INDIAN MINING: VISION 2030 AND BEYOND

by

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Next to agriculture, mining is the most important economic activity. Apart from generating economic activity in areas where the minerals occur, mining also provides employment in remote and tribal areas. Mining thus provides backward and forward linkages in the economy more than any other sector in making available raw materials for a vast spectrum of products.

2. Geologically, India has more or less the same prospectivity as other resource-rich countries such as South Africa, Australia, Canada, Brazil, Chile, etc. However, since the time I joined FIMI less than half a century ago, I have been hearing that India is a repository of a wide variety of mineral resources, but I have not been able to find any evidence of it. Even now India imports 10 times the value of minerals produced in the country:

Table – I

Domestic Production of Minerals (excl. coal, lignite & minor minerals)

(Value (in Rs. Crore)

Minerals	2013-2014	2014-2015	2015-2016	2016-2017 (e)
Bauxite	999.69	1192.24	1409.51	1377.75
Iron ore	31649.18	28533.66	22115.82	24810.00
Limestone	5133.20	5211.75	5809.07	6630.63
Sub-Total	**33782.07**	**34822.34**	**29334.40**	**32818.38**
All Mineral Total	**49906.00**	**45919.99**	**39995.50**	**36470.58**

Source: Ministry of Ministry Annual Report, 2016-17

Table - II

Import of vital Minerals / Metals

(Value : in Rs Crore)

Minerals / Metals	Unit	2013–2014		2014-2015		2015-2016		2016-2017	
		Qty.	Val.	Qty.	Val.	Qty.	Val.	Qty.	Val.
Copper ores and concentrate	million tonnes	2.08	33226.74	1.70	28502.82	1.89	26296.53	1.14	18298.69
Diamond	'000 crt	149916	134915.50	151359	125214.09	151535.00	110378.47	159421.05	129595.41
Nickel ores and concentrates	million tonnes	0.00134	120.71	0.0041	384.24	0.0032	245.38	0.00106	81.80
Lead ores and concentrates	million tonnes	0.033	388.09	0.039441	384.68	0.0053	26.46	0.0062	31.86
Zinc ores and concentrates	million tonnes	0.033	156.22	0.035	169.38	0.00038	1.87	0.0017	8.66
Gold	tonnes	661	166242.62	915	210658.40	968	207487.49	780	184438.75
Platinum Group of Metals	Kg	6493	1401.73	7818	1524.79	8460	1375.68	**NA**	**NA**
Total			**336451.61**		**336451.61**		**366838.40**		**345811.90**

Source: Ministry of Commerce and Industry

3. Even after 70 years of our Independence, minerals contributed only 1.367% to the country's GDP in 2016-17: coal and lignite – 0.719%; major minerals (non-coal and lignite) – 0.299% and minor minerals 0.348%. How is it that despite good geological prospectivity, growth of mining has been so slow vis-à-vis other sectors? The answer lies in the inability of the Central Government to effectively implement India's mineral policy and lack of seriousness on the part of State Governments.

MINERAL POLICY: A SHORT REVIEW

4. Without going into distant past, prior to MMDR Amendment Act, 2015, mineral policy was governed by the MMDR Act, 1957 which was amended in December 1999 following B B Tandon Committee Report of January 1998. The Act provided reconnaissance permit (RP) for a total area of 10,000 sq. km to a firm for a period not exceeding 3 years provided a single RP will not be more than 5000 sq. km. A prospecting license (PL) would be for 25 sq. km for a period of 3 years extendable by another 2 years if required. Mining license which will be for 10 sq. km. for a maximum period of 30 years which may be renewed for another 20 years. In February 2000, 100% FDI was allowed in mining sector.

5. Following this amendment there was a spate of applications for RP / PL but none could reach next stage for one reason or other. The reasons adduced by State Governments have been varied and tepid. Some of these reasons are that the area has been reserved for their public sector units (reservation was done after application was made for RP / PL); areas applied for PL (after expiry of RP) is adjacent to the area of their PSUs; GSI has shown interest in their area; and lastly denial of environment or forest clearance. The Central Government has been mute spectator to the death-knell of the policy.

6. To make mining more attractive and in tune with international practice, a high powered Committee, popularly known as Hoda Committee, was set up following which National Mineral Policy (NMP) was revised in March 2008. The Policy gave private sector a primary role for exploration and emphasised that "*In order to make the regulatory environment conducive to private investment the procedures for grant of mineral concessions of all types, such as Reconnaissance Permits, Prospecting Licenses and Mining Leases, shall be transparent and seamless and security of tenure shall be guaranteed to the concessionaires. The first-in-time principle in the case of sole applicants and the selection criteria in the case of multiple applicants will be appropriately elaborated. Prospecting and mining shall be recognized as independent activities with transferability of concessions playing a key role in mineral sector development*. (para 3.3)". This Policy remained only on paper and never saw the light of the day.

