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MODULE II : NATURAL RESOURCES

⇒ The resources that exist without actions of mankind.

It may exist :

i) As a seperate ENTITY

ii) As a LIVING ORGANISM

iii) As most forms of ENERGY.

iv) In an ALTERNATE FORM

CLASSIFICATION

1) On the basis of ORIGIN

2) On the basis of STAGE OF DEVELOPMENT

2.1. POTENTIAL RESOURCES :

Exist in a religion

May be used in future.

EG: PETROLEUM → It occurs with sedimentary rocks, but until it is drilled out for use, it remains a potential resource.

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2.2. ACTUAL RESOURCES:

- SURVEYED resources
- used in present times
- DETERMINED
  - quality
  - quantity

EG: WOOD PROCESSING → Depends on the technology available and cost involved

2.3. RESERVE RESOURCES:

- PART of an actual resource
- DEVELOPED profitably in future

2.4. STOCK RESOURCES:

- SURVEYED resources
- CANNOT BE USED
- Due to lack of technology

EG: Hydrogen

3] On the basis of RENEWABILITY

- RENEWABLE RESOURCES
- NON-RENEWABLE RESOURCES

Spiral

NATURAL RESOURCE CONSERVATION

Date

MAJOR OBJECTIVES :

1) CONSERVING earth's biological diversity

2) SAFEGUARDING ecosystem services.

It involves :

- Public policy
- Sustainable Development

⇒ A careful preservation and protection of a natural resource to PREVENT exploitation or destruction.

CONSERVATION METHODS

1) Get TANK LESS WATER HEATER as it reduces the usage of natural gas.

2) BUY a HYBRID CAR to conserve fossil fuels.

3) RECYCLING products that come from trees.

4) Hydro power and solar power sources

5) Use REUSABLE cloth bags.

6) Replace light bulbs with LED.

7) Get rid of objects containing mercury.

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ROLE OF INDIVIDUAL IN CONSERVATION OF RESOURCES

Every individual has the responsibility to use natural resources judiciously.

This will give equal opportunity to all to use the resources for the benefit of mankind.

NEED FOR CONSERVATION

i) The amount of natural resources is decreasing.

ii) Loss of energy resources has been caused by deforestation.

iii) International capacities conserving the resources are not properly organized.

iv) To preserve biodiversity

OBJECTIVES OF CONSERVATION

i) To ENSURE, of resources for survival.

Availability sustainability

ii) To PRESERVE diversity at specific levels.

iii) To MAINTAIN the essential ecological processes and the life support system.

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LAND RESOURCE

⇒ An essential natural resource for survival and prosperity of humanity.

Increased demand on land resources shows :

1) Declining crop production

2) Degradation of land quality

3) competition for land

LAND DEGRADATION : A process in which the value of the BIOPHYSICAL ENVIRONMENT IS AFFECTED by a combination of human-induced processes acting upon the land.

It is viewed as ANY CHANGE / DISTURBANCE to the land perceived TO BE

- DELETORIUS
- UNDESIRABLE

DESERTIFICATION : A type of land degradation in which DRY AREA of land becomes ARID, losing its bodies of

- WATER
- VEGETATION
- WILDLIFE

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CAUSES

i) climate change

ii) Overexploitation of soil through human activity.

'SOIL DEATH'

⇒ When deserts emerge due to DEPLETION OF NUTRIENTS

RAMPANT UNCHECKED

in soil that are essential for it remain ARABLE.

CAUSE: Loss of vegetation

DROUGHT CLIMATIC SHIFTS OVERGRAZING

The rate of erosion and runoff decreases exponentially with increased vegetation cover.

iii) POPULATION: With increase in population, more land is needed LEADING TO increasing pressure on limited land resources.

iv) DAMAGE TO TOP SOIL: Increase in food production leads to nutrient depletion.

v) Fertilizers and Pesticides

vi) Water logging

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vii) Water - logging

viii) Salination

ix) Contamination

EFFECTS OF LAND DEGRADATION

1) Soil structure and texture are deteriorated.

2) Loss of soil fertility

3) Increase in alkanity and acidity problems

4) Loss at social, economic and biodiversity level

LANDSLIDES

⇒ The downward movement of a slope composed of earth materials.

Also known as:

- SOIL-CREEP
- ROCK-SLIDE
- DEBRIS-SLIDE
- SLUMP
- EARTH-FLOW

During construction, huge portions of fragile areas are cut-down and thrown into adjacent streams and areas.

These land masses weaken the fragile slopes LEADING to man-induced landslides.