



Chapter 8

Important Industries

Learning Outcomes

- Identifying important industrial centres of the world
- Outlining factors responsible for localisation of industries



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Thinking Cap

How do industries help in the development of a country? Discuss with your classmates.

Important Industries of the World

The significance of an industry is determined by its contribution to the Gross World Product (GWP) and the population employed in the industry.

ANM



Did you know?

Gross World Product is the measure of the total value of goods and services produced by all countries during a specific period of time.

Some industries are some of the biggest revenue generators in the world. These include industries that transform natural resources into primary products or manufacture finished products that are sold directly to end-users.

Iron and Steel

Steel is used in the manufacture of industrial machinery. Most other industries are dependent on steel manufacturers for infrastructure material. Thus, iron and steel

is termed as a basic industry, because other industries depend on it. Iron and steel industries are the key to industrialisation and development of a nation. Steel is one of the most common building materials in the world, with more than 1.3 billion tonnes of it being produced annually.

Steel is an alloy of iron and other elements. Raw materials such as iron ore, limestone, manganese and coal are used in its manufacture. These are heavy and bulky, so iron and steel processing plants are generally located near the source of these raw materials.

Countries leading in the production of iron and steel are China, India, Russia, Ukraine, Germany, the USA and Japan. Majority of steel production takes place in Asia, which contributes to 61 per cent of the global production.

Did you know?

As much as 1,628 million tonnes of crude steel was produced worldwide in 2016.

India is the world's seventh-largest exporter of iron ore in the world. Bhilai, Bokaro, Durgapur, Jamshedpur and Rourkela are

the major centres of iron and steel industry in India.

Cotton Textile

Cotton is a natural fibre obtained from the cotton plant, which is later spun into yarn. Cotton fabric is soft, light weight and durable, which makes it suitable for warm climates. Hence, it is used all over the world. It is also used to manufacture other textile products like terrycloth, denim, cambric, corduroy and cotton twill.

Did you know?

There are more than 1,220 cotton mills in India. Maharashtra is the leading producer of cotton textile with 52.3 per cent of the national output.

As many as 90 countries produce cotton yarn. However, textile manufacturing centres are concentrated only in a few nations. The localisation of cotton industry depends on factors like warm humid climate, ports for importing machinery, availability of raw material and skilled labour.

India, China, Russia, the USA and Japan are the biggest cotton textile producing nations. Other countries producing cotton textiles are Italy, Germany, Hong Kong, Egypt, France and Romania. In Southern USA, there is an important cotton-producing belt that supports a large manufacturing base.

India is one of the leading cotton textile producers in the world. Important centres of the cotton textile industry are located in the Deccan Plateau. The Mumbai–Ahmedabad

belt is a major centre of the Indian cotton textile industry.

Information Technology

Information Technology (IT) industry comprises IT services and business process outsourcing. It involves processing, storage and transfer of information in a digital format. The IT industry includes application of computer hardware and software, along with telecommunication systems.

The development of IT industry is dependent on a pleasant climate, good transport facilities, highly trained professionals and progressive government policies.

Did you know?

In 2015, the IT industry surpassed \$3.7 trillion in market output and is now a key driver of the global economic growth.

Japan, South Korea, China, Israel, Singapore, Germany and the USA are some of the leading nations in the IT sector. The US market alone represents about 28 per cent of the worldwide total. The IT industry in the USA has particularly flourished in Santa Clara Valley of northern California, also known as the **Silicon Valley**.

Over the past decade, the biggest shift in global IT industry saw the rise of Asian countries. India is the world's largest sourcing destination for businesses worldwide. Bengaluru is the focal point for computer software production and export in the country.

ACTIVITY

Prepare a report on the history of textile production in India. List the benefits of the geographical conditions and problems that textile producers face in the country.

Sugar

Sugar is one of the most popular food items in the world. It is extensively used in the manufacture of food products. It is also used in the manufacture of medicines, cosmetics and even shoe polish.

Sugar is generally extracted from sugar cane in tropical regions. In temperate regions, however, sugar beet is used. In Brazil, a sweet liquid extracted from sugar cane, known as molasses, is used to manufacture a clean and renewable alcohol-based fuel, **ethanol**. The leftover crushed sugar cane biomass is either burnt or used to generate electricity.

Did you know?

There are 123 sugar-producing countries in the world. The top four countries cover less than 20% of the market.

