



Mains Practice Question

Q. How are integrated steel plants different from mini steel plants? What problems does the industry face? What recent developments have led to a rise in the production capacity? (250 words)

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Approach

- Write what are the integrated and mini steel plants in the introduction part.
- Differentiate between the two.
- Enumerate the problems and recent developments taken to increase the productivity.

Introduction

- A Mini Steel plant is often incorporated with lower investments and can manufacture certain Alloys of Steel with some process help and raw materials from other steel plants.
- An Integrated Steel plant hosts all the processes in-house and can manufacture different types and forms of steel as the investment is huge and it serves as a large scale production house.

Body

Differences between the two types	
Criteria	Integrated steel plants
Type of Producer	Primary producer, involves iron making, steel making, casting, roughing rolling/billet rolling and Product rolling.
Size	Large and handle everything in one complex.
Raw material	Iron ore, limestone, and coal (or coke).
Product	Final products made by an integrated plant are usually large structural sections, heavy plate, strip, wire rod, railway rails, and occasionally long products such as bars and tubes.
Investment	Investment is huge and it serves as a large scale production house.
Number in India	About 5 integrated SAIL plants.

Problems faced by the iron and steel industry:

- **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.
- **Low Productivity:** The per capital labour productivity in the country is at 90-100 tonnes for steel industry, whereas it is 600-700 tonnes per person in Korea, Japan, and other steel producing nations.
- **Low Potential Utilisation:** Durgapur steel plant makes use of approx. 50% of its potential which is caused by factors like strikes, shortage of raw materials, energy crisis, incompetent administration, etc
- **Huge Demand:** Huge chunks of iron and steel are to be imported in order to meet the demands. In order to save invaluable foreign exchange, productivity needs to be increased.

- **Inferior Quality of Products:** The weak infrastructure, capital inputs and other facilities eventually lead to a steel making process which is more time-taking, expensive and produces an inferior variety of steel products.

Recent developments led to a rise in the production capacity

- **Investments:** Steel industry and its associated mining and metallurgy sectors have seen a number of major investments and developments in the recent past. According to the data released by Department of Industrial Policy and Promotion (DIPP), the Indian metallurgical industries attracted Foreign Direct Investments (FDI) to the tune of US\$ 10.84 billion in the period April 2000–June 2018.
- **Government Initiatives:**
 - The Union Cabinet, Government of India has approved the National Steel Policy (NSP) 2017, as it seeks to create a globally competitive steel industry in India. NSP 2017 envisages 300 million tonnes (MT) steel-making capacity and 160 kgs per capita steel consumption by 2030-31.
 - The Ministry of Steel is facilitating setting up of an industry driven Steel Research and Technology Mission of India (SRTMI) in association with the public and private sector steel companies to spearhead research and development activities in the iron and steel industry at an initial corpus of Rs 200 crore.

Way Forward

- The steel industry's significance for our prosperity and welfare cannot be emphasized enough. The steel industry's products also play a crucial role in the development of the sustainable society.