WELCOME
To The Members of
The Working Group on Mineral
Exploration and Development
(other than Coal and Lignite)
for the
Twelfth Five Year Plan – 2012-17
Sub-Group – III – Presentation
1st July, 2011
FISCAL MEASURES
TERMS OF REFERENCE

“To examine the present investment, taxation and trade policies for the mining sector and to review the actual realization of private investment (including Foreign Direct Investments) and suggest structural changes in a way that enable high risk venture capital to flow into the sector along with state-of-the-art-technology and project investment during the XII\textsuperscript{th} Five Year Plan and in the perspective of 10-15 years thereafter.”
FDI POLICY

The Foreign Direct Investment (FDI) in mining sector (exploration, mining mineral processing and metallurgy for all non atomic and non fuel minerals) have been opened upto 100% through the automatic route w.e.f. 10.02.2006.
# FDI in the Mining Sector

The following table outlines the FDI in the Mining Sector from 2007-08 to 2010-11 (upto February, 2011) in US$ Million:

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<tr>
<td>Mining</td>
<td>28.32</td>
<td>49.55</td>
<td>158.71</td>
<td>82.99</td>
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Source: DIPP
Levies and taxes applicable to minerals sector

Number of taxes are applicable to mining sector
Mines and Minerals Development and Regulation (MMDR) Act 1957

Various charges/ levies are:

- Reconnaissance Permit fee
- Prospecting fee
- Mining Lease Fees
- Surface rent
- Security deposit
- Dead rent
- Royalty
- Mine Closure Charges
- Stamp duty (or transaction fee)
Forest (Conservation) Act 1980 and/or Indian Forest Act

A) Forest product tax and forest passes / taxes
B) Compensatory taxes/levies:

- Transit fees
- Clearing of jungle
- Land development work
- No. of plants to be planted
- Fire protective works
- Other miscellaneous charges
- Security guard charges
- Net Present Value (NPV)
Environment (Protection) Act, 1986

The Water (Prevention and Control of Pollution) Act, 1974
The Air (Prevention and Control of Pollution) Act, 1981
State Water/Air Pollution Consent Fee

Labour Welfare Fund Act/Labour Welfare Cess Act:
Direct Taxes

- Corporate tax:
- Withholding tax
- Taxes on Capital Gains
- Minimum Alternate Tax (MAT)
- Service tax
Indirect Taxes

- Customs duty
- Excise duty
- Sales Tax
- Export Tariff
Other Taxes/Charges

- Municipal/octroi/Toll tax/Entry tax
- Real Estate Tax
- Road tax
- Village Panchayat Levies
- Taxes on change in land use
- Water rent
- Corporate Social Responsibility charges
MINERAL EXPLORATION: A HIGH RISK VENTURE

• The results of exploration provide the information required to evaluate the potential profitability of developing or expanding mineral operation at a particular site or area. However as only a small proportion of investment in mineral exploration leads to the discovery of mineral deposits that can be economically developed, exploration is a risk activity.
The world non-ferrous exploration budget was estimated at $12.1 billion in 2010. Against this, the exploration budget of India was negligible.

During 2011, the exploration budget of the top ten countries accounted for 69% of the total world exploration. The share of these countries was as follows:

- Canada: 19%
- Australia: 12%
- United States: 8%
- Mexico: 6%
- Peru: 5%
- Chile: 5%
- Russia: 4%
- China: 4%
- Brazil: 3%
- Argentina: 3%
- Other 113 countries: 31%
TAX INCENTIVES OFFERED BY CANADA FOR MINING SECTOR

• For taxation purposes, mining activities are divided into two distinct stages:
  • Extraction and processing
  • Semi-fabrication and fabrication.
The extraction and processing stages

Include concentrating, smelting and refining are given special treatment under the corporate income tax regime of both the Federal and Provincial Territories.
At the Federal level, this special treatment includes the following tax provisions:

- Deductions of provincial/territorial mining taxes and royalties.
- Canadian Exploration Expenses.
- Investment Tax Credit for Pre-production Expenditure.
- Flow-Through Share (FTS) and the Mineral Exploration Tax Credit (METC).
- Foreign Resource Expenses (FRE) and Foreign Exploration and Development Expenses (FEDE).
- Canadian Development Expenses (CDE) and Canadian Oil and Gas Prospecting Expenses (COGPE).
- Special class of Capital Cost Allowance.
- Accelerated Capital Cost Allowance (ACCA).
- Investment Tax Credit for qualified property acquired for use in the Atlanta and Gaspe Peninsula.
- Treatment of foreign ores.
- Deduction for mine reclamation trust fund contribution.
INCENTIVES AVAILABLE FOR MINING INDUSTRY IN INDIA

• Availability of tax holiday
• Depreciation allowances
• Withholding tax rates
• Deduction in r/o of export turnover
• Expenditure of prospecting, extraction and production of minerals
STRUCTURAL CHANGES NEEDED IN INDIAN MINERAL SECTOR

- Ownership of mineral resources
- Granting of licences to explore and mine
- Financial arrangements for companies
- Environmental requirements for projects
- Other legislation affecting the mineral sector
- Availability of useful and relevant geological information
- Governance and perceived political risk
- Transparency of arrangements
- Ability of companies to access capital
- Tax incentives available.
ACCESS TO CAPITAL

FLOW THROUGH SHARES

• A Flow Through Shares (FTS) is a mechanism that allows business Corporation to obtain financing for expenditures on mineral exploration and development in Canada. By issuing flow-through shares, a company can renounce, or flow through, certain expenses to the purchaser of the share.

