



# Impact of COVID-19 on the mining sector in India

May 2020

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# Foreword

## Response. Recovery. Resilience

The Novel Coronavirus (COVID-19) pandemic has had severe health and economic impact in almost all countries. In the immediate aftermath, India and several other nations have prioritized citizen health over economic activity to contain the spread.

The mining sector in India was poised for robust growth in FY21, on the back of rising demand from end-use sectors and fresh investments announced by the mining companies. However, the spread of COVID-19, right at the beginning of the financial year, has led to disruptions across industries. Mining Sector fuels the economic wheels as a primary input and is a key contributor to power, manufacturing, construction and real estate sectors. Even though in most states mining was allowed even during the lockdown the effects have nonetheless been felt and may continue in the near term as the lockdown is extended. Demand in the end-use industries like power, steel, cement, aluminium, etc. has come down. Simultaneously transport and logistics are affected, limiting offtake of minerals from the mines.

The consequential effects of reduction in activity in the mining sector have been several.

- Government exchequers are expected to get affected as collection against statutory levies and taxes are lower due to lower volume of mineral production
- Government's plan to auction new coal and mineral blocks is likely to get delayed
- MDOs/MOs are expected to face significant challenges, and
- Lastly but not the least COVID-19 has already affected the entire business eco-system especially the marginal stakeholders like small vendors/contractors, contract labourers, downstream and ancillary businesses, etc.

Overall, de-growth in the Mining sector is unavoidable in Q1, and perhaps also in Q2. The economic activities are likely to gather momentum again only in H2 of FY21. In order to address the overall impact of COVID-19 on mining sector, specific actions are needed to be carried out by all

concerned, especially the Governments and the business community, in order to boost demand and at the same time, to ensure that there is no supply disruption.

Considering the multi-dimensional challenges that COVID-19 has posed to the mining and metals sectors in India, it is important to devise a turnaround strategy for the short-term, medium-term and long-term.

- A. RESPONSE phase** – Short-term (next 3 months or till the time the pandemic is contained): This phase will require the stakeholders to remain patient, and at the same be time extremely agile with smart actions to prevent the extent of damage to the 'fundamentals' of the sector. If the 'fundamentals' are guarded well and kept intact with right policy directives from the Central and State Governments, the subsequent path to recovery and achieving aggressive growth over a five year period should be eminently possible.
- B. RECOVERY phase** – Medium-term (next 6 months to 1 year): Mid-term actions should be targeted with aim for 'recovery' and setting realistic growth ambitions for FY22. During this phase, Governments must focus on setting the house in order through some long-standing Policy changes like identification of alternate options for mineral resource distribution and rationalisation of the tax structure, which is currently considered to be very high in India (60-65 per cent, as compared to global average of 40-45 per cent). On the other hand, companies can focus on optimizing their operating costs with adoption of digitalisation and technology enablement and focusing on value addition by diversifying into the larger part of the mine-to-mill value chain.
- C. RESILIENCE phase** – Long-term (next 1-2 years): Long-term actions must be targeted towards broader business and economic goals. Focus on creating downstream and ancillary ecosystem of business with the backward and forward interlinkages with other industry segments will have to be driven by individual State governments

with end objective of industrial promotion in the state. For example, providing “Infrastructure” status to the mining sector will open up plethora of opportunities for the sector for the next level of growth. Arranging finances in particular will become much easier with the Infrastructure status. The kind of traction Transport and Logistics sector has been able to generate after getting the Infrastructure status is there for everyone to see. Mining needs such kind of shake-up, which is long due. Another aspect could be to drive indigenous R&D in this sector, which will help in unlocking lot of value.

Government has already recognised mining as a key sector for employment, revenue generation and value addition during these unprecedented times. The reforms announced by Honorable Finance Minister during the fourth tranche of the special economic package are welcome move. The Coal Blocks Auction (Amendment) Rules, 2020 has also been notified on 18 May 2020. More such notifications and details may be awaited.

The progression path of COVID-19 is yet to be fully determined. However, it is clear as soon as containment is reasonably achieved, economic activity has to restart. Mining activity is at the very start of the chain, generating primary inputs for other industries and also contributing hugely to central and state government coffers. The mining sector, being farthest removed from the ultimate consumer, will get demand signals last of all value chain participants. This may create working capital issues if not wrong asset deployment decisions. It is, therefore, important to put in the right set of measures and utilize the recovery from COVID-19 to step up economic activity and build a resilient mining sector that is ready for future challenges.



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# 1

## Contribution of the mining sector to the economy

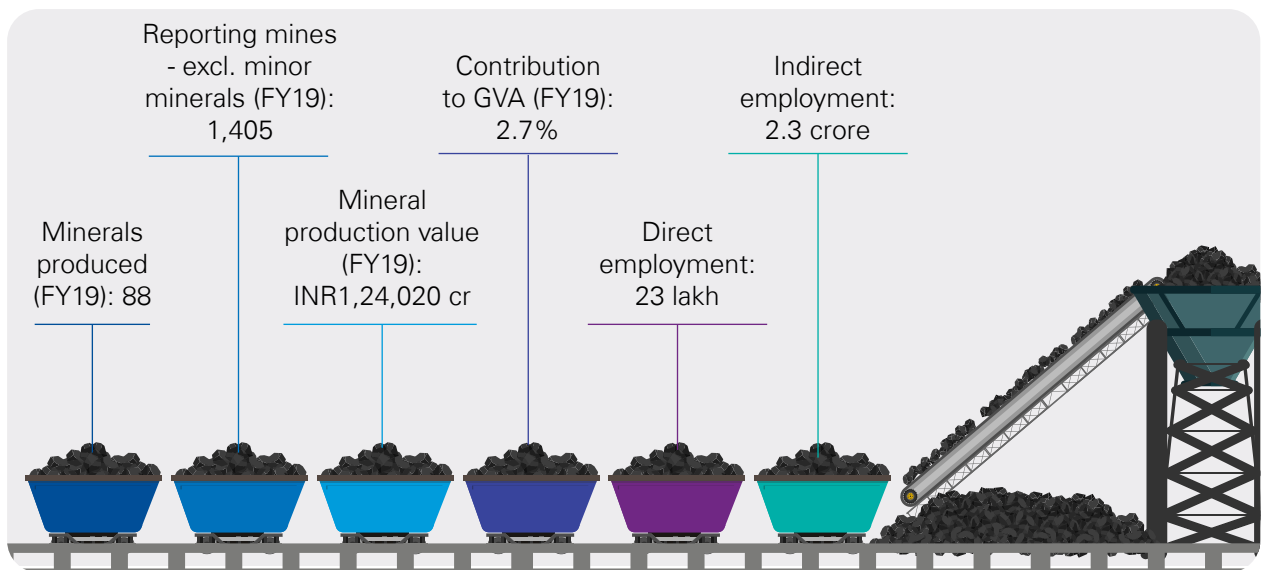


### 1.1 Mining sector – key contributor to the Indian economy

India is endowed with a plethora of minerals, both major and minor. Some of these are raw materials for some of the key industrial sectors – such as steel, cement, power, etc. that drive the Indian economy. Mining/ extraction of the minerals is

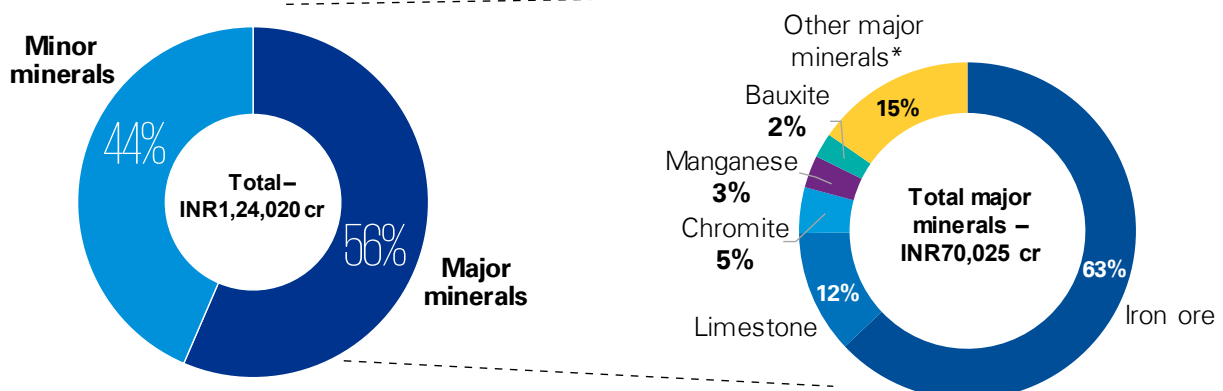
guided by the national goals and is integrated into the overall strategy of the nation’s economic development. The highlights of the mining sector (excluding atomic and fuel minerals like coal) are mentioned below:<sup>1</sup>

**Figure 1-1. Key highlights of the mining sector**



**Figure 1-2. Mineral-wise break of the total mineral production value (FY19)**

Mineral-wise breakup of total mineral production value (FY19) (excluding fuel and atomic minerals like coal)



\*Includes Zinc, Copper and Lead

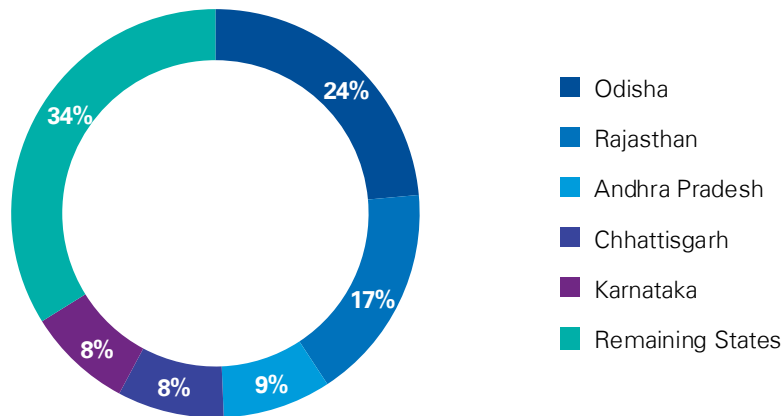
## 1.2 State-wise contribution to mineral production value

Top 5 states account for 66 per cent of total value of mineral produced in India. Bulk of the mineral production in India is confined to 5 major states. Odisha was in leading position with 23.66 per cent, in terms of percentage of estimated value of mineral

production in the country in FY19. Next in order was Rajasthan (17.27 per cent), followed by Andhra Pradesh (8.62 per cent), Chhattisgarh (8.49 per cent) and Karnataka (8.37 per cent).<sup>2</sup>

**Figure 1-3. State-wise contribution to value of mineral production in India (FY19)**

**State-wise contribution to mineral production value, FY19** (excluding fuel and atomic minerals like coal)



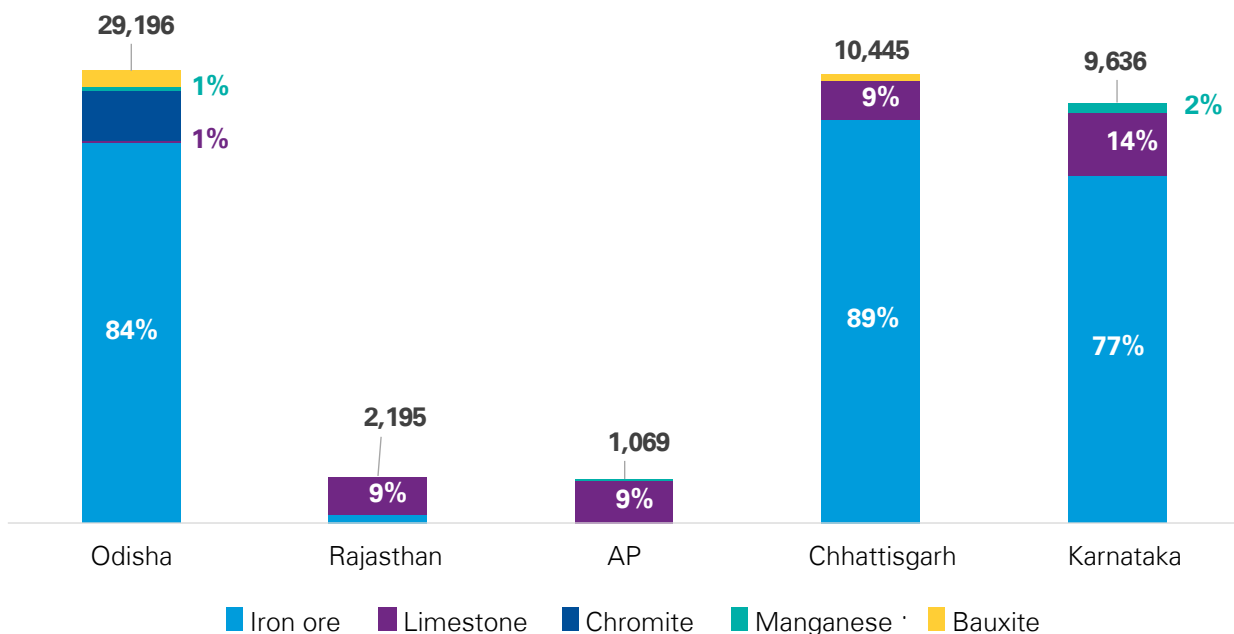
To assess the impact of the COVID-19 pandemic on the mining sector, we have analysed its impact on the top 5 major minerals that contribute to about 85 per cent of total value of production from major minerals. Further, we have also assessed the impact of this pandemic on the mineral revenues of top 5

states, which contribute about 66 per cent of total contribution.

The contribution of the top 5 major minerals to the top 5 mineral-producing states (FY19E) are mentioned below:<sup>3</sup>

**Figure 1-4. Contribution of key minerals to the top 5 mineral producing states**

Value represent mineral production value in INR crore from the state in FY19E



### 1.3 Contribution of coal

Apart from the above mentioned minerals, India is also a major producer of coal. In 2018, India ranked 2<sup>nd</sup> in world coal production.<sup>4</sup> CIL and SCCL contribute almost 90 per cent of the total coal production and coal offtake in the country. Estimated value of coal

offtake in FY19 was approx. INR1,00,000 crore.<sup>5</sup> The major states accounting for coal production are Jharkhand (22 per cent), Chhattisgarh (18 per cent), Odisha (14 per cent), Madhya Pradesh (14 per cent) and Telangana (14 per cent).

### 1.4 Indian mining sector's contribution to GDP has been low over the years

Mining contribution to the Gross Value Added (GVA) is much below its potential, considering the abundance of mineral reserves in the country. According to the internationally reputed Fraser Annual Survey 2016, which ranks countries on overall Mining Attractiveness Index driven by factors like geological attractiveness, effects of government policies on exploration investment, taxation levels and quality of infrastructure – India was ranked amongst the bottom 10 countries in Investment Attractiveness Index. In another report titled "Global Opportunity Index – Attracting Foreign Investment" by Milken Institute in June 2015, India was ranked 83 out of 136 countries in attracting foreign investments (refer Figure 2-6).<sup>6</sup>

Also, if we observe the trend in the preceding decade, contribution of mining sector to India's GVA has declined significantly in terms of percentage (from 3.9 per cent in FY09 to 2.7 per cent in FY19) due to slower comparative sectoral growth (approx. 2.7 per cent) vis-à-vis India's GDP growth (approx. 6.7 per cent) during the same period.<sup>7</sup> Reasons attributed to this subdued growth are manifold – for example, operational uncertainties (for instance, the Hon'ble Supreme Court's decision to ban mining in Goa and Karnataka), rising costs of production, delay in opening up of new mines, high taxes and duties, fierce competition from China on multiple end-use products (especially steel), etc.

