APPOLO STUDY CENTRE

TNPSC GROUP II MAIN

மாதிரி தீர்வாகம்

ADDITIONAL REFERENCE – SCHOOL BOOK SOURCE PART 2

Disaster Management

Disaster

'A disaster is a serious disruption of the functioning of a society involving human and material loss. Disaster is broadly classified into natural and man-made disasters.

Disaster	
Natural Disasters	**Man- Made Disasters**
✓ Earthquakes ✓ Volcanoes ✓ Tsunamis ✓ Cyclones ✓ Floods ✓ Landsides ✓ Avalanches ✓ Thunder & Lightning	✓ Fire ✓ Destruction of buildings ✓ Accidents in industries ✓ Accidents in transport ✓ Terrorism ✓ Stampede

Natural Disasters

Earthquake

The sudden shaking of the earth at a place for a short spell of time is called an earthquake. The duration of the earthquake may be a few seconds to some minutes. The point where an earthquake originates is called its 'focus'. The vertical point at the surface from the focus is called 'epicentre'.

An earthquake is sudden, rapid shaking of the ground caused by the shifting of rocks beneath the earth's surface. Earthquakes strike suddenly without warning and can occur at anytime. The impacts of the earthquakes include deaths, injuries and damage of property.

CASE STUDY

Nepal – India Earthquake

The **April 2015 Nepal Earthquake** (also known as the **Gorkha Earthquake**) killed nearly 9,000 people and injured nearly 22,000. It occurred on 25 April, with a magnitude of 8.1 Richter scale. Its epicentre was east of Gorkha District at Barpak. It was the worst natural disaster to strike Nepal since 1934 Nepal–Bihar earthquake.

The earthquake triggered an avalanche on Mount Everest, killing 21 people making April 25, 2015 the deadliest day on Nepal's history. The earthquake triggered another huge avalanche in the Langtang Valley, where 250 people were reported missing.

Nepal Earthquake

Tsunami and floods

Tsunami refers to huge ocean waves caused by an earthquake, landslide or volcanic eruption. It is generally noticed in the coastal regions and travel between 640 and 960 km/h. Tsunamis pose serious danger to the inhabitants of the coastal areas.

The word 'Tsunami' is derived from Japanese word 'tsu' meaning harbour and 'nami' meaning wave (Harbour wave).

Indian Ocean Tsunami of 2004

- On December 26, 2004, at 7:59 a.m. local time, an undersea earthquake with a magnitude of 9.1 struck off the coast of the Indonesian island of Sumatra.
- The tsunami killed at least 2,25,000 people across a dozen countries, with Indonesia, Sri Lanka, India, Thailand, Somalia and Maldives, sustaining massive damage.

A killer Tsunami hit the south east Asian countries on the 26th of December, 2004. A massive earthquake with a magnitude of 9.1 -9.3 in the Richter scale epicentre in the Indonesian island of Sumatra. It triggered one of the biggest Tsunamis the world had ever witnessed. The massive waves measuring up to 30

metres that killed more than 2,00,000 people of Asia. In India, over 10,000 people were killed by this disaster. Tamil Nadu alone accounted for 1,705 deaths. All the coastal districts were affected, Nagapattinam was the worst hit in the state of Tamil Nadu. Fishermen, tourists, morning walkers, children playing in beach and people living on the coast were unprepared for the waves. So they lost their life and the most of the loss of lives and damage to property was within 500 metres of the shore. After that the Indian government set up a Tsunami Early Warning System at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad in 2007.

Floods

Floods are high stream flows, which overlap natural or artificial banks of a river or a stream and are markedly higher than the usual flow as well as inundation of low land.

Types of floods

Flash floods: Such floods that occur within six hours during heavy rainfall.
River floods: Such floods are caused by Precipitation over large catchment areas or by melting of snow or sometimes both.
Coastal floods: Sometimes floods are associated with cyclone high tides and tsunami.

Causes of floods

- Torrential Rainfall.
- Encroachment of rivers bank.
- Excessive rainfall in catchment.
- Inefficient engineering design in the construction of embankments, dams and canals.

Effects of floods

- Destruction of drainage system
- Water pollution
- Soil erosion
- Stagnation of water
- Loss of agricultural land and cattle
- Loss of life and spread of contagious diseases.

Landslide

A landslide is defined as the movement of a mass of rock debris down a slope. Landslides are caused by the direct influence of gravity. Landslides can be caused by rainfall, snowmelt, stream erosion, and flood, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors.

Landslides cause property damage, injury and death and adversely affect a variety of resources. For example, water supplies, fisheries, sewage disposal systems, forests, dams and roadways can be affected.

Cyclone

A low pressure area which is encircled by high-pressure wind is called a cyclone.

The major natural disaster that affects the coastal regions of India is cyclone and as India has a coastline of about 7516 km; it is exposed to nearly 10 percent of the world's tropical cyclones. About 71 percent of flood prone areas are in ten states (Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Pondicherry, Andhra Pradesh, Orissa and West Bengal). The islands of Andaman, Nicobar and Lakshadweep are also prone to cyclones.

Volcanoes

Volcanoes are openings or vents where lava, small rocks and steam erupt onto the earth's surface.

Avalanche

A large amount of ice, snow and rock falling quickly down the side of a mountain is called an Avalanche.

Man-made disasters

Disasters induced by human beings are man-made disasters. It includes fire accident, transport accident, structure failure, mining accidents, explosions, stampede etc. In this lesson, we study about some of the man-made disasters.

Stampede

The term stampede is a sudden rush of a crowd of people, usually resulting in injuries and death from suffocation and trampling. In stampede, the term mob or crowd is used to refer to a congregated, active, polarized aggregate of people, which is basically heterogeneous and complex. Its most salient features include homogeneity of thought and action among its participants and their impulsive and irrational actions.

"Mumbai railway station stampede kills at least 22"

"Rush-hour crush on footbridge connecting two stations was triggered by falling concrete that caused panic!" At least 22 people have been killed and more than 30 injured during a rush-hour stampede on a bridge between two railway stations in Mumbai. The crush occurred on a narrow footbridge connecting Prabhadevi station, formerly Elphinstone, and Parel station during the Friday, September 29, 2017 morning commuter rush and amid heavy rain. "There was a huge crowd on the foot over bridge. Everybody tried to leave at once and it appeared one of them slipped and fell, triggering the stampede," said an Indian Railways spokesman. Another spokesman said the number of people on the bridge was higher than usual because people were using the station to shelter from the rain.

Causes of stampede

Incidents of stampedes can occur in numerous socio-cultural situations. These stampede incidents can be categorized into the following types: Entertainment events, escalator and moving walkways, food distribution, processions, natural disasters, power failure, religious events, fire incidents during religious/ other events, riots, sports events and weather related events.

Large religious gatherings are a particular stampede danger in the developing world. A 2013 paper out of India, for example, found that 79 percent of stampedes in that country have taken place at religious events, as opposed to political or entertainment-related events.

Stampede Management

Crowd management is defined as the systematic planning and supervision of the orderly movement and assembly of people. Crowd control is the restriction or limitation of group behavior.

Drowning

Drowning is the 3rd leading cause of unintentional injury death worldwide, accounting for 7% of all injury-related deaths. There are an estimated 3, 72, 000 annual drowning deaths worldwide. Children, males and individuals with increased access to water are most at risk of drowning. Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death, morbidity and no morbidity.

Fact File

It is one of our most visceral fears; thrashing in the deep, far below the water's surface, lungs burning for oxygen. Drowning claims hundreds of thousands of lives every year, a great many of whom are young children. Of course, exposure to water is a key factor in drowning, but there is a strong economic correlation as well. Those in poorer countries are far more likely to be drowning. In Bangladesh, 17,000 children drown annually that's 46 a day.

Below are 10 facts about drowning; from a lake that never surrenders its victims to a party for lifeguards that ended in deadly irony.

Fresh Water and Salt Water Drown You Differently.

Males are especially at risk of drowning, with twice the overall mortality rate of females. Studies suggest that the higher drowning rates among males are due to increased exposure to water and riskier behavior such as swimming alone, drinking alcohol before swimming alone and boating. Drowning accounts for 75% of deaths in flood disasters.

Prevention

There are many actions to prevent drowning. Installing barriers (e.g. covering wells, using doorway barriers and playpens, fencing swimming pools etc.) to control access to water hazards, or removing water hazards entirely greatly reduces water hazard exposure and risk. Community-based, supervised child care for pre-school children can reduce drowning risk and has other proven health benefits. Teaching school-age children basic swimming, water safety and safe rescue skills is another approach. Setting and enforcing safe boating, shipping

and ferry regulations is an important part of improving safety on the water and preventing drowning. Building resilience to flooding and managing flood risks through better disaster preparedness planning, land use planning, and early warning systems can prevent drowning during flood disasters.

Fire Accident

Massive forest fires may start in hot and droughty weather as a result of lightning, and human carelessness or from other causal factors. Fires can lead to the destruction of buildings, wooden bridges and poles, power, transmission and telecommunication lines, warehouses of containing oil products and other fuel. It causes injury to people and animals.

During droughts or windy weather, fire may destroy low vegetation and trees. The spreading speed of low fire is 1-3 m/sec and high fire may reach up to 100m/sec.

Industrial Disasters

Industrial hazards consist of four principle hazards. The hazards encountered are fire, explosion, toxic release and environmental damage. This is because industries employ many different processes involving a wide range of different raw materials, waste products and final products. Danger originates from technological or industrial accidents, dangerous procedures, infrastructure failures or certain human activities. It may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

Fire: This is the most frequent hazard. Fire can also produce toxic fumes like Acrolein, Carbon monoxide and Cyanides. Physical structures can be damaged either by the intensity of the heat or combustion. It may also have an effect on essential services like power and instrumentation.

Explosion: Explosions is the result of a shock wave. This overpressure can kill people but usually the indirect effects of collapsing buildings, flying glass and debris causes far more loss of life and severe injuries. There are different types of explosions which include gas explosions and dust explosions. Gas explosions occur when a flammable gas mixes with air. Dust explosions occur when flammable solids, especially metals, in the form of fine powders are intensively mixed with air and ignited.

Chemical release: Sudden release of toxic vapors has the potential to cause death and severe injuries several kilometers from the release point. They are carried by water and air. Their release into public sewage systems, rivers, canals and other water courses, either directly or through contaminated water used in firefighting can result in serious threat to public. The number of casualties depends on the weather conditions, population density in the path of the cloud and the effectiveness of the emergency arrangements.

Environmental Damage: Release of other substances, not directly toxic to humans can cause major pollution problems. It is becoming increasingly recognized that damage to natural resources such as plant and animal life can have serious long term consequences. E.g. destruction of trees is increasing the effect of global warming and extinction of animals are severely disrupting food webs and causing an increase in pests.

Means of reducing the industrial hazards

Process Safety Management: Reliability assessment of process equipment, incorporating safety tips, scrubbing system, etc, should be done before effecting major process changes.

Safety Audits: Periodical assessment of safety procedures, performance of safety systems and gadgets along with follow up measures should be carried out.

Emergency Planning: A comprehensive risk analysis indicating the impact of consequences and practiced emergency procedures should be done. This can be done by communities as well as national or regional corporation authorities.

Training: Proper training of employees and protective services should be done.

Road accident

It is estimated that 1.34 million people are killed in the road accidents every year. Road accident is the 8th leading cause of death globally. Every year, up to 50 million people suffer serious, life-altering injuries which, in many low- and middle-income countries, directly contribute to the poverty cycle.

Primary road safety risk factors in low and middle-income countries include:

1. Speeding
2. Drink-driving
3. Non-use, or improper use of helmets, and
4. Non-use, or improper use of seatbelts

Strengthening the capability of the road traffic police to enforce traffic laws is fundamental to deterring road users from violating the laws, to reduce harm and to reduce inappropriate and unsafe behaviors on the roads.

Hazards

Hazards are defined as a thing, person, event or factor that poses a threat to people, structures or economic assets and which may cause a disaster. They could be either humanmade or naturally occurring in the environment. The word 'hazard' owes its origin to the word 'hasart' in old French meaning a game of dice (in Arabic – az-zahr; in Spanish – azar). Though the society experiences several types of hazards, it is important for a region to be aware of those threats that are most likely to affect the community most severely.

A natural hazard is anatural process and event that is a potential threat to human life and property. The process and events themselves are not a hazard but become so because of human use of the land.

A disaster is a hazardous event that occurs over a limited time span in a defined area and causes great damage to property/

loss of life, also needs assistance from others.

A catastrophe is a massive disaster that requires significant expenditure of money and a long time (often years) for recovery.

Types of Hazards

Some hazards occur frequently and threat the people. Hazards are classified in different ways.

I. Based on their causes of occurrence.

II. Based on their origin.

I. Based on their causes of occurrence

Hazards can be broadly classified into three types: natural, human-made and socio-natural hazards.

1. **Natural hazards:**

These are the results of natural processes and man has no role to play in such hazards. The main examples of natural hazards are earthquakes, floods, cyclonic storms, droughts, landslides, tsunamis and volcanic eruptions.

Human-made hazards:

These are caused by undesirable activities of human. It can be the result of an accident, such as an industrial chemical leak or oil spill, or an intentional act. Such hazards can disturb the safety, health, welfare of people and cause damage or destruction to property. The following are the examples of human-made hazards. They are explosions, hazardous wastes, pollution of air, water and land, dam failures, wars or civil conflicts and terrorism.

2. **Socio-natural hazards (Quasi-natural hazards):**

These are caused by the combined effect of natural forces and misdeeds of human. Some of the examples are:

- The frequency and intensity of floods and droughts may increase due to indiscriminate felling of trees, particularly in the catchment areas of the rivers.

- Landslides are caused by natural forces and their frequency, and impact may be
- aggravated as a result of construction of roads, houses etc., in mountainous areas, excavating tunnels and by mining and quarrying.

- Storm surge hazards may be worsened by the destruction of mangroves.

- Smog is a serious problem in most big urban areas. The emissions from vehicles and industries, combustion of wood and coal together combined with fog leads to smog.

II. Based on their origin

Hazards can be grouped into eight caregories

1. Atmospheric hazard – Tropical storms, Thunderstorms, Lightning, Tornadoes, Avalanches, Heat waves, Fog and Forest fire.

2. Geologic/Seismic hazard – Earthquakes, Tsunamis, Landslides and Land subsidence.

3. Hydrologic hazard – Floods, Droughts, Coastal erosion and Storm surges.

4. Volcanic hazard – Eruptions and Lava flows.

5. Environmental hazard – Pollution of soil/ air/water, Desertification, Global warming and Deforestation.

6. Biological hazard – Chickenpox, Smallpox, AIDS [HIV] and Killer bees.

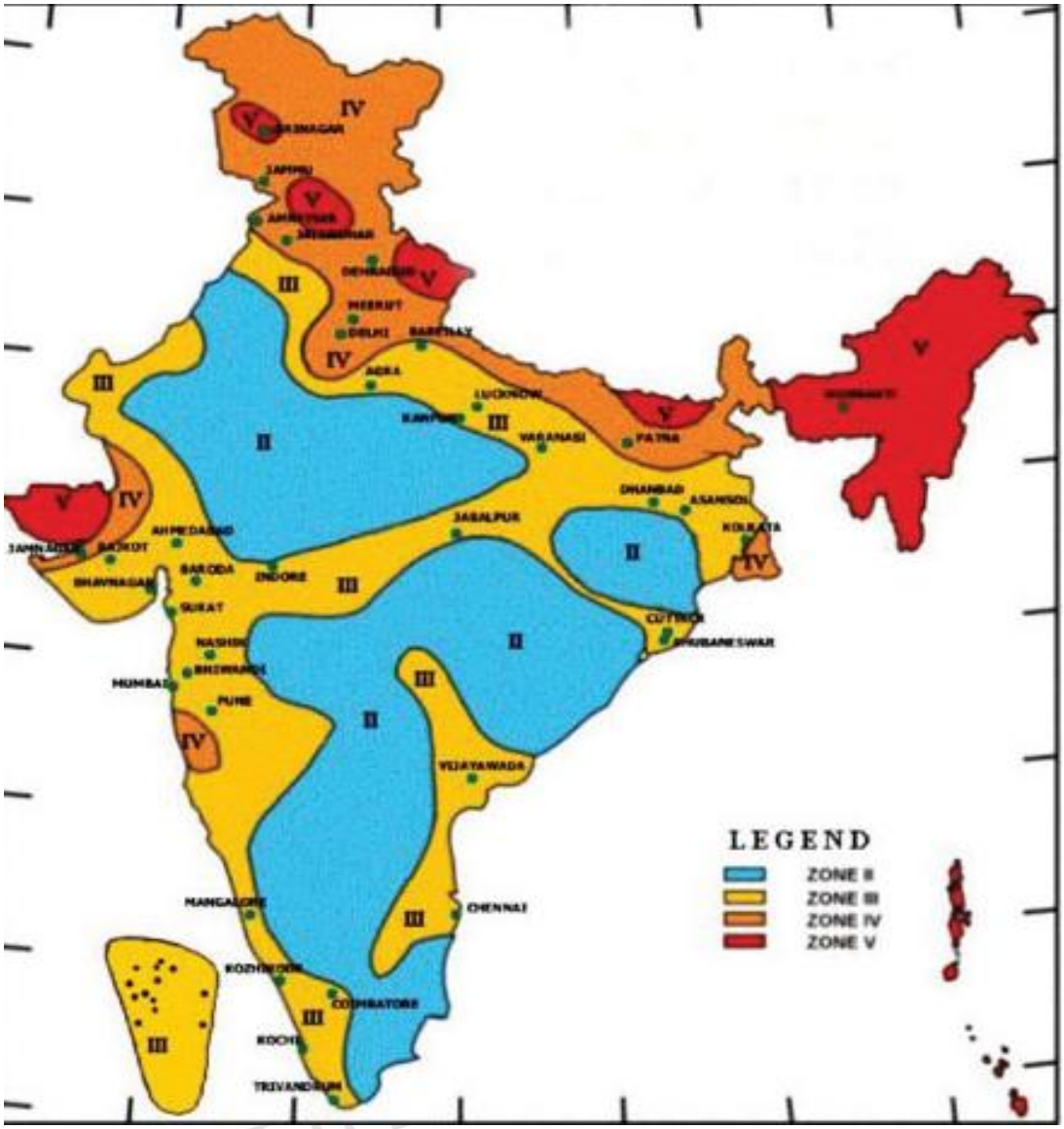
7. Technological hazard – Hazardous material incidents, Fires, Infrastructure failures m[Bridges, Tunnels, Dams] and Nuclear/ Radiological accidents.

8. Human-induced hazard – Terrorism, Mass shootings, War, Transportation accidents and Civil disorder.

Major Hazards in India

1) Earthquakes

Earthquake is a violent tremor in the earth's crust, sending out a series of shock waves in all directions from its place of origin. Earthquake prone regions of the countryhave been identified on the basis of scientific inputs relating to seismicity, earthquake occurred in the past and tectonic setup of the region. Based on these inputs, Bureau of Indian Standards has grouped the country into four seismic zones: Zone II, Zone III, Zone IV and Zone V (No area of India is classified as Zone I).



(Source: National Institute of Disaster Management, New Delhi)

Seismic Zones of India

Seismic Zones	Level of Risk	Regions
Zone V	Very High	Comprises entire northeastern India, parts of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Rann of Kutch in Gujarat, part of North Bihar and Andaman & Nicobar Islands.
Zone IV	High	Covers remaining parts of Jammu and Kashmir and Himachal Pradesh, National Capital Territory (NCT) of Delhi, Sikkim, northern parts of Uttar Pradesh, Bihar and West Bengal, parts of Gujarat and small portions of Maharashtra near the west coast and Rajasthan.
Zone III	Moderate	Comprises Kerala, Goa, Lakshadweep Islands, remaining parts of Uttar Pradesh, Gujarat and West Bengal, parts of

		Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Odisha, Andhra Pradesh, Tamil Nadu and Karnataka.
Zone II	Low	Covers remaining parts of country.

2) Floods

Flood is an event in which a part of the earth's surface gets inundated. Heavy rainfall and large waves in seas are the common causes of flood**.**

The major causes of floods are:

A. Meteorological factors

i) Heavy rainfall
ii) Tropical cyclones
iii) Cloud burst

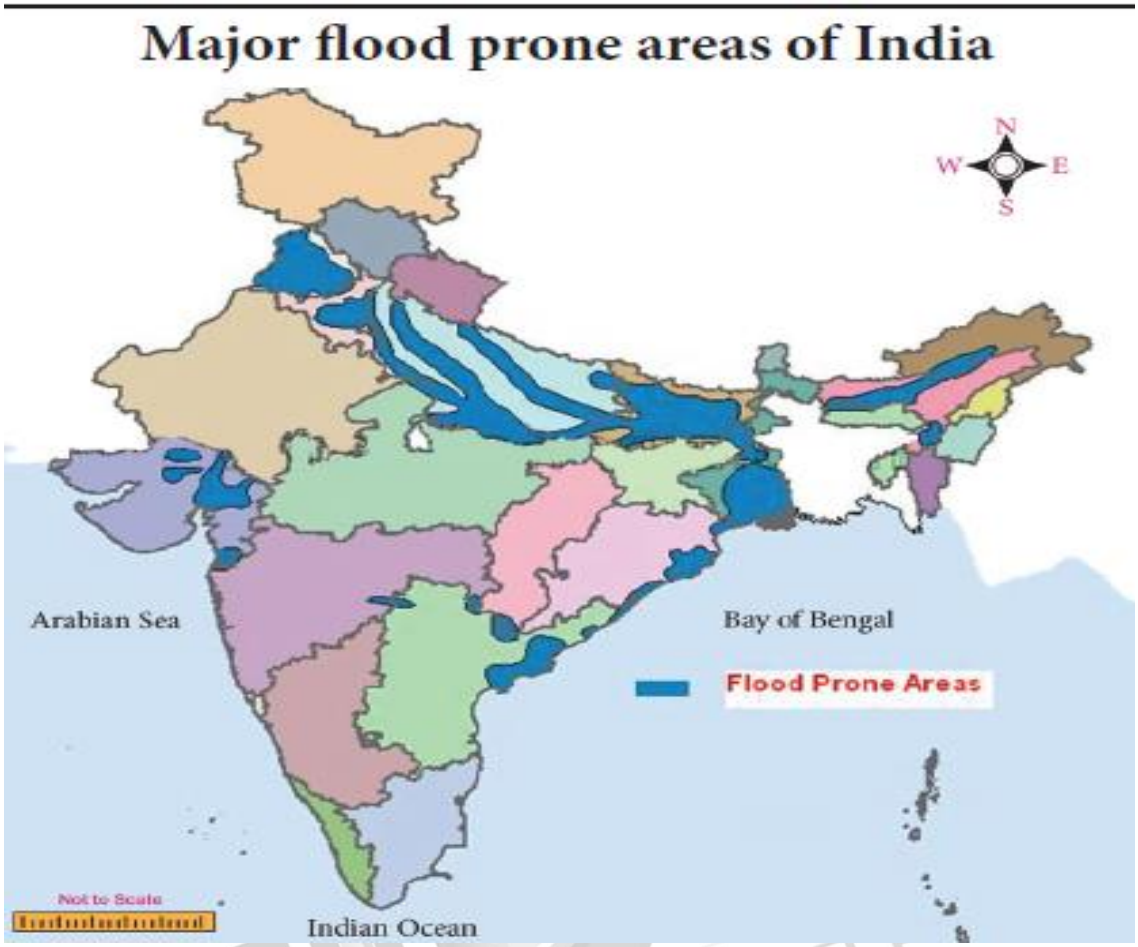
B. Physical factors

i) Large catchment area
ii) Inadequate drainage arrangement

C. Human factors

i) Deforestation
ii) Siltation
iii) Faulty agricultural practices
iv) Faulty irrigation practices
v) Collapse of dams
vi) Accelerated urbanization

The following map shows the major flood prone areas in India. Gangetic plains covering the states of Punjab, Haryana, Uttar Pradesh, North Bihar, West Bengal and Brahmaputra valley are the major flood prone areas in north and northeast India. Coastal Andhra Pradesh, Odisha and southern Gujarat are the other regions which are also prone to flood often.



(Source: National Institute of Hydrology, New Delhi)

3) Cyclonic Storms

A cyclonic storm is a strong wind circulating around a low pressure area in the atmosphere. It rotates in anti-clockwise direction in Northern Hemisphere and clockwise in the Southern Hemisphere.

Tropical cyclones are characterised by destructive winds, storm surges and exceptional levels of rainfall, which may cause flooding. Wind speed may reach upto 200 km/h and rainfall may record upto 50 cm/day for several consecutive days.

A sudden rise of seawater due to tropical cyclone is called storm surge. It is more common in the regions of shallow coastal water.

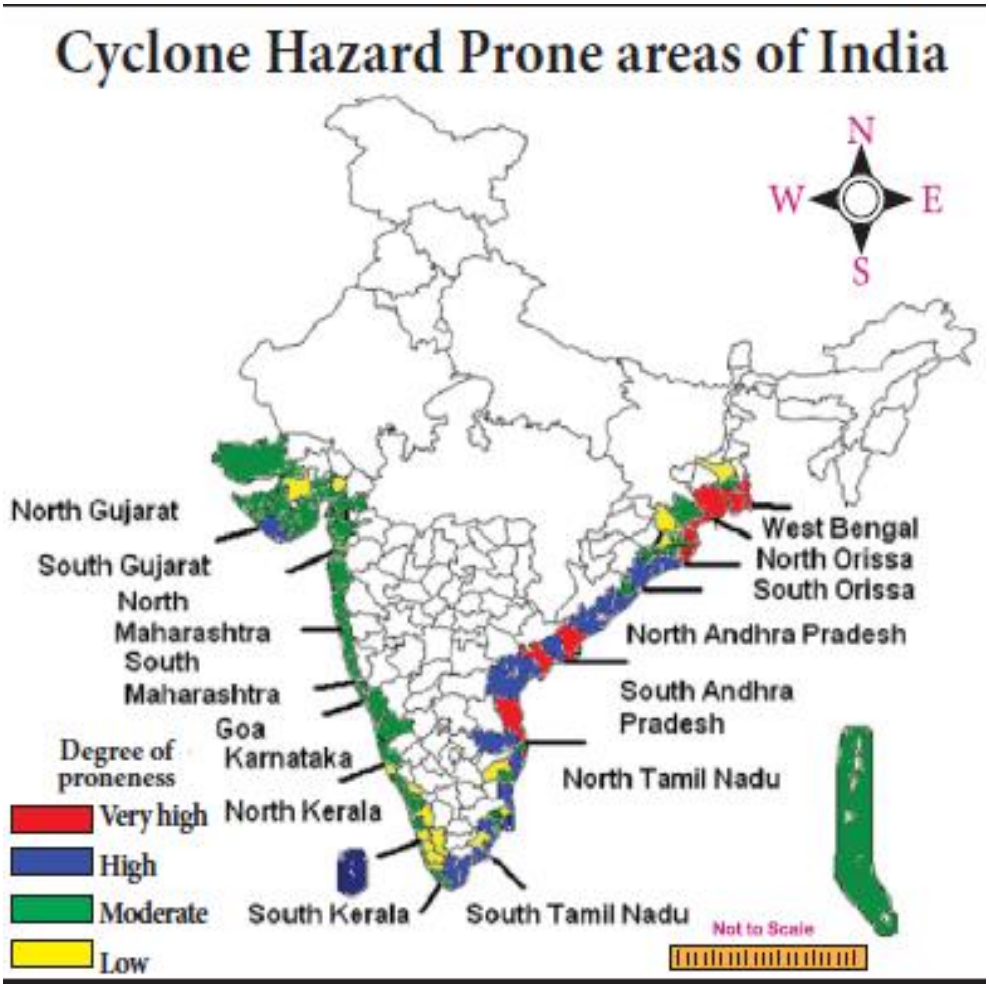
East coastal areas vulnerable to storm surges

i) North Odisha and West Bengal coasts.
ii) Andhra Pradesh coast between Ongole and Machilipatnam.
iii) Tamil Nadu coast (among 13 coastal districts, Nagapattinam and Cuddalore districts are frequently affected).

