Steel Industry in India

Why in News

According to recent information shared by the Union Minister for Steel in Lok Sabha, **Indian steel companies** including the public sector **steel** companies **have consistently enhanced their capacities, production and sales** including exports over the years.

Key Points

- **Improvements:**
    - India was a **net exporter of steel in 2019-20** and during the period of April-August, 2020, steel exports from India have increased by more than 153% in comparison to the same period in 2019-20.
    - **Capacity for domestic crude steel production** has been expanded from 109.85 Million Tonnes Per Annum (MTPA) in 2014-15 to 142.29 MTPA in 2019-20.
    - **Crude steel production** has gone up from 88.98 MTPA in 2014-15 to 109.14 MTPA in 2019-20.
    - These improvements can be **attributed to the continuous efforts of skill training and government initiatives** in the country.
- **Skill Training:**
    - By **Skill Training Centres** under the Ministry of Steel. For example, **National Institute of Secondary Steel Technology** (Punjab), **Institute for Steel Development and Growth** (Kolkata), etc.
    - By **Central Public Sector Enterprises** (CPSEs) like **Steel Authority of India Ltd.** (SAIL) and **Rashtriya Ispat Nigam Ltd.** (RINL).
        - Both CPSEs have been making continuous efforts towards reducing the operational costs through technology induction, enhanced productivity and streamlining procurement.
- **Challenges:**
    - **Capital:** Iron and steel industry **requires large capital investment which is difficult for a developing country like India** to afford. Many of the public sector integrated steel plants have been established with the **help of foreign aid.**
    - **Low Productivity:** The per capita labour productivity in the country is at 90-100 tonnes for the steel industry which is very low. It is 600-700 tonnes per person in Korea, Japan, and other steel producing nations.
    - **Low Potential Utilisation:** Durgapur steel plant makes use of approximately 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 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.

Government Initiatives for Steel Industry

- **National Steel Policy (NSP) 2017**: It seeks to create a technologically advanced and globally competitive steel industry that promotes economic growth.
- **Steel Scrap Recycling Policy**: It was launched to utilise steel scrap emanating from vehicles and white goods (that have reached their end of life) for quality steel production.
- **Introduction of Quick Response** (QR) code based traceable tags where quality and genealogy can be tracked, **wireless hand-held terminal** to reduce retention time and improved identification and handling of the material and **steel ladle management system are few other initiatives.**
- **Optimisation of coke, pellet and sinter quality** to improve the yield and throughput of the Blast Furnaces and **modelling of iron making process** inside a blast furnace to reduce coke consumption and enhance the yield.
- **Adoption of the Fourth Industrial Revolution (**Industry 4.0**):** It will improve manufacturing processes, material usage, energy efficiency, plant and worker productivity, supply chain and product life-cycle.
- **Steel Research and Technology Mission of India:** It provides for the grant of financial assistance to various institutions including **Council of Scientific and Industrial Research** (CSIR) laboratories and academic institutions for carrying out research in the iron and steel sector including environmental issues like utilisation of wastes, improvement in energy efficiency and reduction in **greenhouse gases** (GHG) emission.
- **Draft Framework Policy:** It is aimed at facilitating setting up of greenfield steel clusters along with development and expansion of existing steel clusters.
    - The steel clusters will help the country become **Atmanirbhar** (self-reliant) in value-added steel and capital goods and also generate employment, especially in the eastern part of the country covering the states of Chhattisgarh, Jharkhand, West Bengal, Odisha and Andhra Pradesh as part of the **Purvodaya initiative** of the Ministry of Steel.

Way Forward

- The Indian steel industry has entered into a new development stage, post de-regulation, riding high on the resurgent econom y and rising demand for steel.
- Huge scope for growth is offered by India’s comparatively low per capita steel consumption and the expected rise in consumption due to increased infrastructure construction and the thriving automobile and railways sectors.
- The steel industry’s products play a crucial role in the development of the sustainable society and its significance for India’s prosperity and welfare cannot be emphasised enough.

Source: PIB