Figure 1-5. Mining contribution to GVA-Trend

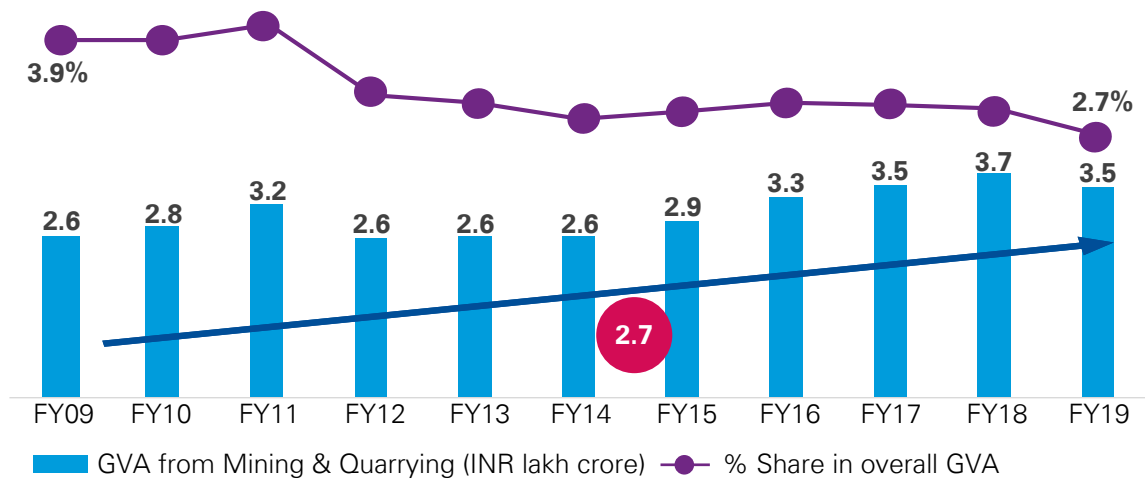
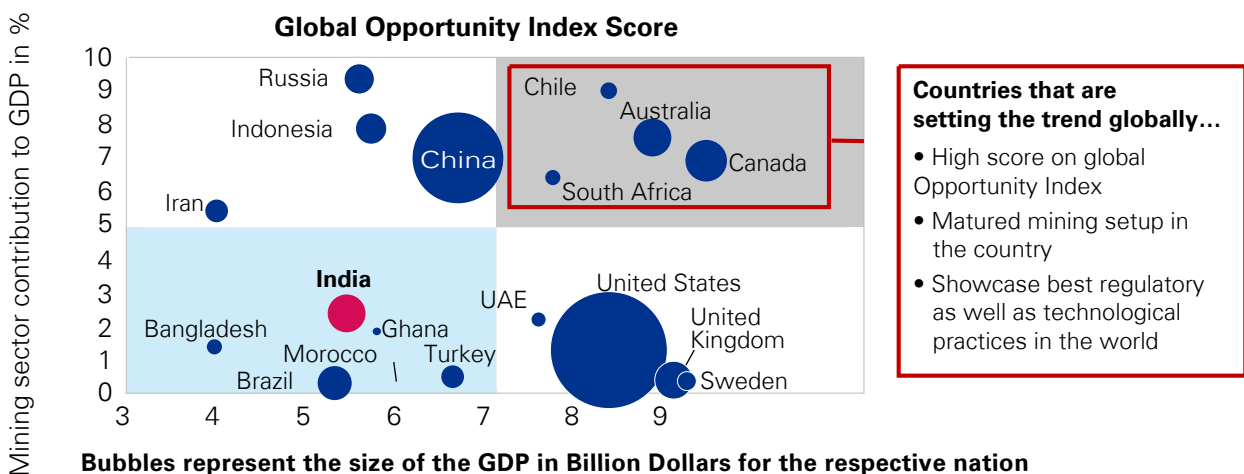


Figure 1-6. Global Opportunity Index Ranking 2015, Milken Institute





## 1.5 However, the mining sector witnessed significant strides in last couple of years

The Governments, both at the Centre and at the key States like Odisha, Chhattisgarh, Karnataka, etc. have introduced a slew of measures especially in the past couple of years to provide much-needed impetus to the mining sector.<sup>8</sup>

India's mining sector has made good strides in recent times, especially since the amendment to the MMDR Act in January 2015. In fact, prior to the outbreak of the COVID-19 pandemic and its associated disruptions, various Public Sector Undertakings (PSUs) and private mining companies had charted out significant expansion plans and capex outlay, for both existing mines as well as opening of new mines, in pursuit of enhanced market share and geographic expansions. Some of these companies also announced plans to enter into other businesses in the mineral value chain (e.g. construction of slurry pipelines for transportation of fines, establishment of ore beneficiation plants and pellet plants, etc.). A snapshot of the expansion plans taken up by various mining companies are provided below.

### 1. Coal India Limited (CIL):<sup>9</sup>

- FY21 Output target – 710 MT (>18 per cent y-o-y increase)
- FY21 Capex outlay target of INR9,500 crore

### 2. NMDC Limited:<sup>10</sup>

- FY21 Output target – 48 MT (>50 per cent y-o-y increase)
- FY21 Capex outlay target – INR2,300 crore to raise production, add a slurry pipeline and to develop two new coal blocks

### 3. Odisha Mining Corporation Limited (OMC):<sup>11</sup>

- OMC, the largest state public sector mining company in India, had also envisaged growth of more than 50 per cent in FY21 to ramp-up production of 20 MT iron ore. They had also planned to start 5 new mines in Odisha's Joda region

### 4. JSW:

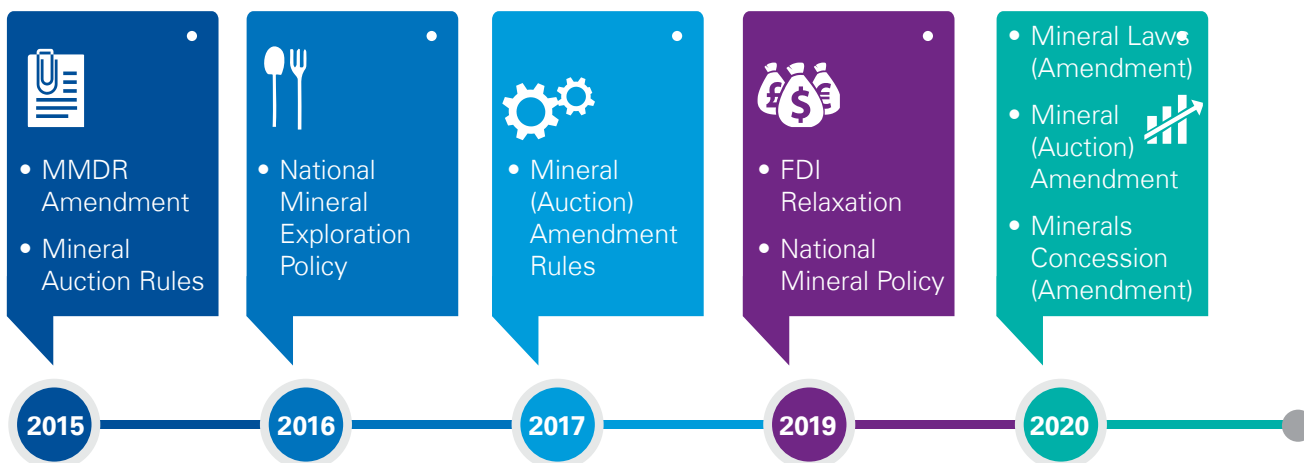
- FY21 Sales target – 17.5 MT<sup>12</sup>
- FY20/FY21 Capital infusion – Approx INR32,000 crore in various capacity expansions/ new plant of Pellet, Captive power plant, steel manufacturing to downstream product expansions<sup>13</sup>

### 5. Tata Steel:

- Capex plan – In the process to increase the capacity of its Kalinganagar plant to 8 MT by infusing INR23,500 crore, which is estimated to be operationalized by 2022.<sup>14</sup>

Thus, the mining sector was poised for some growth in FY21, on the back of rising demand from end-use sectors and investments by mining companies. However, the spread of COVID-19, right at the beginning of the financial year, has led to disruptions across industries and mining is no exception. The pandemic has affected the entire mining value chain already for Q1 and is poised to make a dent over Q2 as well if it continues till June 2020. The emerging realities of the pandemic, along with its impact on the mining sector, are analysed in the subsequent sections.

Figure 1-7. Steps undertaken by government



# 2

## Emerging realities during the pandemic



### 2.1 Governments, both Central and States, supported continuation of mining activities during lockdown period

The chronological sequence of various guidelines issued by the government/ government entities

in the public domain, related to mining sector, are mentioned below:<sup>1</sup>

#### Secretary, Ministry of Coal

Extension of support to CIL and non-CIL operators to ensure no disruption in production, supply and distribution of coal.



23-Mar  
2020

#### Additional Secretary, Ministry of Coal

Requested Jharkhand State to grant relaxation from lockdown for production and movement of explosives used in coal mining industry for supplies to CIL and its subsidiaries..

24-Mar  
2020

#### Ministry of Home Affairs

Granted exception to production units, which require continuous process, post permission from State Government and included coal and mineral production, transportation, supply of explosives and activities incidental to mining operations to the exceptions.



#### Secretary, Ministry of Steel

Requested states not to impose any restrictions on the operation of steel Plants, mines of iron ore, coking coal, thermal coal, limestone, dolomite, manganese, chromite, sponge iron, ferroalloys, iron ore pellet plants etc, which supply raw materials for steel making.

Start of Nationwide Lockdown

Start of Nationwide Lockdown

25-Mar  
2020

#### Ministry of Home Affairs

Included coal and mineral production, transportation, supply of explosives and activities incidental to mining operations to the exceptions

#### Secretary, Ministry of Mines

Requested States to allow the mining operations and allied activities and to facilitate measures that would ensure continuity of operations of steel, aluminium, copper, cement etc., plants during lockdown and other related activities like supply/movement of raw materials, equipment etc. including imported ones through rail/air/ports.

26-Mar  
2020





27-Mar  
2020

**General Manager, All Zonal Railways**

Issued instructions that the charges against demurrage, wharfage, stacking, stabling etc., will not arise by considering the period from 22-Mar-20 to 14-Apr-20 under Force Majeure and subsequently extended the above dispensation till 03-May-20



**Secretary, Ministry of Mines**

Instructed states to utilize 30 per cent of the balance DMF (District Mineral Fund) funds for expenditure related to COVID-19

28-Mar  
2020



**Director General of Shipping, Ministry of Shipping**

Waiver of performance related penalties on cargo owners/consignees of non-containerized cargo for the period from 22-Mar-2020 to 14-Apr-2020 due to delay in evacuation of cargo caused by reasons attributable to lockdown

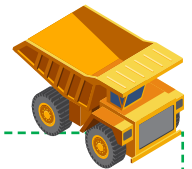
31-Mar  
2020



**Ministry of Corporate Affairs (MCA)**

CSR spending inclusions – Contributions to the PM CARES fund, SDMA and ex-gratia payment made to workers fighting COVID-19 supported by a Board declaration

10-Apr  
2020



**Ministry of Home Affairs**

Removed the provision of obtaining permission from the State Government for continuous production units

15-Apr  
2020



**Ministry of Home Affairs**

No movement of labour outside the State/ Union Territory from where they are currently located

19-Apr  
2020

**Ministry of Shipping**

Directed all major ports for remission of certain charges to Port users and PPR concessionaires during lockdown period and extended to 30.06.2020 for some charges, deferment of vessel related charges to Indian Coastal vessels and issued certain relaxations to PPP projects permitting them to waive all penal consequences on case to case basis

21-Apr  
2020



**Ministry of Mines**

Letter to MoEF &CC and Chief Secretaries of all states to extend support and to consider annualizing the payment of upfront payment that is needed for execution of lease

22-Apr  
2020



**Ministry of Home Affairs**

Centre facilitates the inter - state movement of stranded people including Migrant workers in the country

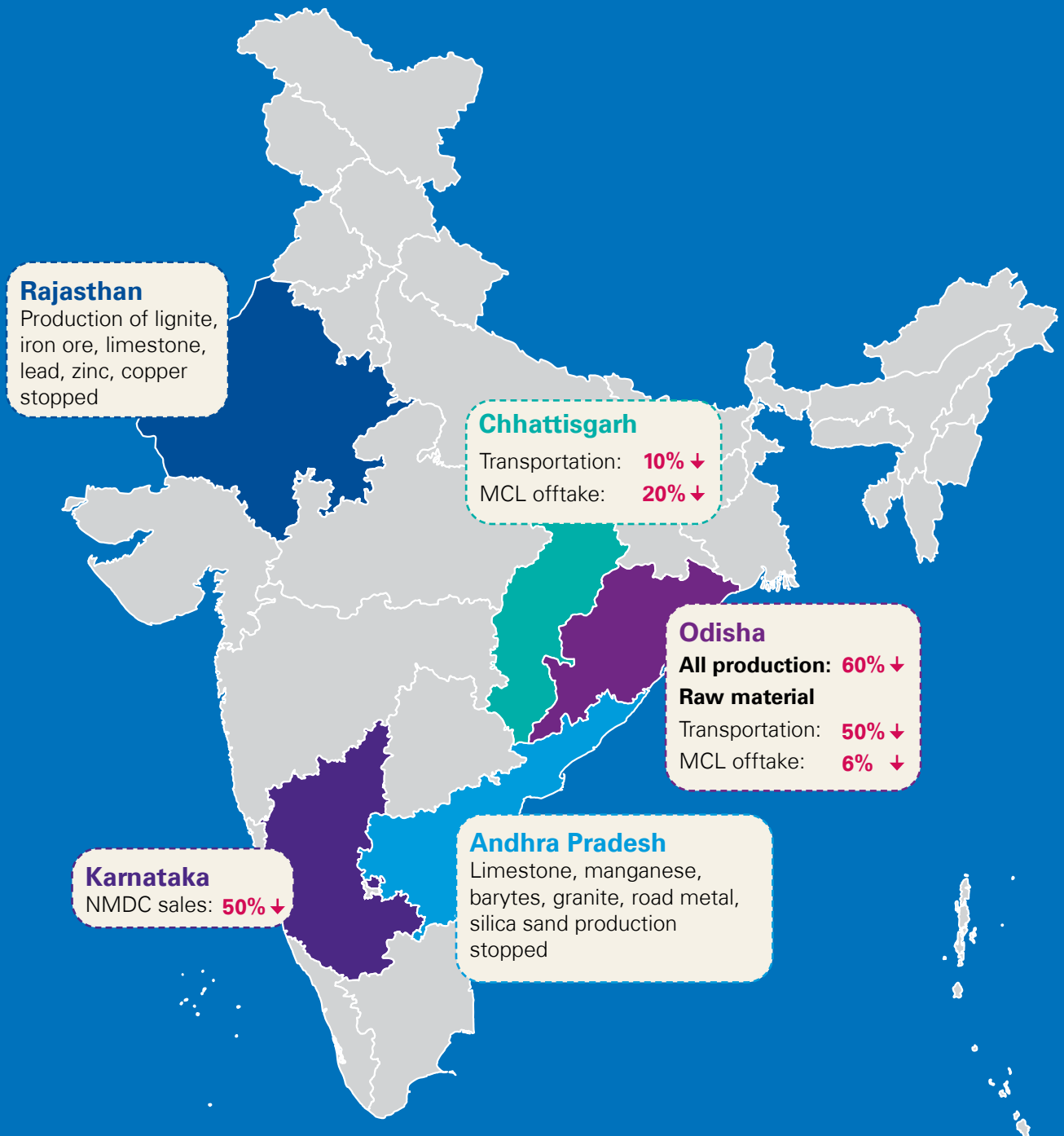
29-Apr  
2020

## 2.2 Mining operations impacted, despite Government exemption

Except for Rajasthan, all major mineral producing states allowed mining operations during the lockdown period until 15-Apr-2020. After 15-Apr 2020, the states including Rajasthan allowed mining operations with certain conditions.

However, it was observed that mining activity has been severely impacted on account of the COVID-19 pandemic. Highlights of state-wise mineral production of Odisha<sup>2</sup>, Rajasthan<sup>3</sup>, Andhra Pradesh<sup>4</sup>, Chhattisgarh<sup>5</sup> and Karnataka<sup>6</sup> over last few weeks is highlighted below:

Figure 2-1. State-wise mining scenario during lockdown



Mining activities have been dampened primarily because of the following:

1. Restrictions imposed on the free movement of public and transport vehicles
2. Lack of demand
3. Non-availability of labour

A key exception to the above is the coal sector, which continued to witness growth in production (refer Section 4.2.1.3). Given the essential nature

of power generation, measures taken by the central and state governments appear to have been successful in ensuring adequate coal supplies for power generators, so far.

However, it may be noted that while coal production did not get significantly affected the demand for coal has been affected because overall electricity demand has fallen, especially industrial consumption coming down significantly, and states have reduced offtake of coal resulting in mine mouth pile up.

### 2.3 Global trade of minerals also impacted

However, various operational constraints have affected the normal functioning of the ports, with several ports halting cargo operations.

- **Paradip port:** The traffic handled at Paradip port has reduced from 13.51 per cent in Dec-2019 y-o-y growth to 4.59 per cent in Mar-2020. In Apr-2020, in terms of operation snapshot (in MT), the Paradip port has witnessed a y-o-y drop of 10.47 per cent in Apr-2020 (up to 21-Apr-2020) when compared to similar period in Apr-2019<sup>7</sup>
- **Haldia port:** Port operations in Haldia were suspended after an employee tested COVID-19 positive on 04-Apr-2020 - the general cargo berth was now under control of CISF<sup>8</sup>
- **Mormugao port:** The port of Mormugao in Goa state and many smaller ports along India's west coast have been shut for several days until further notice<sup>9</sup>
- **Gangavaram port:** This port near Visakhapatnam (Vizag) has declared force majeure on all incoming shipments and told its customers that it would be severely affected by lockdowns in Andhra Pradesh and Telangana states<sup>8</sup>

- **Kakinada port:** Kakinada port has also declared force majeure on incoming shipments<sup>9</sup>
- **Krishnapatnam port:** The port has declared force majeure and has joined other ports in declaring closure as a result of Coronavirus.<sup>10</sup>

Port operations being halted or ports running at low capacity, coupled with rising turnaround time at the ports, have resulted in inter-state transfer of minerals via sea route.

