



MANUFACTURING →

Production of goods in large quantities after processing from raw materials to full or more valuable products.

IMPORTANCE of MANUFACTURING Imp

It not only helps in modernising agriculture, reduce the dependence on agriculture by providing jobs in primary & secondary sectors.

It helps in eradication of unemployment and poverty, bringing down regional disparities in tribal and backward areas.

Exports of manufactured goods expands trade and commerce & brings foreign exchange.

Countries that transform their raw materials into finished goods of higher value are prosperous.

NMCC → National Manufacturing Competitiveness Council

FACTORS AFFECTING INDUSTRIAL LOCATION

→ Availability of

a) raw materials

b) labour

c) capital

d) Power e) Market

at lower cost

as well as

a) banking

b) insurance

c) transport

d) Consultants

e) financial advice

flowchart of resources & share the profits or losses proportionately eg small.

Sugar Industry in Maharashtra
Coal in Kerala

NAVNEET

AGGLOMERATION ECONOMIES

After an industry starts, urbanisation follows. Many industries tend to come together to make use of the advantages offered by the urban centres known as agglomeration economies.



CLASSIFICATION OF INDUSTRIES

Raw Materials	Main Role	Capital Investment	Ownership	Weight to Bulk & Raw material & finished goods
↳ Agribased Cotton Woolen Jute Rubber Sugar	↳ Basic good Iron & Steel Al Smelting Cu "	↳ Small Scale ↳ less than 1 crore. ↳ large scale. ↳ More than 1 crore.	① PUBLIC: owned & operated by govt agencies BHEL, SAIL	↳ HEAVY IRON & Steel ↳ LIGHT. use light raw material & goods electrical industries
↳ Mineral Iron & steel. Aluminium Petrochemicals Cement	Sugar Toothpaste paper fans	* Max ^m investment allowed on the assets of a unit	② PRIVATE by individuals or a group of individuals. TISCO, Bajaj, Dabur	

③ JOINT SECTOR → jointly run by state & individuals or a group of individuals.
[OIL]

④ COOPERATIVE SECTOR → owned & operated by producers or suppliers of raw materials, workers or both. They pool in the

AGRO BASED INDUSTRY

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TEXTILE → General.

- ↳ 14% Industrial production.
- ↳ 35x10⁶ → employment. [2nd after agriculture]
- ↳ 24.6% → foreign (for an exchange)
- ↳ 4% GDP.



COTTON TEXTILES

- ↳ First successful cotton mill - Mumbai - 1854-1854
- ↳ 1600 textile mills → 80% private
- ↳ 20% public

Maharashtra & Gujarat

- ↳ availability of Raw Cotton.
- ↳ Market
- ↳ Transport including port facilities.
- ↳ labour
- ↳ moist climate

It provides employment ^{to} because

- ↳ farmers
- ↳ cotton ball pluckers
- ↳ workers engaged in spinning, ginning, weaving, dyeing, designing, packaging, tailoring

JUTE TEXTILES

- ↳ India is largest producer of raw jute & jute goods.
- ↳ 2nd largest exporter after Bangladesh

WEST BENGAL (Hugli Basin)

- ↳ proximity of Jute producing areas
- ↳ inexpensive water transport
- ↳ supported by a good network of railways, roadways & waterways

- ↳ abundant water for processing raw jute
- ↳ cheap labour from WB, Bihar, UP, Orissa

- ↳ Kolkata → urban centre
- ↳ banking
- ↳ insurance
- ↳ port facilities

Handspun khadi provides large scale employment to weavers as a cottage industry.

Challenges faced by Jute Industry

↳ stiff competition from synthetic substitutes & competitors like Bangladesh, Brazil etc.

↳ Spinning @ global level.
Weaving, Knitting & processing units cannot use high quality yarn.

However govt policy of mandatory use of jute for packaging.

Challenges → ~~Jute~~ ^{irregular}

- ↳ Erratic power supply.
- ↳ Machinery needs to be upgraded.
- ↳ low output of labour.
- ↳ stiff competition with synthetic fibre industry.

In 2005, National Jute Policy was formulated to

- ↳ increase productivity
- ↳ improve quality
- ↳ ensuring good prices to farmer
- ↳ enhanced yield per hectare.



GLOBAL CONCERN for } opportunity
environment friendly } for
biodegradable materials } jute products

SUGAR INDUSTRY

India → second largest producer of sugar.
→ first producer of gur & khandsari.

Raw material is bulky, and in haulage its sugar content reduces. → UP & BIHAR

Reason for sugar industry shifting to southern & western states.

- a) Cane produced here has higher sucrose content
- b) Cooler climate ensures - long crushing season
- c) Co-operatives are more successful.

MINERAL BASED INDUSTRY

IRON AND STEEL INDUSTRY

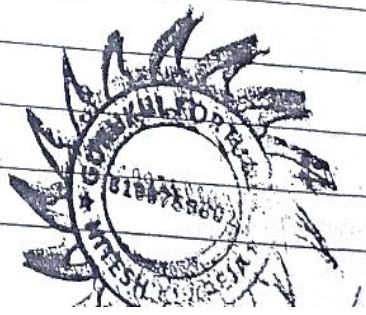
Steel is needed for:

- ↳ manufacturing industrial goods.
- ↳ construction material
- ↳ defence equipments
- ↳ medical
- ↳ telephonic
- ↳ scientific
- ↳ consumer goods.

- 4: Iron ore
- 3: Coking coal.
- 1: limestone.

