



India's Steel Sector

For Prelims: [India's Steel Sector](#), [Monsoons](#), [Decarbonisation Challenge](#), Carbon Tax (Carbon Border Adjustment Mechanism), [National Steel Policy \(NSP\) 2017](#).

For Mains: India's Steel Sector, Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Source: [PIB](#)

Why in News?

Over the years, the [Steel Sector](#) has witnessed tremendous growth and India has emerged as a global force in steel production and the 2nd largest producer of steel in the world after China.

What is the State of Steel Sector in India?

- **Present Scenario:**
 - India's steel output has been 125.32 million tonnes (MT) of crude steel and 121.29 MT of finished steel production in FY23.
- **Significance:**
 - Steel is **one of the widely used materials all over the world**. The iron and steel industry is the bottom line producer industry.
 - The steel industry plays a pivotal role in crucial sectors such as construction, infrastructure, automobile, engineering, and defense.
 - Steel is a key sector for the Indian economy (responsible for 2% of the country's GDP in FY 21-22).
- **Producing States:**
 - India's major steel-producing states include **Odisha**, which leads among all steel producing states, **followed by Jharkhand and Chhattisgarh**. Karnataka, Maharashtra, Gujarat, and West Bengal also play crucial roles.

What are the Government Initiatives for the Growth of Steel Sector?

- **Inclusion of Specialty Steel in [PLI Scheme](#):**
 - The government approved a **Rs 6322 crore outlay for a 5-year period** to promote manufacturing of specialty steel, attracting investments, and fostering technological advancements in the sector.
- **Green Steel Making:**
 - The Ministry of Steel **constituted 13 Task Forces with the engagement of industry, academia, think tanks, S&T bodies, different Ministries and other stakeholders** to discuss, deliberate and recommend upon different levers of decarbonisation of the steel sector.
 - The Ministry of New and Renewable Energy (MNRE) has announced a **National Green Mission for green hydrogen production and usage**. The steel sector has also been made a stakeholder in the mission.

- The steel sector has adopted the **Best Available Technologies (BAT)** available globally, in the modernization & expansions projects.
- **Ministry's Engagement with PM Gati Shakti National Master Plan:**
 - The **Ministry of Steel has integrated BISAG-N's capabilities into the [PM Gati Shakti National Master Plan](#)**, uploading geolocations of more than 2000 steel units to gain insights into steel production facilities.
 - This information will aid in planning railway line extension, inland waterways, highways, ports, and gas pipeline connectivity.
- **Steel Scrap Recycling Policy:**
 - The **Steel Scrap Recycling Policy (SSRP)** has been notified in 2019 which provides a framework to facilitate and promote establishment of metal scrapping centres in the country for scientific processing and recycling of ferrous scrap generated from various sources **including end of life vehicles (ELVs)**.
- **National Steel Policy 2017:**
 - The Government has formulated the **[National Steel Policy 2017](#)**, which lays down the broad roadmap for encouraging **long term growth for the Indian steel industry**, both on demand and supply sides, by 2030-31.
 - Government's push for infrastructure development through Gati-Shakti Master Plan, '**Make-in-India**' initiative for manufacturing sector and other flagship schemes of the Government would provide impetus to the demand and consumption of steel in the country. .
- **Steel and Steel products (Quality Control) Order:**
 - The Ministry of Steel has introduced Steel Quality Control Order, thereby **banning sub-standard/ defective steel products both from domestic & imports** to ensure the availability of quality steel to the industry, users and public at large. As per the Order, it is ensured that only quality steel conforming to the relevant BIS standards are made available to the end users.
- **Safety in the Iron & Steel Sector:**
 - After extensive consultations with stakeholders, academia etc, a set of 25 common minimum Safety Guidelines for the **Iron & Steel Sector was formulated**.
 - These Safety Guidelines are **at par with the global standards** and are compliant with the **requirements of the ILO Code of practice on safety** in the Iron & Steel industry.
 - Inputs have also been taken from the World Steel Association's guidance document on "Safety & Health Principles and Definitions".
- **National Metallurgist Award :**
 - This award is a prestigious award given by the Ministry of Steel to recognize the outstanding contributions of metallurgists in the iron and steel sector.

UPSC Civil Services Examination Previous Year Questions (PYQs)

Prelims

Q. Which of the following are some important pollutants released by steel industry in India? (2014)

1. Oxides of sulphur
2. Oxides of nitrogen
3. Carbon monoxide
4. Carbon dioxide

Select the correct answer using the code given below:

- (a) 1, 3 and 4 only
- (b) 2 and 3 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

Ans: (d)

Exp:

- Steel industry creates pollution as it uses coal and Iron ore whose combustion releases various Polycyclic Aromatic Hydrocarbons (PAH) compounds and oxides into the air.
- In steel furnace, coke reacts with iron ore, releasing iron and generating major environmental pollutants.
- The pollutants released from steel producing units are:
 - Carbon Monoxide (CO), hence, 3 is correct.
 - Carbon Dioxide (CO₂), hence, 4 is correct.
 - Oxides of Sulphur (SO_x), hence, 1 is correct.
 - Oxides of Nitrogen (NO_x), hence, 2 is correct.
 - PM 2.5,
 - Waste Water,
 - Hazardous waste,
 - Solid waste.
- However, technological interventions in the form of air filters, water filters and other water saving, power saving and closed container can reduce emissions.
- Therefore, option (d) is the correct answer

Mains

Q1. Account for the present location of iron and steel industries away from the source of raw material, by giving examples. **(2020)**

Q2. Account for the change in the spatial pattern of the Iron and Steel industry in the world. **(2014)**

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