Thus, the lockdown measures introduced by the various governments to combat the COVID-19 pandemic have impacted the supply chain for import as well as export of mineral commodities.

In case of imports, the impact is likely to be limited to only a few commodities, such as coking coal imports by steel sectors, copper concentrate imports, etc. since India is primarily reliant on domestic supplies for most of the other minerals.

In the next chapter, we delve into and analyse some of the major areas of impacts due to COVID-19 in the domestic mining sector.



# 3

## Impact of COVID-19 on mining sector



### 3.1 Impact on Indian mining companies

At the end of 2019, the top 50 mining companies across the globe had a combined market value of approx. USD 1 trillion.<sup>1</sup> After three months into 2020, as the COVID-19 pandemic sweeps the world, USD

282 billion had been wiped out from their market capitalisation. Vedanta and NMDC feature in the top 10 worst affected companies already.

**Table 1. Impact of COVID on mining companies<sup>2</sup>**

Company name	YTD % change in market capitalisation (Q1, CY 2020)	Market capitalisation (in billion USD)*	Global position in top 50 mining companies*
<b>Coal India Limited</b>	38.1% ▼	11.3	17
<b>NMDC Limited</b>	41.6% ▼	3.2	48
<b>Vedanta</b>	60.6% ▼	3.2	49

Note: \* As on 31-Mar-2020

### 3.2 Lower mineral revenues to impact government exchequer

The mining sector is a significant contributor to the Net State Value Added (NSVA) in the top mineral-producing states in India. However, falling demand as a result of nation-wide lockdown, decreased consumption and supply chain issues has forced the miners to run either at significantly lower capacity utilisation, or closing down operations temporarily.

As an immediate consequence of this subdued production from mines is fall in revenues from mining sector for the governments. Considering the scenario at the end-use consumption side, reduced construction activities is likely to lead to a reduction in the consumption of steel and cement in FY21, thereby affecting the production of iron ore and limestone. Similarly, slowdown in manufacturing activities in the industrial sector is likely to impact coal fired power generation, thereby hitting the production of, and royalties and taxes from, thermal coal. Needless to say, the demand for several other minerals might also be hit.



### 3.2.1 Estimation of impact on government exchequer

In order to understand the magnitude of this impact, we have tried to quantify the likely impact of COVID-19 disruption to the state exchequer.

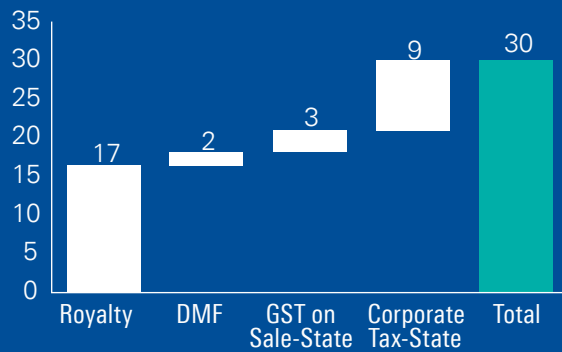
#### Illustration:

Calculation of revenue per month to Odisha's state exchequer (in INR crore)<sup>3</sup>

**Figure 3-1. Monthly collection from 5 MTPA iron ore mine**

#### Case 1: Iron ore mine of capacity 5 MTPA

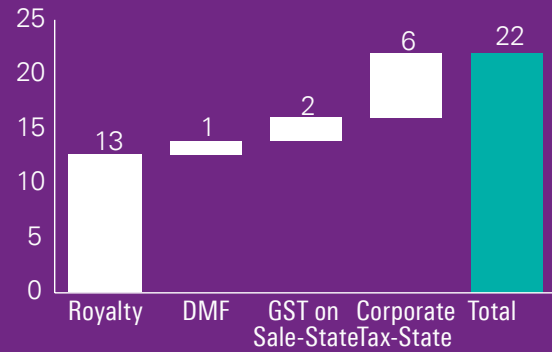
Monthly Dispatch approx 0.42 MT



**Figure 3-2. Monthly collection from 1 MTPA chromite ore mine**

#### Case 2: Chromite ore mine of capacity 1 MTPA

Monthly Dispatch approx 0.084 MT



Considering the above illustrative cases, we calculate the potential losses to the state exchequer in the event of an extended lockdown till June 2020.

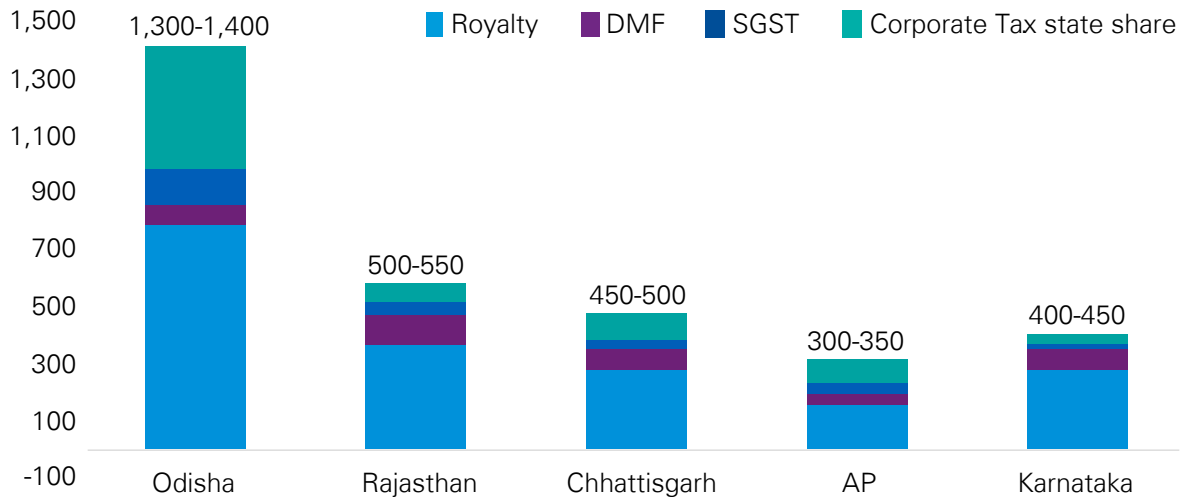
**Table 2. Loss estimation for Odisha's state exchequer<sup>4</sup>**

Lockdown period	April 2020	May 2020	June 2020
Operation level – iron ore	@40% capacity <sup>5</sup>	@50% capacity	@50% capacity
Operation level – chromite ore	@30% capacity	@50% capacity	@50% capacity
Reduction in Monthly iron ore dispatch	6.0 MT <sup>5</sup>	5.0 MT	5.0 MT
Reduction in Monthly chromite ore dispatch	0.2 MT	0.15 MT	0.15 MT
Total loss to state exchequer (from iron ore and chromite ore)	INR480 cr	INR400 cr	INR400 cr
Total loss to exchequer (from all minerals, excluding coal) – extrapolating basis % contribution to state revenue	INR510 cr <sup>7</sup>	INR420 cr	INR420 cr
<b>Cumulative losses</b>	<b>INR510 cr</b>	<b>INR930 cr</b>	<b>INR1,350 cr</b>

So, basis the high-level estimates, it is fair to assume that Odisha state could potentially lose INR1,300 to 1,400 crore, if either the lockdown gets extended till June 2020 and/or market demand does not improve till then.

Similarly, we have assessed the potential impact of COVID-19 on the mineral revenues for other 4 mineral rich states in India – Rajasthan, Chhattisgarh, Andhra Pradesh and Karnataka. As per our estimates, the top 5 mineral producing states are likely to see an impact of around INR3,000-3,500 crore<sup>8</sup> in all, due to decline in offtake of minerals.

**Figure 3-3. Impact of COVID on top 5 mineral producing states - Hit on government exchequer**



Correspondingly, just from these 5 states (Odisha, Rajasthan, Chhattisgarh, Andhra Pradesh and Karnataka) the Central government is also expected to lose INR1,000-1,500 crore<sup>9</sup> – as its share of taxes such as NMET, CGST and Corporate tax – due to fall in mineral sales (excluding coal) in these 5 states.

The overall losses incurred by all the state governments combined is estimated to be around INR4,500 – 5,000 crore. And the overall loss that the central government would be facing in FY21 is estimated to be around INR1,800 – 2,000 crore.<sup>10</sup>

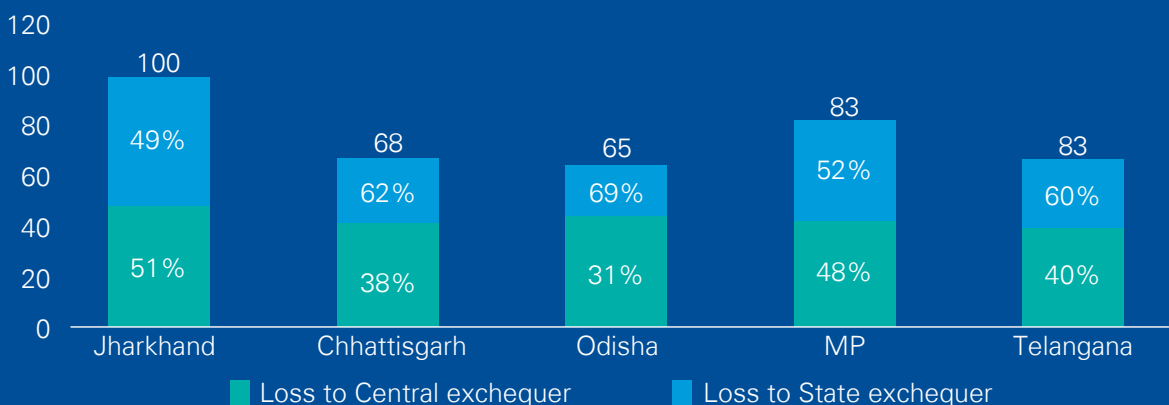
This excludes losses on account of lower revenue generated from explosives, OTR tyres, bulk logistics, value addition, mining related services, etc.

**Loss on account of lower coal offtake**

**Illustration:**

For 1 MT reduced domestic coal offtake, the loss to state exchequers ranges from INR20 to 40 crore depending upon the state. The loss to central exchequer ranges from INR40 to 50 crore.<sup>11</sup>

**Figure 3-4. Impact of COVID on top coal producing states - Hit on government exchequer**





Considering the above illustrative case, we estimate the potential losses under the following 3 scenarios.<sup>12</sup>

**Table 3. Potential loss estimation due to low coal offtake<sup>13</sup>**

Lockdown period	Scenario 1	Scenario 2	Scenario 3
Reduction in coal dispatch in FY21 (on an annual basis)	20 MT	30 MT	40 MT
Total loss to central exchequer	INR880 cr	INR1,320 cr	INR1,761 cr
Total loss to state exchequer	INR627 cr	INR941 cr	INR1,255 cr
<b>Total losses</b>	<b>INR1,500 cr</b>	<b>INR2,250 cr</b>	<b>INR3,000 cr</b>

So, basis the high-level estimates, the central and state government could potentially lose INR1,500 to 3,000 crore on account of weak demand from end-use segments.

It is expected that the central exchequer is likely to additionally get hit due to lower coal imports in FY21. For every 1 tonne of imported non-coking coal, the central government receives approx

INR80 crore<sup>14</sup> in the form of Basic Customs Duty, Customs Cess, GST Compensation cess and IGST. Assuming 50 to 60 MT reduction in imports in FY21, it is expected that the central government will lose INR4,000 to 4,800 crore.<sup>15</sup> However, at the same time it may also be noted that this is likely to result in 3.5 to 4.2 billion USD (assuming average CIF price for Coal as USD 70 per tonne) savings in Forex.

### 3.3 Impact on already allotted/auctioned mineral/coal blocks

#### 3.3.1 Mineral auction regime in India – Story so far

The Mines and Minerals (Development and Regulation) Amendment Act, 2015 mandated that mineral concession will be granted only on the basis of competitive bidding. Similarly, the Coal Mines (Special Provisions) Act, 2015 provides for allocation of Coal mines through transparent competitive bidding process.

The MM(D&R) Amendment Act provides that all existing leases will be deemed to have been granted for a period of 50 years. For non-captive(i.e. commercial) and captive mines, expiring on or before

31-Mar-2020 or 31-Mar-2030 respectively, the leases will be deemed to have validity up to 31-Mar-2020 or 31-Mar-2030, respectively. Therefore, we have also witnessed a rush of mine auctions in the year FY20, as the states worked in full force to auction as many operational non-captive mines as possible, to ensure continuity of supplies to end-users like steel, cement, stainless steel, aluminium, etc. For instance, Odisha successfully completed the auction process of 23 operating iron ore, chromite and manganese ore mining leases in FY20 out of 25 operating leases that got expired.<sup>16</sup>



Till date, since the introduction of MMDR (Amendment Act) 2015 in January 2015, 97 Major Mineral blocks and 40 coal blocks have been auctioned.

**Table 4. Auctioned major mineral blocks, covering both ML and CL (excludes coal)<sup>17</sup>**

State	Iron/Iron and Mn	Limestone	Chromite	Bauxite	Gold	Copper	Graphite	Mn	Diamond	Total
Odisha	21	2	3	-	-	-	1	3	-	30
Karnataka	18	-	-	-	-	-	-	-	-	18
Maharashtra	1	1	-	6	-	3	-	2	-	13
Rajasthan	-	8	-	-	-	-	-	-	-	8
MP	1	3	-	-	-	-	2	-	2	8
Jharkhand	1	2	-	-	2	-	2	-	-	7
AP	-	4	-	-	1	-	-	-	-	5
Chhattisgarh	-	4	-	-	1	-	-	-	-	5
Gujarat	-	3	-	-	-	-	-	-	-	3
<b>Total</b>	<b>42</b>	<b>27</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>97</b>

### 3.3.2 Operationalisation of the auctioned mineral blocks will get delayed

- New allottees of greenfield mineral blocks are currently in the process of obtaining statutory clearances, such as approval of mining plan, environment clearance, forest clearance, etc. to meet the development timelines prescribed in the Mine Development and Production Agreement (MDPA) entered with the respective state governments
- However, the time taken for obtaining statutory clearances and to operationalize the mine is likely to get extended, given delays in completion of field activities due to COVID-19 related restrictions as well as delays in processing the applications at the government levels, which will further delay the operationalisation of these blocks
- The impact will be felt comparatively more for brownfield mines than the greenfield mines as greenfield mines usually take substantially more time to operationalize. In this regard, it is noteworthy that out of 74 non-coal blocks auctioned so far (i.e. apart from the recent auction of the 23 Operational mines of Odisha), only 5 blocks of type-C in Karnataka have been able to

commence production.<sup>18</sup> No green-field mines across India have reached the production stage yet.

- Even if time extension is provided for all statutory clearances, we may still witness a scenario where the allottees are unwilling to develop the mine for some time due to weak market scenario as well as their stretched financial situation. It may also be the case that the allottees face difficulty in raising the required funding for the purpose of mine development.

### 3.3.3 Recently concluded Odisha mineral auctions

Odisha had successfully completed the auction process of iron ore, chromite ore and manganese ore mining leases, which were about to expire on 31-Mar-2020. State government has also issued the Letters of Intent (Lols) to all preferred bidders. To facilitate the smooth transition of these leases from prior lease owner to new allottee and to continue the production from these mines, Central government has brought The Mineral Laws (Amendment) Ordinance, 2020 on 10-Jan-2020 (and later passed by the Parliament as "The Mineral Laws (Amendment) Act, 2020" on 12-Mar-2020)<sup>19</sup> to extend the validity of all Statutory clearances for another 2 years.

## 1. Current situation post COVID-19:

The outbreak of COVID-19 and the subsequent announcement of lockdown across the country have thwarted the pitch for seamless continuity in operations at these auctioned mines. Post lockdown, only Captive mines in Odisha (Tata Steel, SAIL and some other small mines) continued their operations while rest of merchant miners brought down their production levels or lowered their prices.