West coastal areas vulnerable to storm surges

The west coast of India is less vulnerable to storm surges than the east coast.

i) Maharashtra coast, north of Harnai and adjoining south Gujarat coast and the coastal belt around the Gulf of Cambay.
ii) The coastal belt around the Gulf of Kutch.



(Source: Mohapatra et al., 2015)

3) Droughts

The above map shows most the acute shortage of water in Tamil Nadu in 10 years. (2017)

Drought is a period of time (months or years) during which a part of the land has shortage of rain, causing severe damage to the soil, crops, animals, and people. It sometimes causes even death. During drought high temperature is experienced. Such conditions may affect our health. The primary cause of drought is deficiency of rainfall and in particular, the timing, distribution and intensity. In India around 68 percent of the country is prone to drought. Of the entire area 35 percent receives rain falls between 750 mm and 1,125 mm which is considered drought prone while 33 percent areas receive rainfalls less than 750 mm is considered to be chronically drought prone.

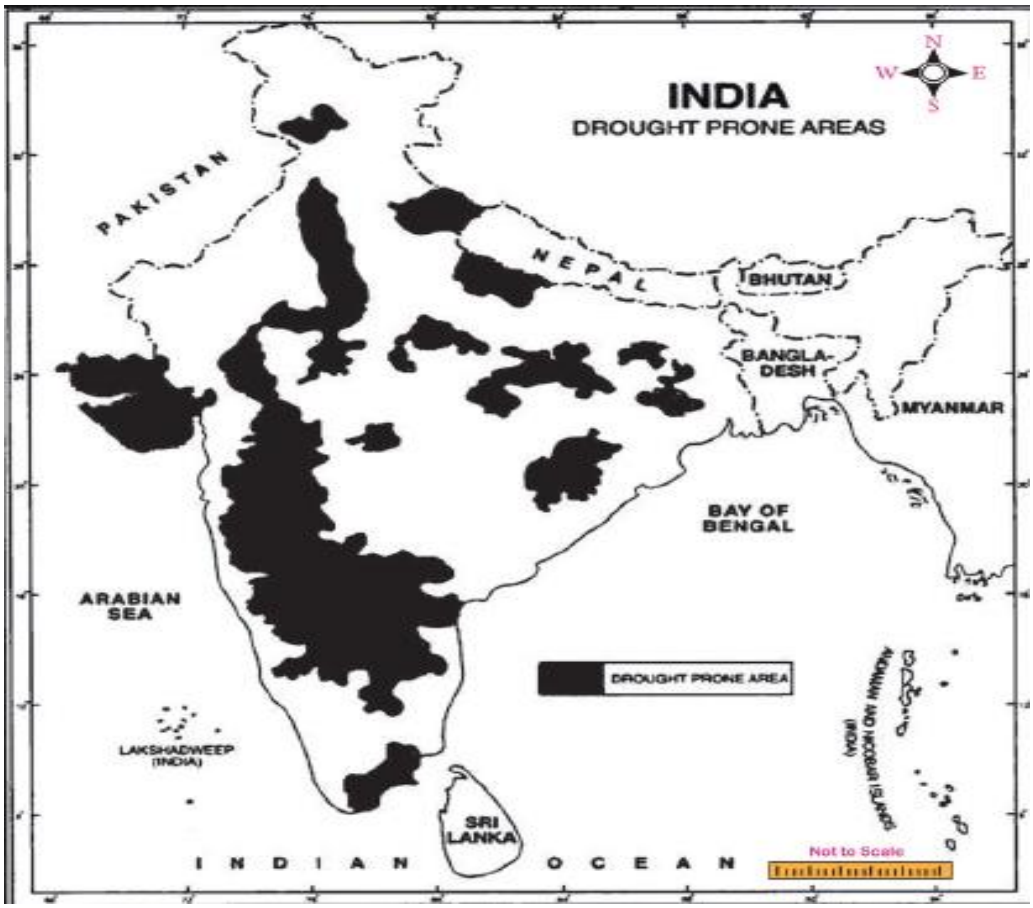
Any lack of water to satisfy the normal needs of agriculture, livestock, industry or human population may be termed as a drought. Further, the drought could be classified into three major types as,

i) **Meteorological drought:** it is a situation where there is a reduction in rainfall for a specific period below a specific level.

ii) Hydrological drought: it is associated with reduction of water in streams, rivers and reservoirs. It is of two types, a) Surface water drought, and b) Groundwater drought.

ii) **Agricultural drought:** it refers to the condition in which the agricultural crops get affected due to lack of rainfall.

Droughts in India occur in the event of a failure of monsoon. Generally monsoon rainfall is uneven in India. Some areas receive heavy rainfall while other regions get moderate to low rainfall. The areas which experience low to very low rainfall are affected by drought.



(Source: Khullar, 2014)

The major areas highly prone to drought are:

1) The arid and semi-arid region from Ahmedabad to Kanpur on one side and from Kanpur to Jalandhar on the other.

2) The dry region lying in the leeward side of the Western Ghats.

5) Landslides

Landslide is a rapid downward movement of rock, soil and vegetation down the slope under the influence of gravity. Landslides are generally sudden and infrequent. Presence of

steep slope and heavy rainfall are the major causes of landslides. Weak ground structure, deforestation, earthquakes, volcanic eruptions, mining, construction of roads and railways over the mountains are the other causes of landslides.

About 15% of India's landmass is prone to landslide hazard. Landslides are very common along the steep slopes of the Himalayas, the Western Ghats and along the river valleys. In Tamil Nadu, Kodaikanal (Dindigul district)
and Ooty (The Nilgiris district) are frequently affected by landslides.

6) Tsunamis

Tsunami refers to huge ocean waves caused by an earthquake, landslide or volcanic eruption. It is generally noticed in the coastal regions and travel between 640 and 960 km/h. Tsunamis pose serious danger to the inhabitants
of the coastal areas.

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Indian Ocean Tsunami of 2004

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Lightning

Lightning is an atmospheric electrostatic discharge (spark) accompanied by thunder, which typically occurs during thunderstorms, and sometimes during volcanic eruptions or dust storms. Lightning generates 10-20 ampere current and it is therefore fatal. It is especially dangerous for people in an open area.

Lightning strikes often have fatal consequences. On an average, 2000 people die from lightning in the world every year. Lightning mostly strikes tall things, such as trees that break down and catch fire or it may strike power transmission lines and antennas fastened on roofs and buildings which causing fire. The air temperature, when lightning occurs, is as hot as 9982.2 °C.

Thunder is the sound caused by lightning. A charged, superheated lightning bolt creates a "resonating tube" as it travels. The air in the tube rapidly expands and contracts causing vibrations that we hear as the rumble of thunder.

Lightning strikes can explode a tree. Imagine 15 million volts of electricity hitting a tree branch. The heat travels through the tree, vaporizing its sap and creating steam that causes the trunk to explode.

7) Hazardous Wastes

The wastes that may or tend to cause adverse health effects on the ecosystem and human beings are called hazardous wastes. The following are the major hazardous wastes.

i) Radioactive substance: tools and unused fuel rods of nuclear power plants.

ii) Chemicals: synthetic organics, inorganic metals, salts, acids and bases, and flammables and explosives.

iii) Biomedical wastes: hypodermic needles, bandages and outdated drugs.

iv) Flammable wastes: organic solvents, oils, plasticisers and organic sludges.

v) Explosives: the wastes resulting from ordnance manufacturing and some industrial gases.

vi) Household hazardous wastes: pesticides, waste oil, automobile battery and household battery.

Pollution of Air

Air is a mixture of several gases. The main gases are nitrogen (78.09%) for forming products such as, fertilisers for plants and for making the air inert, oxygen (20.95%) for breathing and carbon dioxide (0.03%) for photosynthesis. Some other gases like argon, neon, helium, krypton, hydrogen, ozone, zenon and methane are also present. Besides, water vapour and dust particles make their presence felt in one way or the other.

Air pollution is the contamination of the indoor or outdoor air by a range of gases and solids that modify its natural characteristics and percentage. Air pollutants can be categorized into primary and secondary pollutants.

A primary pollutant is an air pollutant emitted directly from a source. A secondary pollutant is not directly emitted as such, but forms when other pollutants (primary pollutants) react in the atmosphere.

Primary Pollutants
i) Oxides of Sulphur
ii) Oxides of Nitrogen
iii) Oxides of Carbon
iv) Particulate Matter
v) Other Primary Pollutants

Secondary Pollutants

i) Ground Level Ozone
ii) Smog

9) Pollution of Water

Water pollution may be defined as alteration in the physical, chemical and biological characteristics of water, which may cause harmful effects in human and aquatic life.

In India, water pollution has been taking place on a large scale and since a long period. Both surface and groundwater bodies are polluted to a great extent. The major causes of water pollution in India are:

i) Urbanisation
ii) Industrial effluents
iii) Sewages
iv) Agricultural runoff and improper agricultural practices
v) Seawater intrusion
vi) Solid wastes

Need for Prevention

Prevention is defined as the activities taken to prevent a natural calamity or potential hazard from having harmful effects on either people or economic assets.

- Prevention planning consists of i) hazard identification, and ii) vulnerability assessment.
- Delayed actions may increase the economic losses.
- For developing countries like India, prevention is perhaps the most critical components in managing disasters.

Disaster Response

Disaster response entails restoring physical facilities, rehabilitation of affected population, restoration of lost livelihoods and reconstruction efforts to restore the infrastructure lost or damaged. The Response Phase focuses primarily on emergency relief: saving lives, providing first aid, restoring damaged systems (communications and transportation), meeting the basic life requirements of those impacted by disaster (food, water and shelter) and providing mental health and spiritual support and care.

Who are the first responders?

No matter how large or small, local communities are expected to provide immediate disaster response. On a daily basis, **police officers, firefighters, and emergency medical technicians** are a community's first responders, whether during fire, flood or acts of terrorism. Mental health professionals and the community's hospitals may also be activated in those early minutes and hours after disaster.

Disaster management includes Prevention, Mitigation, Preparedness, Response and Recovery. Disaster management involves all levels of government. Non-governmental and community based organizations play a vital role in the process. Modern disaster management goes beyond post-disaster assistance. It now includes pre-disaster planning and preparedness activities, organizational planning, training, information management, public relations and many other fields. Crisis management is important, but is only a part of the responsibility of a disaster manager.

Disaster Management Cycle

Community-Based Disaster Risk Reduction

Community is a group of people living in the same place having homogenous characteristics. It includes shared experiences, locality, culture, language and social interests. Community-based disaster risk reduction is a process within a community and for the community. Reducing risk in communities should address the root causes of risks and address it through local knowledge and expertise. Performance and the arts provide a variety of creative opportunities to communicate. Important messages through live experiences. Examples include: Street theatre, dramatic readings, skits and plays, puppet shows, poetry reading.

Dance, flash mob activities in large urban settings (a group of people who assemble suddenly in a public place, perform an unusual act and then disperse), tapping into oral traditions such as story-telling, music and sing-along, mural-making and other hands-on art and design activities. All of these can involve volunteers and community members, as performers and audiences. Skilled performers find creative ways to engage their audience.

Natural Disasters public Awareness for Disaster Risk Reduction

On an average, 232 million people are affected by different types of disasters every year. In recent years disaster risks have been on the rise due to factors such as population growth, unplanned urbanization, environmental degradation, conflicts and competition for scarce resources, climate change, disease epidemics, poverty and pressure from development within high-risk zones. Hence, disaster risk reduction is the need of hour.

Recognizing the importance of Disaster Risk Reduction in 2005, 168 governments and all leading development and humanitarian actors signed the Hyogo Framework for Action (HFA), committing themselves to a ten-year multi-stakeholder and multi-sector plan to invest in disaster risk reduction as a means to building disaster-resilient societies.

Public awareness campaigns can be started modestly and tailored to meet the needs of specific populations and target groups. These approaches can be integrated into almost all existing initiatives, whenever and wherever they take place. They can build on and support existing volunteer mobilisation and peerto- peer communications. To support this, it requires strong and unified disaster reduction messages and clear and targeted information, education and communication materials.

Public awareness for disaster risk reduction

There are four key approaches to public awareness for disaster risk reduction: Campaigns, participatory learning, informal education, and formal school based interventions.

STATE NATURAL CALAMITIES

Natural disasters in TamilNadu.

According to United Nations office for Disaster Risk Reduction, Disaster Risk Reduction (UNDRR) is the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters. This includes reducing exposure to hazards, lessening the vulnerability of people and property, wise management of land and environment, and improving preparedness and early warning for adverse events.

1. **Landslide**

A collapse of a mass of earth or rock from a mountain or cliff is called landslide. Water is the most common trigger of a **landslide.** Nilgiris in Tamil Nadu is identified as one of the most vulnerable districts in the country and landslides pose a major threat in this area. The other regions which are prone to land slides are Coimbatore and palani hill of Dindigul district where Kodaikanal hill station is located.

2. **Flood**

- Flood is a common one in the coastal districts of Tamil Nadu during northeast monsoon. The recent flood occurred in the state was in 2015. The 2015 South Indian
- floods resulted from heavy rainfall generated by the annual northeast monsoon in November–December 2015. They affected the Coromandel Coast region of the South Indian states of Tamil Nadu and Andhra Pradesh.
- More than 500 people were killed and over 1.8 million people were displaced. With the estimates of damages and losses ranging from nearly 200 billion, the floods were the costliest natural disasters of the year 2015.
- Tamil Nadu was the worst affected state by this flood. Generally the districts of Kancheepuram, Tiruvallur, Cuddalore, Villupuram, Thanjavur, Tiruvarur, Nagapattinam, Pudukkottai, Ramanathapuram, Tirunelveli and Kanyakumari are the most flood prone districts of the state.

3. **Cyclone**

- The coastal regions of Tamil Nadu are often hit by the tropical cyclones formed in Bay of Bengal during northeast monsoon. Occurrence of flood, losses to lives and properties are the recurring one in the state.

- Based on the cyclone hit areas, the state of Tamil Nadu can be divided into five zones namely very high, high, medium, low and very low cyclone prone zones. Southern part of Chennai, eastern part of kancheepuram, eastern part of Villupuram, northeastern part of Cuddalore and Union Territory of Puducherry fall under the very high cyclone prone zone.

- Nagapattinam, Tiruvallur, Tiruvarur (except northwestern part), southern part of Thanjavur, eastern part of Pudukkottai, eastern part of Cuddalore, middle portion of Villupuram, eastern part of Tiruvannamalai, western part of kancheepuram, northeastern part of Vellore and northern part of Chennai districts are included in the high cyclone prone zone.

Districts in Tamil Nadu which are frequently affected by cyclones:

All the 13 coastal Districts of Tamil Nadu are affected by cyclonic storms which occur during May- June and in October-November months. These Districts are: Tiruvallur, Chennai, Kancheepuram, Villupuram, Cuddalore, Nagapattinam, Tiruvarur, Thanjavur, Pudukkottai, Ramanathapuram, Tuticorin, Tirunelveli and Kanniyakumari. On an average, about five or six tropical cyclones form in the Bay of Bengal and Arabian sea and hit the coast every year. Out of these, two or three are severe. When a cyclone approaches to the coast, a risk of serious loss or damage occurs from severe winds, heavy rainfall, storm surges and river floods**. The effect of a storm surge is most pronounced in wide and shallow bays exposed to cyclones such as in the northern part of Bay of Bengal. Most cyclones occur in the Bay of Bengal .followed by those in the Arabian Sea** and the ratio is approximately 4:1. During the cyclonic of cyclonic storms, wind speed is between 65 km/h and117 km/h.

4. Drought

Tamil Nadu is water deficit state. It is almost a regular one and not a seasonal one. It depends mostly on northeast monsoon for its rain. Its failure ends in disastrous. The total assessed water resources in the state amount to 1,587 TMC (Thousand million cubic feet) while the state government's demand estimate is
1,894 TMC. Demand exceeds supply by 19.3%, this happens when rainfall is "normal".

The government classifies groundwater blocks into different categories. Only 145 of 385 such blocks are classified safe. The others are in various stages of depletion: over-exploited, critical and semi-critical. About 2% of the blocks are already saline. About 64% of the total area of the state is drought prone. Coimbatore, Dharmapuri, Kanyakumari, Madurai, Ramanathapuram, Salem, Tirunelveli, and Tiruchirappalli are the districts which are more drought prone.

According to the desertification atlas prepared by the ISRO, about 12 percent of the total geographical area is under desertification and land degradation. Theni, Virudhunagar, the Niligris and Kanyakumari are the worst affected districts. To manage the water deficit, rain water harvesting and water conservation methods have to be implemented strictly.

Tamil Nadu is a tropical state. The high temperature during summer leads to occasional forest fire in deciduous and thorn forests. The recent fire accident in the state took place in 2018. The tragedy happened on March 11 when 37 people from Chennai and Erode

regions were returning after a trekking trip to the Kurangani hills in Theni district. The groups were struck in the middle of a forest fire, which ultimately killed 23 people. In the aftermath of the Kurangani forest fire, Tamil Nadu government has banned trekking in the state for two months every year (February15 to April 15).

5. Tsunami

Though Tsunami is not a common one in India, its incident in 2004 alerted India and the state of Tamil Nadu on this aspect. Almost all the countries situated around the Bay of Bengal were affected by the tsunami waves in the morning hours of 26 December 2004 (between 09:00 and 10:30 hrs IST). The killer waves were triggered by an earthquake measuring 8.9 on the Richter scale that had an epicentre near the west coast of Sumatra in Indonesia. Waves rose up to 6-10 metres and the impact was felt up to the East African coast affecting Somalia, Tanzania and Kenya.

6. Tremors and Tidal Waves in South India

Tremors and Tidal waves hit South India and Large Scale devastation was reported. Over a thousand people have been killed in tidal waves in Tamil Nadu, Andhra Pradesh, and Andaman and Nicobar Islands. Tamil Nadu was the "worst affected" state of India in this incident. More than 1,500 people have been killed in the state. Casualties reported were very high in Nagapattinam (700), Kanyakumari (250) and Cuddalore (200) districts. Around 125 deaths have been recorded in the state capital of chennai. Earlier, the tsunami was reported in India in 1881 and 1941.

7. Earthquakes

India is a vast country which experiences many earthquakes at different periods. Generally high risk zones of the country are located in the north and central parts. The state of Tamil Nadu is located in the moderately low risk zone.

Earthquakes in Tamil Nadu

26 September 2001: A moderate quake occurred in the Bay of Bengal, off the coast of the Union Territory of Puducherry, resulting in three deaths and minor damage to property in Puducherry and coastal Tamil Nadu. It had a magnitude of 5.6 on Richter scale.

7 June 2008: A mild earthquake occurred in the Palar Valley region in Tamil Nadu. It had a magnitude of 3.8 on Richter scale and was felt in many parts of Vellore district.

12 August 2011: A mild earthquake occurred in the Cauvery basin in Ariyalur district. It had a magnitude of 3.5 on Richter scale and was felt in several districts in southern Tamil Nadu. It resulted in one death and caused minor damages in the districts of Cuddalore, Villupuram, Perambalur and Tiruchirappalli.

In 2012, Chennai experienced a mild tremor with its epicentre in the Indian Ocean.

Man made Disasters in Tamil Nadu

Definition

A disastrous events caused directly or indirectly by human actions are called as manmade disaster. Man-made disaster can include hazardous material spills, fires, groundwater contamination, transportation accidents, structure failures, mining accidents, explosions and acts of terrorism.

Industrial Disaster

Disasters caused by industrial companies either by accident, negligence, or incompetence fall under industrial disasters. Electrical faults seem to be the major reason for industrial disasters in the country. Overheating, aging of the material and use of sub-standared quality of electrical gadgetshave been the main factors contributing the increasing fire accidents in industries. Electricity is not just a life line; It can also take away life when handled improperly', Apart
from these, explosions, leaking of poisonous gases, injuries and deaths caused by machines are the other causes of industrial disasters.

Sivakasi, is considered the "fireworks capital"of India. Series of industrial accidents causing deaths are reporting frequently in the regions of Virudhunagar and Sivakasi where a number of fireworks and match units are in operation. An explosion occurred on 5 September, 2012 in a private firework company. In this incident 40 workers were killed and more than 70 workers were injured. Various measures are being taken by the Government to reduce the fire accidents and casualties caused by industries. In another industrial accident which took place at Coimbatore on 2nd February 2016 in a tyre melting unit, six migrant workers were critically
injured.

Stampede

A situation in which a large number of animals or people running in the same direction in an uncontrolled way causing injuries and deaths is called stampingOn 21st April, 2019 seven people were killed and 10 injured in a stampede during a local festival at a temple near Thuraiyur in Tamil Nadu. The incident took place when hundreds of devotees gathered at the Karuppasamy temple in Muthiampalayam village for the 'padikasu'
(temple coin) distribution ceremony.

Mitigation

Hazard mitigation refers to any sustained action taken to reduce or eliminate the longterm risk to human life and property from hazardous conditions.

- Regular maintenance of machines and wires may reduce the frequency of accidents,
- Creating awareness and training the workers to be cautious during work hours may help them to reduce risk during disasters.
- Wearing specially designed dresses and other safety materials would help the workers to protect themselves from any serious injuries.

- Conducting periodical medical camps would help them to assess their health status. The Provision of having life insurance policies will secure their future.
- Besides these, the administration should be employees friendly and ready to extend their help in case of any untoward incidents.

Road Accidents

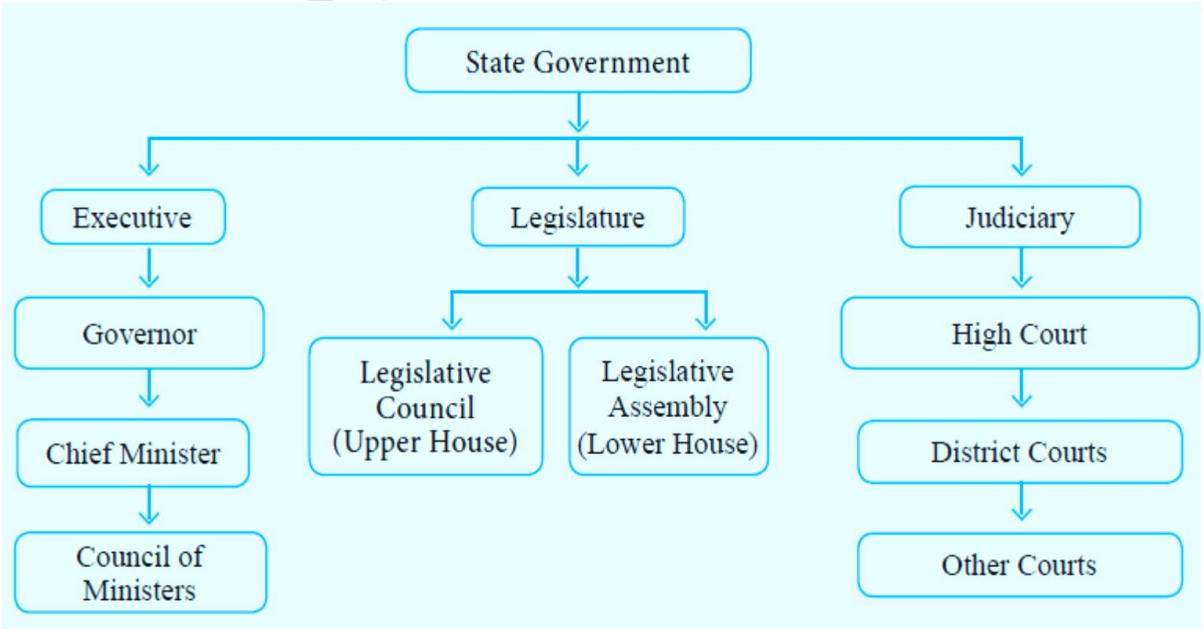
The road accidents in India is on very high level. Tamil Nadu leads in the number of road accidents in the country. Increase in road traffic, high speed of vehicles and violation of traffic rules are the causes of major of accidents.

In 2013, 14504 accidents had taken place in the state which resulted in 15563 deaths. In the ten years from 2002-2012, Tamil Nadu tops the list in number of road accidents among the states of India. It is reported that about 15 percent of accidents of the country takes place in Tamil Nadu. The figure of 2017 also puts Tamil Nadu on top with recording of 16157 deaths out of 147913 deaths recorded in the country. Death toll came down rapidly in 2018 to 12213 deaths, a decline of 24.5 percent.

STATE GOVERNMENT

Introduction

The Constitution of India envisages for a federal government, having separate systems of administration for the union and the states. There are 29 states, 6 union territories and one national capital territory known as Delhi in India. The constitution contains provisions for the governance of both the union and the states. It lays down a uniform structure for the State Government, in part VI of the constitution from Article 152 to 237, which is applicable to all the states, save only the state of Jammu and Kashmir which has a separate constitution for its government under Article 370. The structure of the State Government, as formed in the Centre, consists of three branches. These are the Executive, the Legislature and the Judiciary.



State Executives

The Governor

Article 153 of the Constitution lays down that there shall be a Governor for each state. Normally, there will be a Governor for each state but the constitution amendment of 1956 makes it possible to appoint the same person as the Governor for two or more states

Appointment of the Governor

The Governor of a state is appointed by the President of India. (Article155). No person shall be appointed as a Governor unless he/she:

- is a citizen of India
- has completed the age of 35 years
- does not hold any other office of profit
- is not a member of parliament or state legislature.

