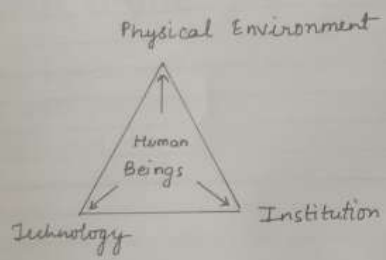


26-4-19

Chapter - 1
Resources and Development

★ Short Notes

. Meaning of Resource -
Everything available in our environment which can be used to satisfy our needs, provided it is technologically accessible, economically feasible and culturally acceptable can be termed as 'Resources'.

The process of transformation of things available in our environment involves an inter-dependent relationship between natures technology and institution.

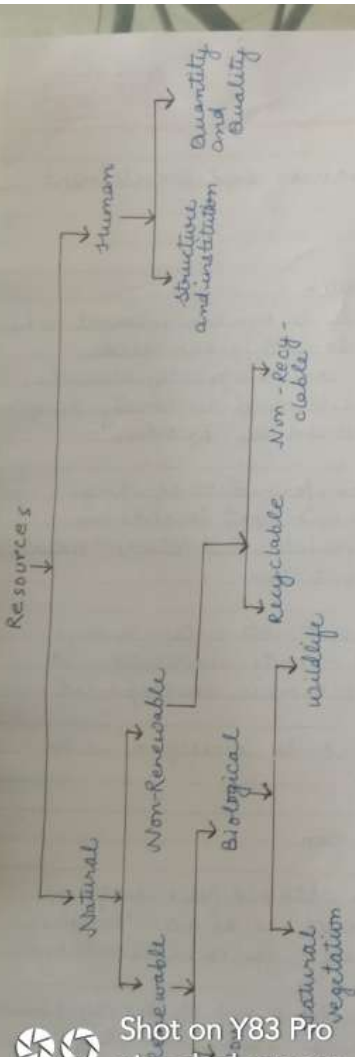
Human beings interact with nature through technology and create institution to accelerate their economic development.

These resources can be classified in the following ways -

. On the basis of origin.

Biotic ⇒ They are obtained from biosphere and have life such as human beings, flora and fauna, fisheries, livestock etc.

Abiotic ⇒ All those things which are composed of non-living things are called abiotic.



resources for example, rocks and metals

- On the Basis of Exhaustibility

Renewable resources ⇒ The resources which can be renewed or reproduced by physical chemical or mechnical processes are known as ~~non~~ renewable resources e.g → solar, wind etc.

Non-Renewable Resources ⇒ These occur over a very long geological time. Minerals and fossil fuels are examples of such resources

- On the Basis of ownership

Individual resources ⇒ These are also owned privately by individuals many farmers own land which is alotted to them by government against the payment of revenue e.g → Plantation, ponds etc.

#

Community owned resources ⇒ These are ~~res~~resources which are accessible to all the members of community. e.g → public parks, picnic spots etc.

National resources ⇒ Technically, all the resources belong to the nation e.g → roads, canals etc.

International resources ⇒ There are international institution which regulate some resource

• # On the Basis of the status of Development –

Potential resources ⇒ Resources which are found in a region, but have not been utilised.

Developed resources ⇒ The development of resources depends on technology and level of their feasibility.

Stock ⇒ Material in the environment which have the potential to satisfy human needs ~~but t~~.

• Development of resources

Resources are vital for human survival as well as for maintaining the quality of life.

Human beings used them indiscriminately and this has led to the following problem.

Depletion of resources for satisfying the greed of few individuals.

• Sustainable Development
Sustainable economic development means development should take place without damaging the environment.

- Resources planning

Planning is the widely accepted strategy for judicious use of resources. It has very rich cultural heritage but it is deficient in water, infrastructure and some vital minerals.

- Resources Planning in India

Resource planning is a complex process which involves identification and inventory of resources across the region of the country.

Matching the resources development plant with overall national development in India.

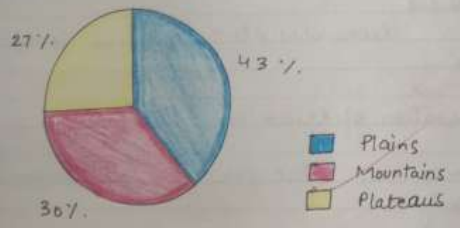
Resources planning is a complex process.

- Conservation of Resources

Resources are vital for any development activity

To overcome these problems, resources conservation at various levels is important

There is enough for everybody's need and not for any body's greed.



- Rio de Janeiro Earth Summit, 1992

In june 1992, more than 100 heads of states met in Rio de Janeiro in Brazil, for the first International Earth summit.

One major objective of the should is that every local government should draw its down local Agenda 21.

It aims at achieving global sustainable development.