• These expenses are deemed to be incurred by the investor and not the corporation.

• Reduce income subject to tax in the hands of investor.

• Two fold advantages.

• Receive 100% deduction for the amount of money invested in the shares.

• Value of investment appreciate in the event of success for exploration.

• Long standing and unique feature of Canadian regime.

• FTS have financed a significant amount in exploration activity in Canada.
Institutional Finance

New African Mining Fund (NAMF) is a specialist equity fund created by African Development Bank and is based on Johannesburg and Mauritius which invests in early to later stage junior, exploration, mining and beneficiation activities.
RECOMMENDATIONS

• All expenditure incurred prior to commercial production should be eligible for amortization over the minimum mining lease period of 20 years or a lesser period at the option of the lessee.

• For reclamation of mined out area, the mining companies may be allowed to earmark a percentage of book profits each year to meet rehabilitation cost.

• To increase the exploration activity SEBI and Stock Exchanges need to come out with a policy framework. For this a concept of Competent Person to certify the mineral resources as per UNFC system may be introduced.
RECOMMENDATIONS

• “Flow-through–shares” mechanism may be introduced in Indian mineral sector so that public money can flow in exploration activities.

• Institutional finance as offered by African Development Bank may need serious consideration.

• Creation of exploration bonds on the lines of Infrastructure Bonds.
INFRASTRUCTURE DEVELOPMENT
TERMS OF REFERENCE

To review the status of infrastructure such as roads, ports and railways both physical and financial for the mining sector and assess the requirement during the XIIth Plan period and in the perceptive of 10 to 15 years thereafter; to relate infrastructure creation and revenue generation, particularly for development of PPP models and to suggest measures to fill up the existing gaps and building up of additional infrastructure; to define the roles of the Central Government, the State Government and the private sector in creating such infrastructure; and develop policies for best utilization of revenues from mineral wealth to be used for the long term development of the sector and the affected population.
IMPORATANCE OF INFRASTRUCTURE IN MINING

• The importance of infrastructure for sustained economic development is well recognized. High transactions costs arising from inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts.
• The development and growth of the mineral sector is dependent on availability of adequate infrastructure viz. roads, railway lines, railway wagons, port facilities, power, water and communication facilities.
• Mineral deposits generally occur in remote and backward areas with poor infrastructural facilities which often inhibit their optimum development. A major thrust needs to be given to development of infrastructural facilities in mineral bearing areas with special emphasis on linking infrastructure.
IMPORTANCE OF INFRASTRUCTURE IN MINING

• There is a potential for public private partnerships (PPPs) to contribute more and help bridge the infrastructure gap in India. There has been considerable progress in the last ten years in attracting private investment into the infrastructure sectors.

• The infrastructure issue has to be examined in two different contexts viz. needs of the mining majors on the one hand and the needs of the mines of Small & Medium Enterprise (SME) sector on the other. Mining majors or large stand-alone mines tend to construct their own mine-linking infrastructure. The small scale sector cannot afford to build their infrastructure requirements primarily because (i) their production volume is so small that they cannot afford the heavy investment that is required for construction of infrastructural facilities and (ii) the investment that is required for such facilities is beyond their reach. Therefore, publicly funded infrastructure is needed mainly for the SME sector mines since the scale of their operations limits their ability to build their own mine-linking infrastructure.
REQUIREMENT OF INFRASTRUCTURE FOR MINERAL SECTOR

• Requirement for Iron Ore

• Bellary-Hospet Region: The Bellary-Hospet region in Karnataka is endowed with rich iron ore deposits of about 2.16 billion tonnes and this sector produced more than 43 million tonnes of iron ore in 2009-10. Since, there are a very few large user industries (steel mills), due to water and power shortages, most of the iron ore is exported. This ore is exported through ports of Mangalore, Ennore, Chennai, Goa, Vizag, Kakinada, Karwar and Belekeri. Therefore, certain improvements are urgently called for on these ports. The quality of roads is also not good enough to meet the heavy traffic requirements of trucks transporting iron ore from mines to loading stations. Improving road conditions will reduce cost by minimizing truck breakdowns, less fuel consumption and smoother travel.
REQUIREMENT OF INFRASTRUCTURE

Goa region:

The Goa region is endowed with rich iron ore deposits of about 1.15 billion tonnes and this sector currently produces more than 39 million tonnes of iron ore in 2009-10. More than 40% i.e. about 40.32 million tonnes was exported through Goa in 2009-10. There are certain bottlenecks, which are adversely affecting the exports of iron ore through the Goa port. There is limited railway line capacity to transport iron ore from Karnataka mines to Goa which also needs augmentation.
Eastern region

The eastern region comprising Orissa, Jharkhand and Chhattisgarh, is endowed with iron ore resources about 13.8 billion tonnes amounting to 48% of the total resources of the country and these sector produces more than 128 million tonnes of iron ore in 2009-10. Export of iron ore from the above States takes place through Haldia port and Paradip port. Rail and road linkages to the ports of Haldia and Paradip are the main short-term infrastructure requirements in the eastern sector.
BAUXITE

- Major Indian bauxite deposits are located in Orissa, Andhra Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Chhattisgarh, Tamil Nadu and Gujarat. The leading producers are Orissa (35%), Gujarat (19%), Maharashtra (14%), Jharkhand & Chhattisgarh (12% each) and Madhya Pradesh (7%).