Term of office and position

The prescribed term of office for the Governor is 5 years. But he holds office at the pleasure of the President. (Article 156). He may be removed by the President at any time. He may be transferred by the President from one state to another too. The Governor draws a salary which is fixed by the parliament. He is also entitled to certain allowances and benefits.

As per the Constitution of India, the Governor is the constitutional and executive head of the state. The executive power of the state is vested with the Governor. All executive actions are carried on in the name of the Governor. In actual practice, the real executive powers of the State lie with the council of ministers headed by the Chief Minister. The Governor acts according to the advice of the council of ministers, who are collectively responsible to the legislative assembly of the state.

The Governor of a state has more powers and performs a number of functions. The powers and functions of the Governor are:
1. Executive Powers
(i) The Governor is the executive head of the State Government. The executive powers of the Governor are to be exercised by him either directly or through officers subordinate to him (i.e., ministers). (Art. 154). All executive actions are taken in his name. His executive powers extend to the administration of all matters included in the State List. (ii) The Governor appoints the leader of the majority party in the legislative assembly as the Chief Minister. He appoints the other ministers of the council of ministers according to the advice of the Chief Minister. The council of ministers hold office during the pleasure of the Chief Minister, because the Governor acts in accordance with the advice of the Chief Minister. (iii) The Governor appoints the Advocate General of the state, the chairman and members of the state public service commission, and determines the questions of appointments, postings, promotions, etc. of the judges of subordinate courts.

(iv) The Governor is responsible for the smooth running of the administration of the state. In case he finds that the constitutional machinery of the state has broken down or the administration of the state cannot be carried on in accordance with the provisions of the constitution, he may recommend to the President to proclaim constitutional emergency and impose President's rule under Article 356. During the President's rule, as there is no council of ministers, the Governor carries on the administration of the state on behalf of the President.

2. Legislative Powers

The Governor is a part of the state legislature (Article 168). So, he has legislative powers. His legislative powers cover the following

i) He summons prorogues and dissolved the legislative assembly.

ii) He addresses the members of the state legislature.

iii) Without the Governor's assent, no Bill can become law even after it is passed by both the houses. The Bills passed by the legislature are sent to the Governor for his assent. He may give his assent or withhold it or may reserve the bill for the consideration of the President. The bills maybe returned by the Governor for reconsideration. (It may be noted that if the bill is again passed by the legislature with or without amendments, the Governor has to give his assent.)

iv) Under Article 213, the Governor may promulgate ordinance during the period when legislature is not in session. (However, for the continuation of such an ordinance, it has to be approved by the state legislature within six weeks from the re-assembly of the legislature.)

v) In State where bicameral legislature exists. The Governor nominates one-sixth of the members of the legislative council from among persons having special knowledge or practical experience in respect of literature, science, art, co-operative movement or social service. He may also nominate a person from the Anglo-India community to the legislative assembly.

3. Financial Powers

The Governor has financial powers. His financial powers cover the following:

i) The finance minister submits the budget or financial statement before the legislature. But no money bill can be introduced in the legislative assembly without the prior permission of the Governor.

ii) No demand for grants can be made without the recommendation of the Governor.

iii) The Governor is the custodian of the contingency funds of the state from where he can make payments to meet the emergency without the prior sanction of the legislature.

4. Judicial Powers

The Governor has judicial powers. His judicial powers cover the following:

(i) He determines the questions of appointments, postings, promotions, etc. of subordinate courts (ie., district courts and munsiff courts).

(ii) He may be consulted by the President of India, while making appointments of the judges of the high court.

(iii) The Governor has the power to pardon, suspend, remit or commute the sentence of any person convicted of an offence against any law relating to a matter to which the executive power of the state extends

5. Discretionary Powers

The Governor also has discretionary powers, i.e., he has the powers to act independently using his wisdom and discretion. His discretionary powers relate to:

i) Appointing a new Chief Minister in a situation where no single party or leader commands majority support.

ii) Dismissing a ministry where it refuses to resign even after losing majority support in the house or after being defeated on a non-confidence motion.

iii) Dissolution of assembly on the advice of a Chief Minister who has lost majority support.

iv) Sending to the President report about the failure of constitutional machinery and to impose President's rule in the state.

v) Giving assent to bills passed by the legislature.

Advocate General

Each state has an advocate general who is an official corresponding to the Attorney-General of India and having similar functions for the state. He is a person who is qualified to be a judge of a High Court and he is appointed by the Governor.

Emergency Powers

If the Governor is satisfied that the government of the state is not carried on in accordance with the provisions of the Constitution, he may, under Article 356, recommend to the President to impose President Rule in that State. As soon as the President Rule is imposed, the administration of the State is carried on by the Governor as the representative of the President.

Privileges of the Governor

Article 361(1) provides for the following privileges for the Governor;

- The Governor of a State, is not be answerable to any court for the exercise and performance of the powers and duties of his office or for any act done or purporting to be done by him in the exercise and performance of those powers and duties.
- No criminal proceedings whatsoever shall be instituted or continued against the Governor of a State, in any court during his term of office.
- No process for the arrest or imprisonment of the Governor of a State, shall issue from any court during his term of office.
- No civil proceedings in which relief is claimed against the Governor of a State.

Chief Minister

In the scheme of Parliamentary system of government provided by the constitution, the governor is the nominal executive authority and the Chief Minister is the real executive authority. In other words, the governor is the head of the State while the Chief Minister is the head of the government.

The appointment of the Chief Minister

The Chief Minister is appointed by the Governor of the State. The leader of the majority party or majority group in the State Legislative Assembly is appointed as the Chief Minister. In case no party commands absolute majority, in the Legislative Assembly or the majority fails to elect its leader, the Governor can use his power and invite the leader of the other largest party to form the ministry. He has to prove the confidence (majority support) in the Legislative Assembly within the period stipulated by the Governor. The term of the Chief Minister is not fixed. He may remain as the Chief Minister as long as he enjoys the support of the majority of the members of the Legislative Assembly. He has to resign when he losses confidence of the majority in the assembly. It is 'understood that normally he completes 5 years term like other members in the Legislative Assembly.

Chief Ministers of Tamil Nadu from 1947	
Thiru.O. P. Ramaswamy	1947-1949
Thiru.P. S. Kumaraswamy Raja	1949 – 1952
Thiru.C. Rajagopalachari	1952 – 1954
Thiru.K. Kamaraj	1954 - 1963
Thiru.M. Bakthavatsalam	1963 – 1967
Thiru.C. N. Annadurai	1967 – 1969
Thiru.M. Karunanidhi	1969 – 1976
Thiru.M. G. Ramachandran	1977 – 1987
Tmt. JanakiRamachandran	January 1988
Thiru.M. Karunanidhi	1989 – 1991
Selvi.J. Jayalalithaa	1991 – 1996
Thiru.M. Karunanidhi	1996 – 2001
Selvi.J. Jayalalithaa	2001
Thiru.O.Panneerselvam	2001 – 2002
Selvi.J. Jayalalithaa	2002 – 2006
Thiru.M. Karunanidhi	2006 – 2011
Selvi. J. Jayalalithaa	2011 – 2014
Thiru.O.Panneerselvam	2014 – 2015
Selvi.J. Jayalalithaa	2015 – 2016
Thiru.O.Panneerselvam	2016 – 2017
Thiru.Edappadi K. Palaniswami	2017 – till now

Powers and functions of the Chief Minister

The Chief Minister is the real executive head of the State administration. He has the following powers and functions.

- Relating to the council of ministers
- Relating to the Governor
- Relating to the State Legislature Other functions and powers.

Relating to the Council of Ministers

As the head of the Council of Ministers, the Chief Minister enjoys the following functions and powers.

- The Chief Minister recommends the persons who can be appointed as ministers by Governor.
- He allocates the portfolios among the ministers.
- He shuffles and reshuffles his ministry.
- He can ask a minister to resign or to advise the Governor to dismiss him in case of difference of opinion.
- He presides over the meetings of the Council of Ministers and influences its decisions.
- He can bring about the collapse of the council of ministers by resigning from office.
- He guides, directs, controls and coordinates the activities of all the ministers.

Relating to the Governor

The Chief Minister is the principal channel of communication between the Governor and the Council of Ministers, and he advises the Governor in relation to the appointment of the following officials:

- Advocate General of the State.
- State Election Commissioner.
- Chairman and Members of the State Public Service Commission.
- Chairman and Members of the State Planning Commission.
- Chairman and Members of the State Finance Commission.

Relating to State Legislature

- The Chief Minister advises the Governor with regard to the summoning and proroguing the sessions of the state legislature.
- He announces the government policies on the floor of the house.
- He can introduce the bills in the Legislative Assembly.
- He can recommend for the dissolution of the Legislative Assembly to the Governor anytime.

Other function and powers

- As the leader of the ruling party, the Chief Minister has to control the party and develop the disciplines.
- As the leader of the state, he has to keenly consider the demands of the different sections of the people.
- As the political head of the various services, he has to supervise, control and co-ordinate the secretaries of various departments in the state level.
- For smooth functioning of the state and for good centre-state relations, he has to develop a rapport with the union government.

Council of Ministers

The Council of Ministers are collectively responsible to the State Legislature. All the members of the Council of Ministers must be the members of the State Legislature. Those who are not the members at the time of their appointment must secure their seats in the Legislature within a period of 6 months. All the ministers work as a team under the Chief Minster. As long as the Chief Minister is in office, the Council of

Ministers will also be in power. If a no-confidence motion is passed by the Legislative Assembly, the State Ministry shall resign.

Article l63 provides for a Council of Ministers to aid and advice the Governor. According to Article 163(1) there shall be a Council of Ministers with the Chief Minister at the head to aid and advice the Governor in the exercise of his functions, except in so far as he is by or under this Constitution required to exercise his functions or any of them in his discretion.

Other Provisions relating to Ministers

Article 164(1) holds that the Chief Minister shall be appointed by the Governor and the other Ministers shall be appointed by the Governor on the advice of the Chief Minister, and the Ministers shall hold office during the pleasure of the Governor: Article 164(1A) states that the total number of Ministers, including the Chief Minister, in the
Council of Ministers in a State shall not exceed fifteen percent of the total number of members of the Legislative Assembly.

The functions and powers of the Council of Ministers

- It formulates and decides the policies of the state and implements them effectively.
- It decides the legislative programmes of the Legislative Assembly and sponsors all important bills.
- It controls the financial policy and decides the tax structure for the public welfare of the state.
- It chalks out programmes and schemes for the socio-economic changes so that the state makes headway in various interrelated fields.
- It makes the important appointments of the Heads of Departments.
- It discusses and takes efforts on the dispute with other states
- It advises the Governor on the appointment of Judges of the subordinate courts.
- It frames the proposal for incurring expenditure out of state reserves.
- It decides all the bills whether ordinary bills or money bills to be introduced in the Legislative Assembly.
- Each minister of the Council of Ministers supervises, controls and coordinates the department concerned.
- Annual Financial Statement called as the Budget is finalised by the Council of Ministers.

The State Legislature

The Constitution provides a legislature for every state. Most of the States have only unicameral legislature i.e., Legislative assembly. Some State has bicameral legislatures (exampleBihar, Karnataka, Maharashtra, Uttar Pradesh, Andhra Pradesh, Telangana and Jammu- Kashmir). The lower house, legislative assembly represents the people of the state the upper house; Legislative Council represents special interests like teachers, graduates and local governments.

The Legislative Assembly (Lower House)

The Legislative Assembly is a popular house. It is the real centre of power in the State. It consists of members directly elected by the people on the basis of adult franchise. The strength of the Assembly varies from State to State depending on the population. However the maximum strength of the Assembly must not exceed 500 or its minimum strength not below 60. The term of office of the legislative assembly is 5 years. It can be dissolved even before the expiry of its term.

The size of the Legislative Council cannot be more than one-third the membership of the Legislative Assembly (lower house) of that state.

But its size cannot be less than 40, except in Jammu and Kashmir where there are 36 by an act of Parliament. The members draw the salary and allowances passed by the State legislature from time to time.

Composition

The Legislative Assembly of Tamil Nadu consists of 235 members out of which 234 members are directly elected by the people from the constituencies on the basis of adult franchise and one member is nominated by the Governor from the Anglo-Indian community.

However, seats shall be reserved in the house for the scheduled castes and scheduled tribes.

Cabinet and Cabinet Committees

A smaller body called Cabinet is the nucleus of the council of minister. It consists of only the cabinet ministers. It is the real centre of authority in the state government. The cabinet works through various committees called cabinet committees. They are of two types - standing and ad hoc. The former are of a permanent nature while the latter are of a temporary nature.

The Legislative Council(Upper House)

The legislative Council is the upper House of the State Legislature. It is constituted as a permanent House. Article 171(1) provides that the total number of members in the Legislative Council of a State shall not exceed one-third of the total number of members in the Legislative Assembly of that State, but not less than 40 members in any case.

The Vidhan Parishads (Legislative Council) forms a part of the state legislatures of India. In Seven of India's 29 states (Bihar, Karnataka, Maharashtra, Uttar Pradesh, Andhra Pradesh, Telangana and Jammu - Kashmir) the Legislative Council serves as the indirectly elected upper house of a bicameral legislature. It is also a permanent house because it cannot be dissolved. Every Member of Legislative Council (MLC) serves for a six-year term, with terms staggered so that the terms of one-third of members expire every two years. MLCs must be citizens of India not under 30 years of age, mentally sound and not bankrupt, and his name should be in the voter's list of the state from which he or she is contesting the election.

Election to Legislative Council

- 1/3 of the members are elected by local bodies.
- 1/12 of the members are elected by Graduates of the universities in the State.
- 1 /12 of the members are elected by Graduate teachers.
- 1/3 of the members are elected by the members of the Legislative Assembly.
- 1/6 is nominated by the Governor who is eminent in the field of literary excellence, art, social services or Co-operation.

The Chairman

The Chairman (chair person he / she) is the Presiding Officer of the Upper house. The Members elect a Chairman and a deputy chairman from among themselves. In the absence of the chairman, the deputy chairman officiate the functions of the Legislative Council.

Abolition or Creation of Legislative Councils

Article 169 deals with the creation or abolition of Legislative Council in a State. Article 169 holds that if the state Legislative Assembly passes a resolution by a majority of not less than 2/3rd of the members present and voting and by the majority of total strength of the House, requesting the Parliament to create or abolish the state Legislative council then the Parliament may by law provide for the abolition and creation of the Legislative Council.

Functions of the State Legislature

The powers and functions of the State Legislature are almost the same as that of Parliament.

Legislative powers

The State Legislature can pass laws on all subjects mentioned in the State List as per the constitution. It can also pass laws on concurrent subjects. The State made law in a concurrent subject will become inoperative when the centre also passes a law on the same subject. The passing of Bill into law follows the same procedure, as in the union parliament. Every bill passes through three readings. Then it becomes an Act with the Governor's assent.

Financial Powers

The Legislature controls the finances of the State. The Lower House enjoys greater power than the Upper House in money matters. Money bills can be introduced only in the Lower House or the Assembly. No new tax can be levied without the sanction and permission of the Assembly.

Controls over the Executive

The Legislature controls the Executive. The Council of Ministers is responsible to the Assembly. The Ministers have to answer questions asked by the members of the Legislature. They can be removed from office if the Assembly passes a vote of "no confidence motion" against the Ministry.

Wide powers

In State having two Houses, the Legislative Assembly enjoys more powers than the Legislative Council. The Assembly has complete control over the state finance. The Council cannot vote for grants. The Council of Ministers is responsible only to the Assembly.

State Council of Ministers

- Article 163(1) of the Constitution of India provides that there shall be a council of ministers headed by the Chief Minister to aid and advise the Governor in the exercise of his functions except when he is required by the Constitution to act in his discretion.

- The state council of ministers is formed in the same manner as the union council of ministers is formed. The leader of the majority party or coalition of parties in the legislative assembly is appointed as the Chief Minister by the Governor. The other ministers in the council of ministers are appointed by the Governor on the advice of the Chief Minister.

Term of office of the council of ministers

- As per the constitution, the council of ministers hold office during the pleasure of the Governor. But, in reality, the council of ministers hold office during the pleasure of the Chief Minister, because the Governor acts on the advice of the Chief Minister. The council of ministers are individually responsible to the Chief Minister. The council of ministers are collectively responsible to the legislative assembly of the state. That means, the council of ministers shall speak in one voice.

The State Cabinet

- The council of ministers consists of cabinet ministers, ministers of state and deputy ministers. Of the council of ministers, the cabinet ministers constitute the state cabinet. The cabinet ministers of the state cabinet are, generally, the prominent ministers of the council of ministers. It is headed by the Chief Minister. The cabinet takes decisions on behalf of the council of ministers, and so, all the ministers are bound by the decisions of the cabinet.

The Speaker

The Legislative Assembly elects two of its members as the Speaker and Deputy Speaker. The Speaker vacates his office, if he cannot continue to be a member of the Assembly. He may also resign his office at any time. The speaker may be removed from office by are solution of the Assembly after giving a 14days' notice. Such a resolution must be passed by a majority of the members present at the time of voting. The speaker does not vacate his office, when the Assembly is dissolved. He continues to be the Speaker until the first sitting of the new Assembly. While the office of the speaker is vacant, the Deputy Speaker performs his functions

Officials and Committees in State Legislative Assembly
Speaker of the State Legislative Assembly:

- The Speaker is elected by the Members of Legislative Assembly itself, and is the Presiding Officer of the Assembly. The Speaker has the responsibilities and powers of conducting

business of the assembly in orderly manner, maintaining decorum and regulating its procedure in terms of allowing the members to question, speak on matters of importance, budget and grants. The Speaker is the interpreter of the provisions of the Constitution, rules of procedure in the assembly proceedings, rules of procedure and legislative precedents within the Assembly. The Speaker has the power to adjourn, suspend and resume the sessions and suspend the members from participating in the session when there is a violation of rules, procedures and regulations of the assembly.

- The Speaker has to generally maintain neutrality and impartiality while conducting the business of the house. The Speaker's vote becomes more important when there is a tie on any issue regarding passing of bill, motion and resolutions. The Speaker's decision is final in regulating the conduct of members and in matters of procedure or maintaining order in the house. And in such matters the Speaker is not to be subjected to judicial intervention. The Speaker appoints the Chairmen of all the Committees and supervises their functioning. The Deputy Speaker

- The Deputy Speaker is also elected by the members of the Assembly from amongst themselves. He performs the duties and responsibilities of the Speaker as his absence and presides over the Assembly in the absence of the Speaker. The deputy Speaker has also powers on par with the Speaker within the House. Any member existing in a panel can preside over the House in case of absence of Speaker and the deputy Speaker.

JUDICIARY OF STATE
High Courts

The institution of high court originated in India in 1862 when the high courts were set up at Calcutta, Bombay and Madras. In the course of time, each province in British India came to have its own high court. After 1950, a high court existing in a province became the high court for the corresponding state. The High Courts are the highest courts at State level, but being part of integrated Indian judiciary they work under the superintendence, direction and control of the Supreme Court. The Constitution of India provides for a high court for each state, but the Seventh Amendment Act of 1956 authorised the Parliament to establish a common high court for two or more states or for two or more states and a union territory. For example, the States of Punjab and Haryana and the Union Territory of Chandigarh have a common High Court situated at Chandigarh. Similarly, the High Court of Guwahati is common for seven north eastern States of Assam, Nagaland, Manipur, Meghalaya, Mizoram, Tripura and Arunachal Pradesh. Delhi, though not a State, has its own separate High Court. Every High Court has a Chief Justice and a number of judges. The number of judges varies from State to State. The number of judges of each High Court is determined by the President. At present there are 25 High Courts for 29 States (including new Andhra Pradesh High Court established in 1st January 2019 at principal seat in Amravati) and seven Union Territories.

Appointment of the Judges

Every High Court consists of a Chief Justice and such other Judges as appointed by the President from time to time (Article 216).

Jurisdiction and Powers of High Court

At present, a high court enjoys the following jurisdiction and powers:

Original Jurisdiction

In their judicial capacity, the High Courts of the Presidency towns (Bombay, Calcutta and Madras) have both original and appellate jurisdictions, while other High Courts have mostly appellate jurisdiction. Only in matters of admiralty, probate, matrimonial and contempt of Court, they have original jurisdiction. The Presidency High
Courts have original jurisdiction in which the amount involved is more than `2000 and in criminal cases which are committed to them by the Presidency Magistrates.

Appellate Jurisdiction

As Courts of appeal, all High Courts entertain appeals in civil and criminal cases from their subordinate Courts as well as on their own. They have, however, no jurisdiction over tribunals established under the laws relating to the Armed Forces of the Country.

Writ Jurisdiction

Under Article 226 of the constitution, theHigh Courts are given powers of issuing writsnot only for the enforcement of the Fundamental Rights, but also for other purposes. In exercise of this power, a Court may issue the same type of writs, orders or directions which the Supreme Court is empowered to issue under Article 32. The jurisdiction to issue writs under this Article is larger in the case of High Courts, for which the Supreme Court can issue them only where a Fundamental Right has been infringed, a High Court can issue them not only in such cases, but also where an ordinary legal right has been infringed.

Habeas Corpus

The writ of habeas corpus is issued to a detaining authority, ordering the detainer to produce the detained person in the issuing court, along with the cause of his or her detention, if the detention is found to be illegal, the court issues an order to set the person free.

Mandamus

The writ of mandamus is issued to a subordinate court, an officer of government, or a corporation or other institution commanding the performance of certain acts or duties.

Prohibition

The writ of prohibition is issued by a higher court to a lower court prohibiting it from taking up a case because it falls outside the jurisdiction of the lower court. Thus, the higher court transfers the case to it.

Quo Warranto

The writ of quo Warranto is issued against a person who claims or usurps a public office. Through this writ the court inquires 'by what authority' the person supports his or her claim.

Certiorari

The writ of certiorari is issued to a lower court directing that the record of a case be sent up for review, together with all supporting files, evidence and documents, usually with theintention of overruling the judgment of the lower court. It is one of the mechanisms by which the fundamental rights of the citizens are upheld.

Supervisory Jurisdiction

High court has the power of superintendence over all courts and tribunals functioning in its territorial jurisdiction (except military courts or tribunals) Thus, it may

a) Call for returns from them;
b) Make an issue, general rules and prescribe forms for regulating the practice and proceedings of them.
c) Prescribe forms in which books, entries and accounts are to be kept by them; and
d) Settle the fees payable to the sheriff, clerks, officers and legal practitioners of them.

Control over Subordinate Courts

A high court has an administrative control and other powers over them

a) It is consulted by the governor in the matters of appointment, posting and promotion of district judges and in the appointments of persons to the judicial service of the state (other than district judges).
b) It deals with the matters of posting, promotion, grant of leave, transfers and discipline of the members of the judicial service of the state (other than district judges).
c) It can withdraw a case pending in a subordinate court if it involves a substantial question of law that requires the interpretation of the Constitution. It can then either dispose of the case itself or determines the question of law and return the case to the subordinate court with its judgment.
d) Its law is binding on all subordinate courts functioning within its territorial jurisdiction in the same sense as the law declared by the Supreme Court is binding on all courts in India.

Court of Record

All the decisions and decrees issued by the High Court are printed and are kept as a record for future references by the Court as well as by the lawyers, is such a need arises. Thus, it also acts as a Court of Record.

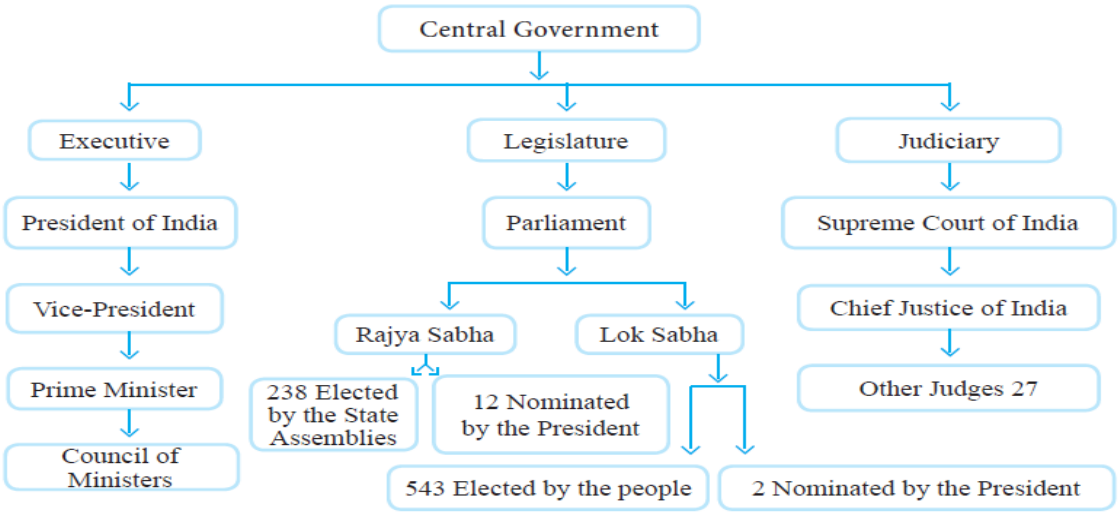
Power of Judicial Review

Judicial review is the power of a high court to examine the constitutionality of legislative enactments and executive orders of both the Central and state governments. Though the phrase judicial review has no where been used in the Constitution, the provisions of Articles
226 and 227 explicitly confer the power of judicial review on a high court
The 42nd Amendment Act of 1976 curtailed the judicial review power of high court. It debarred the high courts from considering the constitutional validity of any central law. However, the 43rd Amendment Act of 1977 restored the original position.

CENTRAL GOVERNMENT

Introduction

The Central Government is the supreme government in our country. The head quarter of the Central Government is at New Delhi. Articles 52 to 78 in part V of Indian Constitution deals with the Union Executive. Our Constitution provides for a democratic form of government. The makers of the Indian constitution, by giving due recognition to the vastness and plural character of our nation, have provided a federal arrangement for her governance. The Central Government consists of three organs, namely, Union Executive, Legislature and Judiciary. The Union Executive consists of the President of India, the Vice-President, and the Council of Ministers headed by the Prime Minister, and the Attorney General of India. The Legislature is known as the Parliament. It consists of two houses, namely the Rajya Sabha and the Lok Sabha. The Union Judiciary consists of the Supreme Court of India.



