

## Chapter-8 Manufacturing Industries

### Classification of industries

**A.** On the basis of size, capital labour force

1. Large, 2. Medium 3. Small 4. Cottage

**B.** On the basis of ownership

1. Public 2. private 3. Joint 4. Cooperative

**C.** On the basis of product

1. Basic 2. Capital 3. Intermediate 4. Consumer industries

**D.** On the basis of raw materials

1. Agro based 2. Forest 3. Mineral 4. Industrially processed

**E.** NATURE OF PRODUCT

1. Metallurgical 2. Mechanical 3. Chemical 4. Textile 5. Food processing  
6.7. electricity generation 8. Electronics 9. Communication

### Location of industries

#### Locational factors

1. Raw materials
2. Power
3. Transport
4. Labour
5. Historical factors
6. Industrial policy

### Major industries

Iron Steel Industries

Raw Materials: Iron ore, coking coal lime stone, dolomite, manganese, fire clay

Types of Iron and Steel Industries

1. Integrated steel plants
2. Mini steel plants
3. Rolling mills
4. Ancillary industries

### Integrated steel plants

**TISCO:** 250km from Kolkata

Water– Subarnarekha Kharkhi rivers

Iron ore- Naomundi and Badampahar

Coal – Joda mines from Orissa

Coking coal – Jharia

**IISCO:**

Three factories at Hirapur, Kulti, and Burnpur

Coal- Ranigunj, Jharia Ramgarh

# Key Notes

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Ironore- Sighbhum  
Water- Barkar  
Transport Kolkata Asansol railway line

## **VISL:**

Also called Mysore Iron and steel co.ltd  
Iron ore- Kemangundi  
Lime stone manganese- local  
Charcoal used from the forest/ hydal power from jog falls  
Water –Bhadravati  
Produces specialised steels

## **ROUKELA**

Collaboration with Germany  
Located nearby raw materials  
Coal-Jharia iron ore- Sundargarh  
Power- Hirakudwater – Koel

## **BHILAI**

Russian collaboration  
Iron ore – Dalli Rajhara  
Coal- Korna  
Water-Tandula Dam  
Power –Korba  
Port – Vizak

## **DURGAPUR**

Collaboration with UK  
Coal –Raniganj  
Iron –Naomundi  
Power-DVC

## **BOKARO**

Russian collaboration  
Iron ore –Roukela  
Water& power –DVC

## **The cotton textile industry**

1. One of the traditional industries in India
2. India is famous for muslin, calicos chintz

## **Advantages available for cotton textile industries**

1. Cotton cloth is most comfortable in tropical climate
2. Large area under cotton cultivation
3. Availability of abundant skilled labour

# Key Notes

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## **Advantages of cotton textiles in Mumbai**

1. Close to cotton growing areas
2. Mumbai port facility
3. Provide capital for industries
4. Availability of cheap labour
5. Machines can be imported

## **Sectors of cotton textiles**

Organized sector

Integrated textiles

Decentralized sectors

It includes power looms and handlooms

Organized sector production declined from 81% to 6%

Decentralized sector produces 59% power looms and 19% hand looms

## **Cotton is not weight losing material**

### **Influencing factors are**

1. Power
2. Labour
3. Capital
4. Market

At Present Industries are located at the market

Swadesi Movement brought a major impetus to the industry boycotting British goods after 1921

1. With the development of railway cotton mills developed
2. In south India they are established in Coimbatore, Madurai, Bangalore
3. In central India Nagpur, Indore, Solapur, Vadodra
4. Cotton mills at Kanpur based on local investment
5. Cotton mills at Kolkata due to port facilities
6. Development of hydel power also helps to industry
7. Lower labour costs help to locate mills at Ujjain, Bharuch, Coimbatore, Tirunelveli away from cotton producing areas

### **Other factors are:**

- Market, cheap labour, availability of power
- Major centers Ahmedabad, Bhilwadi, Solapur, Kolhapur, Nagpur, Indore, Ujjain
- They are located nearby raw material producing states i.e. Guj, TN
- TN has largest no. of mills produce yarn rather than cloth
- Coimbatore has emerged as important center in south in KK mills are located near cotton producing areas. Davangere, Hubli, Bellary, Mysore, Bangalore,
- AP: Hyd, Sec, Warangal, Guntur
- UP: Kanpur is the largest, Modinagar, Hathras, Saharanpur, Agra, Lucknow
- WB; Hugli, Howrah, Serampur, Kolkata
- Cotton production increased five times from 1950 to 2000