Around 160 million tonnes of sugar is produced every year, globally. Countries such as India, Brazil, China, Thailand and the USA lead in sugar production. In Brazil, the country's south-central region is considered to be the heart of its sugar industry.

In India, the sugar cane industry is mainly concentrated in Uttar Pradesh, Haryana, Bihar, Punjab, Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh. Maharashtra, Uttar Pradesh and Karnataka are the top producers.

Shipbuilding

Shipbuilding involves the construction of ships and other floating vessels. It is the world's oldest industry.

The shipbuilding industry requires a specialised facility known as a **shipyard**. It also requires large number of skilled

workers, specialised machinery and raw materials like coal and iron ore.

China, South Korea and Japan dominate the shipbuilding industry. One of the largest shipbuilding centres is located around the capital of China, Beijing.

India's share in the global shipbuilding market has grown to 1.3% in 2012 from 0.1% at the beginning of the **11th Five-Year Plan**. However, it is still an emerging industry in the country, which is still dependent on government subsidies. Some major ship building centres are Mumbai, Visakhapatnam, Kochi, Kolkata and Goa.

Fishing

Fish constitute an important food source around the world. It is one of the healthiest foods and a prominent source of nutrients, proteins, Vitamin D and Omega-3 fatty acid.

Fishing industry involves activities that facilitate the supply of fish. These include the capture or culture of fish, followed by its processing, preservation, storage, transport and sale. Apart from seas, fishes are also captured from inland waters or reared in **aquaculture facilities**.

Around 12 per cent of the world's population is dependent on the fishing industry for their livelihood. For the past 20 years, the annual marine catch has been stable at 80 million tonnes.

Did you know?

There are more than 4.6 million fishing vessels in the world, with 75% of the global fleet operating in Asia.

Fishing industry relies on availability of small to large floating vessels, preservation techniques and efficient transport network. China leads in the global commercial fishing

market, with Peru, India, Indonesia and the USA following it. In India, the states of West Bengal, Andhra Pradesh, Gujarat and Kerala are the major fish producers. More than half of the global fish export by value originates in developing countries.

Factors Controlling Growth of Fishing Industry

1. Presence of wide continental shelf
2. Convergence of warm and cold currents, which help in breeding of plankton, which is fish food, e.g., Gulf Stream and Labrador currents near Finland. Fish are caught in large quantities when they come to feed.
3. Cold temperate climate, which helps to preserve the fish that are caught
4. Huge market
5. Temperate forests that provide logs for building fishing vessels