Legislature

Introduction

- Legislature is one of most important institution for the functioning of representative democracy. The basic objective of the legislature is to hold its representatives accountable, responsible for the interest of the people in the country. Legislature is generally referred as the highest law-making body, having elected representation from all the constituents of the state to make or change the laws of the country. In India, legislature at the Centre is called as Parliament and is also referred as National Legislature. The legislatures in The State and the Union Territory are called as Legislative Assemblies.

- The Parliament consists two houses namely; House of the People (Lok Sabha – Lower House) and Council of States (Rajya Sabha - Upper House). This is known as bicameral system of Parliament, and has inspired by the British Parliamentary system and the bicameral system of the USA. Similarly, the States have Legislative Assembly and Legislative Council. But in many of the States only unicameral legislatures exist without any Legislative Councils. In India, the Parliament shares its law making function and responsibilities of implementation with twenty eight states as well as nine union territories. The Union Territories are directly governed by the Union Government.

Union Legislature: The Parliament

- The Parliament is known as Union Legislature or National Legislature, which is a supreme body of decision making and symbol of democratic governance. The Parliament is the most powerful platform with accountability for debating on the issues regarding welfare of the country and its people and enacting laws and making changes to the constitution

- It has two important powers and functions called as legislative and financial. The legislative powers are for law making and the financial powers are to prepare money bill as called as budget. Also the parliament has electoral functions with regard to elect the President and the Vice- President of India.

- The Parliament has judicial function also on the matters of the proposals for the removal of the President, Vice – President, Judges of the Supreme Court and High Courts and the process of removal is called 'impeachment'. It is the duty of the President to summon the Parliament and it must have not less than two sessions in a year. Every year, at the commencement of the first session of the parliament, the President delivers his special address which would be the future course of action of the parliament in view of giving framework for new policies, programmes and initiatives of the government. The parliament of India has functions of legislation, overseeing of administration, passing of the budget, ventilation of public grievances, and discussing national policies and issues of concern. The cabinet, both individually and collectively is accountable to and removable by the Loksabha.

Functioning of House of People (Lok Sabha)

- The parliament has two houses and both houses carry the same values and responsibilities with a few exception such as passing the finance bills. The first one is the Lok Sabha (Lower House or House of People) with 543 members elected from 543 Parliamentary constituencies across the country directly by the people who have attained the age of 18 and above and registered as voters. The Lok Sabha has 2 nominated members from the Anglo- Indian community.

Quorum of the House: One tenth of the total number of members of Lok Sabha / Rajya Sabha constitutes the quorum for a meeting of the House.

- The grand total number of members in the Lok Sabha is 545, but the nominated members cannot decide the government when it proves majority on the floor of the House. The Lok Sabha is the highest forum for discussion, debate on public issues, interest and policies to cater to the socio-economic needs of the people.

- The members of both houses are generally called by the public as Member of Parliament. Member of Parliament, Lok sabha is one who represents the constituency of the state, comprising of six Assembly constituencies, directly elected by the people through elections. The term of the Lok Sabha is for five years.

Roles and Responsibilities of the Speaker

- The leader of the House of the People is the Speaker – who is elected by the Lok Sabha, from among its members. The Speaker's duties are to conduct, facilitate the debates and discussions as well as the answers to questions, regulating the conduct of Members of the House and taking care of their privileges and rights. The Speaker of Lok Sabha is the administrative head of the parliamentary secretariat.

- The Speaker also ensures that the members adhere to the appropriate procedures, and to allow the members to raise question, allotting time to speak and withdraw the objectionable remarks from record and moving a motion of thanks to the President's speech. The Speaker has the power to expel the members if they flout or violate the norms and rules of the house.

- The permission of the Speaker is required to move amendments to a bill. It is up to the Speaker to decide whether the bill has to be moved or not. The Speaker plays the role of guardian of the rights and privileges of the house, its various Committees such as consultative, select, advisory and of members of that Committees. Another important power of the Speaker is to refer any question of privilege to the Committee of privileges for examining, investigating and reporting. The questions raised by the members and answers, explanations and reports are addressed to the Speaker.

Jawaharlal Nehru, one of the chief architects of India and a driving force behind its democratic principles of the Constitution, placed the office of the Speaker in India in the proper context when he said: "The Speaker represents the House. He/she represents the dignity of the House, the freedom of the House and because the House represents the nation, in a particular way, the Speaker becomes a symbol of nation's freedom and liberty. Therefore that should be an honoured position, a free position and should be occupied always by persons of outstanding ability and impartiality".

- The Speaker is the final authority to decide on the question of point of order. Under the constitution, the Speaker enjoys special provisions and certifies money bills. The Speaker of the House of the People presides the joint sessions of the parliament in case a special occasions or in the event of disagreement between the two houses on certain legislative measures. The Speaker decides whether a Bill is a Money Bill or not and his decision on this question is final. It is the Speaker who decides on granting recognition to the Leader of Opposition in the House of People. Under 52^{n}d Constitution Amendment, the Speaker has the disciplinary power to disqualify a member of the house on the grounds of defection. Even though, the Speaker also one of the members of the House and holds neutral, does not vote in the house except rare occasions when there is a tie at the end of the decision.

- The Rajya Sabha or the Council of States is called as upper house. It has a total number of 250 members including 238 from all the states and union territories and 12 members nominated by the President. The council of states Rajya Sabha is called as second chamber of the Parliament of India. The Rajya Sabha is an institution to protect the rights and interests of the states like the senate in USA. It was constituted on 3rd April, 1952.

- The members for Rajya Sabha are elected by the members of the respective State Legislative Assemblies (MLAs). Apart from the members of the states, twelve

distinguished members from the Parliament Not more than 250 Members Not more than 552 Members 12 nominated Not more than 20 representatives of Union Territories Not more than 238 representatives of States and Union Territories Not more than 530 representatives of States plus not more than 2 nominated Anglo-Indians Council of the States House of the People fields of literature, science, art, and social service were nominated by the President of India. Unlike House of People, Council of States is not subject to dissolution but one third of the members retire every second year. The term of the individual member is six years. The members of the Council of States are elected by their respective state legislative assemblies in accordance with the system of proportional representation by means of the single transferable vote.

Functioning of Rajya Sabha

- The Vice-President of India is the ex-officio Chairman of the Rajya Sabha. The Chairman presides over the proceedings and regulates the Rajya Sabha. Except the Money/Financial Bill all other bills will be placed before the Rajya Sabha for discussion, questions, motions and resolutions under the rules of procedure and conduct of business. The functions of Rajya Sabha may broadly be categorised as: Legislative, Financial, Deliberative and Federal. Legislation is by far the most important business of Rajya Sabha, as indeed of Parliament and in this sphere, Rajya Sabha enjoys almost equal powers with Lok Sabha. In the U.S.A, the representatives in the state council is called as Senate where every state has equal representation irrespective of size and population of the states. But in India, the representation in the Rajya Sabha is based on its size of population.

- For example, Uttar Pradesh with the highest population elects 31 members to Rajya Sabha; on the other hand, Sikkim, the least populated state, elects only one member to Rajya Sabha. Tamil Nadu elects 18 members to the Rajya Sabha. The number of members to be elected from each State has been fixed by the fourth schedule of the Constitution. Members of the Rajya Sabha are elected for a term of six years and then they can be re-elected. The Rajya Sabha is known as Permanent House of the Parliament that never gets fully dissolved. Some of the important privileges and immunities are given to the Members of Rajya Sabha as follows.

Who can be a Member of Rajya Sabha?

- Must be a citizen of India
- Must not be less than 30 years
- Under the Representation of the People Act, 1951, a person had to be an elector in a parliamentary constituency in the State from where he seeks election to Rajya Sabha.
- It may, however, be mentioned that the Representation of the People (Amendment) Act, 2003, which amended Section 3 of the Representation of the People Act, 1951, has done away with the requirement of being a resident of State or Union territory from which a person seeks to contest elections to Rajya Sabha.
- He/She has to be an elector in a parliamentary constituency anywhere in India.

Powers and Privileges of Members of Parliament

1. Freedom of speech in Parliament and immunity of a member from any proceedings in any court in respect of anything said or any vote given by him in parliament or any Committee thereof.

2. Immunity to a person from proceedings in any court in respect of the publication by under the authority of either House of Parliament of any report, paper, votes or proceedings.

3. Prohibition on the court to inquire into proceedings of parliament.

4. Immunity to a person from proceedings in any court in respect of the publication in Newspaper of a substantially true report of any proceedings of either House of Parliament unless the publication is proved to have been made with malice.

5. Freedom from arrest of members in civil cases during the continuance of the session of the House and forty days before the commencement and forty days after its conclusion.

6. Exemption of a member from service of legal process and arrest within the precincts of the House.

Parliament: Lok Sabha, Rajya Sabha

- The of Lok Sabha is the most powerful political institution which reflects the political, social and economic conditions of the country, holds highest responsibility and virtually represents the entire population.
- The Lok Sabha is constituted with members elected directly by the people. These members represent the varied interests of the people. Thus it becomes the apex democratic institution. It is here that the nation's policies, programmes and laws emerge.
- The Lok Sabha makes the Laws on the matters of Union List and Concurrent List. It can exact new laws and repeal existing law or amend the same. It has an exclusive authority over money bills.
- The special power of the Lok Sabha is that once it passes the budget or any other money related law, the Rajya Sabha cannot reject it. But the Rajya Sabha can only delay the law for 14 days and if Rajya Sabha suggests any changes regarding the law, it is upto the Lok Sabha to accept or reject it.
- One of the privileges of the Lok Sabha is preparing and presenting the budget and financial statement, which is an explicit expression of people's control over the nation's economy.
- The Lok Sabha controls the executive by asking questions, supplementary questions, passing resolutions, motions and no confidence motion.
- The Lok Sabha has the power to amend the constitution and approve the proclamation of emergency.
- The Lok Sabha involves in electing the President and Vice-President of India.
- The Lok Sabha has power to establish new Committees and commissions and tabling their reports for debate and discussion and further consideration for implementation.
- The Lok Sabha controls the council of Ministers and a Prime Minister, who enjoys the majority support of it. If the Prime Minister loses the confidence of the Lok Sabha, the entire government has to quit and face the election.

Powers of Rajya Sabha

Position of Rajya Sabha

- The Constitutional position of the Rajya Sabha (as compared with the Lok Sabha) can be studied from three angles:

1. Where Rajya Sabha is equal to Lok Sabha?
2. Where Rajya Sabha is unequal to Lok Sabha?
3. Where Rajya Sabha has special powers that are not all shared with the Lok Sabha?

Equal Status with Lok Sabha

- In the following matters, the powers and status of the Rajya Sabha are equal to that of the Lok Sabha:

- ❖ Introduction and passage of ordinary bills.
- ❖ Introduction and passage of Constitutional amendment bills.
- ❖ Introduction and passage of financial bills involving expenditure from the Consolidated Fund of India.
- ❖ Election and impeachment of the President.
- ❖ Election and removal of the Vice- President. However, Rajya Sabha alone can initiate the removal of the vice- President. He is removed by a resolution passed by the Rajya Sabha by a special majority and agreed to by the Lok Sabha by a simple majority.
- ❖ Making recommendation to the President for the removal of Chief Justice and judges of Supreme Court and high courts, chief election commissioner and comptroller and auditor general.
- ❖ Approval of ordinances issued by the President.
- ❖ Approval of proclamation of all three types of emergencies by the President.
- ❖ Selection of ministers including the Prime Minister. Under the Constitution, the ministers including the Prime Minister can be members of either House. However, irrespective of their membership, they are responsible only to the Lok Sabha.
- ❖ Consideration of the reports of the constitutional bodies like Finance Commission, Union Public Service Commission, comptroller and auditor general, etc.
- ❖ Enlargment of the jurisdiction of the Supreme Court and the Union Public Service Commission.

Unequal Status with Lok Sabha

- In the following matters, the powers and status of the Rajya Sabha are unequal to that of the Lok Sabha:

  - ❖ A Money Bill can be introduced only in the Lok Sabha and not in the Rajya Sabha.
  - ❖ Rajya Sabha cannot amend or reject a Money Bill. It should return the bill to the Lok Sabha within 14 days, either with recommendations or without recommendations.
  - ❖ The Lok Sabha can either accept or reject all or any of the recommendation of the Rajya Sabha. In both the cases, the money bill is deemed to have been passed by the two Houses.

- ❖ A financial bill, not containing solely the matters of Article 110, also can be introduced only in the Lok Sabha and not in the Rajya Sabha. But, with regard to its passage, both the Houses have equal powers.
- ❖ The final power to decide whether a particular bill is a Money Bill or not is vested in the Speaker of the Lok Sabha.
- ❖ The Speaker of Lok Sabha presides over the joint sitting of both the Houses.

- ❖ The Lok Sabha with greater number wins the battle in a joint sitting except when the combined strength of the ruling party in both the Houses is less than that of the opposition parties.
- ❖ Rajya Sabha can only discuss the budget but cannot vote on the demands for grants (which is the exclusive privilege of the Lok Sabha).
- ❖ A resolution for the discontinuance of the national emergency can be passed only by the Lok Sabha and not by the Rajya Sabha.
- ❖ The Rajya Sabha cannot remove the council of ministers by passing a no-confidence motion. This is because the Council of ministers is collectively responsible only to the Lok Sabha. But, the Rajya Sabha can discuss and criticize the policies and activities of the government.

Special Powers of Rajya Sabha

- Due to its federal character, the Rajya Sabha has been given two exclusive or special powers that are not enjoyed by the Lok Sabha:

  - ❖ It can authorize the Parliament to make a law on a subject enumerated in the State List (Article 249).
  - ❖ It can authorize the Parliament to create new All-India Service common to both the Centre and states (Article 312).

- An analysis of the above points makes it clear that the position of the Rajya Sabha in our constitutional system is not as weak as that of the House of Lords in the British constitutional system nor as strong as that of the Senate in the American constitutional system. Except in financial matters and control over the council of ministers, the powers and status of the Rajya Sabha in all other spheres are broadly equal and coordinate with that of the Lok Sabha.

Even though the Rajya Sabha has been given less powers as compared with the Lok Sabha, its utility is supported on the following grounds:

- ❖ It checks hasty, defective, careless and ill-considered legislation made by the Lok Sabha by making provision of revision and thought.

- ❖ It facilitates giving representation to eminent professionals and experts who cannot face the direct election. The President nominates 12 such persons to the Rajya Sabha.

- ❖ It maintains the federal equilibrium by protecting the interests of the states against the undue interference of the Centre.

Article 120

Hindi and English have been declared by the Constitution to be the languages for conducting business in Parliament. The Presiding Officer may, however, allow any member not proficient in either to address the House in his mother tongue (Article 120).

Law Making Process

- The law making process in Indian Parliament stands evident for its democratic credentials. In the law making process, the role of opposition parties becomes much more important to reflect upon the relevance of the bill and its context so as to streamline the democratic governance.

- The law is a guiding force to regulate the society, politics and economy for the welfare of the state and people. The law is primarily introduced in the Parliament in the form of 'bill' as proposed legislation for consideration of the legislature. The bill will be taken for thorough discussion in the parliament to have an understanding within the framework of the constitution.

- The bill will become law once the legislature passed it and approved by the President. The law becomes an act only after getting consent from the President of India. The primary function of the Parliament is to make fresh laws and bring changes in the existing laws in accordance with the constitutional procedures. The Parliament of India passes two types of bills such as:

1. Money Bill
2. Non-Money Bill or ordinary or public bills

- An ordinary bill has to pass through different stages before becoming an Act. The procedures prescribed in the Constitution for passing the bills are of two different categories. These are as follows: An ordinary bill under consideration has to go through following stages and has to pass through both houses with discussions, suggestions and approval. An ordinary bill may be introduced in either House of the Parliament.

- The first stage of the bill relates to the introduction of the bill in either house as 'Reading of the Bill'. Most of the bills are introduced by the Ministers concerned. The bill is drafted by the technical experts in that particular field and then council of ministers will approve the bill. The ordinary Member of Parliament can also introduce a bill which is called as 'Private Member Bill'. For the introduction of the bill it should be informed to the Speaker of the Lok Sabha or The Chairman of Rajya Sabha one month in advance. Then the date of introduction for the Private Member Bill will be fixed and allowed to move the bill in the floor of house. Generally, there will be no discussion on the proposed bill at this reading stage which is only a formal affair.

- After the introduction of bill, it will be published in Gazette of India. The Speaker or the Chairman may allow some bills to be published in the Gazette even before the first reading, in that case, no motion for leave to introduce bill is necessary.

- The Second Reading of the bill usually takes place after an interval of two days after the first reading. At this stage, any of the four courses are adopted.

- The bill may be taken for consideration by the House at once.
- It may be sent to a select Committee of the House.
- It may be sent to a joint select Committee of the two Houses or
- It may be circulated for eliciting public opinion. Very rarely bills are taken up for consideration straight away.

- When the bill is adopted for circulation (i.e. 4th course), the secretariat of the House concerned requests the State Governments to publish the bill in the State Gazettes inviting opinions from local bodies and recognized associations. Such opinions are circulated among the members of the House.

Committee Stage

- If the bill is referred to a select Committee, the mover selects the members of the Committee, the Speaker or the Chairman of the House appoints one member of the Committee and the Chairman of the Committee. The Committee will study of the bill and reports back to the House.

Report Stage

- The report stage is the most important stage where a bill is debated clause by clause. In this stage, the report is circulated along with original bill and the report of the Select Committee. The report stage is for giving final shape to the bill. Then the bill will be submitted for the Third Reading in which the bill is to be passed with majority of votes. The Third Reading is for formal approval by the Parliament.

- After the bill is adopted at the Third Reading in either of the house, it is transmitted to the other House, where it goes through all the stages. The other house may accept the bill as it is. After coming across all the stages, it is sent to the President's assent.

- Once a bill is passed in its originating house, it also may be rejected in the other house. Otherwise, it may introduce amendments not acceptable to the original House, or may not return the bill within six months. Insuch a case, a constitutional deadlock develops between the two Houses. The President may call a joint session of the two Houses to resolve the deadlock. The Speaker or in his absence the Deputy Speaker presides over such joint sessions. The deadlock is dissolved by majority vote.

- Finally, the bill is passed by both Houses and goes to the President for his assent. If the President assents to the bill, it becomes a law. But the President may return the bill for reconsideration. If the bill is sent back to the President with or, without amendments, the President cannot withhold his assent. Such a complicated and time-consuming procedure is adopted to prevent hasty legislation.

Private Member Bills:

- If any member other than a minister introduces a bill, it is called a private member bill. The bill can be introduced by both ruling and opposition party MPs. Private member bill is a bill proposed by a member who is not a member of the cabinet and executive. The session for private member bill is held at alternative Fridays from 2 pm to 6 pm.

- This bill needs a month of notice; this has no impact on the health of the government when the private member bill gets rejected. Till date, the parliament has passed fourteen private member bills; the last one was passed on 1970. Most of the bill passed by the private member is not even read or discussed and dismissed. Private members bills are accepted even those are constitutional amendment bills but not that those are money bills.

The Rights of Transgender Persons Bill, 2014

- ❖ In Lok Sabha, the last two and half hours of a sitting on every Friday, and in Rajya Sabha two and half hours, i.e., from 2.30 p.m. to 5.00 p.m. on every alternate Friday are allotted for transaction of "Private Members' Business", i.e., Private Members' Bills and Private Members' Resolutions.
- ❖ The last time a private member's Bill was passed by both Houses was in 1970.
- ❖ Till Now, only Fourteen Private Member's bill have been passed by the Parliament.

The Rights of Transgender Persons Bill, 2014: The Rights of Transgender Persons Bill, 2014 is a private member bill introduced by Trichy Shiva M.P. of Tamil Nadu, which seeks to end the discrimination faced by transgender people in India. The Bill was passed by the upper house Rajya Sabha on 24 April 2015. It was introduced in the lower house Lok Sabha on 26 February 2016. The Bill is considered historic as for being the first private member's bill to be passed by any house in 36 years and by Rajya Sabha in 45 years

Committees of the Parliament

- Broadly, parliamentary Committees are of two kinds - Standing Committee and Ad Hoc Committees. The former are permanent (constituted every year or periodically) and work on a continuous basis, while the latter are temporary and cease to exist on completion of the task assigned to them.

Standing Committees

- On the basis of the nature of functions performed by them, standing Committees can be classified into the following six categories

Financial Committees

a) Public Accounts Committee
b) Estimates Committee
c) Committee on Public Undertakings

Departmental Standing Committees (24)
Committees to Inquire

a) Committee on Petitions

b) Committee of Privileges
c) Ethics Committee

Committees to Scrutinise and Control

a) Committee on Government Assurances
b) Committee on Subordinate Legislation
c) Committee on Papers Laid on the Table
d) Committee on Welfare of SC's and ST's
e) Committee on Empowerment of Women
f) Joint Committee on Offices of Profit

Committees Relating to the Day-to- Day Business of the House

a) Business Advisory Committee
b) Committee on Private Members' Bills and Resolutions
c) Rules Committee
d) Committee on Absence of Members from Sittings of the House

Ad Hoc Committee

Ad Hoc Committees can be divided into two categories, that is, Inquiry Committees and Advisory Committees.

Committee on Estimates: The major responsibility of the Committee is to suggest the examiner, estimator and recommendation on matters related to economic related policy issues and alternative policies, administrative reform, undertaking the tours and visits within and outside the state to study various schemes under execution in regard to the estimates under examination.

Committee on Public Accounts: The important functions of the Committee are to scrutinise the Appropriation Accounts of the State and the Report of the Comptroller and Auditor-General of India (Civil). Also looks into the Revenue receipts and the disbursement of money shown in the accounts applicable to the services or purposes to which they had been applied and charged.

Committee on Public Undertakings: This Committee is to examine the Audit reports and accounts of Public Undertaking from time to time. The Committee also examines the autonomy and efficiency of the Public Undertakings. This Committee is also taking note on the affairs of the Public Undertakings are being managed in accordance with sound business principles and prudent commercial practices. The Committee also examines the Reports of the Comptroller and Auditor General of India on the Public Undertakings. The Committee examines the working of the Undertakings under its purview, hears officials or takes evidence connected with such undertakings and makes recommendations to the House.

Distribution of powers of the legislature

- The legislative powers and functions of the Union and the States are clearly demarcated in seventh schedule of the Constitution of India. The powers on which both union and the states can legislate is clearly defined. The Constitution has classified the subjects for which the legislation can be made to perform the duties and responsibilities with specific powers for division of powers to avoid the seventh schedule of the constitution which provides for trifurcation of legislative powers;

- **The Union List**
- **The State List and**
- **The Concurrent List**

- The Union List includes the subjects over which the parliament has exclusive authority to make laws and change the existing laws. The State Legislature has exclusive authority over subjects mentioned in the state list. In the subjects enumerated in the 'Concurrent List' both the Union and the States can legislate. In the event of contradictions between the Union and States, the Union's authority will prevail. The residuary power is vested in the Centre.

Difference between Ordinary Bill and Money Bill

S.No	Ordinary Bill	Money Bill
1	It can be introduced either in the Lok Sabha or the Rajya Sabha	It can be introduced only in the Lok Sabha and not in the Rajya Sabha
2	It can be introduced either by a minister or by a private member	It can be introduced only by a minister.
3	It is introduced without the recommendation of the President	It can be introduced only on the recommendation of the President
4	It can be amended or rejected by the Rajya Sabha	It cannot be amended or rejected by the Rajya Sabha. The Rajya Sabha should return the bill with or without recommendations, which may be accepted or rejected by the Lok Sabha
5	It can be detained by the Rajya Sabha for a maximum period of six months.	It can be detained by the Rajya Sabha for a maximum period of 14 days only.
6	It does not require the certification of the speaker when transmitted to the Rajya Sabha (if it has originated in the Lok Sabha)	It is requires the certification of the speaker when transmitted to the Rajya Sabha .
7	It is sent for the president's assent only after being approved by both the houses. In case of the deadlock due to disagreement between the two Houses, a joint sitting of both the houses can be summoned by the president to resolve the deadlock.	It is sent for the president's assent even if it is approved by only Lok Sabha. There is no chance of any disagreement between the two Houses and hence, there is no provision of joint sitting of both the houses in this regard.
8	Its defeat in the Lok Sabha may lead to the resignation of the government (if it introduced by a minister)	Its defeat in the Lok Sabha leads to the resignation of the government

9	It can be rejected, approved or returned for reconsideration by the President	It can be rejected, or approved but cannot returned for reconsideration by the President

Lists of powers

Union	**State**	**Concurrent**
Defence	Agriculture	Education
Atomic Energy	Police	Transfer of property other than Agricultural land
Foreign Affairs	Prison	Forests
War and Peace	Local Government	Trade Unions
Banking	Public health	Adulterations
Railways	Land	Adoption and Succession
Post and Telegraph	Liquor	
Airways	Trade and Commerce	
Ports	Livestock and Animal Husbandry	
Foreign Trade	State Public Services	
Currency & Coinage		

- An amendment of this Constitution may be initiated through the introduction of a Bill in either House of Parliament, and when the Bill is passed in each House by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting, it shall be presented to the President who shall give his assent to the Bill.

Amendment process and Procedure

The Constitution of India has a unique provision to make the Constitution relevant to changing conditions and needs but without changing the basic structure. Article 368 deals with the amendment of the Constitution. As per this article, the Parliament has the Supreme power to initiate the amendment process. The Parliament may amend the constitution through by way of addition, variation or repeal any provision of this Constitution in accordance with the procedure laid down in this article.

The bill must be passed in each house by a special majority, that is, majority by more than 50 percent of the total membership of the house and a majority of two – thirds of the members of the house present and voting. Each house must pass the bill separately. In case of a disagreement between the two houses, on issues concerning amendment there is no provision for holding a joint-sitting of the two houses. If the bill seeks to amend the federal provisions of the constitution, it must also be ratified by the legislatures of half of the states by a simple majority, that is, a majority of the members present and voting in such legislatures.

After duly passed by both the houses of parliament and ratified by the state legislatures wherever necessary, the bill is forwarded to the President for assent. The President must give his assent to the bill. He can neither withhold his assent to the bill nor return the bill for reconsideration of the Parliament. After President's assent, the bill becomes an Act (i.e., A Constitutional Amendment Act) and the constitution stands amended in accordance with the terms of the Act.

Types of Amendments

The Constitution can be amended in three ways;

- ❖ Simple majority of the parliament
- ❖ Special majority of the parliament, and
- ❖ Special majority of the parliament and the ratification of half of the State legislatures.

