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.electricitygeneration 8. Electronics9. 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 Kharki 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

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

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 loosing material
Influencing factors are

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

At Preset Industries are located at the market
Swadesi Movement brought a major impetus to the industry boycotting British good after 1921

1. With the development of railway a cotton mills developed
2. In south India they are established in Coimbatore, Madurai Bangalore
3. In central India Nagpur, Indore Sholapur Vadodara
4. Cotton mills at Kanpur based on local investment
5. Cotton mills at Kolkata due to port facilities
6. Development of hydel power also help to industry
7. Lower labour costs helps 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 Bhiwandi, Solapur, Kolhapur Nagpur Indore Ujjain
- They are located nearby raw material leading producing states ms. 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. Davanger, Hubli, Bellary Mysore, Bangalore,
- AP: Hyd, Sec, Warngal 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

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, jaggary 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

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 expandingevery 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 t 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 expect 1. Security 2. Strategic. 3. Environmental concerns
2. Public sectors reduced from17 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 MNS 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 collaborative 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. Infract rue was untouched
3. Gap between developed and developing increased

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

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