- Bauxite mining would require strengthening of infrastructure development of road and rail network.
DIMENSIONAL & DECORATIVE STONES

• Dimensional Stones are the mainstay of the economy of Indian states like Andhra Pradesh, Tamil Nadu, Karnataka and Rajasthan. India is endowed with vast natural resources of granite in several States predominantly in Southern India, Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat and Bihar.

• Internationally, more than 90% of the movement of dimensional stones (marble, granite) to ports and internal destinations are by rail, which is the cheapest mode of transportation. In the absence of rail transport facilities on the scale required, Indian stone miners depend for the movement of dimensional stones entirely on high cost road transport. There is a limit up to which a truck can carry the weight. In countries like China, South Africa and Zimbabwe the transportation of dimensional stone blocks is undertaken by Railways. Compared to facilities in those countries, Indian dimensional stone industry has practically no infrastructural support from the Railways.
Limestone and other industrial minerals

Limestone, rock phosphate and some other industrial /bulk minerals also depend largely on rail, road and port infrastructure for domestic consumption and export/imports.
INITIATIVES FOR INFRASTRUCTURE DEVELOPMENT

- **PORT**: M/o Shipping has taken some ambitious plans for development of Ports including PPP which will be highlighted in the report.

- **Road**: M/o Road Transport has also taken ambitious National Highway Development Programme with a total investment of Rs. 2,20,000 crore upto 2015 which consists of 7 programme by way of construction of ring road, bye-passes and two laning and 4 laning etc.
**INITIATIVES FOR INFRASTRUCTURE DEVELOPMENT**

- **RAILWAYS**: 11\textsuperscript{th} Five Year Plan had recommended 17 projects. Two projects namely, Mahanadi Bridge and Guntakal-Hospect (doubling) have been completed. Four projects are in quite advanced stage of completion. They are Banspani-Keonjhar-Daitari (99%), Kottur-Harihar (95%), Banspani-Padapahar (93%) and Bhatapara-Urkura 3\textsuperscript{rd} Line (78%). While no progress has been made in Jharsuguda-Sambalpur (doubling), other nine projects are in the early stage of construction.

- Further 37 projects have been identified for the 12\textsuperscript{th} and 13\textsuperscript{th} Plan to handle Mineral Traffic (3 New Lines), (30 doubling) and (four 3\textsuperscript{rd} Line)
RECOMMENDATIONS

General Recommendations

India produces as many as 90 minerals and most of the mines are located in interior and tribal areas. The mining companies develop infrastructure commensurate to their requirements. However, so far the development of general infrastructure like all-weather roads, which can withstand movement of heavy vehicles, is woefully lacking in such mining belts. The general road conditions in mining belts otherwise also is extremely bad. State Governments do not spend funds for providing linking infrastructure to mining areas. It is, therefore, considered necessary that State Governments should allot a certain amount out of their royalty collection for providing roads and other basic amenities like power, telecommunications, etc. at par with industrial estates.
RECOMMENDATIONS

General Recommendations

In order to undertake the task of building the infrastructure in mining areas, it is recommended that Mineral Development Fund (MDF) should be set up in each State having stake in major mining activity by earmarking 15% of the annual royalty collections for the fund.
RECOMMENDATIONS

General Recommendations

For planning and promoting the development of mine-related infrastructure, it would be necessary to put in place an appropriate institutional framework. In the major mining States, we already have mineral development corporations and State Industrial Development and Investment Corporations. It would be necessary to enlarge the mandate of these corporations to include planning, promotion and financing of mining infrastructure.
RECOMMENDATIONS

General Recommendations

Though the large mines tend to construct their own mine-linking infrastructure, it may so happen that investment in mine sector is so high that it may go beyond the reach of even the larger mines. What is therefore, needed is the “cluster concept” so that trunk facilities are constructed with financial participation of all the mines—whether small or big, in a particular area. In so far financing of ‘cluster concept’ projects is concerned the capital outlay can be shared by the individual mines in proportion to the ultimate production level for which their mine is planned.
RECOMMENDATIONS

General Recommendations

Government of India has taken up projects in PPP mode in railway projects, National Highways and the port projects within the existing schemes. The Government of India should encourage more and more projects in Public Private Partnership (PPP) mode in all the above three sectors of infrastructure.
Private sector industries in mining have offered to construct additional lines and to run private rakes on PPP basis. However, all the 16 Zones of Railway in India have procedural delay in giving approval due to which the implementation is hampered.
RECOMMENDATIONS

General Recommendations

The siding policy of railway needs to be liberalized. As of now railway is taking deposit of Rs. 5.00 crore for private siding in the mining industries and Rs.10.00 for private siding in the Steel Industry. There are so many applications pending with Railways from various companies for development of siding. However, railways needs to develop a single window system of approval to expedite new sidings which can result in increase in iron ore volumes.
RECOMMENDATIONS

General Recommendations

• Power supply grid system in the country needs to be strengthened, particularly that located in mining belts of India.

• New railway lines in the eastern sector as well as in Karnataka connecting mining areas to ports will have to be undertaken to support exports and for reducing cost structure of various steel plants.

• Development of dedicated freight corridors for transport of iron ore by railways from the mine-heads to various ports needs to be promoted along with private promoters.