Simple Majority of Parliament:

According to Article 368 a number of provisions in the constitution can be amended by a simple majority of the two houses of parliament. These provisions include

- ❖ Admission or establishment of new states, formation of new States and alteration of areas, boundaries, or names of existing states.
- ❖ Abolition or creation of legislative councils in states.
- ❖ Second schedule - emoluments, allowances, privileges and so on of the President, the Governors, the Speakers, judges, etc.
- ❖ Quorum in parliament.
- ❖ Salaries and allowances of the members of parliament.
- ❖ Rules of procedure in parliament.
- ❖ Privileges of the parliament, its members and its members and its Committees.
- ❖ Use of English language in parliament.
- ❖ Number of judges in the Supreme Court.
- ❖ Conformant more jurisdiction on the Supreme Court.
- ❖ Use of official languages.
- ❖ Citizenship – acquisition and termination.
- ❖ Elections to parliament and state legislatures.
- ❖ Delimitation of constituencies.
- ❖ Union territories.
- ❖ Fifth schedule – administration of schedule areas and scheduled tribes
- ❖ Sixth schedule – administration of tribal areas.

By Special Majority of Parliament

- The majority of the provisions in the constitution need to be amended by a special majority of the parliament, that is, a majority (i.e., more than 50 per cent) of the total membership of each

- house and a majority of two-thirds of the members of each house present and voting. The expression total membership of the house is irrespective of fact whether there are vacancies or absentees. The special majority is required only for voting at the third reading stage of the bill. The constitution's clauses which can be amended in this way include:

- ❖ Fundamental rights
- ❖ Directive Principles of State policy: and
- ❖ All other provisions which are not covered by the first and third categories

Amendments by Special Majority of Parliament and Consent of States

The basic structures of the constitution which are related to the federal structure of the polity can be amended by a special majority of the parliament and also with the consent of half of the state legislatures by a simple majority. There is no time limit within which the states should give their consent to the bill. The following provisions can be amended in this way:

- Election of the President and its manner.
- Extent of the executive power of the union and the states.
- Supreme Court and high courts.
- Distribution of legislative powers between the union and the states.
- Any of the list in the seventh schedule.
- Representation of states in parliament.
- Power of parliament to amend the constitution and its procedure (Article 368).

THE UNION EXECUTIVES

President

The President is the head of the Indian State. He is the First Citizen of India and acts as the symbol of Unity, Integrity and Solidarity of the Nation.

Qualification and Election of the President

Article 58 says;

1. No person shall be eligible for election as President unless he is

- a citizen of India
- has completed the age of 35 years
- is qualified for election as a member of the Lok Sabha

2. A person shall not be eligible for election as President if he holds any office of profit under the government of India, or the government of any state, or under any local or other authority subject to the control of any of the said governments.

Article 52 of our Constitution lays down that ther shall be a President of India. Article 53 lays down that the executive power of the Union shall be vested in the President and shall be exercised by him directly or indirectly.

Further Article 52 provides that the nomination of a candidate for election to the office of President must be subscribed by at least 50 electors as proposers and seconded by another 50 electors of the Electoral College. Every candidate has to make a security deposit of `15,000/- in the Reserve Bank of India.

This amount will be forefeited if the candidate does not secure 1/6 of the votes polled.

The President is elected not directly by the people but by members of Electoral College consisting of

The elected members of both the houses of Parliament

The elected members of the legislative assemblies of the states

The elected members of the legislative assemblies of the union territories of Delhi and Pondicherry.

The President`s election is held in accordance with the system of proportional representation by means of single transferable vote and the voting is by secret ballot. This system enures that the successful candidate is returned by the absolute majority of votes.

$$\text{Electoral Quota} = \frac{\text{Total number of valid polled in the election}}{\text{Number of electors to be elected}} + 1$$

Each member of the electoral college is given only one ballot paper. The voter, while casting his vote, is required to indicate his preferences by marking 1,2,3,4

Oath by the President

Before entering upon his office, the President has to make and subscribe an oath or affirmation.

In his oath, the President swears:

To faithfully execute the office;
To preserve, protect and defend the constitution and the law; and
To devote himself to the service and wellbeing of the people of India.

The oath of office to the President is administered by the Chief Justice of India and in his absence in the presence of the senior most judge of the Supreme Court. etc against the names of the candidates. This means the voter can indicate as many preferences as there are candidates in the fray. In the first phase, the first preference votes are counted. In case a candidate secures the required quota in this phase, he is declared elected. Otherwise, the process of transfer of votes is carried out. The ballots of the candidate securing the least number of first prefrence votes are cancelled and his second preference votes are transferred to the first preference votes of other candidates. This process continues till a candidate secures the required quota.

Entitlement to the President

- He is entitled without payment of rent, to the use of his official residence (The Rashtrapathi Bhavan)
- He is entitled to such emoluments, allowances and privileges as maybe determined by the Parliament
- The President is entitled to a number of privileges and immunities. He enjoys personal immunity from legal liability for his official acts. During his term of office, he is immune from any criminal proceedings

Term, Impeachment and Succession
Term

Article 56 says that the President shall hold office for a term of 5 years from the date on which he enters upon his office. However he can resign from his office at any time by addressing the resignation letter to the Vice President. Further he can aslo be removed from the office

before completion of his term by the process of impeachment. The President can hold office beyond his term of five years until his successor assumes charge. He is also eligible for re-election to that office.

Impeachment

Article. 61 of the Constitution lays down a detailed procedure for the impeachment of the President. For the impeachment of the President, first, a charge for impeachment has to be made in either House of the Parliament by a resolution signed by atleast one fourth of the total number of members of the House and moved by giving atleast 14 days' advance notice. Such a resolution must be passed by a majority of not less than two thirds of the total number of members of the House when a charge is so presented by one House, it should be investigated by the other House. After the investigation, if a resolution is passed by the other house by a majority of two thirds of its total number of members, the President stands removed by impeachment from his office from the date of passing of the resolution.

Succession

A vacancy in the President's office can occur in any of the following ways:

1. On the expiry of his tenure of five years
2. By his resignation
3. On his removal by impeachment
4. By his death
5. When he becomes disqualified to hold office or when his election is declared void

If the vacancy occurs due to resignation, removal or death then election to fill vacancy should be held within six months and the Vice President acts as the President until a new President is elected. Further when the sitting President is unable to discharge his functions due to absence, illness or any other cause, the Vice President discharges his functions until the President resumes his office. In case the office of the Vice President is vacant, the Chief Justice of India or if his office is also vacant, the senior most judge of the Supreme Court acts as the President or discharges the functions of the President.

Functions and Powers of the President

Vast are the functions and powers of the President. He convenes the parliament, addresses and prorogues the same. He nominates 12 members of eminence in different fields to the Rajya sabha and two Anglo Indian members to the Lok Sabha. He enjoys veto power over non-money bills of the parliament and can send back non-money bills for reconsideration of the parliament, he can convene joint sessions of Rajya Sabha and Lok sabha; He can promulgate ordinances for a period not exceeding six months. He can also has veto powers over certain State legislations.

He prompts and facilitates the institution of council of ministers headed by the Prime Minister, and ensures that the council of Ministers enjoy the support of the majority in the Lok Sabha. The President alone installs the ministers and distributes portfolios to them, he can also, dismiss the ministry, if he feels that the ministry does not enjoys the majority support in the Lok sabha. He nominates members to various constitutional bodies, including the judiciary, armed forces and diplomatic corps. The President enjoys enormous powers

during the periods of emergencies, can suspend any law, can dissolve ministries and legislatures for specified periods. He can commute capital punishments.

Executive	Legislative	Financial	Judicial	Emergency	Miscellaneous
1. Running of all administration in his name, making of rules for the conduct of government business and allocation of work among the ministers	1. Summoning and proroguing sessions of Parliament and dissolving Lok Sabha.	1. Introduction of money bill in Lok Sabha with his prior recommendation.	1. Granting commutation of sentence, reprieve or pardon, respites or remissions or suspension of punishments by virtue of holding prerogative of mercy.	1. The constitution confers extraordinary powers on the President to deal with three types of emergencies National emergency (Art.352) President's rule (Art.356 & 365) financial emergency (Art. 360)	1. Reference of any matter of public importance involving a question of law or fact to the advisory opinion of the Supreme Court.
2. Having information of all important decisions of the Cabinet, referring any mater for the consideration of the Cabinet.	2. Making nomination of 12 members to the Rajya Sabha and 2 to the Lok Sabha.	2. Keeping control over Contingency Fund of India.	2. He appoints the Chief Justice of India and other judges of Supreme Court and High Courts.	2. Art.352- President declares national emergency when security is threatened due to war, external aggression and internal rebellion.	2. Determining the strength of Judges in the High Court.
3. Making important appointments and removals.	3. Delivering inaugural addresses and sending messages to the Parliament.	3. Causing presentation of budget in the Parliament.	3. He can seek advice from the Supreme Court on any question of law or fact.	3. Provision of emergency in a State(Art 356) in the event if breakdown of constitutional machinery.	3. Making rules for the composition and working of the Union Public Service Commission.
4. Maintaining foreign relations.	4. Exercising veto power over non-money bills-absolute as	4. Making appointment of Finance Commission.		4. Art 365 – enforcement of President's rule when a State does not	4. Setting up official languages Commission and

	well as suspensive.			obey the union government direction or the Indian Constitution.	taking steps for the progressive use of Hindi for official purposes on the basis of its recommendations.
5. Holding supreme command of the Defence Forces.	5. Giving prior permission for introducing certain kinds of bills in Parliament.	5. Allowing determination of the shares of States in proceeds of income tax and of the amounts of grants-in-aid in lieu of jute export duty to the States of Assam, Bihar, Odisha and W.Bengal		5. The President under Art 360 has the power to declare financial emergency if he is satisfied that financial stability or the credit of India is threatened.	5. Making special regulations for the administration of the State of Jammu-Kashmir.
6. Approving rules and regulations for the working of the Supreme Court and other independent agencies.	6. Promulgating an ordinance if the Parliament is not in session.				6. Making special rules and regulations for the administration of Scheduled and Tribal Areas.
7. Sending directions and instructions to state governments and invoking Art.356 incase of breakdown of Constitutional machinery in a State.	7. Causing presentation in the Parliament of reports and recommendations of various commissions.				

8. Running of the administration of Union Territories and Scheduled and Tribal Areas.	8. Making appointment of presiding officer pro tem of the Lok Sabha.				
	9. Allowing extension, modification, or abrogation of law in cases of ports and aerodromes.				
	10. Exercising absolute veto power over State l				

Fact
The emergency powers of the President of India are specified in part XVIII of the Indian Constitution.

Vice President

On the pattern of the Constitution of USA, the Indian Constitution provides for the office of the Vice-President of India (Article 63). The Vice-President of India occupies the second highest office in the country.

Election

The Vice-President of India is elected by the elected members of both Houses of Parliament by secret ballot on the basis of proportional representation system, by means of the single transferable vote.

Qualification

To be eligible for election to the office of Vice-President, (a) candidate must be a citizen of India, (b) must have completed the age of thirty five years, (c) must be eligible for election as a member of the Rajya Sabha, and (d) must not hold any office of profit. In this connection provisions similar to those relating to the President apply.

Terms of Office

The Vice-President is elected for a term of five years. He can voluntarily resign from his office before the completion of his term of office by writing to the President. He may also be removed from his office, if a resolution to that effect is passed by the Rajya Sabha by an

absolute majority of its members and agreed to by the Lok Sabha. However fourteen days have to be given to move such resolution.

Functions and Duties

The Vice-President is the ex-officio Chairman of the Rajya Sabha (Article 64 of the Indian Constitution). He presides over the meetings of the Rajya Sabha. As the presiding officer of the Rajya Sabha, his functions and powers are similar to those of the speaker of Lok Sabha. He draws his salary as the chairman of the Rajya Sabha, because the Vice-President`s office itself carries no salary. In the event of occurrence of any vacancy in the office of the President by reason of his death, resignation or removal, or otherwise, the Vice-President shall act as President until a new President is elected. This period shall not exceed six months. While acting as President the Vice-President gets salary, allowance, emoluments etc., as may be fixed by Parliament by law, and during that time he does not perform the duties of the chairman of Rajya Sabha.

The Prime Minister and Council of Ministers

He describe Prime Minister as 'primus inter pares' (first among equals) and 'key stone of the cabinet arch'. He said, "The head of the cabinet is 'primus intro pares', and occupied a position which so long as it lasts, is one of exceptional and peculiar authority". **- Lord Morely**

The Prime Minister

Introduction

Executive: The Constitution provides for a collegiate executive
i.e Council of ministers under the chair members of the Prime Minister

Meaning: A body of persons having authority to initiate major policies, make decisions and implement them on basis of the Constitution and laws of the country.
There are two important organs of the Union Government.

- The Union Legislature (or) the Union Parliament
- The Union Executive

In the previous unit you have learnt about the Union Legislature. Let us now deal with Union Executive. You should remember that articles 52 to 78 in Part V of the Indian Constitution deal with “Union Executive”.

India has adopted the British Parliamentary executive mode with the Prime Minister as the Head of the Government. Prime Minister is the most important political institution. But in the council of Ministers (Cabinet) the Prime Minister is primus inter pares (first among equals).

Appointment

The Constitution does not contain any specific procedure for the selection and appointment of the Prime Minister. There is no direct election to the post of the Prime Minister. Article 75 says, the Prime

Minister shall be appointed by the President. Appointment is not by the choice of the President. The President appoints the leader of the majority party or the coalition of the parties that commands a majority in the Lok Sabha, as the Prime Minister. In case no single party gets a majority, the President appoints the person most likely to secure a majority support. The Prime Minister does not have a fixed tenure. He/she continues in power so long as he/she remains the leader of the majority party or coalition.

Functions and Position

The first and foremost function of the Prime Minister is to prepare the list of his ministers. He meets the President with this list and then the Council of Ministers is formed. Very important ministers are designated as Ministers of the Cabinet rank, others are called Ministers of State, while ministers belonging to third rank are known as Deputy Ministers. It is one of the discretionary powers of the Prime Minister to designate a minister as Deputy Prime minister. The President allocates portfolios among the ministers on the advice of the Prime Minister. The Prime Minister may keep any department or departments under his control; he may also advise the President to reshuffle portfolios of his ministers from time to time; he may bifurcate of trifurcate a department or have different departments amalgamated into one department.

The Prime Minister`s pre eminent position is evident from these points:

1. S(he)is the leader of the party that enjoys a majority in the popular House of the Parliament (Lok Sabha).

2. Has the power of selecting other ministers and also advising the President to dismiss any of them individually or require any of them to resign.

3. The allocation of business amongst the Ministers is a function of the Prime Minister. He can transfer a minister from one Department to another.

4. Is the Chairman of the cabinet, summons its meetings and presides over them. The Prime Minister is also the Chairman of many bodies like Inter-State Council, Nuclear command Authority and many more.

5. Is in-charge of co-coordinating the policy of the government and has accordingly a right of supervision over all the Departments.

6. While the resignation of a Minister merely creates a vacancy, the resignation or death of the Prime Minister means the end of the Council of Ministers.

7. The Prime Minister is the sole channel of communication between the President and the Ministers and between the Parliament and his Ministers. He/she is the chief spokesperson of the government in foreign affairs.

Prime Minister's Office

Meaning

Being the head of the government and the real executive authority, the Prime Minister plays a very vital role in the politico- administrative realm of our country. In order to fulfill his responsibilities, the Prime Minister is assisted by the Prime Minister`s Office (PMO). The Prime Minister`s Office is an agency meant for providing secretarial assistance and advice to the Prime Minister. It is an extra constitutional body which offers important role in the top level decision making process of the Government of India. The Prime Minister`s Office has the status of a department of the Government of India. The Prime Minister`s Office came into existence in 1947. Till 1977 it was called Prime

Minister`s Secretariat (PMS). The Prime Minister`s Office is headed politically by the Prime Minister and administratively by the Principal Secretary.

The Prime Minister's office performs several functions
Functions 1. Assists the prime minister in his overall responsibilities as head of the government, in maintaining communication with the central ministries/departments and the state governments. 2. Helps the prime minister in his responsibilities as chairman of the Niti Aayog and the National Development Council. 3. Looks after the public relations of the prime minister like contact with the press and general public. 4. Deals with all references, which under the Rules of Business have to come to the Prime Minister. 5. Provides assistance to the Prime Minister in the examination of cases submitted to him for orders under prescribed rules. 6. Maintains harmonious relationship with the President, Governors and foreign representatives in the country. 7. Acts as the `think- tank` of the Prime Minister. It deals with all such subjects that are not allotted to any department/ministry. 8. It is not concerned with the responsibility of the Prime Minister as the chairman of the union cabinet. The cabinet cases are directly dealt by the cabinet secretariat, which also functions under the direction of the prime minister.

Central Council of Ministers

Article 74th of the Constitution lays down that there shall be a council of ministers with the Prime Minister as the head to aid and advise the President, who shall in the exercise of his functions, act in accordance with the advice of the council of ministers. That means, there shall always be a council of ministers. The President accepts the advice of the Council of Ministers. The Council of Ministers consists of three categories of ministers, namely, cabinet ministers, ministers of state and deputy ministers. While the Cabinet ministers are involved in policy decision making, the other two categories have mere administrative responsibilities. The difference between them lies in their respective ranks, emoluments and political importance. At the top stands the Prime Minister, the supreme governing authority of the country.

Appointment of the Council of Ministers

Under Article 75th of the Constitution, the Prime Minister is appointed by the President and the other ministers are appointed by the President on the advice of the Prime Minister. The ministers hold office during the pleasure of the President. While the ministers are also appointed by the President and are said to hold office during the pleasure of the President as per the Constitution, in actual practice, the ministers are selected by the Prime Minister and the President cannot appoint any one not recommended by the Prime Minister.

Collective and Individual responsibility of the Council of Ministers

The Constitution of India provides that the Ministers are collectively and individually responsible to the Lok Sabha. The collective responsibility of the Council of Ministers means

that the entire council of ministers is jointly responsible to the Lok Sabha for all the acts of the government. It also means that the ministers must not speak in public in different voices. All the ministers of the government are expected to be unanimous in support of policies on all public occasions and issues.

The Union Cabinet

A Cabinet is the council consisting of ministers of Cabinet rank. It is the inner body within the council of ministers. It is an extra constitutional authority created out of the council of ministers. The whole council of ministers does not meet to discuss business, it is the cabinet which takes policy decisions and advises the President. The Cabinet is the highest decision making executive body which looks after the administrative affairs of the Government of India. It is the nucleus of the council of ministers.

Role and functions of the Cabinet

1. The Cabinet is the highest decision making and policy formulating authority in our politico-administrative system.

2. It deals with all major legislative, financial and foreign policy matters.
3. It exercises control over higher appointments like constitutional authorities and senior secretariat administrators.

4. It recommends ordinances, when the parliament is not in session and supervises the implementation of policies.

5. It appoints enquiry commissions and resolves inter-departmental disputes.

6. It is entitled to recommend to the President declaration of emergencies, dissolution of the Lok Sabha, proroguing and adjourning the parliament sessions.

Cabinet Secretary

Every cabinet minister is assisted by a cabinet secretary. Among them the cabinet chief secretary is given a top place among the civil servants in the official ladder. He is the chairman Senior Selection Board that selects officers for the post of joint secretary in the central secretariat. He presides over the conference of chief secretaries which is held annually. He acts as the chief advisor to the Prime Minister on all aspects of administration and policy. He acts as the link between Prime Minister`s Office and various administrative agencies and also between civil service and the political system.

INDUSTRIAL MAP OF INDIA

DEVELOPMENT OF INDUSTRIES IN INDIA

Introduction

The history of Indian industry perhaps dates back to the history of humankind. India's traditional economy was characterised by a blend of agriculture and handicrafts. According to Edward Baines, 'The birthplace of cotton manufacture is India where it probably flourished long before the dawn of authentic history.' Bernier, who visited India during the reign of Mughal emperor Shah Jahan, marvelled at the incredible quantity of manufactured goods. Tavernier, a French traveller, admired the peacock throne, carpets of silk and gold as well as mini carvings.

Traditional Crafts of India

The crafts in India has a rich history. Crafts were an integral part in the life of the people. Before arrival of mechanised industry, the production of Indian handicrafts was the second largest source of employment in rural India next to agriculture. The traditional Indian industry was known in the fields of
textiles, woodwork, ivory, stone cutting, leather, fragrance wood, metal work and jewellery. The village artisans such as potters, weavers, smiths produced articles and utensils for domestic use. But some specialised goods were produced for domestic and international markets. Some such specialised goods produced were cotton textiles, muslin, wool, silk and metal articles. India was famous for its fine quality of cotton and silk clothes. There are references made in many scholarly works to the professions of the weaver, the tailor and the dyer. Certain centres of metal industry were quite well known. For example, Saurashtra was known for bell metal, Vanga for tin industry and Dacca was identified with muslin clothes.

The muslin of Dacca
Mummies in Egyptian tombs dating from 2000 BC(BCE) were found wrapped in Indian muslins of the finest quality. A 50metres of this thin fabric could be squeezed into a match box

Decline of Indian Industries

a. Loss of Royal Patronage

The British conquest transformed Indian economy (self-reliant) into colonial economy.

As the British conquered the Indian territories one after another, the native rulers, the nobles and the landlords lost their power and prosperity. The demand for the fine articles to be displayed in durbars and other ceremonial
occasions disappeared. As a result, the craftsman who were patronised by these rulers lost their importance and became poor. For generations, these craftsmen had been practicing their craft, and they did not possess any other skills. So they had to work as labourers in fields to

meet their daily needs. This change resulted in increased pressure on agriculture and there was large-scale under-employment in agriculture. The substitution of commercial food crops in agriculture ruined the Indian agro-based industry. The splendid period of indigenous handicraft industries came to an end as the political influence of the East India Company spread over various parts of the country.

b. Transition from producer to exporter of raw materials

Indian handicrafts that had made the country famous collapsed under the colonial rule. This was mainly due to the competition posed by the machine-made goods that were imported from Britain by the British rulers. The ruling British turned India as the producer of raw materials for their industries and markets for their finished products. Moreover, the railways and roadways introduced by the British facilitated the movement of finished products to reach the remotest parts of India and the procurement of raw materials from these parts.

c. Competition of Machine-Made Goods

Textile was the oldest industry in India. The highly specialised skills of Indian weavers and the low production cost gave a tough competition to the European manufactures. It led to the invention of cottongin, flying shuttle, spinning jenny and steam engine in England, which made the production of textiles on large scale. India became the market for the finished products of Britain. As a result, peasants who had supplemented their income by part-time spinning and weaving had to now rely only on cultivation. So they lost their livelihood. Moreover, the Indian goods made with primitive techniques could not compete with industrial goods made in England.

The Drain Theory of Dadabai Naoroji
Dadabai Naoroji was the first to acknowledge that the poverty of the Indian people was due to the British exploitation of India's resources and the drain of India's wealth to Britain

d. Trading policy of the British

All the policies implemented by the British government in India had a deep impact on India's indigenous industries. Free trade policy followed by the East India Company compelled the Indian traders to sell their goods below the market prices. This forced many craftsmen to abandon their ancestral handicraft talents. East India Company's aim was to buy the maximum quantity of Indian manufactured goods at the cheapest price and sell them to other European countries for a huge profit. This affected the traditional Indian industry. The British followed the policy of protective tariffs that was much against the trading interests of India. Heavy duties were charged on Indian goods in Britain, but at the same time, the English goods entering India were charged only nominal duties.

e. De-Industrialisation

During the first half of 19th century western countries were experiencing industrialisation, India suffered a period of industrial decline. The process of disruption of traditional Indian crafts and decline in national income has been referred to as de-industrialisation. The Indian domestic industry could not have withstood foreign competition, which was backed by a powerful industrial organisation, big machinery, large-

scale production. The difficulties in Indian industries was complicated further by the construction of Suez Canal, because of which transport cost was reduced, which made the British goods cheaper in India. The main cause for the decline of handicraft industry was the greater employment opportunities and income-generating effect of the modern factory.

Beginning of Modern Industries

The process of industrialisation started in India from the mid-19th century. The beginning of modern industry is associated with the development in mainly plantations like jute, cotton and also steel. There was a limited development of mining, especially coal. The accelerated industrialisation began with the development of railways and roadways. This growth greatly influenced the economic and social life of people in the country. The two World Wars gave an impetus to the development of number of industries such as chemical, iron and steel, sugar, cement, glass and other consumer goods. Most mills were setup by wealthy Indian businessmen. Initially this development was confined to the setting up of cotton and jute textile mill

a. Plantation Industries

The plantation industry was the first to attract the Europeans. The plantation industry could provide jobs on a large scale, and in reality, it could meet the increasing demands for tea, coffee and indigo by the British society. Therefore, plantation industry was started early on. The Assam Tea Company was founded in 1839. Coffee plantation also started simultaneously. As the tea plantation was the most important industry of Eastern India, coffee plantation became the centre of activities in South India. The third important plantation, which gave birth to factory, was jute. All these industries were controlled by the many former employees of the British East India Company.

b. Machine-based Industries

In India, modern industrial sector in an organized form started with the establishment of cotton textile industry in Bombay in 1854. In 1855, jute industry was started in the Hooghly valley at Rishra near Calcutta. The first paper mill was started in Ballygunj near Calcutta in 1870. The cotton mills were dominated by Indian enterprises and the jute mills were owned by the British capitalists. Cotton mills were opened in Bombay and Ahmedabad, and jute mills proliferated on the Hooghly river banks. The woollen and leather factories became prominent in Kanpur.

c. Heavy Industries

The heavy industries included the iron and steel industry, Steel was first manufactured by modern methods at Kulti in 1874.Iron and steel industries began rooted in the Indian soil in the beginning of 20th century. However, the credit for the development of large-scale manufacture of steel in India goes to Jamshedji Tata. The Tata Iron and Steel Company (TISCO) was setup in
1907 at Jamshedpur. It started producing pig iron in 1911 and steel ingots in 1912.

Growth of Modern Industries

The length of railways increased from 2,573 km in 1861 to 55,773 km in 1914. Opening of the Suez Canal also shortened the distance between Europe and India by about 4,830 km. This reduced distance facilitated further industrialisation of India. As a result of Swadeshi Movement, the cotton mills increased from 194 to 273 and jute mills from 36 to 64. The British had consolidated the power in India and thereby attracted large number of foreign entrepreneurs and capital particularly from England. Foreign capitalists were attracted to Indian industry as it held the prospect of high profit. Labour was extremely cheap. Raw materials were cheaply available. And India and its neighbours provided a ready market.

Confederation of Indian Industry (CII)

The Confederation of Indian Industry is a business association in India. CII is a nongovernment, not-for-profit, industry-led and industry-managed organisation. It was founded in 1985. It has over 9,000 members form the private as well as public sectors, including small and medium enterprises (SME) and multinational corporations (MNCs).