Current policy

7. As per MMDR (Amendment) Act 2015, effective from 12th January, 2015, all mining leases (ML) shall be granted for 50 years. All the mining leases granted before 12-01-2015 shall be deemed to have been granted for 50 years. The existing non-captive mines shall be deemed to be expiring on 31-03-2020 and captive mines till 31-03-2030. On the expiry of the lease period, the lease shall be put up for auction but captive mines will have the

right of first refusal. Further grant of ML of notified minerals (bauxite, iron ore, limestone, and manganese ore) shall be through auction. However, where there is inadequate evidence of the existence of mineral content of any notified mineral in any area, PL-cum-ML can be granted through auction. For other than notified minerals, grant of prospecting-cum-mining lease (PL-cum-ML) will also be through auction but in case if there is evidence to show the existence of mineral contents, the State Government can also grant a mining lease for minerals other than notified minerals. Non-Exclusive Reconnaissance Permits (NERP) may be granted for any notified or non-notified minerals but the holder of NERP shall not be entitled to make any claim for PL-cum-ML. As if this is not enough, NERP Rules 2015 state that ""*The grant of a non- exclusive reconnaissance permit over any area shall not prohibit the State Government from notifying all or any part of such area for grant of a mining lease or a prospecting licence-cum-mining lease and upon such notification the validity of all non-exclusive reconnaissance permits over such notified area will stand automatically terminated*." (Rule 3(11)). Incidentally, these provisions do not apply to public sector units whom the State Governments can grant lease with provision for renewals.

8. As per provisions of Mineral (Auction) Rules, 2015, the successful bidder has to make an upfront payment for mining lease of 0.50% and another 0.50% as performance security of the value of estimated resource in lease area. The performance security shall be adjusted every five years so that it continues to correspond to 0.50% of the reassessed value of estimated resources. More or less same provisions apply to composite PL-cum-ML. All this is in addition to the payment of royalty which are highest in the world.

9. As if this is not enough, the MMDR (Amendment) Act, 2015 has also introduced two levies in addition to royalty, upfront payment and performance security:

– payment to District Mineral Foundation (DMF) @ 30% of royalty for mining leases granted before 12th January, 2015 and 10% for ML and PL-cum-ML acquired through auction on or after 12th January, 2015.

– payment of 2% of royalty to National Mineral Exploration Trust (NMET).

10. All these stipulations are enough to make mining unviable. This is borne out by the fact that initial euphoria in coal waned after sometime and in the case of non-coal, out of 78 blocks of various minerals offered, auction of only 33 could be achieved and in some of the cases, the land belonged to the lessee. All these inputs are enough for Fraser Institute to conclude in its Survey of Mining Companies to put India among the 10 least attractive jurisdictions globally (97th out of 104) in terms of Investment Attractiveness Index for mining and exploration. This is an eloquent epilogue on the Indian mining.

EXPLORATION REGIME

11. Exploration is the lifeline of mining. Following the promulgation of NERP Rules, 2015, apart from GSI, MECL, the Central Government notified most of the Central and States PSUs as the exploration agencies. Many of the State PSUs have no expertise and adequate infrastructure to undertake exploration upto G2 / G3 level. The funds for their exploration activities will be met through National Mineral Exploration Trust set up under MMDR (Amendment) Act, 2015. **The exploration regime thus stands nationalised**. There is no doubt in such a situation, India will continue to be one of the most un-explored country in the world.

12. Realising that public sector alone will not be able to deliver, the Government of India brought out a new National Mineral Exploration Policy, 2016. It invited private sector expertise for deep-seated minerals and talked of:

"(a) Availability and free accessibility of comprehensive, pre-competitive baseline geoscience data;

(b) Incentive structures that provided an appropriate risk-return scenario; and

(c) Ease of doing business and having attractive earning from the investment." (para 12.2 of Policy)

I am afraid such a policy may encourage contractual drilling in the name of exploration.