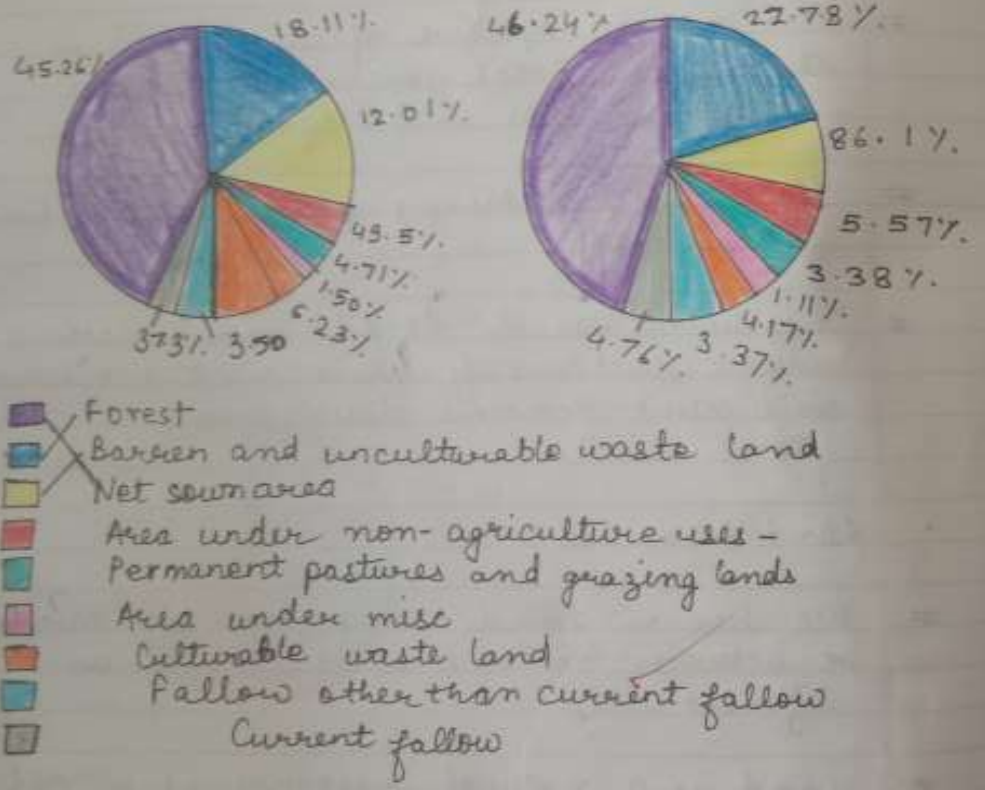
The summit was convened for addressing urgent problems of environment protection and social-economic development at the global level.

- Land Resources-

We live on land, we perform our economic activities on land and we use in different ways.

Land is a natural resource of utmost importance.

It supports natural vegetation, wild life, human life, economic activities, transport and communication system.



- Land utilization-
- Lands are used for following ways -

(1) Forests
(2) Land not available for cultivation

(a) Barren and waste lands.
(b) Land put non-agriculture uses, e.g. buildings, roads etc.

(3) Other cultivated land

(a) Permanent pastures and grazing land.

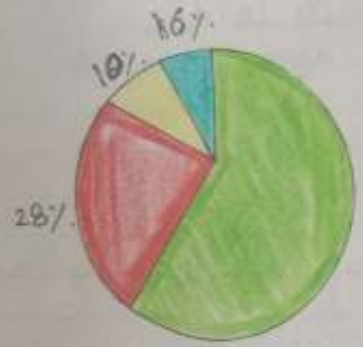
(b) Land under miscellaneous tree crops groves.

(c) Cultivable waste land.

(4) Follow lands
(a) Current fallow
(b) Other than current fallow

(5) Net sown area

Area sown more than once in an agricultural year plus net sown area is known as grossed ~~co~~ cropped area.



- Water eroded area
- Forest degraded area
- Saline and Alkaline land
- Wind eroded area

• Land Degradation

Land Degradation is a process in which the value of the biophysical environment is affected by a combination of human induced process acting upon the land.

It is viewed as any change to the land perceived to be deleterious.

• Causes of Land Degradation

Some human activities such as deforestation, over grazing, mining and quarrying too have contributed significantly.

Mining sites are abandoned after excavation work is complete leaving deep ~~ear~~ scars & traces of over-burdening.

It retards the process of infiltration of water into the soil after it settles down on the land.

In states like Jharkhand, Chhattisgarh, Madhya Pradesh & Odisha deforestation due to mining have caused severe land degradation.

In states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation.

- Steps to conserve the soil degradation:

Afforestation and proper management of grazing can help to some extent.

Planting of shelter belts of plants, control on over grazing, stabilisation of sand dunes by growing thorny bushes are some of the methods to check land degradation in arid area.

Proper management of waste lands, control of mining activities, proper discharge and disposal of industri-al effluents and wastes after treatment can reduce land and water degradation in industri-al and suburban areas.

- Soil as a Resource

Soil is the most important renewable natural resources.

It is the medium of plant growth and supports different types of living organism on the earth.

It takes millions of years to form soil upto a few cm in depth.