• Ports should invest in additional tipplers to augment their receiving capacities.
RECOMMENDATIONS

General Recommendations

New ports coming up at Gopalpur (located between Paradip and Vaizag) and Dhamra (located south of Haldia and north of Paradip) in Orissa by a consortium of TATA Steel and L&T and another port coming up at Ennore, all on East Coast should be expedited.
RECOMMENDATIONS

General Recommendations

ROLLING STOCK –

Apart from adding railway lines, another issue that needs focus is the issue of rolling stock. There are two issues here. One is adequate rakes and the second is quality of rakes. The number of rakes of railways is insufficient to carry the cargo to consumers. The capacity of the box and wagons is 67 Mts. and rake consists of 59 wagons. The average speed of rake is 35 km /hr which reduces the overall movement. The wagons used by Railways for transportation of iron ore i.e., Box ‘N’ type have become very old due to ware and tare. Transportation of iron ore in these wagons is resulting in high level of wastage due to spillage. The alternative is to go for high axel wagon load type of wagons which can load up to 90 mt. and can run faster. As on date there are no trains with high axel wagons. Introduction of new wagons in this scheme is very essential in all sectors.
RECOMMENDATIONS

Sector Specific Recommendations

Iron Ore:

Iron ore plays on important role in the development in the nation. The production of iron ore in the country was 219 million tonnes in 2009-10. As per the National Steel policy 2005, projections of domestic consumption for iron ore are at 200 million tonnes by 2020 and for exports are at 100 million tonnes by 2020. Thus, total future demand (both domestic and exports) is projected at 300 million tonnes by 2020. The movement of iron ore will continue to be mostly by rail and therefore development of railway infrastructure to handle iron ore has to be suitably augmented.
RECOMMENDATIONS

Sector Specific Recommendations

Bellary-Hospet Sector

In Bellary-Hospet Sector, the existing iron ore production of about 43 million tonnes in 2009-10 and is expected to go more than 79 million tonnes by 2016-17. In order to meet the infrastructure requirements for the increase in production/demand in iron ore both for domestic and export market, following infrastructure will need to be created/augmented.
RECOMMENDATIONS

Sector Specific Recommendations

Bellary-Hospet Sector

Railways

As the iron ore from this sector moves to ports namely Chennai, Krishnapatnam, Goa, Karwar, Belekeri and New Mangalore, it is necessary to strengthen and improve railway carrying capacities to all these ports. This can be achieved by the increase in rake capacity, electrification of all the routes, doubling of tracks, wherever necessary and ensuring availability of wagons. Simultaneously, the wagon tippling facility also needs to be augmented. A substantial portion of iron ore is transported by road from mine-heads to the loading stations. In addition to being costlier, it also puts a lot of strain on the road network and therefore, it would be desirable to provide suitable rail linkages to some of these large mines.
RECOMMENDATIONS

Sector Specific Recommendations

Bellary-Hospet Sector

Railways

Construction of railway line between Hubbli and Ankola – a distance of 172 kms, involving a gradient 1 to 150 metres is required which will reduce the lead from Bellary-Hospet by 200 kms. This line together with the development of port is expected to increase and make iron ore exports competitive in the world market. Construction of Hubli-Ankola railway line will also give the hinterland access to the Konkan railways and whole of Karnataka coastline. These railway lines and the port projects deserve to be taken up on fast track.

Obulavaripalle- Krishnapatnam port Rail line project which is at different stages of construction needs to be expedited.
RECOMMENDATIONS

Sector Specific Recommendations

Bellary-Hospet Sector

Ports

Since there a decision to close down Chennai port for export of iron ore due to environmental reasons, it is therefore, necessary to develop alternative port /ports to handle the current exports from Chennai as well as to meet future export demands. In this connection, a new port at Ennore, north of Chennai has already been developed. It is recommended that efforts be made for speedy development of iron ore berth, mechanical ore loading facility, adequate capacity of stockpile and dredging to accommodate large cape size vessels. The ship loading facilities at Ennore should match with other iron ore loading ports of the World to make Indian iron ore competitive in the global market.
RECOMMENDATIONS

Sector Specific Recommendations

Bellary-Hospet Sector

Ports

As part of hinterland of Bellary-Hospet Sector, a private sector port at Krishnapatnam in Andhra Pradesh is being developed. Iron ore loading facilities in this port should be suitably designed to handle part of the cargo, which is expected to move from Bellary-Hospet area through this port.

Iron ore handling facilities at New Mangalore port on the West Coast should be gradually improved to load additional iron ore expected to move to this port from Bellary-Hospet and other regions in Karnataka. In case of new Mangalore port, conversion of metre gauge railway line would also be required.

Efforts should be made to deepen draft at Mormugao (Goa Port) upto 16.5 m and mechanical handling facilities be installed for rail borne iron ore traffic from Bellary-Hospet sector to Goa Port.
RECOMMENDATIONS
Sector Specific Recommendations

Bailadila-Vaizag Sector

Railway

A dedicated railway line exists between Bailadila and Vaizag port, which carries the iron ore for exports and for domestic consumption of Vishakapatnam Steel Plant, ESSAR, ISPAT Industries and Vikram Ispat, etc. To ensure and sustain the movement of increased tonnage by railway, it is necessary to strengthen the existing railway facilities. Similarly, to meet the iron ore demand of other steel units in Chhattisgarh area immediate action is recommended to establish / improve the rail / road facilities in the region.

The load carrying capacity of railways for ore transport is to be enhanced keeping in view the movement of bauxite envisaged from Andhra Pradesh quarries. For ensuring steady power supply, the power grid system in these belts also needs to be strengthened.