Exploration expenditure

13. Most of the discoveries in India have been chance discoveries or based on old workings. These include lead and zinc in Udaipur, chromite in Sukhinda, copper in Malanjkhand, gold in Hutti and Bharat Gold mines in Karnataka. Because of the unhelpful exploration policy, and being limited to GSI / MECL, the focus has been on surficial deposits such as iron ore, bauxite, limestone, manganese, chromite, etc. There has not been enough focus on deep-seated minerals which has resulted more imports of these minerals / metals.

14. The level of exploration determines the level of mining in a country. It will be interesting to know how much India spends on exploration:

Country-wise exploration (in Billion USD)

Country	2013	2014	2015	2016
Canada	1.88	1.51	1.28	0.96
Australia	1.88	1.30	1.09	0.90
China	0.57	0.70	0.54	0.41
Peru	0.72	0.54	0.54	0.41
Brazil	0.04	0.30	0.27	0.28
India	0.015 (estimated)#			
Global	**14.43**	**10.74**	**9.20**	**6.89**
#: Note: India's annual exploration expenditure is estimated US$ 0.015 billion. Source: S&P Global Market Intelligence, 2016				

15. In terms of percentage, whereas Canada spends 14% of global exploration expenditure, Australia 13% but India spends approximately 0.2%. Per square kilometre expenditure of Australia is US$ 5,580, Canada US$ 5,310 whereas in the case of India it is only US$ 9.

How resource-rich countries developed their mining: India to follow their lead

16. No mineral-rich country has developed its mining industry on the basis of government exploration alone. Mineral rich countries such as US, Canada, Australia, Brazil, South Africa, Chile, Mexico etc. do not want 'to spend' tax payers' money on the risky venture like exploration.[1] The government in these countries create favourable conditions and provide necessary data to the private sector to explore. These countries therefore encourage the private companies, commonly known as junior exploration companies, to undertake detailed exploration by providing various incentives and security of tenure besides priority in grant of concessions as well as freedom to sell / transfer the concessions.

17. Junior exploration companies take the lead in greenfield exploration. These companies are a small team of experienced geologists, privately held and specialised in exploration of a group of minerals. They raise money from venture capital in stock exchanges. Once a world-class discovery is made, juniors sell the license to mining companies at a high price to cover not only the operating costs, but also losses in other exploration projects. However, only a few Juniors make profit from high-risk high-reward exploration activity.

18. If India has to explore its mineral deposits for which the country is dependent on imports and which are generally deep-seated, we have to revise our exploration policy in line with world practice. One of the main reasons for the exploration policy being not successful despite provisions of MMDR Act as amended in December, 1999 was that the States played truants in converting RPs into PLs and PLs into MLs. The Central Government has to take the responsibility to see that the States follow the

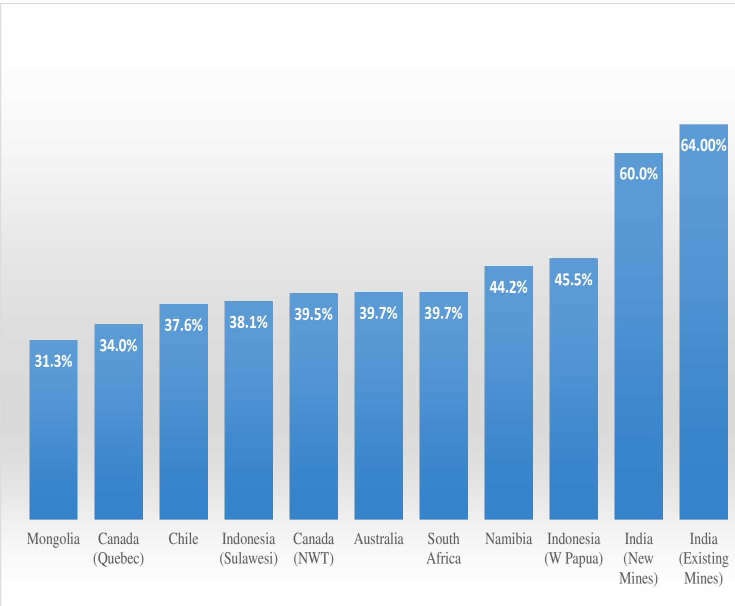
[1] *The exploration work is extremely risky: if during aerial survey, 1000 anomalies are observed, it may be that only 100 anomalies are worth ground prospecting and it may again be that only one out of these 100 turns out to be worth economic exploitation. The Governments do not therefore prefer to spend the tax payers' money on exploration because it does not want the tax payers' money to be invested in risky and hazardous ventures like exploration.*

policy in true letter and spirit. Further large areas reserved for public sector for PSUs should also be dereserved. There is also an urgent need to simplify the process for forest and environment clearances.