## 2. Some measures already undertaken by the Governments to ease the supply from the auctioned mines by new lessees:

- a. Government of Odisha has provided clarification on existing situation
  - The government has clarified that no further excavation will be allowed beyond 31-Mar-2020 by the old lessee<sup>20</sup>
  - However, previous lessee will be allowed to dispatch the already excavated minerals – i.e. prior to the expiry of the mining lease and lying in the leasehold area – beyond 31-Mar-2020 for a period of 6 months (i.e. till 30-Sep-2020) as per the provisions of Rule 12(1) (gg) of MC Rules, 2016.
- b. Government of Odisha has also started facilitating issue of Vesting order to the new allottees
  - Odisha government has asked for realisation of NPV (Net Present Value) @INR7.5 lakh per hectare for forest area falling within the mining lease.<sup>21</sup> NPV collection is a precondition to issue Vesting order under Mineral Concession (Amendment) Rules, 2020 for enabling restart of the mine by the new lessee.
- c. Ministry of Mines under government of India has advised all states for annualisation of auction dues
  - The Ministry of Mines has suggested to the states that upfront payment (including NPV for forest area, wherever applicable) and stamp duty for the auctioned mines be annualized in view of the COVID-19 pandemic<sup>22</sup>
  - This is likely to ease some pressure on the new lessees to phase out their payments to the government, which are prerequisites for obtaining the mining lease.

## 3. Going forward:

1. **Delay in restarting mines:** The consequential delay in paperwork required to resume these mines is bound to delay the recommencement of the mines.
2. **Relaxation of MDPA conditions:** Mine Development and Production Agreement (MDPA) stipulates that the new lessee will have to maintain at least 80 per cent of dispatches of the average over last two years (on pro-rata basis). However, in view of sharp decline in demand for minerals due to COVID-19, it is imperative that the government provides some relaxation with respect to this requirement.
3. **Challenging 6-month time period beyond 31-Mar-2020:** The Minerals Concession (Amendment) Rules, 2020 explicitly mentions that the new lessee will have the right to operate the mine after the execution of the lease deed. However, the previous lessee will be allowed to dispatch the already excavated minerals till 30-Sep-2020. Hence, there is likely an overlap of the post lease deed execution period for the new lessee and the period for which previous lessee is allowed to dispatch the already excavated ore from a particular mine. The state government is required to put in suitable mechanisms in place to ensure this does not lead to conflicts and legal issues between the previous and new lessees.
4. **Extension of validity of licences:** As mentioned earlier, "The Mineral Laws (Amendment) Act, 2020", states that the successful bidder of the expiring mining leases (selected through auction) will be deemed to have acquired all valid rights, approvals, clearances, licences and the like vested with the previous lessee for a period of two years. Given the delay for completion of field activities as well as delays in processing of applications at the government levels, it is expected that the validity of various licences may get extended by another 6 months.



### 3.3.4 Falling demand, weak company financials may also delay fresh auction of coal and other Mineral blocks, and dampen price bids

- Ministry of Coal (MoC) was expected to launch the auction for the first round of blocks of coal for sale by March FY20. So far MoC has identified about 80 coal blocks for the purpose.<sup>23</sup> MoC had proposed the auction of these blocks in multiple tranches.
- Post outbreak of COVID-19, many end-use plants have been shut down. Even the power consumption has reduced significantly from March onwards. Also, there has been a sharp increase in coal stocks at power plants as well as at CIL mines. Domestic coal availability was earlier expected to further increase, aided by the strong expansion plans of CIL (especially at three subsidiaries – SECL, MCL and CCL) and SCCL, as well as operationalisation of the coal blocks auctioned so far. All these factors, coupled with the severe financial pressures that the companies are facing due to the Covid-19 related issues, may further delay the expected coal block auctions. If auctions take place in FY21, it is likely to see less aggressiveness in bid premiums. However, this is not the time for the Government to look at improving value realisation from coal block auctions. Rather it is time to ensure survival and competitiveness of Indian manufacturing. As many coal blocks as possible should be auctioned/allotted with stringent timelines in the CMDPA.
- Apart from coal blocks, some state governments are in the process of readying multiple mineral blocks for auction – for example, 9 greenfield iron and manganese blocks in Odisha are lined up for auctions in FY21.<sup>24</sup> The auction of these blocks may also get delayed due to weak market sentiments and bearish outlook of major sectors e.g. steel, Power, Automobile, etc.
- Also, in case mineral block auctions are conducted during in FY21, considering the subdued demand scenario and stressed financial position of potential bidders,
  - The auctions are likely to witness lesser participation than what has been witnessed earlier, and
  - The “auction premium” is likely to be lower compared to the auctions conducted in FY20.



## 3.4 Impact on Mine-Developer cum Operators (MDOs)/Mine Operators (MOs)

### 3.4.1 Due payments to MDOs/MOs

Indian mining sector is heavily dependent on private contractors, who work as either Mine operators (MOs) or Mine-Developer-cum-Operators (MDOs), for the production. Currently, the dependence on contractors is to the tune of around 60 to 70 per cent of total volume of ores and overburden excavated from the earth. The COVID-19 pandemic is expected to significantly impact the demand for coal and key minerals, which will have an impact on the receipt of payments by MDOs/MOs from the allottees due to cashflow issues the miners have started to face.

For instance, in the power sector, payment of dues from distribution companies (DISCOMs) to the power generating companies has been further aggravated as state electricity departments have been instructed not to take coercive actions to recover bills from consumers, considering the requirement



of uninterrupted supply of power in homes and other establishments:<sup>25</sup>

Similar constraints are likely to occur in other sectors, where lessees may be witnessing delayed payments from customers. This is likely to impact their ability to make timely payments to their vendors including the MDOs/MOs.

### **3.4.2 Difficulty in operating the mines**

Although mineral production, their transportation, supply of explosives and activities incidental to mining operations are allowed during the lockdown period, the sector is still dependent on various items, which are procured on a cash-and-carry basis.

As per industry sources, it is becoming difficult for MDOs/MOs to procure spare parts for their mining machineries as movement of such parts are not being allowed. There is a common view that HEMM spare parts must be specifically mentioned under “Essential Goods”.

### **3.4.3 Mining operations going back to normalcy may take a bit more time**

Mining is a fairly labour intensive activity in India given the small equipment size and is therefore heavily dependent on the availability of manpower/labourer on ground. Also, substantial number of labourers are involved in loading and transportation of ores. With mine operations being scaled back, many such migrant workforce have gone back to their native places or are just waiting for the lockdown to be over. Hence, in order to scale back the operations to normalcy, as we see surge in demand again, the availability of adequate number of qualified workers will remain a key constraint for miners.

### **3.4.4 Likely revaluation of operating plans**

With many parties and vendors facing issues of revenue sources drying up, operating expenses piling up as well as liquidity concerns (already existing or imminent), it is expected that mine owners/MDOs/MOs would likely re-evaluate their operating plans and accordingly re-adjust their future operations. Some of the areas for reevaluation and subsequent implementation will be along the lines of cost optimisation measures, realignment of supply chain and workforce, risk mitigation steps and potential partnership strategies through JVs and M&As.

### **3.4.5 Likely scenario going forward for Mine Owners/MDOs**

In the recent iron ore auctions in Odisha, it was observed that many prior allottees had participated in the auctions. However, only few of them could emerge as preferred bidders. Also, we did not witness any traditional MDO/MO players emerging as preferred bidders.

In light of weak market sentiments in general and the likely delay of auction of new blocks, we expect each of these players to be revisiting their Business plans at this point of time and ideating for the right strategic way forward with clear strategic initiatives to be undertaken by them in the near to medium term. Some of the exercises they would like to evaluate are - i) Market assessment; ii) Internal capability assessment; iii) Shortlisting of potential upcoming opportunities; and iv) Change in Operating model and/or Diversification into new area for long-term sustainability.

### 3.5 Business continuity related challenges to mining companies

Mining, being the labor-intensive sector, contributes significantly to employment generation, both direct and indirect. It impacts local and regional economies in and around the mine. Considering the interdependency of the local community and larger regional ecosystem with mining, COVID-19 has already created major disruptions and is likely to lead to significant economic, environmental and social impacts. Some of the immediate potential impacts are highlighted below:

- i. Impact on Sustainable Development Goals (SDGs): SDG targets will be unsettled and thus also impact the overall sustainable development of mining sector. SDGs that have been impacted negatively are SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 1 (No Poverty) and SDG 2 (Zero Hunger) and positive impacted SDGs are SDG13 (Climate Action), SDG 14 (Life Below Water) and SDG 15 (Life On Land). However, sustainable development depends on both biodiversity conservation and human development and it is possible to achieve if both co-exist.
- ii. Disturbance in Local Business Ecosystems: It is expected that the local businesses including MSME, small contractors and vendors, skilled/semi-skilled/unskilled workers who work on contractual arrangements are likely to see reduced direct or indirect engagement, leading to reduced economic activities in primary, secondary and tertiary levels in local business ecosystem, especially severe at the downstream and ancillary levels where most are MSMEs.
- iii. Impact on Supply Chain: Diminishing levels of economic activities in the short run will lead to the readjustment of supply chain and workforce. It is expected that this will put the companies at risk of re-activating the original supply chain links once various economic activities gain the lost momentum back.
- iv. CSR and Peripheral Development (PD): For most companies, expenditure towards CSR and PD will most likely be deprioritized supported by the fact that the contribution towards COVID-19 (Contributions to the PM CARES fund, SDMA and ex-gratia payment made to workers fighting COVID-19 supported by a Board declaration) will now be considered under CSR head. This might lead to local community issues, as the expectations will continue to be there, and is safe to assume that expectations will be higher when the stakeholders will look up to the anchor mine/plant to support them to stand firmly back on their feet again.

Example: Before lockdown i.e. 25-Mar-2020, daily number of trips that the ore transportation trucks were making in four major mining Circles (Joda, Koira, Keonjhar, Jajpur) in Odisha was in the range of 15,000 to 23,000, and that reduced drastically post lockdown to 1,500-6,000.<sup>26</sup> This sharp reduction has led to loss of work for number of drivers and helpers and made them vulnerable to loss of employment in the short-term. At the same time, truck owners will also find it increasingly difficult to payout their dues to the lenders/banks.

To summarize, the entire mining sector has witnessed value erosion, Government exchequers are expected to get hit badly especially when they need higher revenues to spend on health and family welfare and new infrastructure creation, Government's plan to auction new coal and mineral blocks is likely to get delayed, MDOs/MOs are expected to face significant challenges, and lastly but not the least COVID-19 has already affected the entire business eco-system especially the marginal stakeholders like small vendors/contractors, contract labourers, downstream and ancillary businesses, etc.

From the overall sector level impacts, let us now dive deeper to understand the specific impacts on few of the major minerals from the lens of end-use industry segments where these minerals are consumed.



# 4

## COVID-19: Impact on coal and key minerals



### 4.1 Manufacturing and construction sectors are demand drivers

#### 4.1.1 Manufacturing sector

##### 4.1.1.1 Before lockdown: Industrial activity was in the upswing, picking up towards Feb 2020, propelled by mining and power sector growth

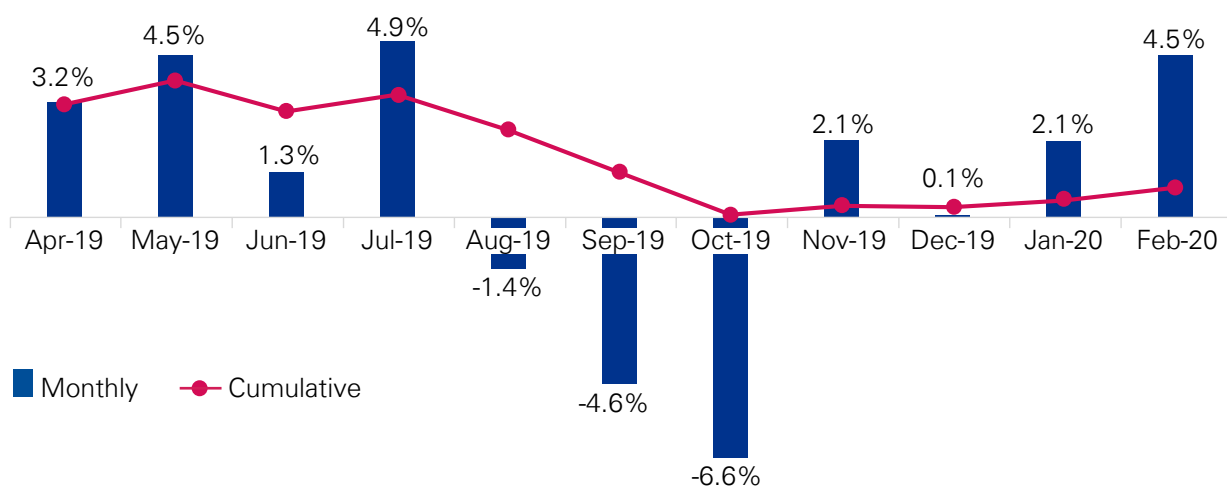
The manufacturing sector output, as measured by the Index of Industrial Production (IIP) grew at a healthy rate of 4.5 per cent in Feb-2020<sup>1</sup> compared to the same month a year ago. This growth was aided by the mining sector, which surged by 10 per cent (2.2 per cent in Feb-19) as well as electricity generation, which increased by 8.1 per cent (1.3 per cent in Feb-19).

However, it must be noted that, overall industrial growth remained subdued in FY20, with overall growth in output limited to 0.9 per cent in the April-Feb FY20 period. This was mainly due to weak investment climate and subdued consumer demand.

Auto sector has witnessed a decline primarily due to price hikes in passenger vehicles/two wheeler segments due to new safety norms, higher insurance costs, higher ownership costs, liquidity crisis in the NBFC sector, etc.<sup>2</sup> Growth in the FMCG sector also slid during the period due to contraction in the rural market.<sup>3</sup>

Figure 4-1. Growth in Index of Industrial Production

#### Index of Industrial Production - Growth



##### 4.1.1.2 Post lockdown: Industrial activity came down in March 2020 and the trend continues

On account of the lockdown all manufacturing activities that were not termed as 'essential' were shut down. While the industrial output data is yet to be published, it is estimated that IIP would have declined sharply as several industries and manufacturing plants remained shut since

25-Mar-2020. We expect slight respite going forward as the MHA has come out with a notification (dated 15-Apr-2020) where select additional activities across different sectors (including construction, private and commercial establishments, industries) have been allowed w.e.f. from 20-Apr-2020. Several states have similarly followed suit and have come up with their own notifications on staggered release from lockdown.



**4.1.1.3 Going forward: Industrial growth to remain subdued in FY21 – April remains a washout, while activity is expected to start from May but expected to remain subdued throughout monsoons**

The nationwide lockdown has been extended up to 03-May-2020, which means that April 2020 will be a washout in terms of Industrial growth and economic activity. Manufacturing activity is expected to pick up in May 2020, however, it is feared that all manufacturing plants will operate well below optimal levels owing to financial crunch, manpower shortage,

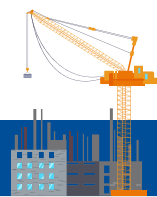
and seasonal factors such as the upcoming monsoon. Thus, as per our interactions with the industry and related estimation, industrial growth is expected come back to normalcy only in second half (Q3/Q4) of FY21 if COVID-19 comes under control by then.

**4.1.2 Construction sector**

**4.1.2.1 Before lockdown: Construction sector was poised to grow at a steady pace**

The construction sector is composed of several sub sectors of which buildings account for the majority.<sup>4</sup>

**Buildings & Construction**



- Residential segment: expected to increase driven by affordable housing the Pradhan Mantri Awas Yojana (PMAY) scheme
- Building and construction works have multiplier effect on approx 250 allied industries
- Construction of educational institutions and healthcare facilities to drive growth

**Irrigation**



- Nearly 50 per cent of the budgetary allocations are made to Pradhan Mantri Sinchayi Yojana (PMSY) and Accelerated Irrigation Benefit Programme (AIBP)
- 99 fast-tracked projects indicate healthy on-ground progress

**Roads**



- Roads and highways budget increased by 10.6 per cent increase in the Union Budget 2021
- Expected construction spend on national highway projects: INR17 trillion
- Share of Hybrid Annuity Model (HAM) in NHAI projects awarded in FY 20 is about 30 per cent and subsequently NHAI will have to spend about 40 per cent in FY21

**Railways**



- Capex outlay of INR1.61 lakh crore in Budget 2020-21
- Dedicated Freight Corridor project is expected to be a great opportunity for major construction players
- 4 new rail neer plants commisioned in H2 FY20 and additional 4 rail neer plants are to be commisioned in FY21 which will augment revenue

#### 4.1.2.2 Post lockdown: H1 FY21 to witness slowdown due to lockdown and ensuing monsoons, construction demand to pick up from H2 FY21 onwards

The Construction slowdown in FY20 can be attributed to the outbreak of COVID-19 as well as an economic slowdown in the months preceding the lockdown.

