

RESOURCES & DEVELOPMENT

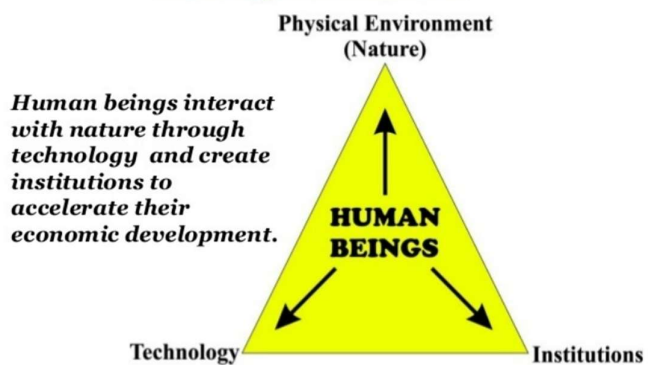
CHAPTER- 1

GEOGRAPHY

CLASS- 10TH

INTRODUCTION- Nature provided us with RESOURCES as assets; this chapter covers all about the classification; resource management & sustainable development. Let's start with the clear concept clarity.

Interdependent relationship between nature, technology and institutions



WHAT IS A RESOURCE?

Everything available in our environment which can be used to satisfy our needs; it is technology accessible, economically feasible and culturally acceptable.

Examples : Water ; soil ; plants ; buildings & minerals etc.

CLASSIFICATION OF RESOURCES

I. On the basis of Origin:

A. Biotic Resources --acquired from nature or biosphere

-have life

Ex. Humans beings, flora, fauna, fisheries & livestock etc.

B. Abiotic Resources

- Non-living / inorganic things

- rocks & metals

II. On the basis of exhaustibility

1. Renewable Resources- resources can be renewed or reproduced by physical, chemical or mechanical processes are called renewable resources.

Ex. Water & Air

2. Non-renewable Resources- resources can't be recycled, get exhausted after their use are called non-renewable resources.

Ex. Coal & fossil fuels

III. On the basis of ownership-

1. Individual Resources- resources which has ownership under private hands are called individual resources.

Ex. Property under private hands

2. Public or Community owned resources- Facilities accessible to all which are provided by government.

Ex. Public Parks, Picnic spots etc.

3. National Resources- which resources are under nation & technically all resources within country belong to the nation.

Ex. All the minerals, water resources, forest, wildlife land within the political boundaries and oceanic areas up to 12 Nautical miles (22.2 km) from the coast termed as National Resources

4. International Resources-

- No one's land & free zone in the world are International Resources

-No country can use these without International Institutions permission

Ex. Resources lying beyond 200 km of EXCLUSIVE ECONOMICS ZONE in the oceans

IV. On the basis of the status of development, resources are classified into four groups, namely potential, developed, stock and reserve.

(i) **Potential Resources:** Potential resources are those which are found in a region, but have not been utilised. For example, solar energy and wind energy, available in Rajasthan and Gujarat, have not been developed properly.

(ii) **Developed Resources:** Developed resources are those which are estimated in terms of their quantity and quality for utilisation, e.g., water, soil, forests.

(iii) **Stock Resources:** Materials in the environment that have the potential to satisfy human needs but are not technologically accessible to human beings, e.g., use of water as a rich source of energy.

(iv) **Reserve Resources:** Reserve is a part of the stock that can be put to use in the near future with the help of existing technology, e.g., water in dams, forests.

DEVELOPMENT OF RESOURCES

☆ Resources are vital for human survival

☆ it was believed that resources are free gifts of nature so, human beings used them indiscriminately & this has led to so many PROBLEMS

1. The person of resources for satisfying the greed of few individuals

2. Accumulation of resources in few hands which divide the society into have's and have not's

3. Indiscriminate exploitation of resources has led to global ecological crisis / global problems such as global warming; ozone layer depletion; environmental pollution and land degradation

- For a sustained quality of life & global peace , an equitable distribution of resources has become essential
- for using resources judiciously, we need to adopt sustained economic development

SUSTAINED ECONOMIC DEVELOPMENT means development should take place without damaging the environment and development in the present should not compromise with the needs of future generations.