TAXATION – KEY TO MINERAL VIABILITY

19. The primary objective of exploration is to extract and sell the product at a competitive price, a price that justifies the investment in exploration. Thus, mineral taxation plays a key role in exploration as well as overall growth of the mining sector. The existing mineral taxation regime is not conducive to attract private exploration agencies / junior exploration companies to work in India. Mining industry in India is the highest taxed in the world with Effective Tax Rate as high as 64% for existing mines.

$$\text{Effective Tax Rate (ETR)} = \frac{\text{Value of all amounts paid to government}}{\text{Total revenue from minerals sales}}$$



DMF:10%; DMF:30%

Note :

ETR does not include a number of other payments such as

(i) Auction price (base price + premium)
(ii) Purchase of land for mining
(iii) GST of 18% of royalty made effective w.e.f. 01.07.2017.
(iv) 10% tax levied by Supreme Court in Goa and Karnataka and FDT levied by Karnataka a swell as highest rate of royalty on iron ore in Orissa.
(v) Net Present Value (NPV) = Rs 4.38 lakhs to Rs 10.43 lakhs per hectare depending on the density of forests
(vi) Compensatory afforestation charges which differs from State to State
(vii) Upfront payment at the time of grant of mining lease = @0.50% of value of estimated resources.
(viii) Performance security = @0.50% of the value of resources

20. In a competitive world, it is necessary that what we produce should be economically viable. Mr. Graeme Hancock of World Bank in his report submitted in 2006 has observed that "countries compete for mineral sector

investment and generally offer terms of ETR between 40% and 50%". The taxes mentioned above have all the ingredients to make domestic raw materials costly. With the present day dispensations and uncertain commodity market around the world, a time may come when imports would be cheaper than buying raw materials in the domestic market.

21. Further, the high raw materials cost will make finished products unviable and open it to the vagaries of imports. Any safeguards against import of finished products like steel and aluminium and making them costly will hurt down-stream industries, many of whose products are exported. Down-stream industries provide jobs to a large number of people and if the cost of finished products increases, the domestic consumers and exports will get affected.

VISION 2030 AND BEYOND

22. In the present scenario and tax regime, it is very difficult to predict VISION 2030 AND BEYOND for Indian mining. The main objective behind MMDR (Amendment) Act, 2015 seems to ensure that the State Governments get maximum revenue right from the start (cradle) to the closure (grave) of the mining operations. It has to be realised that the mines are mostly in tribal and forest areas with no infrastructure facilities. Development of a mine with the attendant infrastructure required there-for will directly impact the socio-economic milieu of the people living in those areas. If acquiring a mine and its continuous operations become unviable, no entrepreneur will be encouraged to acquire a mine and the area will remain backward. State will also lose revenue. Instead of earning more revenue from auction, the State should ensure that investment in mines is viable so as to provide jobs and lead to socio-economic development of these areas.

23. Auction regime has put the whole process of mineral development into the realm of astrology which cannot be predicted in the mineral and metal trade where boom and depression alternate. Unless the approach of Centre and States changes, Indian mining will continue to have uncertain future.

Country will continue to depend on imports for most of the vital raw materials and metals.

Way forward

24. As with mineral commodities and metals, MMDR Act, 1957 has always been subject to vagaries of political whims and fancies. Every new amendment is thought to be an improvement over previous one. MMDR Amendment Act, 2015 was thought to be a "reform" whereas it has proved to be the most negative legislation ever enacted. I therefore strongly feel that old MMDR Act, as amended in December, 1999 following B.B. Tandon Committee Report, should be revived with necessary changes as per National Mineral Policy 2008 which did not accept auction as a tool of resource development. Only then one can have a Vision 2030 and beyond because it takes at least a decade to explore and bring a good world-class mine into operation.

CONCLUSION

25. It is sad that India in the last seventy years since Independence in 1947, has not been able to formulate a stable and attractive policy for the development of its resources and continues to be highly unexplored despite having good geological prospectivity. The MMDR Act as amended in December 1999, was a good piece of legislation. It is not the Act which failed; it is the regulatory regime in the States, right from political to civil servants, which failed and we blamed the statute. Already doubts are being raised about the so-called transparency of the auction route where allegation about the manipulation of quantity and quality of the ore being assessed at G2 / G3 level have been raised. That was the reason for such high bids at which the iron ore mines were auctioned in Karnataka. Let us therefore reform and streamline the regulatory regime to be in line with modern and positive outlook.