Construction of new rail line to link Bailadila sectors (Jagdalpur) to Raipur & Gua-Barbil-Badajamda sector needs to be taken up on priority. This will support SAIL, NMDC’s and others mining operations.
RECOMMENDATIONS

Sector Specific Recommendations

Bailadila-Vaizag Sector

Port

As NMDC and MMTC are the major suppliers of iron ore from Vizag port, it is necessary to augment the stockpile capacity of this port. Vizag is a congested port and vessel waiting is minimum 7 days to berth. The port is giving priority for berthing of vessels carrying coal. Iron ore vessel loading is stopped in between when a coal vessel arrives. This leads high demurrage and loss. Inter connectivity has been provided from Vizag port to adjacent to sea port and Vizag steel plant. Since Visag port is becoming congested the focus should be shifted to other interconnected ports.
RECOMMENDATIONS

Sector Specific Recommendations

Orissa / Jharkhand – Haldia / Paradip Sector

About 30% of India’s iron ore resources are located in the states of Orissa and Jharkhand. The combined production from these two states was about 102 million tonnes during 2009-10, out of the total all India production of 219 million tonnes during the same period. It is, therefore, evident that infrastructure facilities in this region are of utmost importance both from the point of view of domestic trading & exports. Since, this Orissa/Jharkhand belt supplies iron ore to several domestic steel industries, the internal movement of iron ore both by road and rail is substantial. The prospects of growth of iron ore mining in this region is expected to be high in view of several new steel plants of POSCO, TATA and Mittal Steel being proposed.
RECOMMENDATIONS
Sector Specific Recommendations

Orissa / Jharkhand – Haldia / Paradip Sector

Railway

From iron ore mining areas of Barajamda, Barbil, Banspani, etc., the iron ore is transported by railways to steel plants and to the ports of Haldia and Paradip. In order to increase the capacity, several new railway projects have been undertaken in this region viz. Banspani – Daitari, Haridaspur – Paradip, Angul – Sukinda Road, Jharsuguda – Sambalpur, etc. While Banspani-Daitari project is in completion stage (99%), the work has been started in Haridaspur – Paradip, Angul – Sukinda Road. Work in the project Jharsuguda – Sambalpur (doubling) yet to commence. It is, therefore, recommended that these projects be expedited to be completed as soon as possible. The expeditious construction of Daitari – Banspani rail line which is in quite advanced stage will reduce distance between iron ore mines to the port by 313 kms.
It is recommended that Ministry of Railways should develop product-specific railway freight corridors jointly with rail users – MNCs / private companies / or / PSUs. A similar project is under consideration at an estimated cost of Rs.560 crores i.e. Haridaspur – Paradip railway line project in which POSCO is likely to contribute Rs. 27 crore initially for its 10% stake. This will provide a dedicated rail corridor connecting its steel plant with Paradip port in consortium with PSUs and private companies like Jindals, SAIL and MSPL Mining Company. This project is being developed by Special Purpose Vehicle (SPV) led by Rail Vikas Nigam Ltd. This new railway corridor will be an alternative to the Cuttack railway line which will reduce the distance and time of transportation of raw materials like iron ore and coal from Orissa’s Keonjhar and Angul districts to the plant site.
RECOMMENDATIONS

Sector Specific Recommendations

Orissa / Jharkhand - Haldia / Paradip Sector

ROAD

In the absence of adequate rail capacity in this sector, a large quantity of iron ore is moved by roads. In view of the growing demand of iron ore, it is recommended that all the road projects undertaken in the mining area should be completed as soon as possible. Some of the road routes critical to Indian mining sector in this region are:

(i) Rajamunda-Barbil (NH215) - 60 kms
(ii) Barbil-Panikoili (NH215) - 189 kms
(iii) Chandikhole – Paradip (NH5A) - 77 kms
(iv) Jamshedpur – Haldia (NH) 33, NH6, NH41) – 200 kms
(v) Jaintgarh – Chaibasa – Haldia(NH 75E) -100 kms
RECOMMENDATIONS

Sector Specific Recommendations

Orissa / Jharkhand - Haldia / Paradip Sector

PORT

Two major ports that handled the iron ore exports from this sector are Haldia and Paradip. During 2009-10, the quantity exported was about 7.4 million tonnes and 12.27 million tonnes from Haldia and Paradip respectively. Paradip can load a vessel of about 70,000 DWT due to draft limitations. Paradip Port is a very congested port. The draft needs to be increase for berthing bigger vessels. With the completion of construction project which includes a berth handling ships up to 1,25,000 DWT by PPP mode at Paradip Port, the draft limitation will be removed.

At present Haldia can handle a ship of about 90,000 DWT. Dredging is required. Though Dredging Corporation of India is doing dredging regularly, due to the very nature of the port it is not serving the purpose. Hence in case of Haldia Port high sea loading through barges is strongly recommended. Simultaneously Gangasagar which is the end of 24 paraganas should be developed as a ship loading point.
RECOMMENDATIONS

Sector Specific Recommendations

Orissa / Jharkhand - Haldia / Paradip Sector

PORT

In view of the increase in demand of iron ore loading in these ports, immediate action is required for completion of Paradip Port through PPP and deepening of Haldia Port and turning basin and construction of iron ore berth to receive bigger ships.

Several new port projects namely Dhamara and POSCO’s captive port are under consideration for quite some time. In fact Dhamara port has state of art facilities and has a capacity of 10 million tonnes per annum which will be expanded further. It’s recommended that support should be given by way of separate allotment of rakes for Dhamara port from Eastern India. Also, it is recommended that these projects should be implemented expeditiously to handle additional iron ore from the region in order to reduce freight costs from India to iron ore importing countries.

