

India's steel industry – *quo vadis*

Steel is one of the most important man-made materials with a huge diversity in use ranging from a paper clip to an aircraft carrier. Modern infrastructure and buildings are increasingly using steel due to its properties of strength, aesthetics, ease of use and cost. For a developing country like India, steel consumption is also linked to economic growth. Just over a hundred years ago, Fredrick Upcott, Chairman of the Indian Railways, promised to 'eat every pound of steel rail' made in India to British specifications. Fast forward to financial year (FY) 17, India is the third largest producer in the world producing 101 Mt of finished steel, only behind Japan and China. The steel sector contributes 2% to India's Gross Domestic Product (GDP), and employs 5 lakh people directly and 20 lakh people indirectly. This sector is estimated to have an output multiplier effect of 1.4× on GDP and 6.8× on employment in India.

However, the finances of Indian steel companies have deteriorated due to a large increase in cheap steel imports during FY 15 and FY 16, resulting in all such major companies (barring, Tata Steel) making record losses in FY 16. One of the key outcomes of this sharp decline in steel prices was the rise in Gross Non-Performing Assets (GNPA) of the Indian iron and steel sector to a level of Rs 1.47 lakh crores (as on 31 December 2016), a staggering 52% of the total advances (Rs 2.81 lakh crores) to this sector from public-sector banks.

India's steel industry must retain its competitiveness since the tariff protection provided by the Government of India (GoI) cannot be sustained indefinitely at the cost of downstream industries, though these measures were responsible for reducing imports by 36% between FY 16 and FY 17.

On 8 May 2017, GoI notified the National Steel Policy (NSP) 2017 with the primary goal of enhancing the country's crude steel capacity to 300 Mt (from the current capacity of 126 Mt) by FY 31 to meet the projected demand of 230 Mt of finished steel with a per capita consumption of 158 kg by FY 31, as against the FY 16 level of 61 kg.

The steel industry is highly dependent on raw materials. Specifically, one tonne of steel produced through the blast furnace route (targeted to produce 60–65% of crude steel in FY 31) requires more than 2.8 tonnes of raw materials – of which iron ore and coal together account for

2.3 tonnes. To achieve a finished steel production level of 230 Mt by FY 31, NSP 2017 has projected iron ore and coking coal requirements of 437 and 161 Mt respectively. NSP 2017 aims to promote the development of globally competitive steel manufacturing capabilities in India *inter alia* by ensuring domestic availability of iron ore and coking coal. However, GoI must overcome the following key challenges to achieve the objectives of NSP 2017 by 2030.

Currently, only SAIL and Tata Steel operate captive iron-ore mines in India. Therefore, the vast majority of Indian steel producers have to procure iron ore from the open market. Since the amendment of the Mines and Minerals (Development & Regulation) Act (MMDR Act) on 12 January 2015, mineral blocks can be granted to non-government companies only through auctions. However, only 10 iron ore blocks (3 in Odisha and 7 in Karnataka) have been auctioned till October 2017. Auctions have proven to be a more transparent process for allocation of scarce mineral resources. In addition, the auction of 33 mineral blocks till 1 November 2017 has succeeded in transferring a significant part of the mineral value (to the tune of Rs 99,000 crores over the life of the respective mines), from the mine owners to the respective states. Specifically, the additional contribution that will be accruing to Karnataka and Odisha over the life of the 10 iron ore blocks auctioned till date, is projected to be Rs 52,300 crores, which is 83% of the total revenue that will be accruing to these states from these blocks during their life. Therefore, auctions are bound to continue as the only transparent process for allocation of mineral blocks to the private sector.

However, according to the MMDR Act, several of the existing non-captive mining leases (MLs) are valid only till 31 March 2020. It takes several years to operationalize a closed mine, as the validity of statutory clearances also lapses with the expiry of the ML. Indian steel producers (other than Tata Steel and SAIL having captive iron ore mines whose MLs expire only in 2030) are concerned that their production will be affected if operations in the currently functioning non-captive iron ore mines are discontinued after their MLs expire in March 2020. For example, in Odisha, MLs of 16 non-captive operating iron ore mines with an annual capacity of 66 Mt (out of the pan-India output of 192 Mt in FY 17) are scheduled to

expire in March 2020. GoI must work with the Government of Odisha to implement a time-bound action plan for ensuring that such operating iron-ore mines are auctioned along with their pre-expiry clearances to avoid disruptions in steel production for want of iron ore supplies during the transition.