FIRST INTERNATIONAL EARTH SUMMIT/ RIO DE JANEIRO 1992

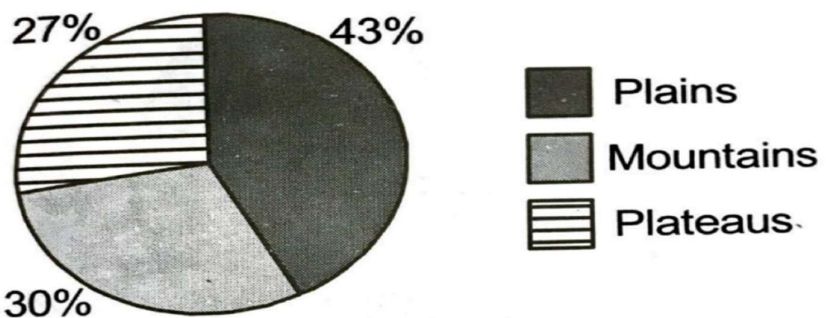
- The primary objective of the Rio 'Earth Summit' was to produce a broad agenda and a new blueprint for international action on environmental and development issues that would help guide international cooperation and development policy in the twenty-first century.

- Local Agenda 21 is a process that aims to integrate the social, environmental and economic aspects of development in order that all future development is 'sustainable'.

RESOURCE PLANNING: -

This process involves three main steps –

1. Identifying & inventory of resources across the regions of the country.
It covers surveying, mapping, qualitative & quantitative estimation of resources available.
2. Evolving a planning structure with appropriate technology, skill & institutional set up for implementing plans.
3. Matching the resource development plan with overall national planning

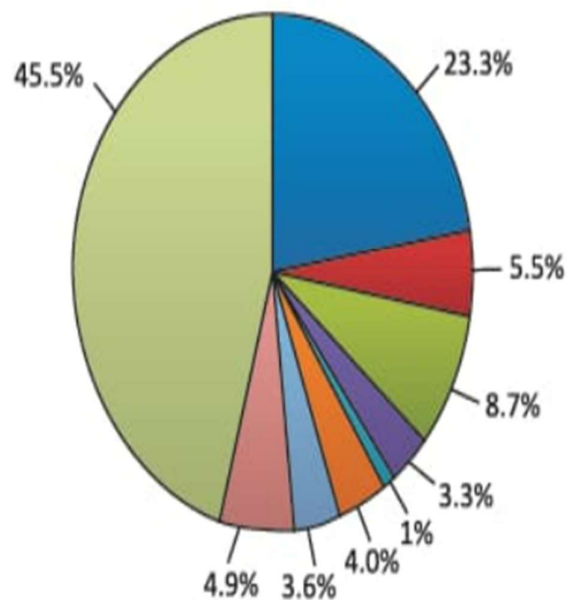
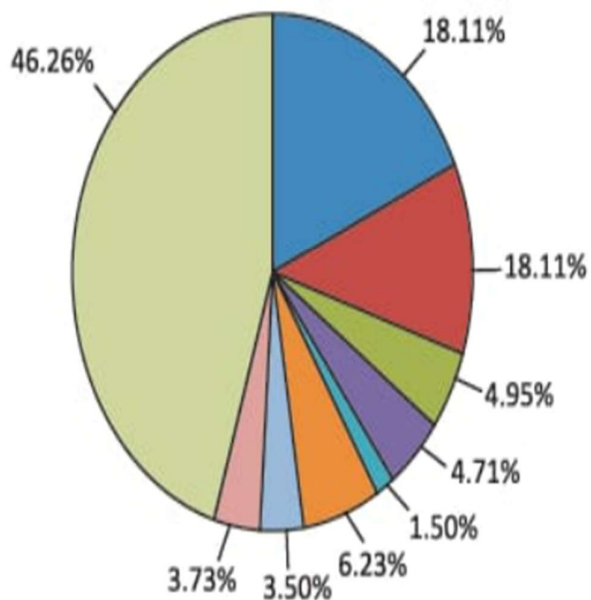


India : Land under important Relief Features

General land use categories-1960-61

General land use categories-2014-15

Reporting Area: 100 Per cent



- Forest
- Barren and unculturable waste land
- Area under non-agricultural uses
- Permanent pasture and grazing land
- Area under misc. tree crops and groves

- Culturable waste land
- Fallow other than current fallow
- Current fallow
- Net sown area

LAND DEGRADATION & CONSERVATION MEASURES- Human activities such as -

- Deforestation
- over grazing
- mining & quarrying
- constructional & industrial activities
- Transportation activities
- Urbanization

NATURAL FACTORS -

- Floods
- Landslides
- Over-grazing

- Water logging
- Drought

contributed in degradation

□ Measures to control:

1. Afforestation
2. Planting of shelter belts of plants
3. Control on over-grazing
4. Stabilization of sand dunes by growing thorny bushes
5. Proper management of waste lands
6. Control on mining activities
7. Construction of check dams
8. Proper discharge & disposal of industrial effluents & wastes.