A noteworthy point of the construction sector is the lack of automation and the resultant dependence on manual labourers. Given the low level of skill of manpower the wages are also not an incentive that will ensure that labourers will return to their

jobs once the lockdown is lifted. Moreover, with the announcement of 3 months' pay to migrant labourers the shortage of manpower post lifting of lockdown will be acute. Further, with diversion of funds to sectors such as healthcare and social welfare the construction spends will decline q-o-q. Lastly, the monsoon is expected to affect the return to normalcy in Q2 of FY21. With this context we predict that there will be de-growth for the construction sector in H1 of FY21 followed by some resurgence in H2 FY21, especially in Q4 FY21.

The potential impact on COVID19 on each of the sub-sectors are summarized below.

**Table 5. Impact of COVID-19 on construction sector**

Sector	Likely Impact	Remarks
1 Buildings and construction	Severe	<ul style="list-style-type: none"> <li>Decline in expenditure post the GST and RERA norms countered by government spending under PMAY</li> <li>However, financial implications of COVID -19 likely to stun the PMAY spending in FY21, which will further reduce house affordability</li> </ul>
2 Roads	Moderate	<ul style="list-style-type: none"> <li>De-growth expected in H1 FY21 due to project delays; recovery likely to begin from H2 FY21</li> <li>Spending from government end (for EPC or HAM projects) to be limited because finance constraints</li> </ul>
3 Irrigation	Low	<ul style="list-style-type: none"> <li>Not expected to experience funding-based issues post first half of April 2020 given its essential nature and India's heavy reliance on the agriculture sector</li> <li>Funding will reduce in the initial phase of the lockdown as government will divert allocations to Healthcare and social welfare</li> </ul>
4 Railways	Low	<ul style="list-style-type: none"> <li>Public transportation stopped - However, freight trains continue to carry cargo and remain the lifeline in transportation of essential goods</li> <li>Expected growth in Dedicated Freight Corridor expenditure</li> <li>Expenditure in public transportation expected to pick up once normalcy is retained</li> </ul>



Based on the above estimates it may be concluded that total expenditure in the construction sector is likely to reduce in FY21, especially in buildings and in roadways to a larger extent when compared to irrigation and railways. The lockdown has created working capital issues for the major players in this industry and the government may need to intervene with interest waivers and additional loan moratorium for real estate and irrigation companies to counter further exacerbation.

The manufacturing and construction industries are end user industries for several minerals such as iron ore, limestone, bauxite amongst others. With the expected slowdown in these industries, we expect

direct impact and hence similar slowdown effects in the metals and mining sector.

However, post the lockdown, it is expected that the government is going to put special thrust on infrastructure spending to spur economic activity across the states. Government will push for all national and state sponsored projects such as MNREGA, PMAY (Pradhan Mantri Awas Yojana) house construction, road construction under NHAI/ State PWD, AMRUT cities and more. These projects are expected to gather pace from H2 FY21 onwards.

We now delve into the next section where we carry out a detailed mineral wise analysis keeping into consideration the above context.

## 4.2 Impact on coal and other key minerals

### 4.2.1 Non-coking coal

#### 4.2.1.1 Power sector seeing a decline in energy consumption

Power consumption has been severely dented post the lockdown announcement – primarily owing to the shutdown/operation at lower capacities of the industrial and commercial consumers, which

account for nearly 50 per cent<sup>5</sup> of India's total power demand. Power consumption has seen a drop of 25 per cent to 30 per cent<sup>6</sup> post lockdown date. Furthermore, given the must-run status for renewable based power in the country, the majority of the demand decline is being borne by coal-based plants. Power generation from coal fell as much as 35 per cent to 40 per cent during the same period.<sup>7</sup>

Figure 4-2. Daily energy consumption (MU) - India level

Daily energy consumption (MU) - India level

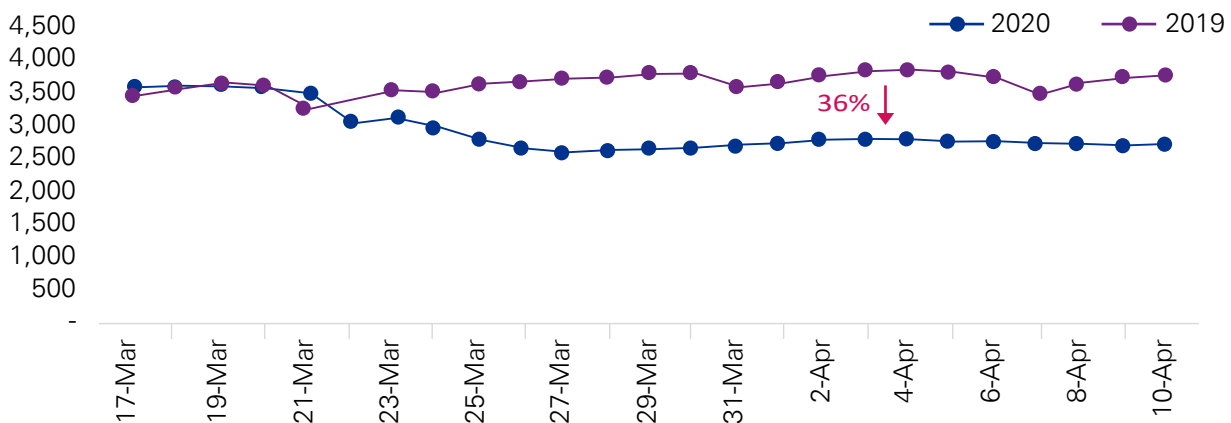
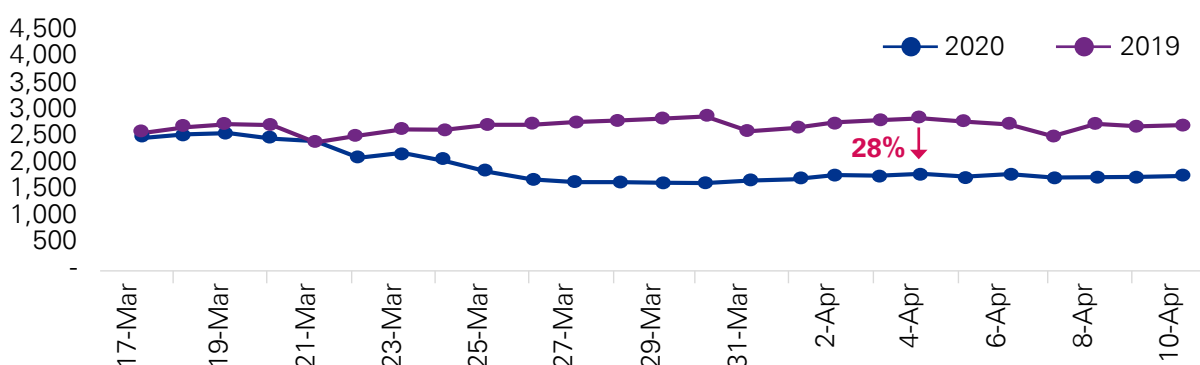


Figure 4-3. Daily energy consumption (MU) -India level

Daily energy consumption (MU) - India level



#### 4.2.1.2 Ministry of Coal (MoC) ensuring maintenance of critical coal supplies during lockdown

Central government has declared 'Coal supplies' as an "Essential service" and directed all concerned to ensure that critical coal supplies are maintained so that power and other critical sectors are unaffected due to the current lockdown situation – as mentioned in Section 2.1.

Subsequently, a slew of measures has been announced to boost the demand of coal-

1. Permission to lift quantities beyond contracted quantity for CIL linkage consumers – No performance incentive to be levied on the power consumers, if CIL supplies more than the upper limit of fuel supply agreement (FSA)<sup>9</sup>
2. Reduction of mark-up over the notified price for purpose of base price in e-auctions to non-regulated sector (NRS)
3. Extension of time limit for payment of coal, booked by its customers, by two more weeks (i.e. 07-Apr-2020 till 21-April-2020)<sup>9</sup>
4. Extension of validity period for lifting of coal under all auctions without any penalty – Earlier, failure to lift the ordered quantity of coal within a stipulated time attracted forfeiture of earnest money deposit. Now, this clause has been done away with till closure of lockdown period to non-regulated sector as well
5. Extension of the facility of Usance Letter of Credit for all coal consumers of CIL – This will enable the consumers to avail credit in purchase of coal.<sup>10</sup>

#### 4.2.1.3 Despite the measures, the offtake of coal has slipped on demand woes

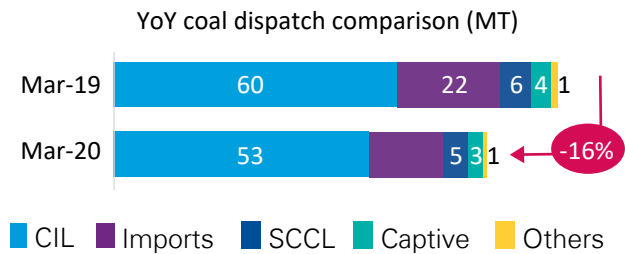
1. Given the initial focus on co tenancy of the coal operations, CIL and SCCL exhibited strong coal production in the month of March 2020.

**Table 6. Yo-Y growth in coal production<sup>11</sup>**

Company	Mar 2019 (MT)	Mar 2020 (MT)	Growth (%)
CIL	79.19	84.36	6.53%
SCCL	5.92	6.47	9.29%
<b>TOTAL</b>	<b>85.11</b>	<b>90.83</b>	<b>6.72%</b>

2. However, overall coal offtake witnessed a significant drop in the month of March 2020 and experienced a negative growth of 16 per cent as illustrated below:<sup>12</sup>

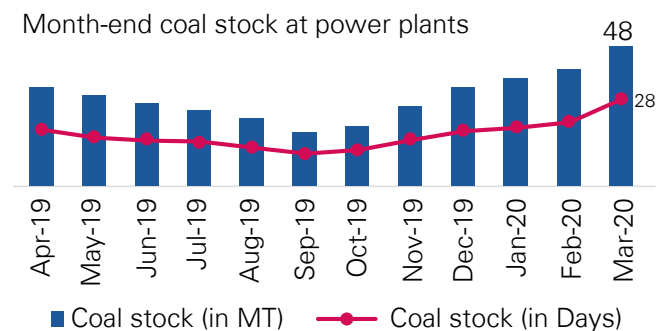
**Figure 4-4. Yo-Y coal dispatch**



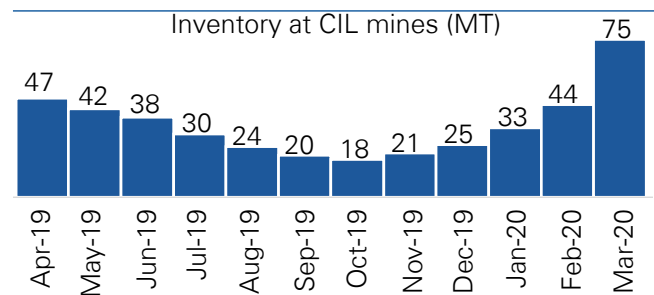
The drop is attributed to the low offtake by power plants.

3. On account of the lower power generation, the coal stocks have increased at both coal mines pithead as well as at power plants. CIL's inventory levels are at an all-time high of approx 75 MT (as on 31-Mar-2020).<sup>13</sup> Around 45 MT (as on 31-Mar-2020) of coal is available with thermal power plants, which is sufficient for 28 days.<sup>14</sup>

**Figure 4-5. Month-end coal stock at power plants**



**Figure 4-6. Inventory at CIL mines**



#### 4.2.1.4 COVID-19 expected to shave off about 7 per cent of non-coking coal demand

Domestic coal consumption is estimated to have dropped marginally in FY20, due to weak demand from the power sector. In FY20, coal-based power generation was limited by weak power demand as well as strong generation from hydro and renewable energy sources. However, FY21 was anticipated to witness healthy growth in coal consumption. Coal-based power generation was anticipated to increase, supported by some recovery in power demand and improved availability of low-cost domestic coal for non-regulated sector.

As elaborated earlier, the disruption caused by COVID-19 pandemic to the industrial activity is likely to impact coal demand across sectors. Industrial activity in sectors such as cement and sponge iron, which has come down sharply in Q1 FY21, is expected to pick-up only in H2 FY21. Further, slowdown in industrial activity will also reduce power generation, which will also have a direct impact on the consumption of coal by the power sector.

In view of the above factors, the COVID-19 pandemic is expected to reduce coal demand in India by approx. 60 MT or 7 per cent of total consumption, compared FY20. Further, the decline in coal demand is much sharper at approx. 110 MT or 12 per cent of total consumption, compared to the potential coal demand in FY21, in absence of COVID related impact.

#### 4.2.1.5 Reduction in E-auction premium, delayed payments to reduce profitability

The demand slowdown of coal from end-use sectors, coupled with adequate inventories, is expected to impact the profitability of CIL and SCCL. These companies are likely to witness a steep drop in the price premium from e-auction sales, as well as delay in payments by end-users (mainly power sector).

##### 1. Impact of E-auction price reduction

- CIL's sales can be broadly classified under 2 categories –
  - Fuel Supply Agreement (FSA), which are sold at notified prices; and
  - E-auction (nearly 10 per cent<sup>15</sup> of Sales volume in FY19) prices earned a significant premium over notified prices (77 per cent<sup>16</sup> in FY19).

- However, in view of the subdued demand and fall in imported coal prices, CIL reduced the reserve price for e-auction to notified prices (refer to Section 4.2.1.6 for details), which were typically kept at 10-30 per cent premium to notified prices. This will be applicable for all auctions to be conducted during Apr to Sep 2020.
- For illustration, if we assume the entire e-auction sales happen at notified prices vis-à-vis 77 per cent premium in FY19, (assuming other factors remain same), CIL's income from e-auction sales, during Apr-2020 to Sep-2020 is likely to decline by INR3,000-3,500 crore as compared to same period of FY19.

##### 2. Impact of delayed payments

Coal companies are supplying coal to customers, particularly power plants, despite non-payment of dues, considering the precarious financial position of DISCOMs and to ensure power supply to end-customers. However, this is likely to increase the working capital requirement for these companies, as failure to receive payments on time, will necessitate short-term fund raising from financial institutions, to maintain operations.

As per our estimates, a 3-month delay in receipt of payments is likely to impose an approx. INR350-400 crore<sup>17</sup> cost on CIL, towards payment of interest on short-term loans, as well as loss on interest accrued.

#### 4.2.1.6 Reduced non-coking import scenario

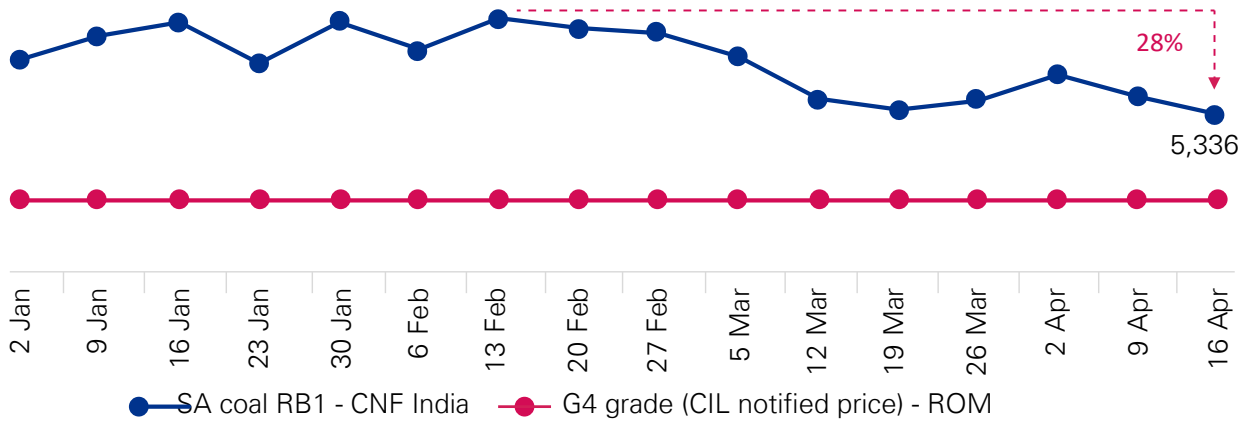
Earlier in mid-March 2020, Honorable Coal Minister had requested all the states to direct all GENCOs to maximize the domestic coal lifting and stop coal imports.<sup>18</sup> Given the current scenario, we expect a fall in imports because of the following:

1. Steps undertaken by CIL to reduce purchase price of coal: CIL, in its recent notification,<sup>19</sup> declared that for the period of Apr-2020 to Sep-2020 the reserve price for e-auctions will be kept as Notified Prices (for both regulated and non-regulated sector)
2. Huge pile of inventory lying at CIL's pitheads: Approx 75 MT as on 31-Mar-2020 (As mentioned in **Section 4.2.1.3**).