According to NSP (2017), GoI also intends to increase domestic availability of metallurgical coal to reduce dependence on imported coking coal from the current level of approximately 85% to around 65% by 2030–31. Availability of metallurgical coal at reasonable and stable prices remains a challenge for the steel sector. Due to the inadequate supply of metallurgical coal from domestic sources (Coal India Limited; CIL), steel producers in India have imported 41.6 Mt of coking coal at a cost of Rs 41,230 crores out of the total metallurgical coal demand of 54.2 Mt in FY 17. Due to its geographical advantage with respect to other major coking coal producers (United States and Canada), Australia supplied 88% (36.5 Mt) of India's coking coal imports in FY 17. As a result of this concentration of supplies, the price of imported coking coal in India has been subject to enormous and unpredictable volatility to the tune of 250% in FY 17.

As on 1 April 2017, India had proved coking coal reserves of nearly 19 billion tonnes, of which 4.6 billion tonnes of prime coking coal and 13.5 billion tonnes of medium coking coal can be washed with currently used technology to produce metallurgical coal for coke-making in steel plants. In FY 17, Tata Steel (the only private sector producer of coking coal in India) mined 6.32 Mt of raw coking coal and washed the entire quantity in its own washeries to produce metallurgical coal. On the other hand, CIL processed only 14% (7.8 Mt) of the 54.6 Mt of coking coal mined as metallurgical coal and supplied the balance 46.8 Mt (86%) of coking coal to non-metallurgical users. While CIL has 12 coking coal washeries with a total capacity of 23 Mt, it dispatched only 6.76 Mt (1.2% of its total dispatches) to the steel sector in FY 17, leaving the steel producers at the mercy of Australian coal miners and the Queensland weather.

The know-how and technology to produce metallurgical coal containing 15–17% ash by washing-medium coking coals are readily available in the country. While CIL has recently announced its intent to set up 13 new coking-coal washeries with an annual feedstock capacity of 41 Mt, the Ministry of Coal (MoC) must coordinate with other ministries and the Government of Jharkhand (the location of these 13 washeries) to ensure that all clearances are granted in time for CIL to construct these washeries to meet the requirements of the steel sector.

Regulatory uncertainties and delays also enhance the costs and risk of project delays/sanctions to steel companies who take their investments elsewhere, with consequent opportunity losses to the nation. In India, once the mining plan is approved by the Indian Bureau of Mines or the MoC, the mine owner has to seek environment and forest clearances from the Ministry of Environment, Forests and Climate Change (MOEF&CC).

However, mineral-dependent developing countries like South Africa have recognized the regulatory burden and risks posed by the multiplicity of regulatory authorities with respect to industrialization and job creation. In 2015, the Planning Commission of the Republic of South Africa declared that it was essential to simplify its policy, law and regulatory approach to the mining industry, and develop an integrated method to mining, water and environmental statutes, to enable the country to accelerate progress towards reducing poverty, inequality and joblessness. To address these objectives, the Ministry of Mines and the Ministry of Environmental Affairs of the Government of South Africa together created a 'One Environmental System' to develop a more coherent and predictable regulatory framework based on a single-window approach, to reduce red tape and cost of compliance, while ensuring compliance with environmental norms.

In August 2014, GoI set up a high-level committee (HLC) to review various Acts administered by the MOEF&CC, and suggest amendments 'to bring them in line with their objectives'. The HLC has *inter alia* recommended that environment clearances must be granted through a 'single window', while a new All-India service relating to environmental management should be created to enforce better compliance with environmental norms by deploying technology.

Steel being a deregulated sector, the role of GoI is limited to that of a facilitator to provide a conducive policy environment for sustained growth and competitive development of the industry. The following are necessary to achieve the objectives set out in the NSP 2017:

- GoI must work with the Government of Odisha to develop a time-bound action plan in relation to each operating iron-ore mine whose ML is scheduled to expire in 2020 according to the MMDR Act. GoI must ensure that the statutory clearances granted to each of these operating mines remain valid for a pre-determined transition period till the new lessee acquires the requisite clearances.
- GoI must direct CIL to increase its dispatches of metallurgical coal to the steel sector by implementing a time-bound action plan to supply at least 50% of the steel industry's metallurgical coal requirements.
- GoI must take all necessary steps to set up full-time, multi-disciplinary, and empowered environmental regulators at the Central and State levels according to the recommendations of the HLC to achieve synergy between industrial development and job creation on the one hand and forest/environmental laws on the other, in tune with the Sustainable Development Goals.

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