Industrial Growth in India

To realise the dream of development of industries, Indian Government adopted certain industrial policies and Five-Year Plans. One of the most important innovations in the industrial field after Independence has been the
introduction of the Five-Year Plans and the direct participation in industry by the government as expressed in the Industrial Policy Resolution of 1948. This Resolution delineated the role of the state in the industrial development both as an entrepreneur and as an authority. As per the Industrial Policy Resolution 1956, industries were classified into three categories:

Schedule A: Only the Government can handle these industries. Some of these are atomic energy, electrical, iron and steel and others.

Schedule B: These comprise road and sea transportation, machine tools, aluminium, chemicals including plastics and fertilisers, ferro alloys and certain types of mining.

Schedule C: Under this category, the remaining industries and left to the private sector.

Classification of Industries

- On the basis of raw materials used, industries can be classified into agro-based and mineral-based. According to their role it can be classified into basic and key industries.
- On the basis of ownership it can be classified into public sector, private sector, joint sector and co-operative sector

Phases of Industrial development in India

a. Industrial development during 1950s to1965

During this phase, a majority of consumer goods were produced in India. The industrial sector was underdeveloped with weak infrastructure. Technical skills were in short supply. The first three Five-Year Plans were very important because their aim was to build a strong industrial base in independent India. These plans mostly focused on the development of capital goods sector. As a result, this phase witnessed a strong acceleration in the growth rate of production.

b. Industrial development during 1965–1980

As the first three Five-Year Plans mostly focused on the development of the capital goods sector, the consumer goods sector was neglected.The consumer goods sector is the backbone of rural economy. As the result, there was a fall in the growth rate of industrial production. So this period is marked as the period of structural retrogression.

c. Industrial Development during 1980s till 1991

The period of the 1980s can be considered as the period of the industrial recovery. This period witnessed quite a healthy industrial growth.

d. Industrial Development Post 1991 Reforms

The year 1991 ushered a new era of the economic liberalisation. India took major decision to improve the performance of the industrial sector. The Tenth and Eleventh Five-Year Plans witnessed a high growth rate of industrial production. The abolition of industrial licensing, dismantling of price controls, dilution of reservation of small-scale industries and virtual abolition of monopoly law enabled Indian industry to flourish. The new policy welcomes foreign investments.

Modernisation

India has now a large variety of industries producing goods of varied nature, which shows a high degree of modernisation. Some modern industries have really grown and they are competing effectively with the outside world.
This has reduced our dependence greatly on foreign experts and technologists. On the contrary, India is exporting trained personnel to relatively less developed countries.

The term information technology includes computer and communication technology along with software. Along with three-sector model of primary, secondary and tertiary industries, a fourth sector, information-related industries, has emerged. The knowledge economy depicts the automation of labour-intensive manufacturing and service activities as well as growth in new service industries such as health care, distance education, software production
and multimedia entertainment.

Self-Reliance

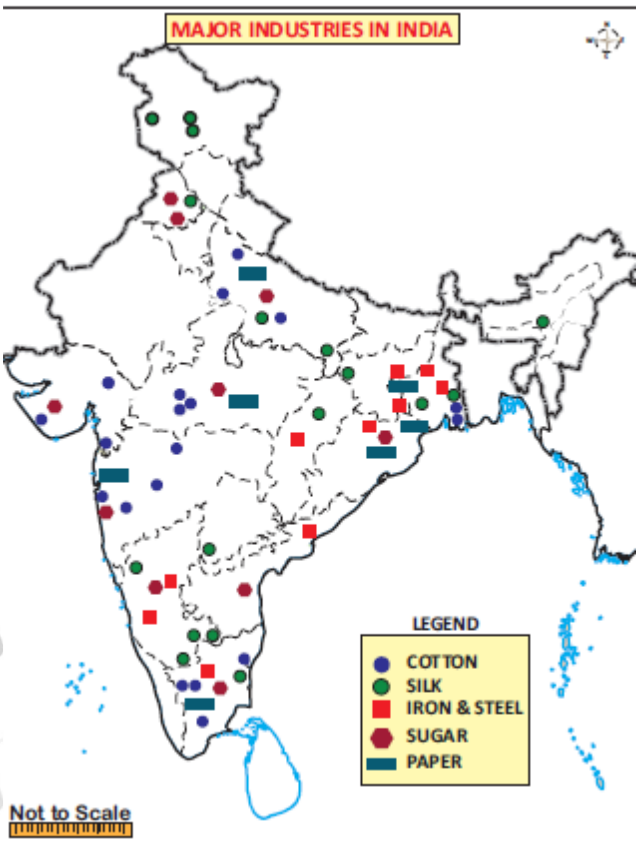
Another positive aspect of industrial growth is the attainment of the goal of self-reliance. We have achieved self-reliance in machinery, plant and other equipment. Today, the bulk of the equipment required for industrial and infrastructural development is produced within the country.

The Indian road network has become one of the largest in the world. Government efforts led to the expansion of the network of National Highways, State highways and major district roads, which in turn has directly contributed to industrial growth.

As India needs power to drive its growth engine, it has triggered a noteworthy improvement of availability of energy. After almost seven decades of independence, India has emerged as the third largest producer of electricity in Asia.

Industries

It refers to the activities which converts the raw materials into finished products. This sector is called as the value addition sector. On the basis of the source of raw materials, Industries are classified into the Agro based industries, Forest based industries and Mineral based industries.



Agro based industries

These industries draw their raw materials from agricultural sector. The following part discusses the agro based industries in India.

a. Cotton Textile Industry

Textile is a broad term which includes cotton, jute, wool, silk and synthetic fibre textiles. This sector in India with 3400 textiles mills with installed capacity of more than 50 million spindles and 842000 rotors is the second largest in the world. Traditional sectors like hand loom, handicrafts and small power-loom units are the biggest source of employment for millions of people in rural and semi urban areas. The cotton textile industries contribute about 7% of industrial output, 2% of India's GDP and 15% of the country's export earnings. It is one of the largest sources of employment generation in the country.

With over 45 million employees, the total employment in this industry is well over 25million worker. At present there are 1,719 textiles mills in the country. Out of which 188 mills are in public sector, 147 in cooperative sector and 1,284 in private sector. Currently, India is the third largest producer of cotton and has the largest loom arc and ring spindles in the world. At present, cotton textile industry is the largest organized modern industry of India. About 16% of the industrial capital, 14% of industrial production and over 20% of the industrial labour of the country are engaged in this industry.

The higher concentration of textile mills in and around Mumbai, makes it as "Manchester of India". Presence of black cotton soil in Maharastra, humid climate, presence of Mumbai port, availability of hydro power, good market and well developed transport facility favour the cotton textile industries in Mumbai.

The major cotton textile industries are concentrated in the states of Maharashtra, Gujarat, West Bengal, Uttar Pradesh and Tamil Nadu. Coimbatore is the most important centre in Tamil Nadu with 200 mills out of its 435 and called as "Manchester of South India".

Erode, Tirupur, Karur, Chennai, Thirunelveli, Madurai, Thoothukudi, Salem and Virudhunagar are the other major cotton textiles centres in the state.

b. Jute Textiles

Jute is a low priced fibre used mainly for making package materials like gunny bags. Today jute is blended with cotton and wool to produce textiles. India is the largest producer of jute goods contributing 35% of the world's total output. This is the second important textile industry in India after cotton textiles. Jute is the golden fibre which meets all the standards of goods packing with its natural, renewable, bio degradable and eco-friendly products. The first jute mill in India was established at Rishra near, Kolkata in 1854 by the English man George Auckland.

India tops in the production of raw jute and jute goods and second in the export of jute goods next to Bangladesh. Jute production includes gunny bags, canvas, pack sheets, jute web, carpets, cordage, hessians and twines. Now jute is also being used in plastic furniture and insulation bleached fibres to blend with wool. It is also mixed with cotton to make carpet and blankets.

The major jute producing areas are in West Bengal and concentrated along the Hooghly river within the radius of six kilometre of Kolkata. Titagarh, Jagatdat, Budge-Budge, Haora and Bhadreshwar are the chief centres of jute industry. Andhra Pradesh, Bihar, Uttar Pradesh, Assam, Chhattisgarh and Odisha are the other jute goods producing areas.

c. Silk Industry

India has been well known for the production of silk. Since the ancient times, India is the second largest producer of raw silk next only to China. Sericulture is a labour intensive industry and provides employment to 7.56 million people make to weaker and marginalised sections of society

Karnataka is the largest producer of silk with an average of 8200 metric tons every year which is about one third of the total silk production of India. Other major producers of silk are West Bengal, Jammu Kashmir, Bihar, Jharkhand, Chhattisgarh, Uttar Pradesh, Punjab, Assam and Tamil Nadu states. India exports exclusively silk fabrics, silk scarves, dress material and sarees. It exports to the principal countries like Europe, U.S.A, U.K, Russia, Saudi Arabia, Kuwait and Singapore.

d. Sugar Industry

Sugar can be produced from sugar cane, sugar-beets or any other crop which have sugar content. In India, sugar cane is the main source of sugar. At present this is the second largest agro based industry of India after cotton textiles. India is the world's second largest producer of sugar cane after Brazil. This industry provides employment to 2.86 lakh workers. Sugar industry is decentralized and located near the sugarcane growing areas as they are weight loosing and bulky to transport.

Uttar Pradesh is the largest producer of sugar, producing about 50% of the country's total. Other major producers are Maharashtra, Uttar Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Bihar, Punjab, Gujarat, Haryana and Madhya Pradesh states. These states account for more than 90% of the sugar mills and sugar production.

Forest based industries

Forest provide us with different types of material which are used as raw material for certain industries like paper, lac, sports goods, plywood etc.

a. Paper industry

Paper Industry has emerged as a diversified and specialized industry in India that produces numerous types of papers that comes in various use such as sheet paper, paper boxes, tissues, paper bags, stationery, envelopes and printed-paper products such as books, periodicals, and newspapers.

In India the Soft wood is the principal raw material used for making paper especially newsprint and high class printing papers. Paper is the pre-requisite for education and literacy and its use is an index of advancement in these two fields as well as the overall well-being of the society.

The first successful effort was made in 1867 with the setting up of the RoyalBengal paper mills at Ballyganj near Kolkata. Subsequent successful efforts were made at Lucknow in 1879, Titagarh in 1882, Pune in 1887, Raniganj in 1892, Kankinra in 1892 and Naihati in 1918.The raw materials for paper industry includes wood pulp, bamboo, salai and sabai grasses, waste paper and bagasse. West Bengal is the largest producer of paper in the country followed by Madhya Pradesh, Odisha and Tamil nadu states.

Mineral based industries

Mineral based industries use both metallic & non-metallic minerals as raw materials. The major mineral based industry of country is the iron steel industry

a. Iron and steel industries

Iron and steel industry is called a basic metallurgical industry as its finished product is used as raw material by host of other industries. Several industries like engineering, heavy machines and machine tools, automobile, locomotives and railway equipment industries use iron and steel as their primary raw material. Due to this, the steel producing capacity of a country is generally taken as an indicator of its level of industrial development.

The modernization of the industry was started in 1907 with the establishment of Tata Iron and Steel Company at Sakchi, now called Jamshedpur. Iron and steel industry of India is mainly concentrated in the states of Jharkhand, West Bengal and Odisha. Proximity to the coal fields of Jharia, Raniganj, Bokaro and Karanpura and the iron ore mines of Mayurbhanj, Keonjar and Brona are responsible for this. This area also has sufficient deposits of limestone, dolomite, manganese, silicon and dolomite which are required for the industry.

S.NO	Name of Industry	Place	Establishment year	Product
1.	Tata Iron and Steel Company (TISCO)	Jamshedpur, Jharkhand	1911	Pig Iron
2.	Indian Iron and steel Company (IISCO)	Burnpur, Hirapur, Kulti, West Bengal	1972	Pig Iron & Crude steel
3.	Visweshwaraya Iron Steel Ltd (VISL)	Bhadravati, Karnataka	1923	Alloy and Sponge steel
4.	Hisdustan Steel Ltd (HSL) Collaborated with Russia	Bhilai, Chattisgarh	1957	Railway Equipment's and Ship Building

5.	Hindustan Steel Ltd (HSL) Collaborated with Germany	Rourkela, Odisha	1965	Hot and Cold rolled sheets, Galvanized sheets and electrical plates
6.	Hindustal Steel Ltd (HSL) Collaborated with United Kingdom	Durgapur, west Bengal	1959	Alloy steel, Construction materials and railway equipment's
7.	Hisdustan Steel Ltd (HSL) Collaborated with Russia	Bokaro, Jharkhand	1972	Sludge and Slog
8.	Salem Steel Ltd	Salem, Tamil Nadu	1982	Stainless Steel
9.	Vijayanagar Steel Plant	Tornagal, Karnataka	1994	Flat steel and Long Steel
10.	Visakhapatnam Steel Plant (VSO)	Visakhpatnam, Andhra Pradesh	1981	Hot Metal

Automobile Industry

India is set to emerge not only as a large domestic market for automobile manufacturers, but also as a crucial link in the global automotive chain. It is one of the most dynamic industrial groups in India. The first automobile industry of India was started in 1947. The industry is the Premier Automobiles Ltd located at Kurla (Mumbai). It was followed by the Hindustan Motors Ltd at Uttarpara (Kolkata) in 1948.

At present, India is the 7th largest producer of automobile manufacturers which include two wheelers, commercial vehicles, passenger car, jeep, scooty, scooters, motor cycles, mopeds and three wheelers. Major centres are at Mumbai, Chennai, Jamshedpur, Jabalpur, Kolkata, Pune, New Delhi, Kanpur, Bengaluru, Sadara, Lucknow and Mysuru. Tata Motors, Maruti Suzuki, Mahindra & Mahindra and Hindustan Motors are the largest passenger car manufacturers of Indian companies in the country.

Presence of foreign car companies such as Mercedes Benz, Fiat, General Motors, Toyota and the recent entryof passenger car manufacturers BMW, Audi, Volkswagen and Volvo makes the Indian automobile sector a special one. Tata Motors, Ashok Leyland, Eicher Motors, Mahindra & Mahindra and Ford Motors are the major Indian companies which manfacture commercial vehicles. MAN, ITEC, Mercedes-Benz, Scania and Hyundai are the foreign companies engage in the manfacture of commercial vehicles. Twowheeler manufacturing is dominated by Indian companies like Hero, Bajaj Auto and TVS.

The automobile industries are found in four clusters viz; Delhi, Gurgaon and Manesar in North India, Pune, Nasik, Halol and Aurangabad in West India, Chennai, Bengaluru and Hosur in South India and Jamshedpur and Kolkata in East India.

Electrical and Electronic Industries

Heavy electrical industries manufacture equipment used for power generation, transmission and utilization. Turbines for steam and hydro power plants, boilers for thermal power plants, generators, transformers, switch gears etc. are the chief products of this industry.

The most important company in the field of heavy electrical is Bharat Heavy Electricals Ltd (BHEL). It has its plants at Hardwar, Bhopal, Hyderabad, Jammu, Bengaluru, Jhansi and Tiruchirappalli. This Industry covers a wide range of products including television sets, transistor sets, telephone exchanges, cellular telegram, computers and varied equipment's for post and railway, defence and meteorological department.

Bengaluru is the largest producer of electronic goods in India, hence it is called as the "Electronic Capital of India". The other major producers of electronic goods centers are Hyderabad, Delhi, Mumbai, Chennai, Kolkata, Kanpur, Pune, Lucknow, Jaipur and Coimbatore.

Software Industry

India is home to some of the finest software companies in the world. The software companies in India are reputed across the globe for their efficient IT and business related solutions. The Indian Software Industry has brought about a tremendous success for the emerging economy.

In India, software industry began in 1970 with the entry of Tata Consultancy Services (TCS). Along with this, L & T, InfoTech, i-Flex, Accenture, Cognizant, GalexE Solutions India Pvt Ltd and ITC InfoTech are the major software industries in the country. At present, there are more than 500 software companies all over India. It exports software service to nearly 95 countries in the world.

The main centres of IT parks are located in Chennai, Coimbatore, Thiruvananthapuram, Bengaluru, Mysuru, Hyderabad, Visakhapatnam, Mumbai, Pune, Indore, Gandhi Nagar, Jaipur, Noida, Mohali and Srinagar.

Major challenges of Indian Industries

Industries in India face many problems. Some major problems are listed below.

- Shortage and fluctuation in Power Supply.
- Non- availability of large blocks of land.
- Poor access to credit.
- High rate of interest for borrowed loan.
- Non- availability of cheap labourers.
- Lack of technical and vocational training for employees.
- Inappropriate living conditions nearby industrial estates.

Important Industrial Policies Prior to 1991

India is the Asia's third largest economy. The 70 years of Independence have brought a remarkable change in the socio - economic landscape of India.

Industrial Policy of India 1948, 1956, 1977, 1980, 1990 & 1991

Economic development of a country particularly depends on the process of industrialisation. At the time of Independence, India inherited a weak and shallow industrial base. Therefore during the post-Independence period, the Government of India took special emphasis on the development of a solid industrial base. The Industrial Policy Resolutions of

1948 and 1956 clearly stated the need for developing both small scale industries and large scale industries.

Industrial Policy Resolutions 1948

The Government of India recognized the significant contribution of industrialization. Therefore the Government of India declared its first Industrial Policy on 6th April 1948. The main importance of this policy was that it ushered in India the system of mixed economy.

Industrial Policies

Industrial Policy 1948 –

Center's Monopoly: Government of India's Monopoly shall include Railways. Arms and ammunition, Atomic Energy, Postal Department.

State's Monopoly: State Monopoly shall include natural resources like coal, steel, manufacture of aircraft, cement, rubber automobile, wireless apparatus (Radio Receiving Sets) and mineral oil.

Unregulated Private Enterprises: It was kept open to private enterprises of individuals and co-operative societies to also involve.

1. Industries were classified into four groups such as public sector (strategic industries), public-cum -private Sector (key industries), and controlled private sector, private and co-operative sectors.
2. This policy endeavoured to protect cottage and small scale industries.
3. The central and state governments had a virtual monopoly in rail roads and exclusive rights to develop minerals, iron ore etc.
4. The Government encouraged the significance of foreign capital for industrialization but the government decided that the control should remain with Indian hands.

Industrial Policy Resolution 1956

1. The Industrial Policy of 1956 sought to give a dominant role to public sector. At the same time, it assured a fair treatment to the private sector.
2. The Government would support and encourage cottage and small scale enterprises by restricting volume of production in the large scale sector by differential taxation or by direct subsidies.
3. This industrial policy emphasized the necessity of reducing the regional disparities in levels of development.
4. The Government recognized the need for foreign capital for progressive Indenisation of foreign concerns.

Industrial Resolution Policy – 1956

Shaped by the Mahalanobis Model of growth which suggested that emphasis on heavy industries would lead the economic towards a long term higher growth path. The Industrial Policy Resolution – 1956 classified industries into three categories;

17 Industries:

Exclusively under the domain of the Government. These included inter alia, railway, air transport, arms and ammunition, iron and steel and atomic energy.

12 Industries:

Which were envisaged to be progressively State owned by Private Sector was expected to supplement the efforts of the State. The third category contained all the remaining industries and it was expected that private sector would initiate development of these industries but they would remain open for the state as well.

NEW INDUSTRIAL POLICY 1991

Meaning of Liberalization, Privatization and Globalization (LPG)

The triple pillars of New Economic Policy are Liberalization, Privatization and Globalization (LPG)

Impacts of Liberalisation	
Positive Effects	**Negative Effects**
Increase In Foreign investment	Increase in Unemployment
Increase In production	Decrease in Tax Receipt
Technological advancement	
Increase in GDP growth rate	

Liberalization:

Liberalization refers to removal of relaxation of governmental restrictions in all stages in industry. Delicensing, decontrol, deregulation, subsidies (incentives) and greater role for financial institutions are the various facets of liberalization.

Privatization:

Privatization means transfer of ownership and management of enterprises from public sector to private sector. Denationalization, disinvestment and opening exclusive public sector enterprises to private sector are the gateways to privatization.

Globalization:

Impacts of Globalisation	
Positive Effects	**Negative Effects**
Expansion of market	But thought Completion
Development of infrastructure	Rise in Monopoly
Higher living Standards	Discourage Domestic Forms
International Co-operations	Increase in inequality

Globalization refers to the integration of the domestic (Indian) economy with the rest of the world. Import liberalization through reduction of tariff and non-tariff barriers, opening the doors to Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are some of the measures towards globalization.

Arguments in favour of LPG

a. Liberalization was necessitated because various licensing policies were said to be deterring the growth of the economy.
b. Privatization was necessitated because of the belief that the private sector was not given enough opportunities to earn more money.
c. Globalization was necessitated because today a developed country can grow without the help of the under developed countries. Natural and human resources of the developing countries are exploited by the developed countries and the

developing economies are used as market for the finished goods of the developed countries. The surplus capital of the developed countries are invested in backward economies. Obsolete and out dated technologies of the developed countries can be easily sold to poor under developed countries. Ultimately, the rich countries can grow further at the cost of developing economies.

Arguments against LPG

a. Liberalization measures, when effectively enforced, favour an unrestricted entry of foreign companies in the domestic economy. Such an entry prevents the growth of the local manufacturers.
b. Privatization measures favour the continuance of the monopoly power. Only the powerful people can sustain in business markets. Social justice cannot be easily established and maintained. As a result, the disparities tend to widen among people and among regions.
c. As globalization measures tend to integrate all economies of the world and bringing them all under one umbrella; they pave the way for redistribution of economic power at the world level. Only the already well-developed countries are favoured in this process and the welfare of the less-developed countries will be neglected. The economic crises of the developed countries are easily spread to the developing economies through trade.

The following are the major changes after 1991:

1. Foreign exchange reserves started rising.
2. There was a rapid industrialization.
3. The pattern of consumption started improving (or deteriorating).
4. Infrastructure facilities such as express highways, metro rails, flyovers and airports started expanding (but the local people were thrown away).

The benefits of this growth in some sectors have not reached the marginalized sections of the community. Moreover, the process of development has generated serious social, economic, political, demographic and ecological issues and challenges. Development brings benefits, but which section gets this benefit depends on socioeconomic structure of the society.

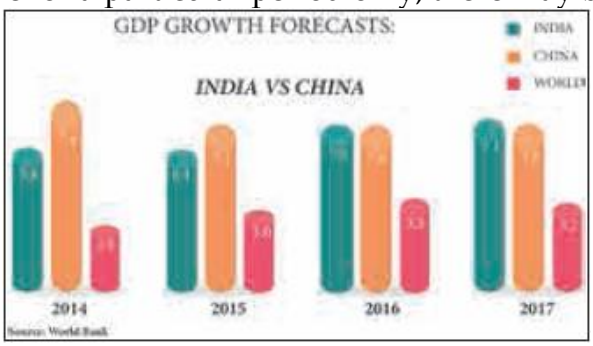
Despite all these initiatives in the Indian economy, a large section of the people of India continue to face basic economic problems such as poverty, unemployment, discrimination, social exclusion, deprivation, poor healthcare, rising inflation, agricultural stagnation, food insecurity and labour migration. However, for these problems, Government policies alone cannot be blamed. As new institutional economists suggest, the values, believes, norms etc. of the individuals also matter.

Disinvestment

Disinvestment means selling of government securities of Public Sector Undertakings (PSUs) to other PSUs or private sectors or banks. This process has not been fully implemented.

Relative Position of on Indian Economy

(This discussion is suitable for a particular period only, there may be changes afterwards)



- According to International Monetary Fund, World Economic Outlook (Ocoter-2016), GDP (nominal) of India in 2016 at current prices was 42,251 billion. India contributed 2.99% of total world's GDP in exchange rate basis. India shared 17.5 percent of the total world population and 2.4 percent of the world surface area. India was now 7th largest economy of the world in 2016.
- India was at 3rd position after China and Japan among Asian countries. India shared 8.50% of total Asia's GDP (nominal) in 2016.

Industrial Sector Reforms

The Prime Minister of India announced the new industrial policy on July 24, 1991. The new policy radically liberalized the industrial policy itself and de-regulated the industrial sector substantially. The primary objectives of the industrial policy were to promote major industries from the clutches of bureaucrats, to abolish restrictions on foreign direct investment, to liberate the indigenous enterprise from the restrictions of MRTP Act, to maintain a sustained growth in productivity and employment and also to achieve international competitiveness.

Important Initiatives by the Government towards Industrial Policy

The policy has brought changes in the following aspects of industrial regulation:

1. Industrial Delicensing
2. De reservation of the industrial sector
3. Public sector policy (de reservation and reform of PSEs)
4. Abolition of MRTP Act
5. Foreign investment policy and foreign technology policy.

Industrial De regulation	
Before 1991	**After 1991**
Industrial licensing for all commodities	Licensing restricted to alcohol, drugs etc.,
Private Sector not allowed in many industries	Only defence, energy, railway for public sector large scale privatization, disinvestment
Controls on price fixation and distribution	Market allowed to determine prices

1. **Industrial Delicensing policy:** the most important objective of the new industrial policy of 1991 was the end of the industrial licensing or the license raj or red tapism.

Under the industrial licensing policies, private sector firms had to secure licenses to start an industry.

2. **De reservation of the industrial sector:** Previously, the public sector was given reservation especially in the capital goods and key industries. Under industrial deregulation, most of the industrial sectors were opened to the private sector as well. Under the new industrial policy, only three sectors viz., atomic energy, mining and railways will continue as reserved for public sector. All other sectors have been opened for private sector participation.

3. **Reforms related to the Public sector enterprises**: Reforms in the public sector were aimed at enhancing efficiency and competitiveness of the sector. The government identified strategic and priority areas for the public sector to concentrate. Loss making PSUs were sold to the private sector.

4. **Abolition of MRTP Act:** The New Industrial Policy of 1991 has abolished the Monopoly and Restrictive Trade Practices Act 1969. In 2010, the Competition Commission has emerged as the watchdog in monitoring competitive practices in the economy. The policy caused big changes including emergence of a strong and competitive private sector and a sizable number of foreign companies in India.

5. **Foreign investment policy:** Another major feature of the economic reform was red carpet welcome to foreign investment and foreign technology. This measure has enhanced the industrial competition and improved business environment in the country. Foreign investment including FDI and FPI were allowed. In 1991, the government announced a specified list of high-technology and high-investment priority industries wherein automatic permission was granted for foreign direct investment (FDI) up to 51 % foreign equity. The limit was raised to 74 percent and subsequently to 100 percent for many of these industries. Moreover, many new industries have been added to the list over the years. Foreign Investment Promotion Board (FIPB) has been set up to negotiate with international firms and approve foreign direct investment in select areas.