Various forces of nature such as change in temperature, action of running water, wind and glaciers activities of decomposers etc.

Soil / Feature	Colour	Composition	Crop Produced
Alluvial Soil	Reddish Brown	Iron oxide, lime	Sugarcane, Paddy, Wheat
Black Soil	Black	Iron, Magnesium, Aluminium	Cotton, Oil seeds, jowar
Red / Yellow Soil	Red and yellow	Iron Oxide, Aluminium, Magnesium	Cotton, tobacco, Chilly, jowar
Laterite Soil	Rusty Red	Iron, Aluminium	Tea, Coffee, Rubber, Coconut
Arid Soil	Ranges from red to brown	Sodium, Calcium Carbonate	Cotton & Sisal
Forest Soil	Red, Brown and yellow	Oxygen, Silica, Iron, Calcium, Magnesium	Nut tree, wild apple

Classification of Soils

In Area found	Formation	Other Name	Other Relevent Point
Tamil Nadu, Madhya P Jharkhand	Indo-gangetic Brahmaputra river system	Old - Bhangar New - Khadar	very fertile & suitable for cultivation.
Madhya P Maharashtra, Chattisgarh	Weathering of lava (igneous rock)	Regur Soil	high fertility, retentivity
Odisha, Karnataka, Tamil Nadu	Weathering of crystalline & metamorphic rocks		Non fertile reacts to fertiligers.
Kerela, Tamil Nadu, Madhya P	decomposition of rocks, removal of silica	derived from latin word 'later'	acidic in nature, coarser Crumbly in texture.
Rajasthan	fragmentation of adjacent rocks	Aridisols	Alkaline in nature
Punjab, West Bengal, Assam	Mechanical weathering of rain, snow & temperature	Alfisol or mountainous	acidic is nature.

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Question - Answer

(1) What is the importance of natural resource? Why is it necessary to conserve them?

Ans- Resource are important for the development of any country. For eg - Fossil fuels are essential to great energy etc.

Necessary to conserve resources because -

* It takes million of years for the formation of natural resources.

* Natural Resources are available in fixed quantity and they are non - renewable.

(2) What is the role of humans in resource development.

Ans - * Resources are a function of human activities.

* Human beings attract with nature through technology, and create institution to accelerate their economic development.

* Human being transfer materials available in our environment into resource, and use them.

(3) Explain the major factors which are responsible for formation of soil?

Ans - * Various forus of nature such as change in temperature, action of running water, and wind - glaciers etc.

* Chemical and organic changes which take place in the soil are equally important.

* Vegetation affects the rate of humus formation.

(4) What is resource planning? Mention steps which are involved in resources planning.

Ans - * Resource planning is a techonique or skill of proper or judicious use of resources.

* Identification and inventory of resources across the region of the country.

* Matching the resource development plans with overall national development plans.

(5) Distinguish between Renewable and Non-Renewable resources.

Ans

Renewable Resources	Non-Renewable Resources
These are those re-sources which can be renewed in a short time	These are those reso-urces which cannot be renewed in a a short time.

These do not cause any pollution to the environment	These cause pollution to the environment
These are the free gifts of nature	These are not the free gifts of nature.
e.g → Air, water and solar energy.	e.g – mineral, oil and coal.

(6) How is land a natural resources of utmost importance ? explain with 4 facts.

Ans - Land is an important natural resource, because –

* All economic activities are performed on land.
* It supports natural vegetation and wildlife.
* Most of the minerals are formed in land.
* It is used for transport and communication system.

(7) Which is the most widely spread and important soils of India? State any 4 characteristics of this type of soil?

Ans - Alluvial soil.

- Characteristics of the Alluvial Soil —

* Alluvial soil are transported soils. Thus, the parent material of these soils is of transported origin.

* These soils consist of varying proportion of sand, silt and clay. In the upper course of the rivers, the soil is coarse.

* Apart from the soil size of their grains or particles, soils are described according to their age as well.

* Locally, the old alluvium is called 'Bhangar' and the new alluvium is called 'Khadar'.

(8) What is soil erosion? Explain the major types of soil erosion prevaling in India.

Ans - The removal of soil by the forces of nature, particulary wind and water is called soil erosion. More rapidly than the various soil forming processes can replace it.

- Wind erosion → Water is a powerful agent of soil erosion. Following are the major types of erosion caused by water.

* Sheet erosion → When the top layer of the

soil is removed over a large area by the running water.

* Rill erosion → This is the second stage of sheet ~~er~~ erosion. If erosion continues unchecked for a sufficient time.

* Gully erosion → Gully erosion is also responsible for the formation of ravines.

* Wind erosion → Wind is a powerful agent of erosion in arid and semi-arid lands with little rainfall.

(9) Explain any 4 steps taken to solve the problem of land degradation in India?

Ans - * Mining activities need to be carefully monitored.

* Government need to check illegal mining.

* Proper treatment of industrial waste can reduce land degradation.

* The best way to conserve soil is to increase the area under forest.

Sanjay
08/19