CLASSIFICATION OF SOIL



Classification of Soil

Type of Soil	Found in Areas	Minerals Found	Crops Grown	Properties
1. Arid/ Desert/ Sandy soil	Western Rajasthan and parts of Gujarat.	Salt	Jawar, bajra and groundnut.	Sandy in nature, saline in character. Soil lacks humus and moisture. Kankar restrict infiltration of water.
2. Mountain/Forest soil	Lower parts of valleys and mountain slopes.	Limestone, Dolomite glass.	Tea and coffee.	Acidic, low humus content, silty in valley slides, coarse in upper slopes.
3. Alluvial soil	Eastern coastal plains in the delta of Mahanadi, Krishna, Godavari, Kaveri. Extends to Rajasthan and Gujarat. Mainly found in northern plains.	Potash, Phosphoric acid and lime.	Sugarcane, paddy, wheat, cereal and pulses.	1. Proportionate share of sand, silt and clay. 2. Classified as Khadar and Bangar.
4. Black soil / Regur soil	Deccan plateau of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh.	Calcium carbonate, Magnesium, Potash, Lime.	Cotton and groundnut.	1. Made up of lava and clay material. 2. Hold moisture 3. Black in colour 4. Sticky when wet
5. Red and yellow soil	Eastern and southern part of Deccan plateau and Odisha, Chhattisgarh, southern parts of middle Ganga plains.	Iron and Potassium.	Cotton, groundnut, maize and sorghum.	Reddish colour due to diffusion of iron in crystalline and metamorphic rocks. Yellow when it occurs in a hydratic form.
6. Laterite soil	Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, hilly area of Odisha and Assam.	Iron, Bauxite, aluminum oxide.	Tea, coffee, cashew nut and spices.	Areas of intense leaching of high temperature and heavy rainfall, low humus content, requires fertilizers and manure for cultivation.

SOIL EROSION- It's removal of the topmost layer of the land or soil due to wind or water.

Causes-

1. Human activities- Deforestation, mining & quarrying etc.
2. Over-grazing by animals as grazing areas are disappearing
3. Natural forces like floods, Drought & winds etc.

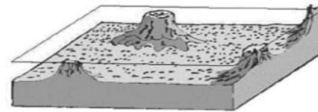
DIFFERENT TYPES OF SOIL EROSION-

a. Sheet erosion/sheet wash- It's uniform washing off the fertile thin layer of soil due to rainfall. Damage occurred depends upon the amount of rainfall & force of wind.

b. Rill erosion- removal of soil by concentrated water flow especially in hilly areas.

c. Gully erosion- Removal of soil along drainage lines by surface water runoff; Open & unstable channels cut more than 30 centimetres deep into the ground.

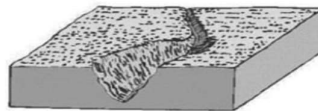
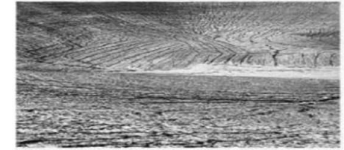
d. Wind erosion- When wind rolls soil particles along the surface in the arid & semi arid areas which leads to desertification.



(a) Sheet erosion



(b) Rill erosion



(c) Gully erosion



STEPS OF CONSERVATION



Strip Cropping

Groundcover plants such as grasses are planted in strips between fields of crops. The strips of groundcover soak up rain and slow runoff.



Terracing

Step-like terraces are built on slopes. They prevent runoff from rushing downhill and carrying away the soil.



No Till Planting

Seeds are planted in the ground without first tilling (plowing) the soil. Dead plants from the previous crop remain on the ground. Their roots hold the soil in place.



Windbreaks

Rows of trees are planted between fields. The trees slow down the wind and reduce wind erosion.



Contour Cropping

Crops are planted in curving rows to follow the contour of hills. This slows runoff and reduces erosion.



Cover Crops

Fields are planted year-round, even in seasons when crops don't grow. The plants cover the soil and hold it in place.

Rashmi