# Key Notes

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## Problems of cotton mills

1. Competition from synthetic fiber
2. High cost of production
3. Erratic power supply
4. Frequent strikes, lockouts
5. Climatic changes decrease production

## Sugar industry

1. Most important industry
2. India is the largest producer of sugarcane.
3. 8% of sugar production in India
4. Khandasari, jaggery also produced in India
5. Provide 4 lakhs persons' employment
6. It is a seasonal industry
7. At present there are 506 mills with the production of 17699 lakh tones

## Location of sugar industry

1. It is a weight loosing industry crop
2. The ratio is 9-12 %
3. Sucrose content decrease soon after harvesting
4. Should be harvested before 24 hours
5. Ms is the leading producer
6. 1/3 of production comes from ms
7. There are 119 mills in the state
8. They extend from Manmad to Kolhapur
9. There are 87 mills in cooperative section

Up is the second largest producer of cotton textiles

There are two belts

1. Ganga-Yamuna Doab
2. Tarai region

Other states are TN, KK, AP

**Petrochemical industries:** In 1960 demand for organic chemicals increased.

Petroleum refining industry expanded.

Items derived from petroleum are raw materials for other industries.

They are called petro chemical industries.

## Subgroups of petrochemicals

1. Polymers
2. Synthetic fibre
3. Elastomers
4. Surfactant intermediate

Mumbai is hub of petro chemical industry

Cracker units are located at Auriya Jamnagar, Gandhi Nagar, Hajira Nagothane Ratnagiri

Haldia Vizak Organizations working under petrochemicals

# Key Notes

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## **Indian petrochemical corporation limited**

1. It is public sector
2. Produce polymers, chemicals fiber, fiber intermediates

## **Petrofils cooperative limited:**

1. It is the joint venture of govt. And weaver's cooperative society
2. Produces polyesters nylon chips

Located at Vadodara Naldhariin Gujarat

Central institute of plastic engineering and technology

1. Provide training for engineers
- Polymers are made from ethylene & propylene  
Polymers are used in plastic industry  
Plastic is converted into sheets power resin and pellets and then used in plastic industry

## **Advantages:**

1. Strength
2. Flexible
2. Water and chemical resistance
3. Low price

**National organic chemicals industries limited:** Established in private sector in 1961

First naphtha based chemical industry at Mumbai.

Center of plastic materials Mumbai, Mettur, Pimpri Rishra.

They are mostly small scale sector.

Uses recycled plastics.

## **Uses of plastic:**

### **1. To make fabrics**

#### **Uses:**

1. Strength 2. Durability 3. Wash ability 4. Resistant to water 5. Shrinking 6. Easy to maintain

**Centers of nylon and polyester:** Kota, Pimpri, Mumbai, Modinagar, Pune

Acrylic staple fiber manufactured at Kota Vadodara

The main problem of plastic is it is non-biodegradable

## **Knowledge based industry**

1. Brought revolution in the industry
2. Brought new economic and social environment
3. Out sourcing is an example
4. Fastest growing industry
5. Software export is expanding every day
6. It surpassed other industries
7. It accounts 2% of GDP
8. Produce quality products
9. MNCs are producing software production

## **LPG**

1. It is new industrial policy

### **Objective:**

1. To build on the gains already made
2. Correct the distortions
3. Maintain sustained growth
4. Gainful employment
5. Attain international competitiveness

### **Measures initiated:**

1. Abolishing industrial licensing
2. Free entry of foreign technology
3. Foreign investment policy
4. Access to capital market
5. Open trade
6. Abolition of phased manufacturing
7. Liberalized industrial location programme