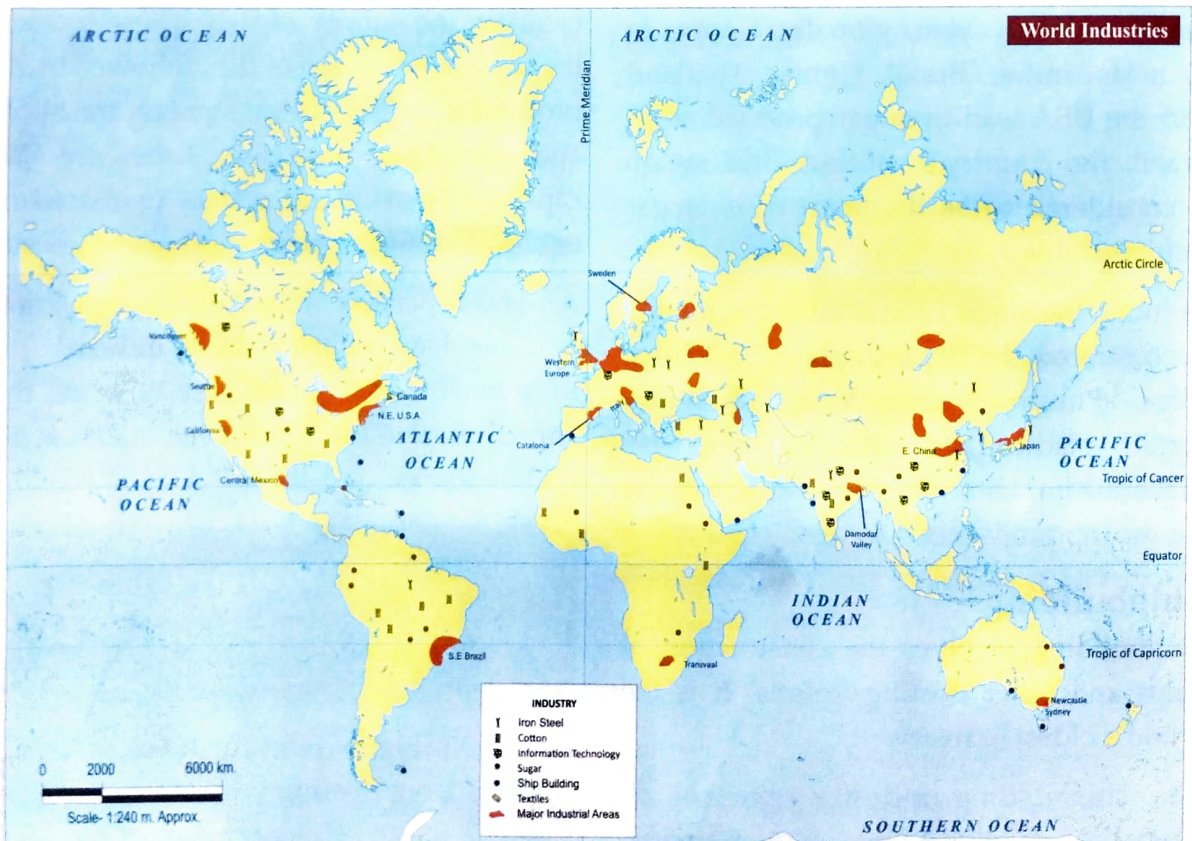
Automobile

Automobiles have become an important part of our lives. A number of vehicles are used daily to commute, including heavy vehicles such as buses. The automobile industry comprises design and development of automobiles, including their manufacture, marketing and sale.

The automobile industry is one of the most important economic sectors in the world. The production process of automobiles is based on immediate demand. It is also highly regulated by a number of local and international safety norms.

The automobile industry requires high level of investment in new technologies, such as construction of fully-automated assembly plants. It is also dependent on the availability of automotive components and skilled labour.

SVID



Map showing the distribution of various industries across the globe

China, the USA, Japan, Germany and South Korea are the largest automobile producers in the world. In India, manufacturing facilities are concentrated around three areas—Chennai, Mumbai and the National Capital Region. The automobile industry accounts for 7.1% of the country's Gross

Domestic Product (GDP), the majority of which is dominated by the two-wheeler segment.

Did you know?

There was a big drop in global car sales due to the COVID pandemic in 2020.

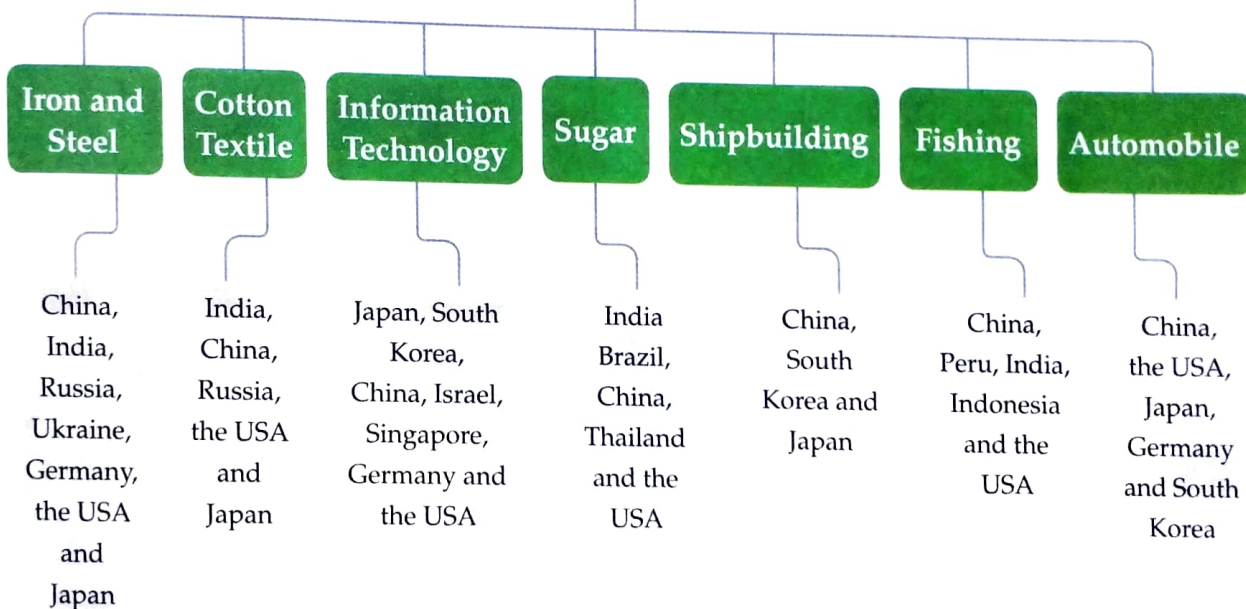
ACTIVITY

How will the 'Make in India' initiative help in the development of ship building industry in India? Discuss with your classmates.