However, we do not foresee a complete import substitution primarily because of the following:

1. Falling global prices: The global prices have dropped as much as 30 per cent from their maximum levels in 2020<sup>20</sup>
2. Existing contractual obligations may necessitate continued imports from traders/suppliers
3. Power plants designed to run on imported coal will most likely continue to import, as it is not going to be easy to come out of already signed supply agreements/commercial agreements.

**Figure 4-7. Non-coking coal price comparison (INR/tonne)**



**4.2.1.7 Coal mining contractor’s market likely to see a dip**

Mining contractors are prevalent in the coal sector – large portion of the uptick in this sector has been witnessed in the last decade. Estimated market size of coal mining contractors in FY20 was approx. INR20,000 crore.

Before COVID-19, the market size had been estimated to grow @ 10-12 per cent over the next decade. This is supported by the following facts:

1. CIL had set a target of achieving 1 billion tonne<sup>21</sup> of coal production by 2024
2. Growing preference of coal companies towards contractual mining – a higher outsourcing component should help reduce costs as well as improve productivity (For example, CIL salary per employee is approx. 3x that of the private sector).<sup>22</sup>

Post COVID-19, we expect the mining contractor business to take a hit primarily due to lack of demand

from end-use segments. However, we also expect that the hit will not be commensurate with the fall in coal demand as it is expected that the brunt of the demand decline will be in the form of reduced coal imports.

Therefore, we expect the mining contractor market to fall by 20-25 per cent in FY21.

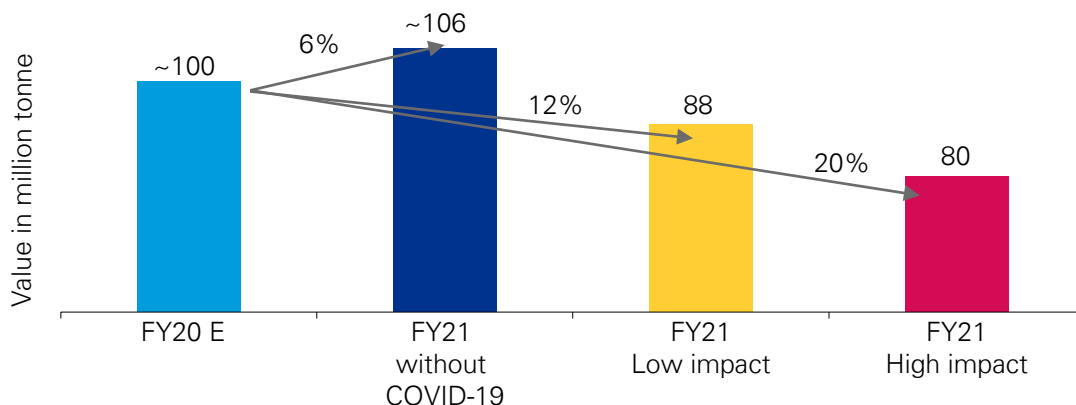
**4.2.2 Iron ore**

**4.2.2.1 Plummeted demand in end-use segments to impact steel industry**

The slowdown in economic activity in key-end use sectors, primarily construction, infrastructure and automotive, which accounts for nearly 72 per cent of total steel consumption,<sup>23</sup> has led to a sharp fall in steel demand.

1. All construction activities have come to a grinding halt at present
2. Major automakers have announced suspension of operations indefinitely.

**Figure 4-8. Finished steel demand forecast**



As per the Indian Steel Association (ISA), demand of steel is likely to reduce by 7.7 per cent in FY21<sup>24</sup> assuming that the government gives fiscal stimulus to boost demand – disruptions and challenges arising out of the lockdown is expected to be overcome Q1.

However, we expect steel demand reduction in the range of 12 per cent to 20 per cent in FY21. The situation is expected to become clearer by June 2020.

#### 4.2.2.2 Coking coal unavailability for steel plants

Approx 85 per cent of the coking coal requirement of the domestic steel industry is met through imports.<sup>25</sup> Disruptions in seaborne freight including closure of ports and vessel restrictions will most likely hinder the availability of coking coal. India's overall coal import in March 2020 stood at 15.74 MT, down 27.5 per cent over last year's import of 21.72 MT of coal in March 2019.<sup>26</sup>

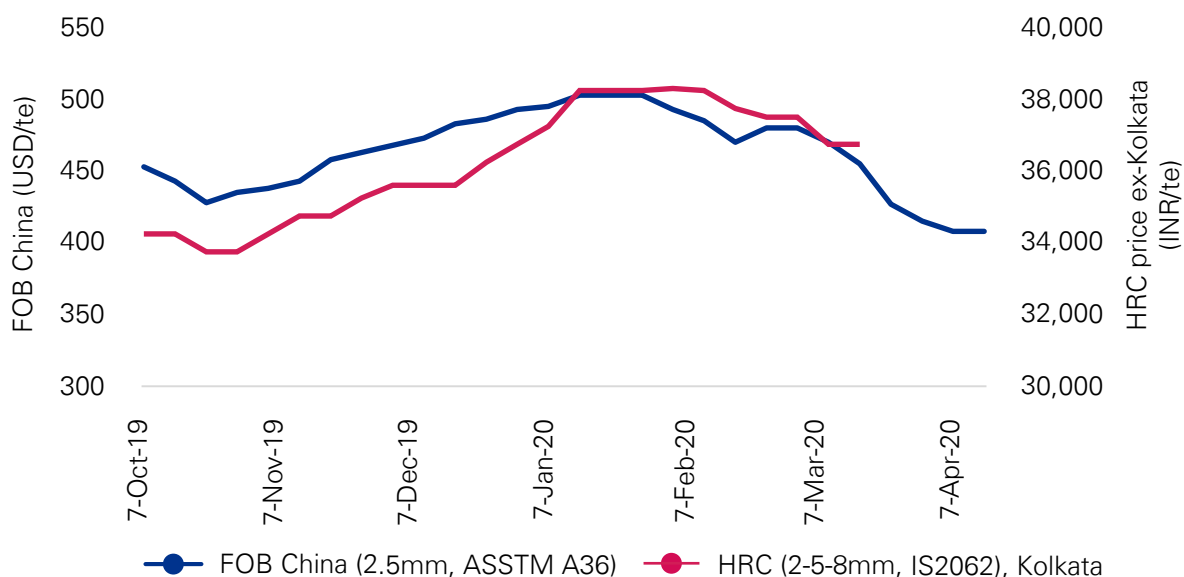
#### 4.2.2.3 Steel plants operating at reduced capacity utilisation

As a natural consequence of demand-slowdown, all steel plants in the country have either suspended their operations or are operating at reduced capacity utilisations.

1. Electric Arc Furnace (EAF) and Induction Furnace (IF) based producers: Production from these plants have reduced or likely to reduce to run at @5 per cent of the overall installed capacity.<sup>27</sup> Most producers are opting to shut down their plants rather than operate at lower utilisation levels, since it is relatively easy to shut down and restart these plants.
2. Blast Furnace (BF)/Basic Oxygen Furnace (BOF) based producers: Majority of the Integrated Steel Plants (ISPs) are carrying out production @35-50 per cent<sup>28</sup> of their capacity utilisation. These plants are avoiding a shutdown and operating at reduced utilisation levels, given technical constraints in the shutdown and restart of blast furnaces. Once a blast furnace is idled, it takes 30-40 days, depending on the size, to reheat, and it happens only in contingency situations.

The slump in demand is also corroborated by the slump in steel prices. Steel prices (both international and domestic) have also witnessed a dip of 15 per cent in the past 2 months.<sup>29</sup>

Figure 4-9. International and domestic steel price trend



#### 4.2.2.4 Demand of iron ore for domestic steel & iron production to shrink by 20-34 MT

Due to COVID-19, it is expected that reduction of steel demand will be in the range of 12 per cent to 20 per cent in FY21<sup>30</sup> (refer to **Section 4.2.2.1**). This in turn translates to approx. 80 to 88 MT steel demand in FY21 in comparison to approx. 100 MT demand in FY20.

We are currently witnessing a drop in iron ore demand as evident from the falling iron ore prices. NMDC has already reduced the iron ore prices by approx. 500 INR/tonne. Similar trend is also observed by Odisha miners, who has slashed the lump prices.<sup>31</sup>

#### 4.2.2.5 Iron ore supply may not be a constraint in short-term

Though mining is one of the sectors that has been exempted during the lockdown period, the operations in many mines have almost come to a halt. Regardless of this, it is expected that the supply of iron ore in the short term may not be impacted – especially for steel/Direct Reduced Iron (DRI) players that source iron ore from Odisha. Based on the data available, the dispatch from Odisha iron ore mines have increased by 35 per cent in FY20, despite having a marginal de-growth in crude steel production.

Figure 4-10. Crude steel production-MT India

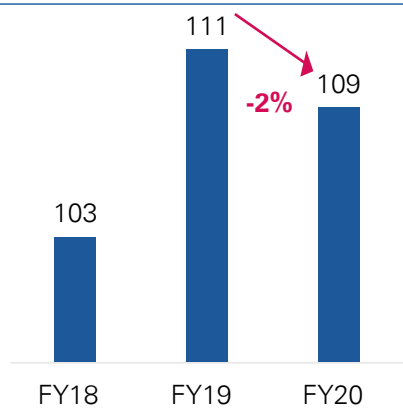
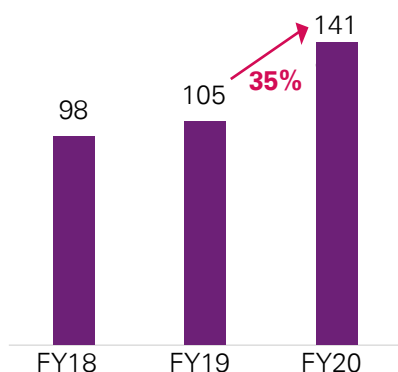


Figure 4-11. Iron ore dispatch from Odisha-MT



In this regard, it is worthwhile to note that companies were already anticipating a demand-supply disruption post expiry of mining leases on 31-Mar-2020. The recently expired iron ore mining leases contributed around 75 MT of total production and had an EC capacity of around 87 MT,<sup>32</sup> thus representing the bulk of merchant supply in Odisha. The auction of these mines was held in the months of January to March 2020. Therefore, the substantial higher dispatch may be attributed to inventory building up exercise carried out by steel/DRI players at their respective plants. Such iron ore stocking has insulated these players from any supply disruption due to COVID-19 pandemic, at least for next couple of months.

However, one has to see the aftereffects of lockdown like non-availability of labourers, trucks, etc. Capacity wise, there will not be any supply shortage. It is transportation and logistics that needs to come back to normalcy keeping pace with the mine production.

#### 4.2.3 Bauxite

##### 4.2.3.1 Prices of aluminium crashed by 16 per cent over last 3 months

India was a net exporter of primary aluminium in FY19 when exports comprised 53 per cent of total production.<sup>33</sup> Realisation from sale of aluminium is linked to global LME price index.

Figure 4-12. Aluminium production and exports

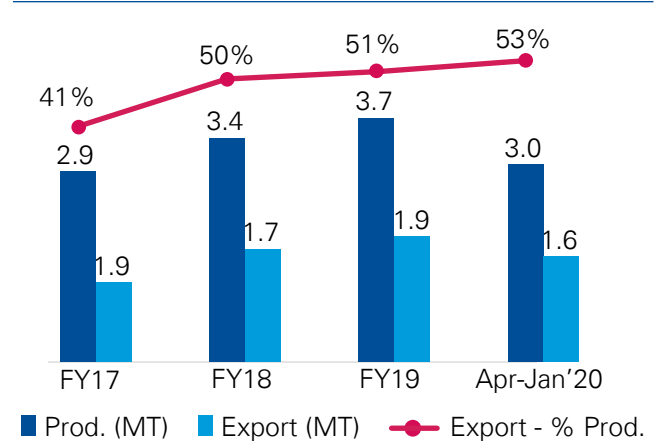
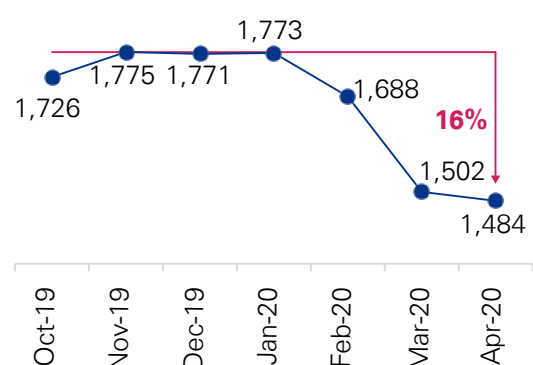


Figure 4-13. Aluminium (LME) price trend (USD/tonne)





Recently due to the pandemic, we observe a likely global slowdown – as reflected in the decrease in LME Aluminium prices.<sup>34</sup> This would in turn hit realisation of primary aluminium players, which may push them to operate at lower capacities and find new customers in the domestic market. Finding new customers in the domestic market is an interesting proposition as it is known there has been a renewed focus on creating the downstream and ancillary ecosystem for Aluminium (akin to steel and stainless steel), especially in that states like Odisha where primary plants are located, and also mineral resources are available at comparatively lower delivered costs.

#### 4.2.3.2 Aluminium smelters witnessing less disruption than steel counterparts

Capacity utilisation of most aluminium players have only slightly dipped till date:

- HINDALCO:** Monthly production running just around 12 per cent lower v/s normalized run rate<sup>35</sup>
- NALCO:** All units have been operational with pruned manpower<sup>36</sup>
- Vedanta:** The Alumina Refinery at Lanjigarh in Odisha is operational with all precautionary measures against COVID-19 and the plant is running with minimum workforce.<sup>37</sup> In fact, the company still continues to source bauxite ore from Kodingamali bauxite mine of Odisha Mining Corporation (OMC). Also, its aluminium smelting operations at Jharsuguda, Odisha remain largely unaffected.<sup>38</sup>

#### 4.2.3.3 Production of aluminium expected to outpace demand

Going forward, in the near-term, primary aluminium demand in India is likely to remain subdued, due to continuing weakness in domestic demand as well as exports:

##### 1. Domestic Demand:

Aluminium consumption in India is driven by its use in the power, automobiles, and construction sector aggregating to nearly 75 per cent of total consumption.<sup>39</sup> In current scenario of subdued demand from the above sectors, it is estimated that domestic aluminium demand may reduce to the tune of approx. 10 per cent<sup>40</sup>

##### 2. Exports:

Aluminium is currently being exported to various countries. The FY20-9M analysis shows the following break-up of exports:<sup>41</sup>

As may be observed, many of the export-destinations have been badly affected by the pandemic and it is feared that the traction of business in these countries is going to be slow for next few months. Also, globally, it is observed that the aluminium companies are revisiting their approved Capex plan and are likely to calibrate downward, whereas automobile companies will face falling demand and construction activity is likely to be subdued. All these factors are likely to have a direct impact on the exports of primary aluminium from Indian aluminium manufacturers.

It is expected that India's primary aluminium export demand is likely to plunge by around 15 per cent.<sup>42</sup>

Unless the production levels are moderated, it is expected that the production of aluminium will be in excess of demand, thus leading to piling of inventory.

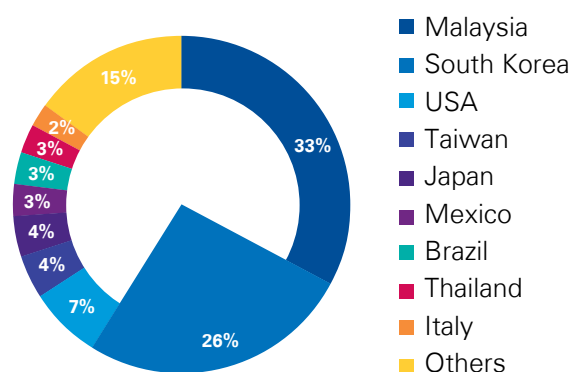
#### 4.2.3.4 Captive leases for most players to prevent supply disruptions of bauxite

NALCO and HINDALCO have their own captive bauxite mines in Odisha and Jharkhand. BALCO has a small bauxite mine in Chhattisgarh which mostly supplies to Vedanta Aluminium Limited (VAL), and VAL's remaining requirements of bauxite is sourced from OMC and also through imports.

Post announcement of country wide lockdown on 24-Mar-2020, mining operations at most of the bauxite mines in Jharkhand and Chhattisgarh were temporarily suspended. On the other hand, OMC's Kodingamali bauxite mine in Odisha, which supplies bauxite to Vedanta's refinery, has continued its operations.