POSCO’s own port proposed at Jatadhari near Paradip should be developed expeditiously
Goa Sector

Total iron ore production in 2009-10 from this region was 39 million tonnes. In addition to local production, considerable quantities of iron ore are moved from Karnataka region through Mormugao port. In 2009-10, total quantity of iron ore handled at Goa (Panjim+Mormugao port) was 53.7 million tonnes.
Goa Sector

Railway

The Goan iron ore mines are located close to rivers and therefore the iron ore movement within Goa is mostly by barges to Mormugao and Panjim ports. However, iron ore from Bellary Hospet is moved by railways and exported through Mormugao. The iron ore is brought to river loading point of Sanverdam from where the ore is loaded into barges and transported to the port. In order to avoid double handling, a project to handle wagons directly at the port is underway and should be completed immediately. Likewise the railway capacity from Bellary-Hospet to Goa should be suitably increased to meet the growing movement of iron ore.
Goa Sector

Port

At Mormugao port (berth no. 9), the aggregate assessed loading capacity is 7.5 million tonnes per annum, can handle ships from 30,000 to 275,000 DWT capacity. The ships are partly loaded upto the permissible draft and fully loaded at anchorage with the help of transhippers. The port also loads large cape size vessels directly from barges with the help of transhippers. The main infrastructure at Mormugao port is therefore barges, mechanical ore loading facility and transhippers, which should be maintained, replaced and suitably enhanced to take care of growing export demand. The minor port of Panjim handles about 8-9 million tonnes of iron ore annually, mainly through barge loading, and therefore, availability of adequate barges should be ensured.
RECOMMENDATIONS

Sector Specific Recommendations

Dimensional & Decorative Stones

Handling facilities at major ports viz. Chennai, Tuticorin, Cochin, Mangalore, Kaswa, Kandla, Mumbai, JNPT and Vizag need to be improved for the export of dimensional stones.

Road network should also be extended to rural mining belts including decorative & dimensional stone producing centers, thereby providing linkages to highways / expressways.

Adequate railway transport network including container facilities and railway sidings should be extended at prominent centers producing stones.
RECOMMENDATIONS

Sector Specific Recommendations

Dimensional & Decorative Stones

This Indian dimension stone industry is totally dependent on road transport with practically no support from the railways. Most of the competing countries have vast network of rail transportation supporting their stone industry through which they are able to offer any quantity in any size at very competitive prices in International market. Thus, it is necessary for the Indian stone industry to have proper rail links nearest to the quarrying areas.
RECOMMENDATIONS

Sector Specific Recommendations

Bauxite & Alumina

The Greenfield alumina plants and bauxite mining would require strengthening of infrastructure development of road and rail network. The bauxite mining belts of Chattisgarh and Jharkhand also need improvement in road infrastructure for the brownfield expansion of existing plants. In Andhra Pradesh bauxite deposits would require extension of railway line up to deposits.
Sector Specific Recommendations

Limestone and other industrial minerals

Bulk handling of limestone and rock phosphate both for domestic consumption, exports and imports is made by rail and road network. Road network is a serious bottleneck in northeastern states where limestone is exported through road network to neighbouring counties. Therefore, efforts should be made to strengthen the existing road and rail network connecting mines to the consuming centres.
Harmonizing Mineral Development

• TERMS OF REFERENCE

“To assess constrains and problems encountered in exploration and exploitation of mineral resources in tribal, forest areas and to suggest measures in harmonizing mineral development with environment and forest regulation, PESA Act and Forest Rights Act and to suggest changes if any. To suggest measures that need to be taken to promote inclusive growth and at the time safeguard the interests of the tribal in the areas of the country”.
RECOMMENDATIONS

• Harmonizing Mineral development: with environment identifying environmental and social sensitivities at the earliest possible phase of the mine life cycle and integrating them in mining and mineral development decision-making process is vital to ensure sustainable mining to the extent possible.

• Categorize mineral reserves and resources at the State levels, into high and low risk groups based on environmental and social sensitivities.

• Over a map of all the mining leases in the country, overlay environmental and social sensitivities using available databases covering at least subjects like protected area (PAs), dense forests, and schedule areas to begin with.

• Through such an overlay, identify mine leases that fall into the high and low risk categories. Provide this categorization, as well as its associated risks for each new lease area as well as those that are already in operation.
RECOMMENDATIONS

• Initially, for operational mining leases, the categorization would be more focussed on impacts rather than risks, and would include elements like pollution levels, water quality, health indicators in the area etc which would indicate potential and ongoing impacts of the mining activity,

• Classify as No-Go zones areas that are statutorily declared as prohibited or protected zones under various central, state and local government regulations and international conventions.

• Exclude these No-Go areas from mining considerations.
RECOMMENDATIONS

For inclusive growth and safeguarding the interest of the tribal in the area, measures to be taken includes:

• Consultation and stakeholder engagement (processes, indicators), especially in Schedule V areas. This will address some of the issues of ensuring local stake in control, use and management of such areas and resources.