Impact of LPG on Agricultural Sector Reforms

Since the inception of economic reforms, Indian economy has achieved a remarkable rate of growth in industry and service sector. However, this growth process bypassed the agricultural sector, which showed sharp deceleration in the growth rate (3.62 % during 1984/85 - 1995/96 to 1.97 percent in 1995/96 - 2004/05). The sector has recorded wide variations in yield and productivity and there was a shift towards cash crop cultivation. Moreover, agricultural indebtedness pushed several farming households into poverty and some of them resorted to extreme measures like suicides.

Crop Insurance

Agriculture in India is highly prone to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced many agricultural schemes throughout the country. The Pradhan Mantri Fasal Bima Yojana (Prime Minister's Crop

Insurance Scheme) was launched on **18 February 2016.** It envisages a uniform premium of only 2 %to be paid by farmers for Kharif crops and 1.5 % for Rabi crops. The premium for (annual) commercial and horticultural crops will be 5 %

Cold Storage

India is the largest producer of fruits and second largest producer of vegetables in the world. In spite of that per capita availability of fruits and vegetables is quite low because of post-harvest losses which account for about 25% to 30% of production. Besides, quality of a sizable quantity of produce also deteriorates by the time it reaches the consumer. Most of the problems relating to the marketing of fruits and vegetables can be traced to their perishability. Perishability is responsible for high marketing costs, market gluts, price fluctuations and other similar problems. In order to overcome this constraint, the Government of India and the Ministry of Agriculture promulgated an order known as "Cold Storage Order, 1964" under Section 3 of the Essential Commodities Act, 1955. However, the cold storage facility is still very poor and highly inadequate.

Post Harvest measures

The annual value of harvest and post-harvest losses of major agricultural produce at national level was of the order of Rs.92,651 crores, calculated using production data of 2012-13 at 2014 and wholesale prices, estimated by the Indian Council of Agricultural Research (ICAR).

Food Items Waste (%)	
Crops	**Cumulative wastages (%)**
Cereals	5-6
Pulses	6 - 8
Oil seeds	3-10
Fruits &Vegetables	5-16
Milk	1
Fisheries (in land)	5
Fisheries (Marine)	10
Meat	3
Poultry	7

Source: Ministry of Food Processing Industries, GoI, 2016

Kisan Credit Card Scheme

A Kisan Credit Card (KCC) is a credit delivery mechanism that is aimed at enabling farmers to have quick and timely access to affordable credit. It was launched in 1998 by the Reserve Bank of India and NABARD. The scheme aims to reduce farmer dependence on the informal banking sector for credit - which can be very expensive and suck them into a debt spiral. The card is offered by cooperative banks, regional rural banks and public sector banks. Based on a review of the working of the KCC, the government has advised banks to convert the KCC into a smart card cum debit card.

In order to reduce wastage of agricultural produce and minimize post-harvest losses, the Ministry of Food Processing Industries (MoFPI) has implemented various components of Central Sector Schemes, namely:

Mega Food Parks; Integrated Cold Chain; Value Addition Preservation Infrastructure; Modernization of Slaughter house Scheme for Quality Assurance; Codex Standards; Research and Development and Other promotional activities.

Further, the GoI extended support to arrest post harvest losses of horticulture and non-horticulture produce and to provide integrated cold chain and preservation infrastructure facilities from the farm gate to the consumer or from the production site to the market since 2008-09. However, the improvement is not visible for it is not substantial.

Agricultural Produce Market Committee

Agricultural Produce Market Committee (APMC) is a statutory body constituted by state government in order to trade in agricultural or horticultural or livestock products.

Functions of APMC

1. To promote public private partnership in the ambit of agricultural markets.
2. To provide market led extension services to farmer.
3. To bring transparency in pricing system and transactions taking place in market in a transparent manner.
4. To ensure payments to the farmers for the sale of agricultural produce on the same day.
5. To promote agricultural activities.
6. To display data on arrivals and rates of agricultural produce from time to time into the market.

Agrarian Crisis after Reforms

a. High input Costs: The biggest input for farmers is seeds. Before liberalisation, farmers across the country had access to seeds from state government institutions. The institutions produced own seeds and were responsible for their quality and price. With liberalization, India's seed market was opened up to global agribusinesses. Also, following the deregulation many state government institutions were closed down in 2003. These hit farmers doubly hard: seed prices shot up, and fake seeds made an appearance in a big way.
b. Cutback in agricultural subsidies: Farmers were encouraged to shift from growing a mixture of traditional crops to export oriented 'cash crops' like chill, cotton and tobacco. Liberalisation policies reduced the subsides on pesticide, fertilizer and elasticity. As a result prices have increased by 300%. However, the prices of agricultural goods have not increased to that extent.
c. Reduction of import duties: With a view to open India's markets, the liberalization reforms also withdrew tariffs and duties on imports. By 2001, India completely removed restrictions on imports of almost 1,500 items including food. As a result, cheap imports flooded the market, pushing prices of crops like cotton and pepper down.
d. Paucity of credit facilities: After 1991 the lending pattern of commercial banks, including nationalised bank drastically changed. As a result, loan was not easily adequate. This has forced the farmers to rely on moneylenders who charge exorbitant rate of interest.

Trade Reforms:

- Trade Policy Reforms: The main features of the new trade policy as it has evolved over the years since 1991 are as follows:
    - Free imports and exports: Prior to 1991, in India imports were regulated. From 1992, imports were regulated by a limited negative list. For instance, the trade policy of 1 April 1992 freed imports of almost all intermediate and capital goods. Only 71 items remained restricted. This would affect the domestic industries.
    - Rationalization of tariff structure and removal of quantitative restrictions: The Chelliah Committees Report had suggested drastic reduction in import duties. It had suggested a peak rate of 50 percent. As a first step towards a gradual reduction in the tariffs, the 1991-92 budget had reduced the peak rate of import duty from more than 300 percent to 150 percent. The process of lowering the customs tariffs was carried further in successive budgets. This also affected the domestic industries.

Large Scale Industries

The term "Large scale industries" refers to those industries which require huge infrastructure, man-power and a have influx of capital assets. The term 'large scale industries' is a generic one including various types of industries in its purview. All the heavy industries of India like the iron and steel industry textile industry automobile manufacturing industry fall under the large scale industrial arena. However in recent years due to the IT boom and the huge amount of revenue generated by it the IT industry can also be included with in the jurisdiction of the large scale industrial sector. Indian economy is heavily dependent on these large industries for its economic growth, generation of foreign currency and for providing job opportunities to millions of Indians. The following are the major large scale industries in India.

1. Iron and steel industry

- First steel industry at Kulti, Near Jharia, West Bengal - Bengal iron works company in 1870.
- First large scale steal plant TISCO at Jamshedpur in 1907 followed by IISCO at Burnpur in 1919. Both belonged to private sector.
- The first public sector unit was "Vishveshvaraya Iron and Steel works" at Bhadrawati.
- All these are managed by SAIL (at present all important steel plants except TISCO, are under public sector)
- Steel Authority of India Ltd (SAIL) was established in 1974 and was made responsible for the development of the steel industry.
- Presently India is the eighth largest steel producing country in the world.

Public sector steel plants

Location	Assistance
Rourkela (Odissa)	Germany
Bhilai (MP)	Russia
Durgapur (WB)	UK

Bokaro (Jharkhand)	Russia
Burnpur (WB)	Acquired from private sector in 1976
Vishakhapatnam(AP)	Russia
Salem (Tamil Nadu)	Government of India (No external assistance)
Vijai Nagar Karnataka)	Government of India
Bhadrawati (Karnataka)	Nationalisation of Vishveshvarayya Iron and Steel Ltd(owned by Centre and State government)

2. Jute industry

- Jute industry is an important industry for a country like India, because not only it earns foreign exchange but also provides substantial employment opportunities in agriculture and industrial sectors.
- Its first modernised industrial unit was established at Reshra in West Bengal in 1855.
- The jute industry in the country is traditionally export oriented. India ranks number one in the raw jute and jute goods production and number two in export of jute goods in the world.

3. Cotton and textile industry

- Oldest industry of India, and employs largest number of workers.
- It is the largest organised and broad-based industry which accounts for 4% of GDP, 20% of manufacturing value-added and one third of total export earnings.
- The first Indian modernised cotton cloth mill was established in 1818 at Fort Gloaster near Calcutta. But this mill was not successful. The second mill named "Mumbai's Spinning and Weaving Co." was established in 1854 at Bombay by KGN Daber.

4. Sugar industry

- Sugar industry is the second largest industry among agriculture-based industries in India.
- India is now the largest producer and consumer of sugar in the world. Maharashtra contributes over one third of the Indian total sugar output, followed closely by Uttar Pradesh.

5. Fertiliser industry

- India is the third largest producer of nitrogenous fertilisers in the world.

6. Paper industry

- The first mechanised paper mill was set up in 1812 at Serampur in West Bengal.
- The paper industry in India is ranked among the 15 top global paper industries.

7. Silk industry

- India is the second-largest (first being China) country in the world in producing natural silk. At present, India produces about 16% silk of the world.
- India enjoys the distinction of being the only country producing all the five known commercial varieties of silk viz Mulberry, Tropical Tussar, Oak Tussar, Eri and Muga.

8. Petroleum and natural gas

- First successful Oil well was dug in India in 1889 at Digboi, Assam.
- At present a number of regions with oil reserves have been identified and oil is being extracted in these regions
- For exploration purpose, Oil and Natural Gas Commission (ONGC) was established in 1956 at Dehradun, Uttarakhant

Small Scale Industries

Small scale industries play an important role for the development of Indian economy in many ways. About 60 to 70 percent of the total innovations in India comes from the SSIs. Many of the big businesses today were all started small and then nurtured into big businesses. The role of SSIs in economic development of the country is briefly explained in forthcoming paragraphs.

Role of SSIs in Economic Development

1. Provide Employment

- SSIs use labour intensive techniques. Hence, they provide employment opportunities to a large number of people. Thus, they reduce the unemployment problem to a great extent.
- SSIs provide employment to artisans, technically qualified persons and professionals, people engaged in traditional arts, people in villages and unorganized sectors.
- The employment-capital ratio is high for the SSIs.

2. Bring Balanced Regional Development

- SSIs promote decentralized development of industries as most of the SSIs are set up in backward and rural areas.
- They remove regional disparities by industrializing rural and backward areas and bring balanced regional development.
- They help to reduce the problems of congestion, slums, sanitation and pollution in cities. They are mostly found in outside city limits.
- They help in improving the standard of living of people residing in suburban and rural areas in India.
- The entrepreneurial talent is tapped in different regions and the income is also distributed instead of being concentrated in the hands of a few individuals or business families.

3. Help in Mobilization of Local Resources

- SSIs help to mobilize and utilize local resources like small savings, entrepreneurial talent etc., of the entrepreneurs, which might otherwise remain idle and unutilized.
- They pave way for promoting traditional family skills and handicrafts. There is a great demand for handicraft goods in developed countries.
- They help to improve the growth of local entrepreneurs and self-employed professionals in small towns and villages in India.

4. Pave for Optimisation of Capital

- SSIs require less capital per unit of output. They provide quick return on investment due to shorter gestation period. The payback period is quite short in SSIs.
- SSIs function as a stabilizing force by providing high output-capital ratio as well as high employment-capital ratio.
- They encourage the people living in rural areas and small towns to mobilize savings and channelize them into industrial activities.

5. Promote Exports

- SSIs do not require sophisticated machinery. Hence, import the machines from abroad is not necessary. On the other hand, there is a great demand for goods produced by SSIs. Thus they reduce the pressure on the country's balance of payments. However, with recent past large scale industries are able to borrow large funds with low interest rate and spend large sums on advertisements. Hence SSSs are gradually vanishing.
- SSIs earn valuable foreign exchange through exports from India.

6. Complement Large Scale Industries

- SSIs play a complementary role to large scale sector and support the large scale industries.
- SSIs provide parts, components, accessories to large scale industries and meet the requirements of large scale industries through setting up units near the large scale units.
- SSIs serve as ancillaries to large scale units.

7. Meet Consumer Demands

- SIs produce wide range of products required by consumers in India.
- Hence, they serves as an anti-inflationary force by providing goods of daily use.

8. Develop Entrepreneurship

- SSIs help to develop a class of entrepreneurs in the society. Tey help the job seekers to become job givers.
- They promote self-employment and spirit of self-reliance in the society.
- SSIs help to increase the per capita income of India in various ways.
- They facilitate development of backward areas and weaker sections of the society
- SSIs are adept in distributing national income in more efficient and equitable manner among the various participants of the society.

INDUSTRIAL MAP OF TAMILNADU

INDUSTRIAL CLUSTERS IN TAMIL NADU

Introducation - Industrialisation

Generally, "any human activity which is engaged in the conversion of raw materials into readily usable materials is called an industry". Industrialisation refers to the process of using modern techniques of production to produce goods that are required by both consumers and other producers on a large scale. While some consumer goods such as phones and television sets meet the requirements of consumers, industries also produce goods like components, machine parts and machines that are required by other producers. The historical process of a steady increase in the number and scale of manufacturing in a country exists for a long time. It is important for several reasons. In this chapter we will learn the nature of industrialisation of Tamil Nadu, importance of industrial clusters, how industrial clusters have developed in Tamil Nadu and the role of government initiatives in promoting industries.

Importance of Industrialisation

To understand importance of industries, we need to understand why the share of agriculture in an economy's income and employment decreases with development. First, demand for food remains constant with regard to income. Therefore, as an economy grows and incomes increase, consumers tend to spend a lesser share of their income on products from the agricultural sector.

Second, even the food that is consumed is subject to more transformation as an economy expands and there is greater division of labour between people and between regions. Food products are taken over longer distances, processed and branded. This also requires that food products have to be preserved. As a result, the prices that farmers get tend to be much less compared to the prices at which consumers buy.

Third, there are limits to the ability of agriculture to absorb labour due to the declining marginal productivity of land. As a result, labour productivity in the agricultural sector cannot increase much. Wages too cannot therefore increase and as a result poverty levels may remain high, especially when more and more people continue to rely on agriculture for their livelihood.

Due to all these factors, there is a need for an economy's production and employment base to diversify away from agriculture. Development economics therefore recognizes the need for structural transformation of the economy where the share of non-agricultural sectors tend to get increase steadily. Such transformation and diversification through industrialisation is therefore seen as important for an economy's development.

As stated earlier, it is essential to produce inputs to other producers in an economy. Even agriculture requires inputs from industry such as fertilisers and tractors to increase productivity.

Second, a market exists for both producers and consumer goods. Even services like banking, transport and trade are dependent on production of industrial goods.

Third, by using modern methods of production, industries contribute to better productivity and hence lower cost of production of all goods produced. It therefore helps people to buy goods at a cheaper rate and help create demand for more products.

Fourth, through such expansion of production, industrialisation helps to absorb the labour force coming out of agriculture. Employment generation is therefore an important objective of industrialisation.

Fifth, a related advantage of industrialisation is therefore technological change. Through use of modern techniques, industrialisation contributes to learning of such methods and their improvement. As a result labour productivity, ie, output per unit of labour input increases, which can help workers earn higher wages.

Sixth, expanding incomes lead to more demand for goods and services. If an economy is not able to produce enough to meet such demand, it has to rely on imports and therefore spend a lot of foreign exchange. If the economy does not earn enough from exporting, it will be difficult to meet the growing demand. Industrialisation therefore helps an economy to save and also generate foreign exchange through exports.

Types of Industries

Industries can be classified on the basis of (a) **Users**: If the output is consumed by the final consumer, it is called a consumer goods sector. If the output is consumed by another producer, it is called a capital goods sector. There are industries that produce raw materials for other industries such as cement and steel. Such industries are called basic goods industries.

(b) **Type of Inputs Used**: Industries are also classified based on the kind of raw material used such as agro-processing, textiles sector, rubber products, leather goods, etc.

(c) **Ownership**: Firms may be privately owned, publicly owned (by the government, central or state), jointly owned by the private and public sector, or cooperatively owned (cooperatives).

(d) **Size**: Firms may be large, small or medium based on their volume of output, sales or employment or on the basis of the amount of investments made. The Indian government normally uses the investment criterion to decide whether a firm is small, medium or large. There are also micro or tiny enterprises that are smaller than even small firms. This classification is important because the government often provides financial, infrastructural or subsidy support to the smaller firms to promote them.

The small sector is seen as important for two reasons. One, it is believed to generate more employment than the large-scale sector, which is likely to use more advanced and automated technologies and therefore may not generate enough employment. Second, the small scale sector allows for a larger number of entrepreneurs to emerge from less privileged backgrounds.

Till the 1980s, it was widely believed that large firms are more efficient and can outcompete the smaller firms. But at present, based on experiences of industrialisation in different parts of the world, it is believed that when small firms specialising in one sector are geographically concentrated in specific locations, and linked to one another through production and learning, they tend to be equally if not more efficient than large scale enterprises. Such agglomerations of small firms are called industrial clusters.

Industrial clusters are groups of firms in a defined geographic area that share common markets, technologies and skill requirements. An important aspect of clusters is the nature of inter-firm networks and interactions. Clusters where firms specialise in one stage of the production process and supply inputs or absorb the output of another firm in the cluster is critical to the efficiency and competitiveness of the cluster. The advantages of industrial clusters or districts was first observed by the famous economist Alfred Marshall in the 1920s when he tried to understand the working of clusters of small firms in the metal-working and textile regions in England. While the notion of an 'industrial district' was developed by Marshall, it was only after the success of small firms in Italy in the 1980s that it became popular. Policy-makers in developing countries like India began to promote them actively as they realized that there several such small firm clusters in the country.

The following are the chief characteristics of a successful cluster.

- geographical proximity of small and medium enterprises (SMEs)
- sectoral specialisation
- close inter-firm collaboration
- inter-firm competition based on innovation
- a socio-cultural identity, which facilitates trust
- multi-skilled workforce
- active self-help organisations, and
- supportive regional and municipal governments.

Firms are therefore expected to collaborate and compete with one another at the same time. By collaborating, they can expand their capacity and also learn from one another. Through competition, they are forced to become more efficient. Apart from the Chennai region, industrial growth has been concentrated in several small town clusters, throughout the state, with the western region being more dominant. These clusters specialise in a range of activities like clothing, home furnishings, textiles, leather, poultry, coir products, transport equipment servicing, engineering services and auto component

How Do Clusters Originate?

Clusters may arise due to many factors. Certain clusters evolve over a long time in history when artisans settle in one locality and evolve over centuries. Handloom weaving clusters are one examples of this development. Or else, in some sectors, when a large firm is established, a cluster of firms may emerge to take care of its input and service requirements. At times, governments may decide to encourage manufacturing using raw materials from a region, which may also lead to emergence of clusters.

Historical Development Of Industrialisation in Tamil Nadu

There is lot of evidence for presence of industrial activities such as textiles, shipbuilding, iron and steel making and pottery in precolonial Tamil Nadu. Given the vast coastline, the region has been involved in trade with both South-East and West Asia for several centuries. Colonial policies also contributed
to the decline of the handloom weaving industry due to competition from machine made imports from England. But some industries also developed during the colonial period and provided the basis for subsequent industrialisation in the state.

Industrialisation in the Colonial Period

There are two sets of factors that have contributed to the process. The introduction of cotton cultivation in western and southernTamil Nadu by the colonial government led to the emergence of a large-scale textile sector in these parts, which involved ginning, pressing, spinning and weaving operations. The introduction of railways also expanded the market for cotton yarn and helped develop the sector.

Second, increase in trade during this period led to industrial development around two of the most active ports in the region, Chennai and Tuticorin. The Chennai region also saw the beginning of the automobile sector during this period along with leather. The growth of jaggery industry in south Tamil
Nadu is another example of this. Match factories too emerged during the colonial period in the Sivakasi region, which later on became a major centre for fireworks production and printing. Port-related activity too contributed to the
growth of the region. Leather production was also taking place in Dindigul, Vellore and Ambur areas.

In Western Tamil Nadu, the emergence of textiles industries also led to demand and starting of textile machinery industry in the region. This textile machinery industry in turn led to the rise of a number of small workshops
for repair and producers of machinery components. Another major development in the western region is the introduction of electricity from hydro-electric power in the 1930s. Availability of electricity allowed for use of oil engines for drawing ground water. This led to both expansion of agriculture as
well as increase in demand for oil engines. In turn, it led to emergence of workshops for servicing engines and also for addressing the demand for spare parts. Foundries began to be set up and agricultural machinery began to be
produced.

Post-Independence to early 1990s

Soon after independence, several large enterprises were set up by both the central and state governments in different segments such as the Integral Coach Factory in Chennai to make railway coaches and the Bharat Heavy Electricals Limited (BHEL) in Tiruchirapalli manufacture to boilers and turbines. BHEL in turn led to the emergence of an industrial cluster of several small firms catering to its input requirements. Heavy Vehicles Factory was set up to manufacture tanks in Avadi on the outskirts of Chennai. Standard Motors too started manufacturing cars in Chennai. Ashok Motors (later Ashok Leyland) and Standard Motors together helped form an automobile cluster in the Chennai region. The Avadi industrial estate was established in the 1950s to support the small and medium companies supplying to the large firms in the region.

More hydro-electric power projects in the state were also initiated to increase the spread of electrification. The government played a major role in all these processes. The Salem Steel Plant was set up in 1973 to produce stainless steel.

The Coimbatore region also witnessed diversification from textiles to textile machinery as well as agricultural machinery like electric motors and pumpsets for drawing ground water.

The 1970s and 1980s saw the setting up of emergence of powerloom weaving clusters in the Coimbatore region as well as expansion of cotton knitwear cluster in Tiruppur and home furnishings cluster in Karur. This period also saw more encouragement of the small and medium sector with setting up of industrial estates by the state government in different parts. The Hosur industrial cluster is a successful case of how such policy efforts to promote industrial estates helped develop industries in a backward region.

Industrialisation in Tamil Nadu – Liberalization Phase

The final phase of industrialisation is the post-reforms period since the early 1990s. The reforms made the state governments more responsible for resource mobilisation and they were forced to compete with each other to attract private investments for industrialisation. Incentives such as cheap land, tax concessions and subsidised but quality power were all offered to woo investors. Trade liberalisation and currency devaluation also helped open up export markets. This led to two major developments.

First, because of trade liberalization measures, exports of textiles, home furnishings and leather products began to grow rapidly. Second, efforts to attract investments led to entry of leading multinational firms (MNCs) into the state, especially in the automobile sector. Since automobile sector relies heavily on component makers, entry of MNCs not only brought along other MNC component suppliers but also opened up new market opportunities for domestic component producers. Chennai region also emerged as a hub for electronics industry with MNCs such as Nokia, Foxconn, Samsung and Flextronics opening plants on the city's outskirts. A significant share of these investments has come up in special economic zones in the districts bordering Chennai. Tamil Nadu has often been hailed as a model for successfully using the SEZ route to attract productive investments.

Other important industries in the state that evolved over a much longer period include sugar, fertilizers, cement, agricultural implements, iron and steel, chemicals, transformers and paper.

Because of all these factors, Tamil Nadu at present has the largest number of factories among all states in India and also has the largest share of workforce employed in manufacturing. Importantly, it is more labour intensive compared to other industrially advanced states like Maharashtra and Gujarat. The major industries are automobiles, autocomponents, light and heavy engineering, machinery, cotton, textiles, rubber, food products, transport equipment, chemicals, and leather and leather goods. Unlike other states, the industries are spread across all regions of the state (there are 27 clusters in 13 districts) with many of them being export oriented as well. The state has a well-developed network of roads, rail, air and major ports.

The diffusion of industrialisation also implies a widening of the social base of entrepreneurship. Unlike in North India where entrepreneurs and business groups are drawn mostly from merchant communities, in Tamil Nadu, the entrepreneurs come from a

dispersed social background, with a relatively small size of capital. Further, the spatial spread of industries is higher. The state also has a better mix of large, small and household industries. This diffused process of industrialisation and corresponding urbanization has paved the way for better rural-urban linkages in Tamil Nadu than in most other states.

Major Industrial Clusters and Their Specialisation in Tamil Nadu

Automotive Clusters

Chennai nicknamed as "The Detroit of Asia" is home to a large number of auto component industries. Tamil Nadu has 28% share each in automotive and auto components industries, 19% in the trucks segment and 18% each in passenger cars and two wheelers.

Chennai is nicknamed as "The Detroit of Asia" because of its large auto industry base. Chennai is home to large number of auto assembly and component making firms. While there were a few domestic firms like TVS, TI Cycles, Ashok Leyland and Standard Motors earlier, in the postreform period, several MNC firms like Hyundai, Ford, Daimler-Benz and Renault-Nissan have opened factories in the region. This in turn has attracted a number of component suppliers from foreign countries. Many local firms too cater to component production for all these firms.

Automobile Industries

The share of Tamil Nadu in all-India production of automobiles and heavy vehicles is rather significant. Automobile industry plays a crucial role in the state's economy and has been one of the key driving factors. Contributing 8 percent to state GDP and giving direct employment to 2,20,000 people.