RAW MATERIAL & FINISHED PROD - heavy GOOD

India → 9th rank → crude steel.
→ 1st → sponge iron



MINI STEEL PLANT

INTEGRATED STEEL PLANT

- ↳ smaller.
- ↳ electric furnaces.
- ↳ use of steel scrap & sponge iron
- ↳ have re-rollers that use steel ingots as well.

- ↳ large.
- ↳ handless
- ↳ everything in 1 complex

↓
 putting together raw material to steel making, rolling & shaping.

PUBLIC SECTOR → SAIL & TISCO

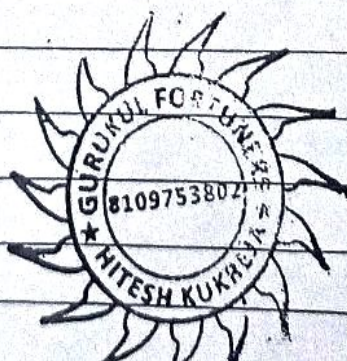
China largest producer of steel as well as consumer.

LOCATION → CHOTTANAGPUR REGION.

- ↳ low cost of iron ore
- ↳ high grade raw materials in proximity
- ↳ cheap labour
- ↳ vast growth potential in home market

CHALLENGES

- (a) High costs & limited availability of coking coal.
- (b) Lower productivity of labour.
- (c) Irregular supply of energy.
- (d) Poor infrastructure.



7 ALUMINIUM SMELTING

- second most important metal.
- light, resistant to corrosion, good conductor of heat
- malleable & becomes strong when mixed with other metals.

Uses of

→ manufacture of aircraft, utensils, wires

→ 8 Aluminium smelting plants:

Orissa → Nalco & Balco	Kerala	Chattisgarh
Andhra Pradesh	UP	Maharashtra
West Bengal		

Bauxite → raw material → bulky, dark reddish coloured rock

LOCATION

→ Regular supply of electricity

→ assured source of raw material at minimum cost

CHEMICAL INDUSTRIES

3% of GDP

→ 3rd largest in Asia, 12th in the world.



Inorganic chemicals → sulphuric acid	→ fertilizers
→ nitric acid	→ synthetic fibres
glass ←	→ plastics
soaps ←	→ adhesive
detergents ←	→ paints
paper ←	→ dyes & stuffs
	→ soda

ORGANIC CHEMICALS

↳ petrochemicals → manufacturing of synthetic fibres
 " rubber
 plastics, drugs & pharmaceuticals

Chemical Industry is its own largest consumer? Explain

FERTILIZER INDUSTRY

India 3rd largest producer

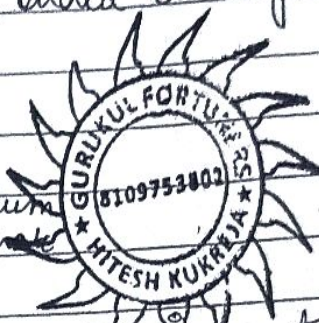
↳ nitrogenous fertilizers → urea

↳ phosphatic " → Diammonium phosphate

↳ Ammonium phosphate → DAP (Diammonium phosphate)

↳ complex fertilizers → NPK

↳ potash is imported



→ 10 public sector undertakings

→ 1 in cooperative sector → Hazira in Gujarat
 ↳ fertilizer Corporation of India

→ TN, UP, Punjab, MP, Maharashtra etc

CEMENT INDUSTRY

Requires bulky raw materials → limestone - silica
 major requirements → alumina - gypsum
 Coal, + Electric power + Transportation



2015

9

April

08

- First cement plant - Chennai - 1904
- Decentralised of price and distribution since 1989. Said other policy reforms led the cement industries to make rapid strides in capacity, process, technology and production, CPEP
- Export to - East Asia, Middle East Africa and South Asia
- Challenges → adequate domestic demand & supply in order to sustain this industry.

Automobile Industry

- ↳ quick transport of goods, services & passengers
- ↳ after liberalisation, the coming of new and contemporary models stimulated demand for vehicles in the market which led to the healthy growth of industry
- ↳ JOT brought in new technology & aligned the industry with global level.
- eg → Delhi, Mumbai, Gurgaon etc

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INFORMATION TECHNOLOGY & ELECTRONIC INDUSTRY

- ↳ Bangalore - Electronic Capital of India
- ↳ other centres → Mumbai, Delhi, Pune, Hyderabad
- ↳ 18 software technology parks provide single window service & high data communication facility to software experts

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4	5	6	7	8	9
11	12	13	14	15	16
18	19	20	21	22	23
25	26	27	28	29	30





from employment point of view 2015

100-265 31/3/2005 - employment to over 1 million persons
 increase eight fold in next 3-4 years
 30% of people employed in are temporary

It is a major foreign exchange earner in last 3-4 years due to its fast growing BPO (Business Processing Outsourcing) (BPO) sector

INDUSTRIAL POLLUTION

① AIR → Unpleasant gases such as sulphur dioxide, carbon monoxide, dust, liquid particles, like spray, mist, smoke. Chemical factories, brick kiln, refineries, smelting plants, fossil fuels etc. Toxic gas leaks have hazardous long term effects

② WATER → organic and inorganic industrial waste & effluents such as paper, pulp, chemical, textile, dyeing etc. that pollute water. dyes, detergents, acids, mercury, pesticides etc. in to water bodies

carrying pollutants to the ground water gets contaminated

12 SUN April 2015

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