• Benefit-sharing: mechanisms, baseline, indicators. Together, these two points address issues of consent of the indigenous communities on project impacts on common resources, cultural practices, economic opportunities and adequate compensation.
RECOMMENDATIONS

For inclusive growth and safeguarding the interest of the tribal

- Frameworks for understanding more comprehensively, potential environmental impacts – safeguards, management, mitigation, indicators.
- Strategic area-based approach to conserve natural resources and address pollution related issues.
- Put in place institutional structures and mechanisms at central, state and district levels to address aspects raised above.
RECOMMENDATIONS

Issues being to be covered in the legal framework of the country

• Forest Rights Act, that includes settlement of rights in forest areas, specially focused on forest dwelling communities and other forest dependent communities. This involves getting consent from such communities (primarily tribal) prior to diversion of such areas for project/mining purposes.

• PESA which grants the Gram Sabha of villages in Scheduled V areas the right to say no to mining in minor minerals.
SUSTAINABLE DEVELOPMENT

TERMS OF REFERENCE

“To formulate a comprehensive framework for the most sustainable use of the county’s mineral resources for national development keeping in view the interests of various stakeholders”.

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RECOMMENDATIONS

Need for Technology upgradation

- Advanced integrated exploration techniques are needed to thoroughly explore deeper deposits in complex geological environment including deposits concealed in offshore zones.
- State-of-Art drilling techniques with sophisticated rigs (such as RC) for three dimensional sub surface delineation of ore body as well as for directional drilling and underground exploratory drilling are needed to be employed.
- Suitable technology for mining of deeper deposits with geothermic temperature to sustain coal production and hence to fulfill the ever increasing demand of India.
RECOMMENDATIONS

For the development of a “comprehensive framework to take informed decisions for the most sustainable use of the country’s mineral resources the issues to be investigated include:

• Detailed studies of the extent of mineral reserves and their reassessment in the light of revised threshold values.
• What proportion is already leased out, and within that, what proportion has been exploited, needs to be undertaken, to the degree possible (first level through remote sensing).
• Consolidation of state data bases for the whole country, based on minerals, irrespective of go/no go areas.
• Sustainable use of minerals and re-use potential (Recycle). Cost benefits analysis on conservation strategies to reduce energy consumption as well as CO2 emissions.
TERMS OF REFERENCES

To assess the magnitude of rehabilitation and reclamation needed for abandoned or closed mines prior to the concept of mine closure plan and financial assurance came into being and to suggest appropriate plans for reclamation & rehabilitation for such mines to give eco-friendly image to mining industry.
EPICENTERS

• Recommendations of Hoda Committee Report
• National Mineral Policy 2008
• New Draft MMDR Act 2010
• Present Scenario and Sustainability of Mining Industry
ABANDONED MINE SITES

To Built Up Strategies Towards RR

• Reduced to 82 Identified orphaned sites as on date, after some of becoming operational.
• These abandoned sites mostly of Corporate (22), public sectors (33) (central & state), rest are private sector of low value /industrial minerals.
• Rationalization needed on remnant mineral existence in consonance with present threshold values with type of land use.
• Accordingly, two categories shall be identified i) Mines where the mineral is not exhausted ii) Mines where mineral exhausted completely.
ABANDONED MINE SITES

Strategies towards RR

i) Mines where the mineral is not exhausted
   • Safety aspects till further disposal for grant
   • Impact over water regime, fauna and flora etc
   • Socioeconomic Impacts

ii) Mines where mineral exhausted completely
   • Review of land use towards further restoration
   • To explore the possibility of reclamation of mine voids by backfilling of waste generated in mines within feasible distance within clusters.
   • Application of advance techniques in Reclamation and Rehabilitation, further restore biodiversity.
   • Socioeconomic Impacts
   • Complete Plan of action and budgetary estimates and provisions.
RECOMMENDATIONS

STUDIES ON ABANDONED MINE SITES SHALL BE CONDUCTED BY CONCERNED STATE GOVT WITH ASSISTANCE OF CENTRAL AND STATE AGENCIES.

• Availability of Mineral potential vis a vis review of land use
• Identification of mineralized sites for further disposal (i.e. grant of ML)
• Assessment of environmental and socioeconomic impacts and
• Safety aspects
• Explore of possible means of reclamations like utilization waste from nearby mining sites including its Safety concerns
• To work out plan of rehabilitation in the form of Project document along with financial implications
• Funding mechanism through Planning Commission
• Finally, its implementation for enabling to eco-friendly shape.
RECOMMENDATIONS

• The notification for such areas should be issued by State Govt. for mining the residual values.

• Some relaxation on EC/FC for such sites for faster reclamation should be provided and such initiatives should be incentivized.

• The financial implication of such small abandoned mines should be estimated and funding mechanism should be explored through planning commission.

• Application of advanced state of art techniques by research institutions/agencies enabling quick rehabilitations of abandoned sites.

• Institutionalize the universal Framework for Restoration or Rehabilitation to evaluate region specific guidelines

• Escrow fund for mine closure should be done in case of current practice of financial assurances.

• Incentivize the good work of the lessee and penalize the defaulters and offer fiscal benefits to those who create shining performances above the regulatory requirements in R&R.
SOCIO – ECONOMIC IMPACT OF MINING

TERMS OF REFERENCES

“To examine and assess the socio-economic impact of mining on the life of local inhabitants and to suggest ways and means for improving their living standard.”
RECOMMENDATION

REHABILITATION AND RESETTLEMENT ISSUES

• Establish a baseline of the community and identify sensitive social issues at the reconnaissance stage through stakeholder analysis, consultations and focus group discussions. Include this baseline assessment, proposed risk mitigation measures and a consultation strategy during explorations as a part of the PL application.

• Comprehensively assess the social impacts of a mining project through its lifecycle before the start of any mining activity as a part of the mining lease application. Ensure that gender based impacts and impacts of children living around mining areas are an integral part of the impact assessment.

