, and going to movies than teenagers in previous decades—and shockingly , they're experiencing record levels of loneliness. Studies found that self-reports of loneliness among adolescents rose

dramatically after 2010, at the same time that smartphone use became common among teenagers around the world, especially developing nations.

The truth is that for many of our nation's young people, their phones are their primary relationships or best friends. They spend more time with them than with their friends, their parents, or anyone they know. They eat with them, study with them, even sleep with them, awakened in the middle of the night by buzzes from incoming messages.

### **Why parents really need to put down their phones**

Recently too many of us have been "thinking like machines because we live in this mechanistic millennium . You can't grow children following principles of a mechanistic mindset .

We all seek a healthier lives for our children and ourselves, and for that we need to remember , while technology brings us remarkable evolutionary growth at a faster pace , our greatest strength is our essential humanity, our ability to connect with our hearts and minds, together with those of the people around us.



### **Effects on future generations**

Children feel unimportant, and have to compete with smartphones for parents' attention.

In a large international study of six thousand , eight- to thirteen-year-old children, 32 percent reported feeling "unimportant" when their parents use their cellphones during meals, conversations, or other family times. The children reported competing with technology for their parents' attention. Over half of the children in the study said their parents spend too much time on their phones.

The study was enough to conclude that parents should think twice before picking up a mobile device when they're with their kids. "We are behaving in ways that certainly tell children they don't matter, they're not interesting to us, less valuable compared to their smartphone"

➔ It's a known fact, kids thrive when they receive consistent, dependable, focused, loving attention. It's not about staying off one's phone 100 percent of the time— It's okay to answer an urgent text or make a quick call, especially if it is of priority .

It is suggested to enjoy the brief moments we have to help our children grow into delightful adults we hope they will become.

The increase in popularity and integration of technology in daily life compels us to ponder the addiction a small device like

smartphone can have.

### **Mindfulness can help curb this universal addiction**

There are many, but let's initiate with one....

Smartphone use is not innately bad, but how we use it can significantly affect our physical and mental health given its high addiction potential.

Every time, we have an urge to use our phones beyond our desired use, we can plan small meditations, from few seconds to couple of minutes.

Mindfulness can help us reclaim our attention in ways that serve us and enhance our well-being.

Today our phones have become extensions of ourselves, thus changing our relationship to our phone isn't easy. We have to decide whether we want to be interacting with life primarily, or with a screen? Thus our phones can be a call for mindfulness, helping and guiding to lead a prosperous and passionate life .

### **About Author:**

#### **Dr. Majo Joseph**

Dr. Majo Joseph is an Ayurveda Consultant, & General Practitioner. He is also a Psychology And Counselling, Wellness Trainer.

**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.

Your suggestions and feedback is awaited at :-

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