Notwithstanding any production curbs at the bauxite mines, because of the fall in demand for aluminium in the exports market, it is expected that supply of bauxite ore will not be a constraint for aluminium makers. Once the lockdown restrictions are relaxed, we believe that there will be limited challenges in ensuring supply of adequate quantities of bauxite to the refineries as it will be relatively easier to restart the supply chain. In fact, in the case of NALCO, the company recorded more than 100 per cent capacity utilisation of its captive Panchpatmali bauxite mines with a production of 7.3 MT in FY20.<sup>43</sup>

Figure 4-14. Export of aluminium (Country-wise): FY20 9M (Apr'19 – Jan'20)

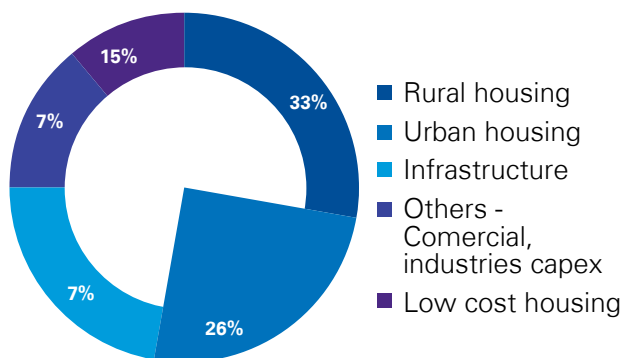


## 4.2.4 Limestone

### 4.2.4.1 Slowdown in construction activity to hit demand in cement and limestone

Limestone is the critical raw material in the production of cement, with approx. 94 per cent of limestone consumed in production of clinker.<sup>44</sup> Cement demand is highly dependent on the construction activity. Sector-wise consumption of cement is mentioned below:<sup>45</sup>

Figure 4-15. Sector-wise cement consumption



The COVID-19 lockdown has led to the shutdown of almost all cement plants in the last week of March 2020. Cement production is usually low during the monsoons, specifically during July to November and picks up subsequently to record highest production in the month of March. In such a scenario, the imposition of lockdown in March 2020 has severely affected the cement production by companies. Cement production in March 2020 are estimated to have reduced by 25 per cent, compared to the previous year.<sup>46</sup>

While cement operations will resume once the lockdown restrictions are eased, - demand for cement is unlikely to revive immediately. This is on account of weak economic growth, subdued real estate market as well as decline in infrastructure spending:

**1. Urban housing:** PMAY-Urban is expected to see slowdown as beneficiaries are likely to curtail expenses. Further, urban construction activities to face challenges towards workforce mobilisation just ahead of kharif sowing and reverse migration by migrant workers

**2. Rural housing:** Slowdown is expected as the individual home builder-driven segment is impacted by lockdown and the consequent hit on income and purchasing power of agricultural and daily wage earners

**3. Investments:** Investments in the infrastructure sector are likely to be subdued, at least in H1 of FY21, as the government finances, already under stress, are likely to be prioritized for relief and welfare measures. This is likely to limit its ability to fund infrastructure projects. At the same time, investments by private companies in major infrastructure projects, such as roads and highways, are impacted by delays in mobilisation of migrant workforce and loss of revenue occurred to NHAI due to toll suspension by the Ministry of Road Transport and Highways.

Further, with the onset of monsoon season, issues of availability of sand as well as weather related disruptions will limit construction activity. In view of the above, the demand may likely to pick up only from September 2020 onwards.

On account of the above factors, cement demand in FY21 is expected to decline significantly, which is likely to lead to a proportional decline in limestone requirement from the cement sector.

### 4.2.4.2 Captive limestone leases to limit disruption to limestone supplies for cement plants

Most of the cement companies have captive limestone leases or have long-term supply agreements for procurement of limestone. With the government facilitating mining operations, we do not expect limestone supplies to be a constraint for cement plants, if there is surge in demand in H2 of FY21.

Further, there are 19<sup>47</sup> limestone blocks with estimated resources of 2,370 MT have been successfully auctioned, 10 limestone blocks in 2017, 7 limestone blocks in 2018 and 2 limestone blocks in 2019 and the operations will likely commence as per Mine Development and Production Agreement (MDPA).

#### 4.2.5 Chromite ore

Chromium is one of the key constituents in manufacturing stainless and alloy steel. It is added in the form of ferrochrome. More than 80 per cent of the world's total ferrochrome is utilized in stainless steel production.<sup>48</sup>

##### 4.2.5.1 Growth in stainless steel production will go down in 2020

Indian stainless-steel production growth has reduced by 5 per cent in CY2019 in comparison to 7 per cent growth in CY2018.<sup>49,50</sup> During the same period, Global stainless-steel melt production was increased by approx. 2.9 per cent from 2018 to 52.2 MT. and having low per capita steel consumption of 2.5 kg in comparison to world average of 5.7 kg and 14.1 kg in China will continue to grow.<sup>51</sup>

In India, cookware and consumer durables consume nearly 45 per cent of total stainless steel while other sectors like ART (Automobile, Railway, Transport), ABC (Architecture, Building, Construction) and process industry consume 13 per cent, 20 per cent, and 16 per cent respectively.<sup>52</sup>

Before the outbreak of COVID-19, it was estimated that the stainless steel demand will grow at rate of 8-9 per cent for next 5 years.<sup>53</sup> But due to the lockdown of the entire country with major sectors like construction, automobile, and manufacturing almost coming to a halt, it is expected that demand of stainless steel industry is likely to decrease in the coming fiscal.

##### 4.2.5.2 Demand of ferrochrome to reduce owing to falling stainless demand as well low export demand

Ferrochrome is one of the major components used in stainless steel manufacturing. For every tonne of stainless steel, 100 to 200 kgs of ferrochrome are used. India produced 1.34 MT of ferrochrome in CY2018 and 1.02 MT in 9M CY19.<sup>54</sup>

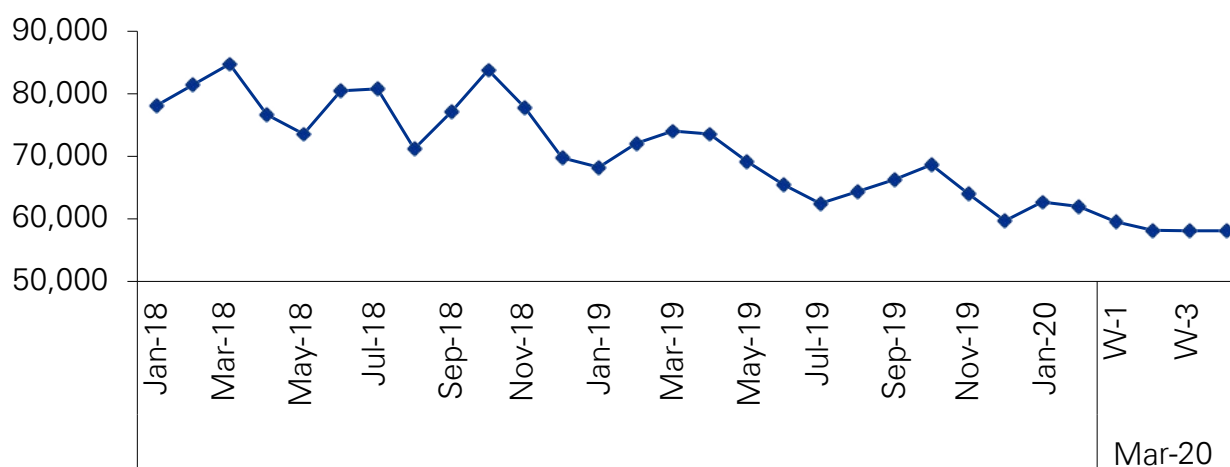
India is also a net exporter of ferrochrome and exports more than 60 per cent of total ferrochrome ore produced in the country. China and South Korea are two major importers of ferrochrome contributing about 70 per cent of total ferrochrome exports from India.<sup>55</sup>

Due to COVID-19, we expect a fall in ferrochrome production because of the following:

1. Subdued domestic stainless demand
2. Weak export market: Due to falling stainless steel prices and shut down of Chinese industry, prices of ferrochrome have fallen to lowest in last 2 years.

We are already witnessing a halt in ferro-alloys production. As per industry sources, except for a few plants in Karnataka and West Bengal, rest all ferro-alloys plants have shutdown post the lock down announcement in India.<sup>56</sup>

Figure 4-16. Ferrochrome domestic prices: Ex-Jajpur, Odisha



### 4.2.5.3 Chromite ore supply disruption expected in FY21

About 96 per cent of chromite ore reserves in India lie in the Jajpur district of Odisha and about 99 per cent of total chromite ore production comes from this state.<sup>57</sup>

We expect disruption in supply of chromite ore in short term, due to the reasons mentioned below:

1. COVID-19 Impact: Dispatch from Jajpur district has witnessed 80 per cent fall in month of Apr-19 due to lockdown.<sup>58</sup> As majority of the operations were carried out manually, all activities in Sukinda zone have almost come to halt. Due to COVID-19, there is an acute shortage of labour force in the mining area.
2. Depleting reserve in the open pit in the Sukinda region: Reduced quantum of dispatch of chromite ore from Odisha is being seen now. Total dispatch has come down by approx. 6 per cent to 3.2 MT in FY20 in comparison to 3.4 MT in FY19. Major reason for reduction is due to less production from OMC and Misrilal.<sup>59</sup>

### 4.2.6 Manganese ore

Manganese ore is another mineral that is used in production of steel and stainless steel. About 94 per cent of manganese ore is consumed as ferromanganese/silicomanganese and about 4 per cent is directly used in blast furnace during making of steel. Another small portion of about 1 per cent is being used in non-metallurgical process (battery, chemicals, etc.).<sup>60</sup>

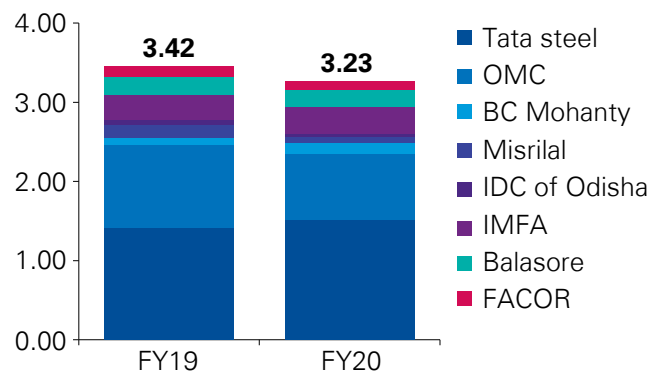
#### 4.2.6.1 Disruption in manganese ore supply

Both demand and supply of manganese are likely to face impediments.

1. **Demand Side:** India exports a substantial amount of both of ferromanganese/silico manganese

3. Recent auction of 3 merchant chromite ore blocks: Government of Odisha had auctioned three chromite mines of Tata Steel, BC Mohanty and Misrilal. All three mines have been bagged by TS Alloy, the sister company of Tata Steel. In case of Misrilal mines, there is an ongoing litigation in High court of Odisha. Also, for BC Mohanty mines, commencing production and reaching previous operating levels may take a couple of months. So overall, we foresee a decline in the total chromite ore production from these 3 mines in FY21.

Figure 4-17. Chromite ore dispatch Odisha in MT (FY19)

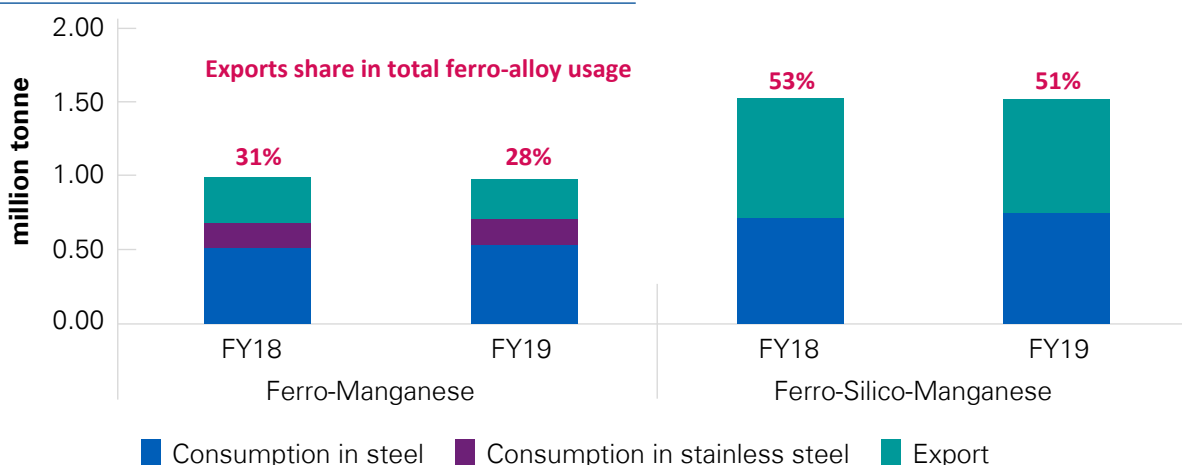


ferro-alloys<sup>61</sup>

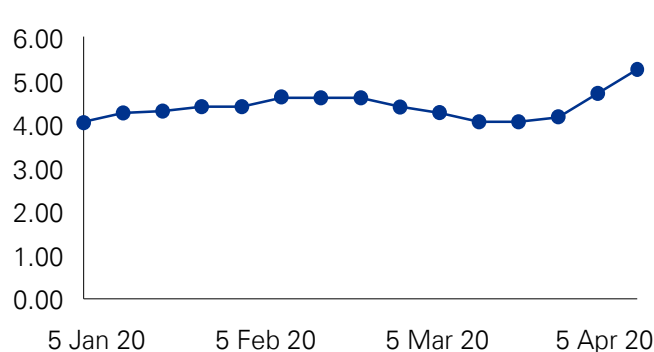
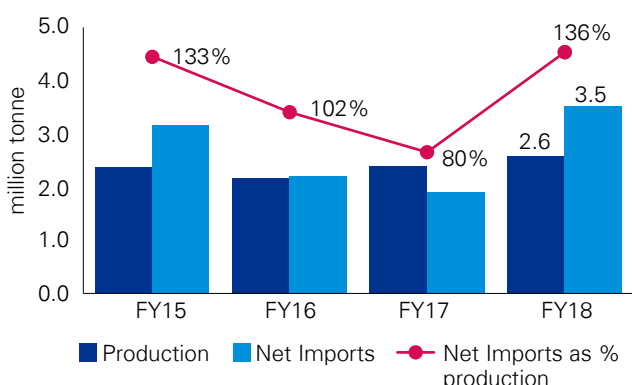
Demand of both of these ferro-alloys demand has dropped due to dip in steel demand and a weak export market.

2. **Supply side:** India is net importer of manganese ore and has been importing more than the production capacity of the country (>100 per cent) in the last few years.<sup>62</sup> Manganese prices initially had been trending downwards but have witnessed a sudden surge in past couple of weeks.<sup>63</sup> Reason for this has been attributed to the extended lockdown in South Africa, which contributes about 50 per cent of seaborne manganese ore market.<sup>64</sup>

Figure 4-18. Usage of ferro-alloys



**Figure 4-19. Manganese ore production and imports** **Figure 4-20. Price CNF India, South Africa Mn 37.5 per cent, USD/dmtu**



Till both the twin issues of lack of demand as well as increased raw material prices are resolved, we expect muted production of ferromanganese/silicomanganese and therefore, a muted manganese ore demand.

### 4.3 Impact on minor minerals

#### 4.3.1 Weak construction activity, subdued global trade to limit demand for minor minerals

In addition to the key minerals discussed earlier, the impact of COVID-19 pandemic on the “Minor minerals” leases are also to be considered. “Minor minerals” are those minerals, for whom the regulatory and administrative jurisdiction, such as the powers to frame rules, prescribe rates of royalty, DMF contribution, the procedure for grant of mineral concessions etc. are devolved to the state governments.

The value generated from minor minerals was INR54,569<sup>65</sup> crore in FY19, which accounted for 44 per cent of the total revenues of minerals in India and they account for a significant share of mineral revenues in a few states. Even among a few of the top 5 mineral producing states, a large portion of the value of mineral production can be attributed to minor minerals, such as Andhra Pradesh (89 per cent) and Rajasthan (47 per cent).<sup>66</sup>

Based on their usage, minor minerals can broadly be classified into two categories:

- Minerals such as barytes, calcite, silica sand, quartzite (industrial minerals), which are typically used in manufacturing sector
- Minerals such as granite, gravel, road metal, etc., which are typically used in the construction sector.

As elaborated in the earlier sections, the COVID-19 and related disruptions is likely to have significant

impact on manufacturing and construction activity. In particular, the sustained weakness in construction activity will likely to hit the demand for minor minerals in the Q1 and Q2 of FY21, given the close linkage between them.