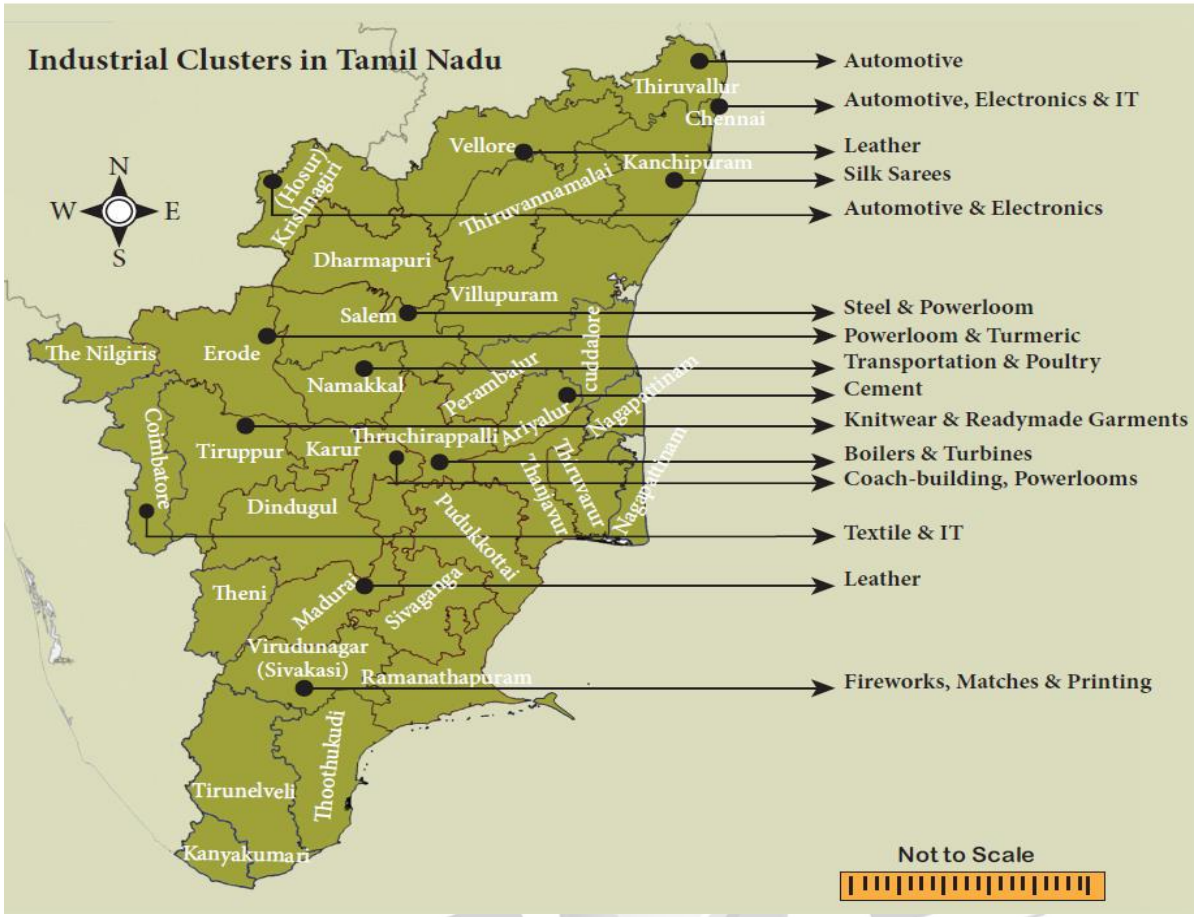
Tamil Nadu accounts for about 21% of passenger cars, 33% of commercial vehicles and 35% of automobile components produced in India. Major automobile manufacturers like Ford, Hyundai, HM-Mitsubishi, Ashok Leyland, and TAFE have their manufacturing base in Tamil Nadu.

Chemical & Plastic Industry

The chemical industry is one of the fastest growing sectors of industry and the economy. The sector contributes 13% to the state's GDP and constitutes 8% of the total exports of the country.

Handlooms and Powerlooms

The handloom sector in the state is the single largest cottage industry providing livelihood to a large number of rural people and promoting export earnings. The handloom sector and its related economic activities generate gainful employment for more than 4.29 lakh weaver households and 11.64 lakh weavers in the state. These societies mainly produce the cloth required for the scheme of 'Free Supply of Uniforms to School Children and Free Distribution of Sarees and Dhotis Scheme'.



Hosur is another auto cluster with firms like TVS and Ashok Leyland having their factories there. Coimbatore region is also developing into an auto component cluster.

Truck and Bus Body Building Industry Clusters

The Namakkal- Tiruchengode belt in western Tamil Nadu is known for its truck body building industry. About 150 of the 250 units in this sector are located in this cluster including 12 large-sized body building houses. Karur is another major hub with more than 50 units. Many entrepreuners were previous employees in a big firm involved in body building who came out to set up their own units.

Textile Clusters

Tamil Nadu is the largest textile hub of India. Tamil Nadu is known as the "Yarn Bowl" of the country accounting for 41% of India's cotton yarn production. The textile industry plays a significant role in the Indian economy by providing direct employment to an estimated 35 million people, and thereby contributing 4% of GDP and 35% of gross export earnings.

The textile sector contributes to 14% of the manufacturing sector. From spinning to garment manufacturing, entire textile production chain facilities are in Tamil Nadu. About half of India's total spinning mill capacity is in Tamil Nadu. The western part of Tamil Nadu comprising Coimbatore, Tirupur, Erode, Dindigul and Karur has the majority of spinning mills manufacturing cotton/polyester/blended yarn and silk yarn used by garment units in Tamil Nadu, Maharastra etc. Yarn is also exported to China, Bangladesh etc.

Tirupur known as "Knitting City" is the exporter of garments worth USD 3 Billion. Karur is the major home for textile manufacturing (Curtain cloth, bed linens, kitchen linens,

toilet linens, table linens, wall hangings etc.) and export hub in India. Erode is the main cloth market in South India for both retail and wholesale ready-mades.

Tamil Nadu is home to the largest textiles sector in the country. Because of the development of cotton textile industry since the colonial period, Coimbatore often referred as the "Manchester of South India". At present, most of the spinning mills have moved to the smaller towns and villages at a radius over 100 to 150 km around the Coimbatore city. Tamil Nadu is the biggest producer of cotton yarn in the country.

Palladam and Somanur, small towns near Coimbatore and the villages near these towns, are home to a dynamic powerloom weaving cluster as well. Powerloom is however more widespread with Erode and Salem region too having a large number of power loom units.

Tiruppur is famous for clustering of a large number of firms producing cotton knitwear. It accounts for nearly 80% of the country's cotton knitwear exports and generates employment in the range of over three lakh people since the late 1980s. It is also a major producer for the domestic market. Because of its success in the global market, it is seen as one of the most dynamic clusters in the Global South. While initially most firms were run by local entrepreneurs, at present, some of the leading garment exporters in India have set up factories here.

Apart from body building, Karur is a major centre of exports of home furnishings like table cloth, curtains, bed covers and towels. Bhavani and Kumrapalayam are againmajor centres of production of carpets, both
for the domestic and the global markets. Apart from such modern clusters, there are also traditional artisanal clusters such as Madurai and Kanchipuram that are famous for silk and cotton handloom sarees. Even these clusters have witnessed a degree of modernisation with use of powerlooms in several units.

Textile industry is one of the traditionally well-developed industries in Tamil Nadu. The textile mills are concentrated in Coimbatore, Tirupur, Salem, Palladam, Karur, Dindigul, Virudhunagar, Tirunelveli, Thoothukudi, Madurai and Erode. Tamil Nadu has about 3,50,000 power looms manufacturing cotton fabrics and accounts for 30% of India's exports of textiles products. Erode in Tamil Nadu is well known for marketing of handloom, power loom and readymade garments. Coimbatore is also known as the ‘Manchester of Tamil Nadu’. Coimbatore, Tirupur and Erode contribute a major share to the state’s economy through textiles. So, this region is referred as ‘Textile Valley of Tamil Nadu’. Karur is known as ‘The Textile capital of Tamil Nadu’.

Silk industries

Tamil Nadu occupies fourth position in the country in silk production. Kancheepuram silk is unique in its quality and is known for its traditional value all over the world. The annual silk production in Tamil Nadu is around 1200 metric tons. Kancheepuram, Arani, Kumbakonam, Salem, Coimbatore, Madurai and Tirunelveli are the important silk-weaving centres in Tamil Nadu. Ramanathapuram has some specialised areas for the manufacturing of synthetic silk clothes.

Leather and Leather Goods Clusters

Tamil Nadu accounts for 60 per cent of leather tanning capacity in India and 38 per cent of all leather footwear, garments and components. Hundreds of leather and tannery facilities are located around Vellore and its nearby towns, such as Ranipet, Ambur and Vaniyambadi. The Vellore district is the top exporter of finished leather goods in the country. Chennai also has a large number of leather product making units involved in exports. There is another clustering of leather processing in Dindigul and Erode. The leather products sector too is a major employment generator.

Tamil Nadu accounts for 30 per cent of leather exports and about 70 per cent of leather production in the country. Hundreds of leather and tannery industries are located around Vellore, Dindigul and Erode. Every year the State hosts the India International Leather Fair in Chennai.

Tamil Nadu accounts for 60% of leather tanning processes of India and 38% of all leather footwear, garments and components. Hundreds of leather tanneries are located around Vellore and nearby towns, such as Ranipet, Ambur and Vaniyambadi. The Vellore district is the top exporter of finished leather goods in the country. Vellore leather accounts for more than 37% of the country's export of leather and leatherrelated products (such as finished leathers, shoes, garments and gloves). Central Leather Research Institute (CLRI), a CSIR research laboratory, is located in Chennai.

Fireworks, Matches and Printing Cluster

The town of Sivakasi is a leader in the areas of printing, fireworks, and safety matches. It was fondly called as “Little Japan” by Jawaharlal Nehru. It contributes to 80% of India’s fireworks production. Sivakasi provides over 60% of India’s total offset printing solutions.

Sivakasi region, once famous for its match industry has now become a major centre for printing and fireworks in the country. It is believed to contribute to 90% of India’s fireworks production, 80% of safety matches and 60% of offset printing solutions. The offset printing industry has a high degree of specialisation among firms with several of trem undertaking just one operation required for printing. All these industries have their origin in the colonial period and at present offer employment to a large number of workers.

Cement Industry

Cement production and consumption continue to grow despite the general recession in the economy. India is one of the largest cement producers and ranked second in the world with an annual production capacity of 181 million tons. Tamil Nadu Cements Corporation Limited (TANCEM) is one among the major cement producers in Tamil Nadu operating two cement units: one at Ariyalur and another at Alangulam. Asbestos cement sheet plant at Alangulam and stoneware pipe unit at Virudhachalam are the other units of TANCEM. Sankar Cement, Zuari Cement, Ultratech Cement, Madras Cement and Dalmia Cement are the major private cement brands produced in Tamil Nadu.

Tamil Nadu ranks third in cement production in India (First Andhra Pradesh, Second Rajasthan). Among 10 largest cement companies in India as on 2018, Ramco Cement and India Cement find prominent place. And also Tamil Nadu stands second in number of cement plants with 21 units against 35 units in Andhra Pradesh.

Manufacturing & Engineering Industry

The manufacturing industry is one of the vibrant sectors of the state economy and contributes significantly to the industrial output.
The manufacturing industry broadly covers manufacture of machinery and equipment, motor vehicles, basic metal and alloy industries, metal products and repair of capital goods. Tamil Nadu's share of the industrial output is around 11–12% of the country's output and 15% of the country's exports excluding software. Tamil Nadu accounts for about 17% of India's software exports.

Electronics and Information Technology (IT) Clusters

Chennai has emerged as EMS Hub of India. Many multi – national companies have chosen Chennai as their South Asian manufacturing hub.

After the economic reforms started in the early 1990s, the state has seen the entry of hardware and electronics manufacturers like Nokia, Foxconn, Motorola, Sony- Ericsson, Samsung and Dell making cellular handset devices, circuit boards and consumer electronics. They have all been set up in the
Chennai region. While Nokia has been closed down, Chennai still continues to be a minor electronics hub in the country.

Similarly, with the expansion of the software sector, Chennai and, to a limited extent Coimbatore, have emerged as centres for software services.

Paper Industry

The Tamil Nadu State Government owns the Tamil Nadu Newsprint and Papers (TNPL), the world's biggest bagasse-based paper mill in Karur.

Many paper industries are located in the state. Tamil Nadu Newsprint and Papers Limited (TNPL) is a government of Tamil Nadu enterprise producing newsprint and printing and writing paper at its mill located at Kagithapuram in Karur district. It was started in 1979 with an installed capacity of 2.45 lakh MT of production per annum. TNPL is one of the most accomplished mills in the world, producing different varieties paper of acceptable quality primarily from bagasse and pulpwood. Other paper mills of the state are found in Pukkathurai of Kancheepuram district, Bhavanisagar, Pallipalayam, Paramathi Vellore, Coimbatore, Udamalaipet, Thoppampatti, Nilakkotai and Cheranmahadevi.

Sugar Industry

Sugar industry in Tamil Nadu is an important agro-based industry. It plays a vital role in the economic development of the state, particularly in rural areas. The sugar industry provides large-scale direct employment to several thousands and indirect employment to several lakhs of farmers and agricultural labourers in the rural areas who are involved in

cultivation of sugarcane, harvesting, transporting and other services. There are 34 sugar mills in Tamil Nadu, in which 16 are in the cooperative sector and 18 in the private sector.

Other Industries

One of the global electrical equipment public sector companies viz BHEL has manufacturing plants at Tiruchirappalli and RanipetTamil Nadu is a leading producer of cement in India and with manufacturing units located at Ariyalur, Virudhunagar, Coimbatore and Tirunelveli. The region around Salem is rich in mineral ores. The country's largest steel public sector undertaking, SAIL has a steel plant in Salem.

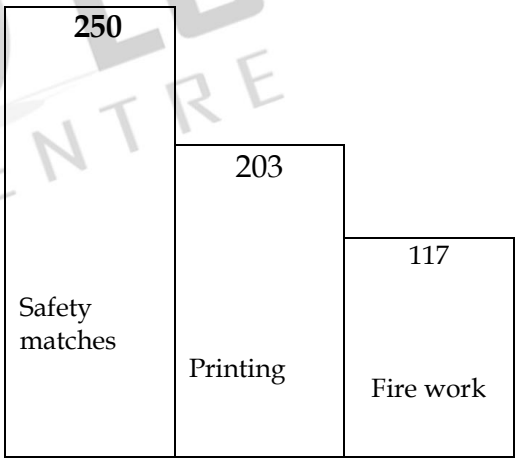
Coimbatore is also referred to as "the Pump City" as it supplies two thirds of India's requirements of motors and pumps. The city is one of the largest exporters of jewellery, wet grinders and auto components and the term "Coimbatore Wet Grinder" has been given a Geographical indication Thoothukudi is known as "Gateway of Tamil Nadu". Thoothukudi is the major chemical producer in the state. It produces the 70 per cent of the total salt production in the State and 30 per cent in the country.

Sivakasi-A fireworks manufacturing hub

- Sivakasi is a town in Virudhunagar District of Tamil Nadu
- World renowned for firework Production
- Accounts for USD SO Millon exports of safety Matches, printing and Firework in 2013-14

90% India's Fire Work Production	450 Firework factories
0.5 Million direct employment	0.2Million indirect employment
60% of safety match Production	4500 match units

Production in 2012 – 13 (USD Million)



MSMEs

The Micro, Small and Medium Enterprises are defined under the MSMED Act 2006. The enterprises are classified as Manufacturing and Service enterprises based on the investment in plant and machinery and equipment (excluding land and building) the classification of Micro, Small and Medium Enterprises

Tamil Nadu accounts of 15.07% Micro, Small and Medium Enterprises (MSMEs) in the country (the highest among all States) with 6.89 lakhs registered MSMEs. Producing over 8000 varieties of product for a total investment of more than Rs.32,008crore.

MSMEs produce a wide variety of products in almost all sectors. Te prominent among them are the engineering, electrical, chemicals, plastics, steel paper, matches, textiles, hosiery

and garments sector. Around 15.61 lakh entrepreneurs have registered, providing employment opportunities to about 99.7 lakhs persons with total investment of Rs. 1,68,331 crore.

SERVICES

Banking, insurance, energy, transport and communication fall under tertiary sector i.e., services.

Banking

In Tamil Nadu, Nationalised banks account for 52% with 5,337 branches, Private Commercial Banks 30% (3,060) branches, State Bank of India and its associates 13% (1,364), Regional Rural Banks 5% (537) branches and the remaining 22 foreign bank branches.

Total deposits of the banks in Tamil Nadu registered an year-on year increase of 14.32% by March 2017 and touched Rs. 6,65,068.59 crores. Total credit of the banks in Tamil Nadu registered a year-on year increase of 13.50% by March 2017 and touched Rs. 6,95,500.31 crores. The share of Priority Sector Advances stands at 45.54% as against the national average of 40%. The percentage of Agricultural advances to total advances as at the end of March 2017 works out to 19.81% as against the national average of 18%. Banks in Tamil Nadu have maintained one of the highest Credit Deposit Ratio of 119.15% in the country whereas this ratio is 77.5% at the national level.

Education

a. School Education

Tamil Nadu is grouped among high Gross Enrolement Ratio (GER) States. It ranks third next only to Kerala (81%) and Himachal Pradesh (74%). The all India average is 43% and the world average is 59%.

Gross Enrolment Ratio is 118.8% for primary level(class 1-5); 112.3% for upper primary level (class 6-8), 62.7% for secondary level (class 9-10), 49.26% at Higher Secondary level (class 11-12). This has been possible mainly due to the supply of free food, cloth, foot-wear, scholarship, laptop etc.

Tamil Nadu's primary education statistics 2016-17

Number of schools	Primary	35,414
	Middle	9,708
	High and Higher Secondary	12,911

(Source: Tamil Nadu State portal, State interim Budget 2016-17)

b. Higher Education

In Gross Enrolment Ratio under higher education (Tertiary level) Tamil Nadu continues to be at the top level well ahead of other states. The GER is 46.9% in Tamil Nadu which is far higher against national average and all other States This higher GER is thanks to the distribution of free food,cloth, footwear, laptop and scholarship.

Table 11.16 Gross Enrolment Rate %

State	2016-17
Tamil Nadu	46.9
Maharashtra	30.2
Uttar Pradesh	24.9
Odisha	21.0
Bihar	14.4
All India	25.2

(Source: All India Survey on Higher Education (AISHE) released by the Ministry of Human Resource Development- January 2018)

Tamil Nadu has 59 Universities, 40 Medical colleges, 517 Engineering colleges, 2,260 Arts and Science colleges, 447 Polytechnics and 20 dental colleges. Tamil Nadu produces nearly four lakh engineering and polytechnic students every year, the highest in the country.

Educational Loans

As far as educational loans disbursed by Public Sector Banks under priority sector are concerned, 20.8% of the total amount was disbursed in Tamil Nadu between 2013-14 and 2015-16. Andhra Pradesh was second with 11.2% of the total loan amount followed by Maharashtra (10.2%).

Of the total amount of educational loans disbursed by Private Banks during the same period, Kerala accounted for 37.8% followed by Tamil Nadu with 24.8%. Both Karnataka & Kerala together accounted for more than 60% of the total educational loan amount by Private Banks.

Health

Tamil Nadu has a three – tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres. As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

Communication

Maharashtra has the highest number of internet subscribers in the country at 29.47 million, followed by States like Tamil Nadu, Andhra Pradesh and Karnataka. According to government data, India had a total of 342.65 million internet subscribers at the end of March, 2016. Tamil Nadu had 28.01 million subscribers, while its neighbor's Andhra Pradesh and Karnataka had 24.87 million and 22.63 million, respectively.

Transport

Tamil Nadu has a well-established transportation system that connects all parts of the State. This is partly responsible for the investment in the State. Tamil Nadu is served by an extensive road network in terms of its spread and quality, providing links between urban centres, agricultural market-places and rural habitations in the countryside. However, there is scope for improvement.

a. Road

There are 28 national highways in the State, covering a total distance of 5,036 km. The State has a total road length of 167,000 km, of which 60,628 km are maintained by Highways Department. It ranks second in India with a share of over 20% in total road projects under operation in the public-private partnership (PPP) model.

b. Rail

Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai. The present Southern Railway network extends over a large area of India's Southern Peninsula, covering the States of Tamil Nadu, Kerala, Puducherry, minor portions of Karnataka and Andhra Pradesh. Tamil Nadu has a total railway track length of 6,693 km and there are690 railway stations in the State. The system connects it with most major cities in India. Main rail junctions in the State include Chennai, Coimbatore, Erode, Madurai, Salem, Tiruchirapalli and Tirunelveli. Chennai has a well-established Suburban Railway network, a Mass Rapid Transport System and is currently developing a Metro system, with its first underground stretch operational since May 2017.

c. Air

Tamil Nadu has four major international airports. Chennai International Airport is currently the third largest airport in India after Mumbai and Delhi. Other international airports in Tamil Nadu include Coimbatore International Airport, Madurai International Airport and Tiruchirapalli International Airport. It also has domestic airports at Tuticorin, Salem, and Madurai. which connect several parts of the country. Increased industrial activity has given rise to an increase in passenger trafic as well as freight movement which has been growing at over 18 per cent per year.

d. Ports

Tamil Nadu has three major ports; one each at Chennai, Ennore, and Tuticorin, as well as one intermediate port in Nagapattinam, and 23 minor ports. The ports are currently capable of handling over 73 million metric tonnes of cargo annually (24 per cent share of India). All the minor portsare managed by the Tamil Nadu Maritime Board, Chennai Port. This is an artificial harbour and the second principal port in the country for handling containers. It is currently being upgraded to have a dedicated terminal for cars capable of handling 4,00,000 vehicles. Ennore Port was recently converted from an intermediate port to a major port and handles all the coal and ore traffic in Tamil Nadu.

Tourism

Tourism is considered as an industry because of its enormous potential in creating employment for a large number of people. In recent years, the state has emerged as one of the leading tourist destinations for both domestic and foreign tourists. Tourism in Tamil Nadu is promoted by Tamil Nadu Tourism Development Corporation (TTDC). The state currently ranks the highest among Indian states with about 25 crore arrivals (in 2013). The annual growth rate of this industry stood at 16%. Approximately 28 lakh foreign and 11 crore domestic tourists visit our state annually. The presence of ancient monuments, pilgrim centres, hill stations, a variety of natural landscapes, long coastline, along with rich culture and heritage make Tamil Nadu the best destination for tourists.

Information Technology

According to National Association of Software and Services Companies (NASSCOM), the southern states continue to account for more than half of the country's total export of software. Tamil Nadu and Andhra Pradesh together account for 59.6% of India's total software exports. Tamil Nadu is the second largest software exporter in the country next to Karnataka.

A special economic zone (SEZ) is an area in which the business and trade laws are different from the rest of the country. SEZs are located within a country's national borders, and their aims include increased trade balance, employment, increased investment, job creation and effective administration.

Special Economic Zones

Special economic zones (SEZs) provide an internationally competitive and hasslefree environment for exports. Units in SEZ manufacture goods and provide a range of services. SEZs are located in Nanguneri, Ennore, Hosur and Perambalur. IT & ITES SEZ named TIDEL-II and TIDEL-III and Bio-Pharmaceuticals SEZ are located in Chennai and Coimbatore SEZ called the TIDEL Park–IV is located in the city.

The list of IT parks in Tamil Nadu

Tidel Park, Ascendas, Mahindra world city 4 IT & ITES SEZ TIDEL-II, IT & ITES SEZ TIDEL-III, Coimbatore SEZ - Tidel Park

Imports of Tamil Nadu

Machineries like transport equipment, machine tools, non-electrical machinery, electrical machinery, pharmaceutical products, petroleum, fertilizers and newsprint are its major imports. The state contributes 10.94% to the country's trade through major ports.

The above discussion shows that Tamil Nadu is an important state of India in terms of size, population, resources and economic development. People in the state are well secured. The new schemes introduced by the state government periodically have enabled notable progress in various fields.

The Policy Factors that Helped the Industrialisation Process in Tamil Nadu

Policy factors can be divided into three aspects:
Education

Industries require skilled human resources. Apart from a lot of attention to primary education to promote literacy and basic arithmetic skills, the state is known for its vast supply of technical human resources. It is home to one of the largest number of engineering colleges, polytechnics and Industrial Training Centres in the country.

Infrastructure

The widespread diffusion of electrification has contributed to the spread of industrialization to smaller towns and villages in the state. Along with electrification, Tamil Nadu is known for its excellent transport infrastructure, especially minor roads that connect rural parts of the state to nearby towns and cities. A combination of public and private transport has also facilitated rural to urban connectivity and therefore connect small producers to markets better.

Industrial Promotion

Apart from investments in education and transport and energy infrastructure, active policy efforts were made to promote specific sectors and also industrialisation in specific regions. Policies to promote specific sectors like automobile, auto components, bio technology and Information and communication Technology sectors have been formulated in the post reform period. In addition, the state has put in place several industrial promotion agencies for both large enterprises and the small and medium segments,
as well as to provide supporting infrastructure.

The following are some agencies that have played a key role in industrialization in the state SIPCOT (State Industries Promotion Corporation of Tamil Nadu), 1971

SIPCOT was formed in the year 1971 to promote industrial growth in the state by setting up industrial estates.

TANSIDCO (Tamil Nadu Small Industries Development Corporation), 1970

TANSIDCO is a state-agency of the state of Tamil Nadu established in the year 1970 to promote small-scale industries in the state. It gives subsidies and provide technical assistance for new firms in the small scale sector.

TIDCO (Tamil Nadu Industrial Development Corporation), 1965

TIDCO is another government agency to promote industries in the state and to establish industrial estates.

TIIC (Tamil Nadu Industrial Investment Corporation Ltd.), 1949

TIIC is intended to provide low-cost financial support for both setting up new units and also for expansion of existing units. Though it is meant to meet the requirements of all types of firms, 90% of support goes to micro, small and medium enterprises.

TANSI (Tamil Nadu Small Industries Corporation Ltd.), 1965

TANSI was formed in 1965 to take over the small scale-units that were set up and run by the Department of Industries and Commerce. It is supposed to be the first industrial corporation operating in the domain for small enterprises.

Emerging Services Sector in Tamil Nadu

With technological changes, industries too are not able to absorb labour. Automation has been reducing the need for labour in manufacturing. The services sector has emerged as a much bigger employer over the last three decades. Tamil Nadu has become a hub for some important and dynamic service sectors such as software services, healthcare and education services. Healthcare and educational services are diffused across major cities, Chennai and Coimbatore in particular. Software services is, however, largely confined to Chennai. Only in the last ten years, a few software firms have moved to Coimbatore.

Issues with Industrialisation

Though Tamil Nadu has emerged as a relatively highly industrialised state in the country, the state faces a few issues in sustaining the process. To begin with, some clusters, especially chemicals, textiles and leather clusters, tend to generate a lot of polluting effluents that affect health. The effluents also pollute water bodies into which effluents are let into and also adjoining agricultural lands. This issue requires urgent attention. Second, employment generation potential has declined because of use of frontier technologies because of the need to compete globally. Quality of employment also has suffered in recent years as most workers are employed only temporarily. This issue too requires urgent attention among policy makers.

Entrepreneur

Entrepreneur is an innovator of new ideas and business processes. He possesses management skills, strong team building abilities and essential leadership qualities to manage a business.

Entrepreneurship

Entrepreneurship is a process of a action of an entrepreneur who undertakes to establish his enterprise. It is the ability to create and build something.

Role of an Entrepreneur

Entrepreneurs play a most important role in the economic growth and development of a country's economy.

1. They promote development of industries and help to remove regional disparities by industrialising rural and backward areas.
2. They help the country to increase the GDP and Per Capita Income.
3. They contribute towards the development of society by reducing concentration of income and wealth.
4. They promote capital formation by mobilising the idle savings of the citizens and country's export trade.
5. Entrepreneurs provide large-scale employment to artisans, technically qualified persons and professionals and work in an environment of changing technology and try to maximise profits by innovations.
6. They enable the people to avail better quality goods at lower prices, which results in the improvement of their standard of living.