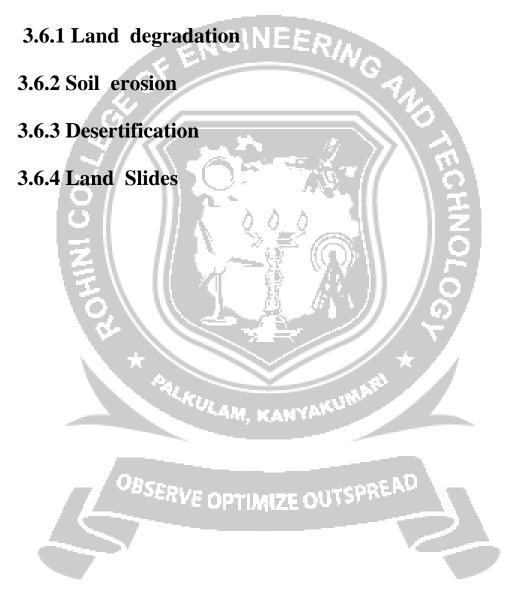
# **MODULE III**

## NATURAL RESOURCES

## 3.6 Land resource



#### 3.6Land resource

- $\diamond$  The land is the upper weathering layer of the solid earth crust.
- ✤ Land is a renewable resource.
- Soil is a mixture of inorganic (rocks & minerals) & organic materials (dead animals & plants) GINEED

#### Uses of land resources

- 1. Land is the home for humans, wild animals & birds
- 2. It provides food, wood, minerals, nutrients, for us.
- 3. Coal & gold is extracted from land.
- 4. It is used as watershed (or) reservoir.
- 5. It act as a dustbin for most of the wastes created by the modern society.
- 6. It is used for construction of buildings, industries etc.

#### 3.6.1 Land degradation

Land degradation is the process of deterioration of soil (or) loss of fertility of the soil.

#### **Causes**

#### 1. <u>Population</u>:

As population increases, the need of over usuage of land area increases for producing food, fiber, fuel wood.

#### 2. <u>Urbanization</u> :

Urbanization leads to deforestation, it affects millions of plants and animal species.

3. <u>Fertilizers & Pesticides</u> :

High application of fertilizers & pesticides causes land pollution & soil degradation water logging, soil erosion, salination, contamination of soil with industrial wastes causes land degradation.

#### **Consequences**

- 1. Soil texture & soil structure are destroyed.
- 2. Loss of soil fertility due to loss of nutrients.
- 3. Increase in water logging salinity alkalinity & acidity problems.
- 4. Loss of economic social & biodiversity.

#### 3.6.2Soil erosion

The removal of the top layer of the soil from its original place by  $H_2O$ , wind & glaciers is called soil erosion.

#### Causes:

- 1. Water causes soil erosion in the form of rain, runoff rapid flow, wave action.
- 2. Wind carry the fine particles of soil and creates soil erosion.
- 3. Flood, cyclone, forest fire, over grazing, mining, deforestation cause soil erosion.
- 4. Landslide, lack of proper drainage, shifting cultivation also causes soil erosion.
- 5. Construction of dams, buildings, roads removes the fertility of top soil causes soil erosion. E OPTIMIZE OUTSPREAD

#### 6. <u>Consciquence</u>

- 1. Loss of soil fertility
- 2. Water absorbing capacity of the soil becomes low.
- 3. Destroy of crop lands.
- 4. Deposition of sand & gravel in agricultural land.
- 5. Productivity & bio diversity of the eco system become very low.

#### Prevention of soil erosion

- 1. Improve afforestation
- 2. Control of wind speed by Basin listing, pan breaking terrace making, contour trenching, contour forming.
- 3. Strip cropping, terrace cropping.

#### **3.6.3Desertification**

Desertification is a progressive destroy of arid &semi arid lands into desert. It is a process of land degradation & land destruction. The land becomes unfertile and unsuitable for cultivation.

Causes:

- Due to low rainfall, failure of monsoon, dry climatic conditions, droughts, 1. deforestation causes desertification.
- Depletion of ground water, salination of land, complete loss of vegetation, 2. over grazing results dry, loose and more prone to soil erosion and leads to desert.
- Mining & quarrying also affect the vegetable cover, and destroy of land area 3. leads to desertification.
- Excessive usuage of fertilizers, pesticides & disposal of toxic water into 4. the land leads to desertification.

#### **Consequence**

- OPTIMIZE OUTSPREND Loss of bio diversity i.
- ii. Loss of vegetation
- iii. Loss of productivity
- Loss of employment opportunity iv.
- Migration of people v.

### 3.6.4 Land Slides

The downward flowing of land mass (or) rock mass caused by the human activity is called man induced land slides.

#### <u>Causes</u>

- i. Removal of vegetation : Deforestation in the slope region creates soil erosion, which causes land slides.
- ii. Construction of roads, movements of vehicles in the unstable slope region produces land slides.
- iii. Construction of dam, bridges, buildings leads to landslides.
- iv. Over exploitation of ground water leads to land slides.

#### **Consequence**

- i. Destruction of trees.
- ii. Blocking of roads & railway lines, cannels & rivers.
- iii. Loss of habitat and bio diversity.
- iv. Loss of infrastructure and economic loss.
- v. Turbidity of river water.

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- vi. Submergence of houses.
- vii. Loss of productivity

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