

B.Com 2nd Year

Planning and Economic Development of India

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Large Scale Industries: Iron and Steel Industry

Introduction

Iron and steel were the harbinger of industrial revolution in late 18th and early 19th century. Today this industry has proved to be the harbinger of globalisation. It is one of the very few industries that have assumed a global character with developments in one region affecting the industry almost everywhere else; and India is no exception.

The real beginning of modern iron and steel industry was made in 1907 only when Tata Iron and Steel Company (TISCO) were set up at Jamshedpur (Sakchi at that time). The Indian Iron and Steel Company (IISCO) were set up in 1919 at Bumpur followed by the setting up of Mysore Steel Works at Bhadravati (now Visveswaraya Iron and Steel Works) in 1923.

Iron and steel Industry witnessed rapid growth after Independence. India produced 16.9 lakh tonnes of pig iron in 1950-51. The development of iron and steel industry was envisaged during the first Five-Year Plan, but it was during the Second Five-Year Plan that the three integrated steel projects were started at Bhilai, Rourkela and Durgapur.

India is now the eighth largest producer of steel in the world. Recent developments have amply demonstrated the mettle of Indian steel industry to rise even further and become a major player in the world. However steel is known to be an industry witnessing periodic business cycles of upswings and downswings.

Steel Authority of India (SAIL) Established in 1973, SAIL is a government undertaking and is responsible for the management of steel plants at Bhilai, Durgapur, Rourkela, Bokaro and Bumpur and also the Alloy Steel Plant at Durgapur and Salem Steel Plant. The management of Indian Iron and Steel was taken over by Government on 14th July, 1976. SAIL also took over Maharashtra Elektros melt Limited, a mini steel plant, in January 1986. Visweswaraya Iron and Steel Limited were also taken over by SAIL in August 1989.

PRESENT POSITION

Steel has contributed immensely towards India's economic growth. This is evident from the similar growth patterns of India's GDP and steel production in the country, which also highlights the economy's dependence on steel. National consumption of finished steel rose from 6.5 MT in 1968 to 98.71 MT in 2018, while GDP (at constant price, 2010) grew from USD 0.25 trillion in 1968 to USD 2.7 trillion today.

Today, the steel industry contributes slightly more than 2% to the GDP of the country. This percentage accounts for direct contribution. The indirect contribution of steel is much larger, owing to the dependence of other sectors. The steel industry employs nearly half a million people directly and two million people indirectly. The output effect of steel on Indian economy is approximately 1.4x with an employment multiplier of 6.8x. As per the World Steel Association, globally, for every two jobs created in the steel industry, 13 more jobs are created across the supply chain.

India is currently the world's second largest producer of crude steel, with 110.92 MT produced in 2018–19 (up from 103.13 MT in 2017–18). The country has strengthened its domestic steel industry considerably over the last decade. It became a net exporter in FY 2016–17, with exports of total finished steel reaching 8.24 MT vis-à-vis imports of 7.22 MT in the same year. It maintained this position with a positive trade balance of 2.138 MT in the next year too. But with rising protectionism and an ongoing trade war (among other factors), India has seen a steep decrease of 33.9% in its exports, clocking only 6.36 MT in 2018–19. In contrast, imports saw an increase of 4.7% and stood at 7.83 MT. As a result, the country once again became a net importer in the last financial year.³ Though small in scale, a positive trade balance from finished steel production was remarkable for a country like India, which missed the opportunity to build a mature secondary sector in its hurry to strengthen the tertiary/services sector. However, the current global economic downturn and structural changes in many related industries have arrested this upward trend, at least for now.

PROBLEMS

1. Capital:

Iron and steel industry requires large capital investment which a developing country like India cannot afford. Many of the public sector integrated steel plants have been established with the help of foreign aid.

2. Lack of Technology:

Throughout the 1960s and up to the oil crisis in mid-1970s, Indian steel industry was characterised by a high degree of technological efficiency. This technology was mainly from abroad. But during the following two decades after the oil crisis, steep hike in energy costs and escalation of costs of other inputs, reduced the margin of profit of the steel plants.

This resulted in lower levels of investment in technological developments. Consequently, the industry lost its technology edge and is now way behind the advanced countries in this regard. Material value productivity in India is still very low.

In Japan and Korea, less than 1.1 tonnes (and in several developed countries 1.05 tonnes) of crude steel is required to produce a tonne of saleable steel. In India, the average is still high at 1.2 tonnes. Improvement in the yield at each stage of production, particularly for value added products will be more important in the coming years.

3. Low Productivity:

The per capita labour productivity in India is at 90-100 tonnes which is one of the lowest in the world. The labour productivity in Japan, Korea and some other major steel producing countries is about 600-700 tonnes per man per year.

At Gallatin Steel a mini mill in the U.S. there are less than 300 employees to produce 1.2 million tonnes of hot rolled coils. A comparable facility in India employs 5,000 workers. Therefore, there is an urgent need to increase the productivity which requires retraining and redevelopment of the labour force.

4. Inefficiency of public sector units:

Most of the public sector units are plagued by inefficiency caused by heavy investment on social overheads, poor labour relations, inefficient management, underutilisation of capacity, etc. This hinders proper functioning of the steel plants and results in heavy losses.

5. Low potential utilisation:

The potential utilisation in iron and steel is very low. Rarely the potential utilisation exceeds 80 per cent. For example, Durgapur steel plant utilises only 50 per cent of its potential. This is caused by several factors, like strikes, lockouts, scarcity of raw materials, energy crisis, inefficient administration, etc.

6. Heavy demand:

Even at low per capita consumption rate, demand for iron and steel is increasing with each passing day and large quantities of iron and steel are to be imported for meeting the demands. Production has to be increased to save precious foreign exchange.

7. Shortage of metallurgical coal:

Although India has huge deposits of high grade iron ore, her coal reserves, especially high grade cooking coal for smelting iron are limited. Many steel plants are forced to import metallurgical coal. For example, steel plant at Vishakhapatnam has to import coal from Australia. Serious thought is now being given to replace imported coal by natural gas from Krishna-Godavari basin.

8. Inferior quality of products:

Lack of modern technological and capital inputs and weak infrastructural facilities leads to a process of steel making which is more time consuming, expensive and yields inferior variety of goods. Such a situation forces us to import better quality steel from abroad. Thus there is urgent need to improve the situation and take the country out of desperate position.

CONCLUSION:

Iron and steel industry is a major industry of India. It needs to be protected if we want to have progressive industrialisation. The problem of capital and technology needs to be tackled quickly.