Also, certain high value minor minerals have significant exposure to the export markets. For instance, barytes, which is primarily used in oil drilling, is mostly exported to Middle-East and the U.S. Similarly, granite, used as a decorative stone, is primarily exported to China. Therefore, the COVID-19 led disruption to the global trade as well as subdued global markets are also likely to impact the demand and production of minor minerals.

Another key differentiator between major and minor minerals is the minor mineral leases are less mechanized, with a higher reliance on manual labour. Therefore, the demand disruption of minor minerals is likely to have a profound impact on the employment and well-being of the local communities.

Overall, de-growth seems to be unavoidable in Q1, and perhaps also in Q2. The economic activities are likely to gather momentum again only in H2 of FY21. In order to address the overall impact of COVID-19 by on mining sector, specific actions are needed to be carried out by all concerned, especially the governments and the business community, in order to boost demand and at the same time to ensure that there is no supply disruption.

We present our stakeholder-wise suggestions in the next chapter.

# 5

## Way forward - looking ahead and looking up

Considering the multi-faceted challenges that COVID-19 has posed before the mining and metals sector in India, it is important to devise a turnaround strategy for the short-term, medium-term and long-term.

**A. RESPONSE phase** – Short-term (next 3 months or till the time the pandemic persists, whichever is later): There are immediate actions that are required to be undertaken by both Government and Industry. Actions are required to effectively respond to the immediate effects/losses to the economy in terms of loss in (a) GVA contribution in FY21, (b) job losses (both direct and indirect), (c) negative impact to the secondary players in the ecosystem including MSMEs, small contractors, downstream and ancillary sectors, (d) survival against the direct impact on the topline and bottom line of the companies, etc. This time phase will require all the stakeholders to remain patient, and at the same time extremely nimble to prevent damage to the 'fundamentals' of the sector. If the 'fundamentals' are kept intact with right Policy directives from the Central and State Governments, the subsequent path to recovery and achieving aggressive growth over the coming 5 years will not be very challenging.

**B. RECOVERY phase** – Medium-term (next 6 months to 1 year): Mid-term actions should be targeted with aim for 'recovery' and bring back the at least market position of pre-COVID-19, setting realistic growth ambitions for coming financial year. Both the governments and the industry will have to execute

certain actions during this period. For example, there is scope to revisit the policy on whether auction can be the only option to allocate mineral resources or should other options (with adequate measures) like FCFS (first-come-first-serve) can be considered too. Another area government could look at optimizing the tax structure, which is currently considered to be very high in India. On the other hand, companies can focus on cost optimisation with adoption of digitisation and technology enablement. At the same time, they can focus on value addition by diversifying into the larger part of the mine-to-mill value chain.

**C. RESILIENCE phase** – Long-term (next 1-2 years): Long-term actions must be targeted towards broader business and economic goals. Focus on creating downstream and ancillary ecosystem of business with the backward and forward interlinkages with other industry segments will have to be driven by individual State governments. The key drivers will be creation of jobs and providing the required traction at the local economy level. For example, providing "Infrastructure" status to the mining sector will open up plethora of opportunities for the sector for the next level of growth. The kind of traction Transport and Logistics sector has been able to generate after getting the Infrastructure status is there for everyone to see. Mining is in dire need of such kind of intervention. Another aspect could be to promote and drive indigenous R&D in this sector, which will help in unlocking lot of value.

### 5.1 Suggestions for Central and State governments

Honorable Prime Minister announced a special package of INR20 lakh crore on 12 May-2020 with primary focus on developing 'AtmaNirbhar Bharat' or self-reliant India. The various elements of the package were announced in five tranches indicating that the Government recognises the mining sector to be one

of the key focus areas during these unprecedented times. Structural reforms pertaining to the coal sector and minerals sector – some of which were already in consideration for long – were announced in the fourth tranche of the economic stimulus package.

Some of the key highlights include:<sup>1</sup>

#### Coal sector

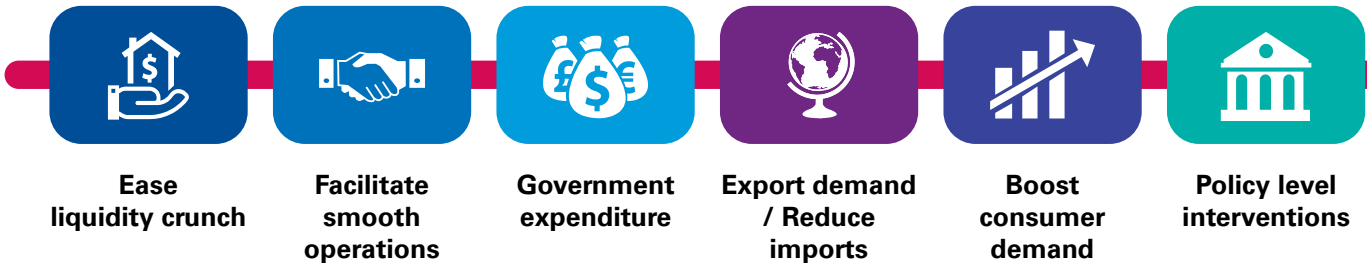
- Infrastructure development of INR50,000 crore: For evacuation of enhanced coal production from CIL and private blocks
- Incentivising Coal Gasification/Liquefaction through rebate in revenue share
- Auction of Coal Bed Methane (CBM) extraction rights from CIL's mines
- Concessions in commercial terms (relief worth INR5,000 crore) to be given to CIL's consumers.

#### Minerals sector

- Rationalisation of stamp duty payable at the time of award of mining leases
- Elimination of difference between captive and non-captive mines
- Introduction of seamless composite exploration-cum-mining-cum-production regime
- Auction of 500 mining blocks
- Joint auction of coal and bauxite blocks.

Some of the additional actions that Central and State governments may take up are mentioned hereunder.

The suggested way forward has been further classified under following sub-headings:



**Suggestions - Ease liquidity crunch**

<p><b>Short term</b></p>	<ul style="list-style-type: none"> <li>• Moratorium on loan repayment for both long-term and working capital loans</li> <li>• Provision of low-cost working capital loans, to manage payments to employees and other fixed costs like payments to contractors</li> <li>• Waiver of fixed charges for utilities such as electricity during (ED) during the lockdown period</li> <li>• Defer payment or instalment options for statutory levies, such as GST, Import duties, Royalty, DMF, NMET, GST Compensation Cess, etc.</li> </ul>
<p><b>Medium term</b></p>	<ul style="list-style-type: none"> <li>• Increase quantum of Accelerated Depreciation to encourage capital investments</li> <li>• Rationalize freight rates charged by Railways – to maintain competitiveness of domestic sectors.</li> </ul>

**Suggestions - Facilitate smooth operations**

<p><b>Short term</b></p>	<ul style="list-style-type: none"> <li>• Relaxation on submission of statutory mining related returns</li> <li>• Waiver of GST on auction premium, for mineral blocks auctioned recently</li> </ul>
<p><b>Medium term</b></p>	<ul style="list-style-type: none"> <li>• Ensure that the anticipated large-scale reverse migration of labour (post lifting lockdown) does not hinder industries’ ability to function. In this regard, State governments may consider undertaking following two actions:                             <ul style="list-style-type: none"> <li>– Setting up an online platform for skilled/semi-skilled/unskilled labourers to register and update on their availability for deployment at work. This database will help the industries in quick hiring of workforce – on own payroll or on contractual.</li> <li>– State governments must also drive specific skill development programme to ensure adequate availability of skilled workforce for various sectors including mining, construction, infrastructure, real estate, etc. Priority to be given to unemployed local youth through skill centers, so that requirements can be fulfilled from local communities.</li> </ul> </li> <li>• Ensure adequate arrangements for food, lodging, and other necessary facilities at the truck terminals enroute from mines to destinations/ports - in this regard, local district administration may be directed by the State governments</li> <li>• Extend period of validity of temporary clearances (FC, EC) handed out to the new mine owners</li> </ul>
<p><b>Long term</b></p>	<ul style="list-style-type: none"> <li>• Development of land-bank in suitable locations for compensatory resettlement of people impacted by mining, since lack of availability of adequate land parcels is a key constraint for miners.</li> </ul>

## Suggestions - Government expenditure



### Short term



- Relaxation in the state's fiscal deficit targets under the Fiscal Responsibility and Budget Management (FRBM) Act to support investment and welfare activities

### Medium term



- Kick-start capex cycle by immediate release of funds for projects under National Infrastructure Pipeline. Prioritize projects with low lead-times, which can immediately generate employment and create demand for core industries (steel, cement, etc.).

## Suggestions - Export demand/Reduce imports



### Short term



- Provide incentives to promote export of commodities, especially iron ore. This must be encouraged by the governments for FY21 and may be revisited when the demand in domestic steel market picks up pace again. Exports will ensure multiple benefits to the mineral economy – mine operations will continue, trucks will ply on the roads, and hence there will be overall traction in the ecosystem ensuring engagement of workforce and continuity of livelihood
- Consider levy of Anti-Dumping Duty on commodities such as steel, at least till the time the industry/economy normalises

### Medium term



- Increase import duties on commodities such as thermal coal, iron ore, etc., which are abundantly available in India.

## Suggestions - Boost consumer demand



### Medium term



- Sector-specific stimulus packages for critical core sectors, including steel manufacturing and infrastructure and construction sectors may be considered
- Ferrous and non-ferrous metals scrap policies must be finalized and implemented quickly. This will help in multiple ways, for example, vehicle scrappage policy to revive demand from Automobile sector.







**Medium term**



- Rationalisation of the high taxes and duties, which are one of the highest in the world whereas global average is 40-45 per cent. A scientific approach may be designed to simplify the multitude of levies and arrive at a reasonable rate, which will support India's manufacturing while enabling sustainable mining and welfare of mining affected communities. There is a significant variation in Royalty, Seigniorage Fees and Dead Rents, across states for minor minerals, which needs to be rationalized.
- Amend MMDR Act 1957 to relax the provisions related to timelines and minimum production for development of auctioned blocks in the MDPA entered into by the successful bidder

**Long term**



- Grant 'Infrastructure' status to the mining sector. This will help mining projects to obtain financial support from financial institutions, especially for the financing of prospecting, exploration and mine development activities
- Mineral blocks must be put for auction by the State Governments only with pre-embedded statutory clearances, which will be transferred to the successful bidder post auction
- All states must be mandated to implement IT enabled systems, to ensure end-to-end accounting of mineral/ore in the supply chain. The i3MS system in Odisha is a good model to replicate, with additional features that may be built-in for intelligent report creation.
- Indian mining sector needs better data management practice as there is hardly any integrated data source available today that is considered as reliable and recognized source of authentic and real-time data on any commodity or mine. Ministry of Mines, Government and Ministry of Coal, Government of India can take the lead, and drive time-bound mandate to create such databases
- India needs to create its own ecosystem for building the culture of R&D and innovation for future sustenance. In this regard, following actions may be considered:
- Notwithstanding the multi-faceted benefits that can be achieved through technology adoption, it is still quite difficult for Indian mining companies to place R&D/innovation high on their short-term agenda when they are dealing with other fundamental risks and adversities to even survive and stay in the business
- Hence, the immediate onus is perhaps on the Governments (Central and States) to take the initiatives and keep budgetary provisions for this. Government Ministries like MoM, MoC, MoS, and state-level Departments of Mines/ Geology/Steel/Industries can be the first movers in this regard and drive collaborative research on issues affecting the mining sector
- In order to drive collaborative research, create collaborative platforms like the CRC Mining in Australia to bring together all stakeholders. The Governments, alongside crucial contribution from Academia, Research Organisations, Regulators, OEM's, Suppliers, etc. are a must that will help create a conducive atmosphere for promotion of the innovation culture at a broader and deeper scale.
- Enable long-term planning of mineral excavation, a National Land Utilisation Policy needs to be evolved and suitable areas with significant mineral potential have to be identified and reserved for mining industry, to ensure availability of prospective areas for mineral exploration for the future generations in-line with the principle of Intergenerational Equity
- Regional and detailed exploration should be carried out over the entire geologically conducive mineral bearing areas of the country in a time-bound manner
- In order to attract global exploration companies with modern state-of-the-art technologies, alternate mechanisms for allocation of mineral leases, other than forward auction, should be implemented. Exploration agencies must be provided an attractive option to convert their Reconnaissance Permit (RP) to Prospecting Licence (PL) to Mining Lease (ML), without having to match the highest bid quoted during the auction process.

## 5.2 Suggestions for mining companies

The suggested way forward has been further classified under following sub-headings:



### Suggestions - Continuity of operations

#### Short term



- Set up cross-functional command and control centers to stay on top of the developments and take fast-paced decisions in a rapidly evolving scenario – i) Robust SOPs should be developed to minimize the risk of transmission and comply with the orders of the competent authorities; ii) Continuous monitoring of critical KPIs
- Companies should undertake working capital analysis to determine the level of liquidity and crisis cash needs, as well as tactical working capital actions (AR, AP, inventory) that will quickly optimize cash flow for the business
- Special focus to be kept on ensuring adequate liquidity for running the operations, especially till Q2 of FY2021. Specific measures may be considered for this. For example, revisiting the current sales and marketing and pricing policies, reaching out to customers and exploring collaborative (win-win) commercial arrangements, etc
- Companies should carefully review the Force-Majeure clauses in their existing contracts and check whether provisions have been made to invoke the clause in case of pandemics (such as COVID-19) and proactively collaborate with counter parties to prevent legal issues
- Company-wide review and rationalisation of costs, to cutdown unnecessary expenditure – through specific cost optimisation drives



#### Medium term



- Companies should proactively renegotiate contractual terms with MDO's/Mine Operators, sub-contractors, suppliers, etc. to incorporate suitable revisions in production-based payments and penalties, as demand from end-users is likely to remain subdued over the medium-term
- Maintain regular communication with customers to understand evolving requirements – plan operations based on customer requirements, to optimize operations and prevent working capital lock-ups
- Adopt 'Digital Transformation' as a tool to transform into a new company. Future of mining in India will be driven through digitalisation and automation, in core operations, management of physical assets like HEMM, and support functions like contract and procurement, finance, HR, administration, etc.




## Suggestions - Stakeholder management



<p><b>Short term</b></p> 	<ul style="list-style-type: none"> <li>• Health and welfare of employees, contractual workforce (and customers, wherever relevant) to be prioritized such as ensuring availability of Personal Protective Equipment (PPE), access control and regular disinfecting of all operating areas/office spaces, etc</li> <li>• Mining being a labour intensive sector, firms to take adequate measures for protection of the workforce, particularly of contractual nature, at the mine. Any large-scale disruption of labor availability has potential to significantly impact revival of operations</li> <li>• Companies need to invest in the larger eco-system reliant on mining operations, particularly small contractors, transporters, suppliers, etc. to ensure minimal disruption to the supply chain when the operations restart. Global mining majors, such as BHP Group and Vale, have committed to advance payments to their suppliers, to support small and medium-scale business survive during the lockdown of operations<sup>2</sup></li> </ul>
<p><b>Medium term</b></p> 	<ul style="list-style-type: none"> <li>• Companies should develop and institutionalize protocols for the workforce to collaborate remotely in an efficient manner, as social distancing and travel restrictions continue beyond lockdown</li> <li>• To ensure the success of the remote working, it is critical for companies to invest in the right collaboration tools and train the workforce in its effective use.</li> </ul>

## Suggestions - Business planning



<p><b>Short term</b></p> 	<ul style="list-style-type: none"> <li>• Companies should start adopting holistic and Integrated Production Planning (IPP) with scenarios built at par and above the threshold levels of production. Threshold levels may be defined either based on contractual obligations and/or minimum level to break-even on costs. IPP must be driven not just with internal departments, but with larger ecosystem players on whom production and offtake are dependent upon, for example contractors, vendors, truck associations, etc</li> </ul>
<p><b>Medium term</b></p> 	<ul style="list-style-type: none"> <li>• Explore strategic partnerships between firms with complementary strengths, to effectively utilise technical and financial resources. For example, companies in end-use sectors, who won auctioned blocks but have stretched balance sheets, may consider forming JVs with cash-rich MDOs/MOs for development of the blocks</li> </ul>
<p><b>Long term</b></p> 	<ul style="list-style-type: none"> <li>• For long-term business planning, companies should embark on a path of sustainable cost reduction and profit maximisation, through critical analysis of operations. For example, de-leveraging stretched balance sheets should be a key priority, to ensure adequate liquidity and solvency in a sustainable manner; or divestment of projects/ subsidiaries, which do not meet expected profitability thresholds</li> <li>• Large mining companies may consider diversification options (both related and unrelated) to build resilience in case of unforeseen disruptions. This may include a special focus on inorganic moves, especially outside India.</li> </ul>

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