

UNIT-V

Industries and Environmental degradation

Industry creates five types of pollution;

1. Air pollution

It is caused by the presence of a high proportion of undesirable gases, such as sulphur dioxide and carbon monoxide. Smoke is emitted by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels leads to air pollution. It adversely affects human health, animals, plants, buildings and the atmosphere as a whole.

2. Water pollution

It is caused by organic and inorganic industrial wastes and effluents discharged into rivers. The industries which are mainly responsible for water pollution are paper, pulp, chemical, textile and dyeing, petroleum refineries, tanneries and electroplating industries.

3. Thermal pollution

Thermal pollution of water occurs when hot water from factories and thermal plants is drained into rivers and ponds before cooling.

4. Soil pollution

The chemical contents from the factories are discharged through water means it creates pollution to the drained soils. Also the deposition of smoke and dusts materials contaminated the soils.

5. Noise pollution

Noise pollution is the propagation of noise with harmful impact on the activity of human or animal life. It results in irritation, anger, cause hearing impairment, increased heart rate and blood pressure.

Control of environmental degradation by the industries

1. Minimizing the use of water by reusing and recycling it.
2. Harvesting rainwater to meet water requirements.
3. Treating hot water and effluents before releasing them in rivers and ponds.
4. Particulate matter in the air can be reduced by fitting smoke stacks to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators.
5. Smoke can be reduced by using oil or gas instead of coal in factories.
6. Machinery can be redesigned to increase energy efficiency and reduce noise.

Industrial hazards and Occupational health

1. Physical hazards- Thermal stress (heat and cold stress), noise, vibration, poor or defective illumination, radiation, changes in barometric pressure etc.
2. Chemical hazards- Gases and vapours, metals (lead, mercury, manganese), pesticides, insecticides etc.
3. Biological hazards- Occupational infections, occupational dermatoses, occupational cancer, reproductive effects, occupational asthma etc

Occupational health

- Behavioural and psychosomatic disorders
- Hypertension
- Coronary heart disease
- Peptic ulcers
- Chronic nonspecific respiratory disease
- Locomotive disorders (low back pain, shoulder-neck pain)

Industrial Policy (IP)

Industrial policy or industrial strategy of a country is its official strategic effort to encourage the development and growth of all or part of the economy, often focused on all or part of the manufacturing sector. The government takes measures aimed at improving the competitiveness and capabilities of domestic firms and promoting structural transformation. A country's infrastructure (including transportation, telecommunications and energy industry) is a major enabler of the wider economy and so often has a key role in IP.

New Industrial policy of the government: Liberalization, deregulation and privatization

The industrial policy specifies the relevant roles of the public, private, joint and co-operative sectors; small, medium and large scale industries. It emphasizes the national significances and the financial development strategy. It also explains the Government's policy towards industries, their establishment, functioning, progress and management; foreign capital and technology, labour policy of India has determined the pattern of financial and industrial development of the economy. The industrial policy revealed the socio-economic and political philosophy of the development.

Need for integrated industrial development

Integration at industrial development means that all four major factors operate as an integrated team, aiming to create a plant to produce at designed output capacity and quality, within the planned investment cost and construction schedule.

- To maximize the profit in production

- To maximize the product
- To achieve the whole economic development
- Maintain the sustainability in the industrial product
- To compete with the regions of the world
- For the country's growth and development
- Helpful for the industrialization
- To promote the backward regions forward
- Minimize the cost of production and price of the product etc.