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AT A GLANCE

Important Industries



EXERCISE

A. Fill in the blanks.

- Most industries are dependent on _____ manufacturers for infrastructure material.
- The _____ belt is a major centre of the Indian cotton textile industry.
- The IT industry in the USA has particularly flourished in Santa Clara Valley of Northern California, also known as the _____ Valley.



INT



4. Sugar is generally extracted from sugar cane in _____ regions.
5. The shipbuilding industry requires a specialised facility known as a _____.

B. State whether true or false.

1. The important centres for sugar industry in India are located in the Deccan Plateau.
2. Steel is an alloy of iron and other elements.
3. The US market alone represents about 58 per cent of the worldwide IT sector.
4. Around 12 per cent of the world's population is dependent on the fishing industry for their livelihood.
5. In India, automobile manufacturing facilities are concentrated around five areas.

C. Match the following.

Industry		Producing or Manufacturing Nation	
1.	Iron and steel	a.	South Korea
2.	Cotton textile	b.	USA
3.	Information technology	c.	Egypt
4.	Sugar industry	d.	Ukraine
5.	Shipbuilding	e.	Brazil

D. Choose the correct answer.

1. Which industry is termed as the basic industry because many others depend on it?

☐ iron and steel
☐ cotton textile

☐ sugar
☐ automobile
2. In which region, sugar beet is used to produce sugar?

☐ tropical
☐ subtropical

☐ temperate
☐ desert
3. Which industry is the world's oldest?

☐ iron and steel
☐ cotton textile

☐ shipbuilding
☐ fishing
4. What is the global annual marine catch as observed in the past 20 years?

☐ 40 million tonnes
☐ 60 million tonnes

☐ 80 million tonnes
☐ 100 million tonnes
5. What is the contribution of the automobile industry to India's GDP?

☐ 5%
☐ 7.1%

☐ 8%
☐ 9.2%

E. Give reasons.

1. Textile manufacturing centres are concentrated only in a few nations.
2. A country requires ocean going ships.
3. The automobile industry is considered as one of the most important economic sectors in the world.

F. Answer in a paragraph or two.

1. Explain the significance of iron and steel industry to other industries.
2. Describe the cotton industry.
3. Explain the distribution of the sugar industry in the world with special mention of India.
4. Write a short note on the IT industry.
5. What is the significance of the fishing industry? Explain the distribution of fishing industry in India and the world.



Picture Study

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1. Which industry does this picture depict?
2. We can see a manufacturing process going on here. What exactly is this formation called in the industry?
3. Name the place nearest to your location which has this industry?



Integrate

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science

Sustainable fishery is observed in many countries to conserve populations of viable fish. This includes putting restrictions on fishing practices.

Sustainable fishery is important to prevent overfishing and to ensure future sustainable catch. It is dependent on the population dynamics of fishes and factors such as the spawning season, spawning frequency and speed of aging.

Discuss restrictions that can be placed to ensure sustainable fishery in a region.



Life Skills

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Introduction of an industry has a significant impact on the human population in that region. For example, only after 100 years since the start of the Industrial Revolution, the world's population grew by 100 per cent.

Study the history of a nearby region, wherein an industry has been set up. Discuss the effects of the new industry on the quality of life in the area, its demographics and the environmental conditions.



Project



- A. India is known to be the fruit basket of the world. Due to deficiency of skilled manpower, poor cold storage facilities, inefficient post-harvest management and minimal technological interventions, it only caters to 1 per cent of the global fruit processing industry market. Wastage of fresh fruit produce has been estimated to be of a very high order, i.e., between 30 per cent and 35 per cent of the total production during harvest, storage, grading, transport, packaging and distribution because of challenges involved in the industry.

Identify the fruit that is grown in abundance in your neighbouring state and the way it is processed or distributed. Prepare a slideshow on it. If you think the process can be improved to reduce wastage, include your suggestions too.

- B. On a world map, mark some important places where the industries discussed in this chapter are located.