### **Dimensions of new industrial policy**

1. Industrial licensing has been cancelled except 1. Security 2. Strategic. 3. Environmental concerns
2. Public sectors reduced from 17 to 3
3. Atomic energy & railways kept under government
4. Govt. offered shareholdings to financial institutions, public workers
5. No private permission is required to invest in de-licensing sector
6. FDI is the supplement of domestic investment
7. FDI provide technological innovation
8. Access to global managerial skills optimum use of nature man resources
9. Liberalized to attract MNC and private sector
10. Mining and communications high way construction thrown to private
11. Globalization means integrating national economy with world economy
12. Goods, services capital labour resources can move freely from one nation to another

### **Steps**

1. Opening of economy to FDI by providing facilities to foreign companies to invest in different fields of economic activity
2. Removing restrictions an obstacle to the entry of multinational company in India
3. Allowing Indian companies to collaborate other countries
4. Carry out massive import
5. Opting exchange rate adjustments to export

### **Problems in new industrial policy**

1. Major share went to core industries
2. Infrastructure was untouched
3. Gap between developed and developing increased

# Key Notes

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4. Major share went to developed states
5. 23%ms 17% guj7% AP 6% TN&UP 8%  
N.E states only 1%

## **Industrial regions**

### **Criteria for identifying industrial regions**

- 1.number of industrial units
2. Number of industrial workers
3. Quantity of power used
- 4.output
- 5.value added by manufacturing

### **Mumbai Pune region**

1. Extended from Mumbai to Sholapur
2. Connect Kolaba Ahmednagar, Satara Sangle Jalgaon

### **Favourable factors**

1. Cotton hinterland
2. Moistclimate
3. Opening of Suez Canal
4. Mumbai port facility
5. Hydel power from western Ghats
6. Opening of Mumbai high
7. Nuclear power plant at Tarapur
8. Industries: Engineering goods, oil refineries, petrochemicals, leather goods, synthetic, plastic, drugs, fertilizers

### **Hugli Industrial region**

### **Advantages:**

1. Extend from Bansberia to Birlanagar
2. Opening of Hugli port
3. Well connected with railways
4. Development of tea plantation, jute cultivation
5. Presence of coal fields, iron mines DVC
6. Cheap labour from up & Bihar
7. Industries: jute, paper, textiles, electrical, fertilizers Hindustan motors, diesel locomotives at Chttaranjan. Oil refinery at Haldia

### **Bangalore – Chennai region**

1. Extend from Bangalore to Madurai
2. Power from Pykara Hydel power
3. Industries: cotton textile, eng. goods, HAL, HMT, at Bangalore, rubber industry, petroleum oil refinery at Mumbai

# Key Notes

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## **Gujarat industrial region**

1. Extend from Ahmedabad to Surat
2. Large cotton growing area
3. Nearness to market
4. Oil fields at Ankaleswar Vadodar Jamnagar
5. Kandla port facility
6. Koyali oil refinery
7. Kakrapara nuclear plant

## **Chotanagapur industrial region**

1. Extend from Jharkhand to Orissa
2. Heavy metallurgical industries
3. Coal at DVC
4. Iron ore, limestone coal fields
5. Steel plants at Jamshed Pur , Burnpur Kulti Durgapur ,Bokaro, Rourkela
6. Hydel. Thermal power from DVC
7. Labor from Bihar, Bengal
8. Industries: engineering, machine tools, fertilizers, cement paper locomotives
9. Places are Ranchi, Dhanbad, Sindri, Hazaribagh Jamshedpur

## **Vizak guntur industrial region**

1. extend from Vizak to Kurnool
2. Port facility from Vizak, Machilipatnam
3. Dev. Agriculture, hinterland mineral
4. Godavari coal fields, shipbuilding at Vizak. Petroleum oil refinery. Lead zinc steel industry at Vizak

## **Gurgaon-Delhi Meerut region**

1. Fast growth,
2. Away from minerals
3. Light industries
4. Electrical, woolen textiles, hosiery goods, sugar mills, cycle agriculture implements  
Software, glass leather goods

## **KOLLAM -Thiruvanantha Puram**

1. Extend from Trivandrum to Alappuzha
2. Plantation agriculture,
3. Hydel power
4. No minerals
5. Ag. Product processing
6. Cotton textiles, sugar, rubber, match box glass fish based industries food processing
7. Oil refinery at Cochin