• Comprehensively assess the livelihood dependence on land (private, government or community), natural resources, and all other sources of income that gets impacts by the mining activities, irrespective of the legality of ownership and use.
RECOMMENDATION

REHABILITATION AND RESETTLEMENT ISSUES

• Design rehabilitation measures that either replace the sources of livelihood, or compensates them on the basis of a term livelihood loss. Identify and focus on the vulnerable groups in this process.

• Encourage asset building among the affected families through a basket of measures and incentives so that compensation money is used productively and people have a living standard better than before.
RECOMMENDATION

SPECIFIC PROVISIONS IN SCHEDULED AREAS

• Ensure that the social impact assessment in a scheduled area has a specific focus on impacts on tribal groups and their way of life and their social, cultural and religious choices. Experts on tribal communities should lead such an impact assessment.

• For land in Scheduled Areas, seek free, prior and informed consent of the Gram Sabhas for both major and minor minerals under PESA before starting the process of land take (purchase or acquisition). The consent process needs to be clearly defined in a manner and a timeframe that gives a fair chance to both parties to negotiate.

• Focus on programmes that enable the affected communities to participate in the economic benefits of the mine, through employment, business, services and contracts.

• Implement Corporate Social Responsibility (CSR) programs for sustainable development of the areas
RECOMMENDATION

ISSUES WHICH NEED POLICY LEVEL CLARIFICATION

• Delays in granting clearances (Forest Clearance, Environmental Clearance)
• Clarification on first level FC before EC process may be started - cause for further delay
• Proposal for categorizing future leases based on sensitivities and risks (proposed in SDF) but needs discussion and process level reform, jointly with MoEF.
• Compensatory afforestation: re issue of creating land banks and updated records of available land for compensatory afforestation: Will new projects requiring compensatory afforestation be rejected if such land is not available within the administrative unit (and, what should this be?). What are alternative strategies to address this issue?
• Limits of project proponent’s liability viz affected forest area after obtaining FC, is it financial only?
• The MoM needs to engage with the Ministry for Rural Development and the Ministry of Tribal Affairs to widen the Gram Sabha consent process to all mining activities.
CSR INITIATIVES

TERM OF REFERENCE

“To suggest CSR initiatives and suggest ways of enabling corporate, including Central Public Sector Enterprises improve their corporate image in the mining sector through coordinated CSR efforts”.

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CSR: DEFINING PERSPECTIVES

Detailed appraisals by individual company to work out long term and short-term strategies for CSR by region-wise/sector wise on the basis of community requirement.

• To enable conceptualization of Mining activity so as to assess Project capacities & CSR potential during lifetime

• Impact on socio-economic structure and to device Action Plan for improving the quality of life of the communities nearby.
RECOMMENDATIONS - CSR : Sustainable Development

CSR activities are falls within quadric-dimensional spectrum of sustainable development i.e. Social, Economical, Environmental, Institutional dimensions.


- Transparency: Each company shall publish document on CSR policy framework, fund flows and targeted achievement.

- For institutional development, the lessee should make in house and outside faculty programmers executive development for carrying out CSR activities.

- Quinquennial Reviews: Each Corporate sector, should submit the survey report by five years to know efficacy and compatibility of implementation proposals and address prospects and constraints demonstrated through socioeconomic parameters.
RECOMMENDATIONS

Share of Expenditure for CSR & Program for implementation & Reporting

• **Linking Expenditure of CSR with Dispatched products:** Provision should be made for minimum Rs 5/- per tonne of dispatched products for CSR activities outside the lease area.

• **Mining plan** shall include a separate part on CSR Commitments into three sub-paras Base line information, Social Impact assessment and Proposals for CSR activities linked with production capacities for further implementation.

• **Auditing and Reporting:** Expenditure incurred should be audited and annual report of such activities should be sent along with annual return of the mine under rule 45 of MCDR. Lessees of smaller productions can work on the model of Mineral Foundation of Goa.
RECOMMENDATIONS

MONITORING AND SURVEILLANCE

• IBM shall monitor CSR through regional offices in various mining belt by sample check up or audits for physical verification.

• IBM shall develop system of reporting in regard to CSR activities, by introducing quarterly /annual return and made mandatory as per provision of draft new MMDR 2010.

• IBM and State Directorates should develop capacity building in monitoring and suggesting proper CSR activities nearby of mining area.

• IBM and State Directorates should establish “Sustainable Mineral Development Cell “ to plan, monitor and review CSR activities coordinating with corporate and PSU sectors and also work out guidelines, plan of action for mines in private sector particularly for small mining sector
RECOMMENDATIONS

STATUTORY AMENDMENTS

• CSR activities should be made component of terms lease deed conditions for PL and ML.

• CSR activities should start from award of Prospecting license.

• Accordingly, requisite amendments are felt necessary in present statutes.
RECOMMENDATIONS
FOR IMPROVING THE IMAGE OF MINING INDUSTRY

• Promotional campaign for environmental and social performance, Incentivizing, a national award on CSR
• Mineral conservation through R&D applications
• Safety aspects and protection from Health hazards
• Participation of peoples from cross section of civil societies in Neighborhood areas like teachers, students, representatives from local administrations, communities,
• Display of showcases /articles in mass media on positive impacts and development in the regions with statistics.
• Conducting Quiz, contests, forum, interactive discussions
• Local media channels regarding sustainable mining and its outputs
Thank You