

## Importance of Soil

Soils are essential for life, in the sense that they provide the medium for plant growth, habitat for many insects and other organisms, act as a filtration system for surface water, carbon store and maintain maintenance of atmospheric gases.

Importance of soil are discuss

below —

- Medium for plant growth —
  - Soils support roots and keep them upright for growth.
  - Soils provide plants with essential minerals and nutrients.
  - Soil provide air for gaseous exchange between roots and atmosphere.
  - Soil protect plants from erosion and other destructive physical, biological and chemical activity.
  - Soils hold water (moisture) and maintain aeration.
- Habitat for many insects and other organisms:-
  - Insects and microbes live in the soil and depend on soil for food and air.
  - Soils are homes to a diverse range of organisms such as worms and termites. They provide the needed moisture and air for the breakdown of organic matter.
  - They provide a home for many organisms such as insects to lay and hatch eggs and rodents to give birth to new offspring.
- Soil as Filtration system for surface water  
Soil act as filter unit of surface water after rainfall and snow melts, water flows on the earth's surface to water bodies,

but much of it soaks and gets infiltrated into the ground. Filtered water also provides plants with clean, esp. unpolluted water needed for growth.

### • Soil store Carbon and maintenance of

#### atmospheric gases:—

Soil help regulate atmospheric  $CO_2$  by acting as a carbon store. During humification (a process where soil organisms from complex and stable organic matter) some organic matter breakdown do not occur completely, especially in soils like peat, owing to its high acid and water content.

On a global scale, soil contains about twice as much carbon as the atmosphere and about three times as much as vegetation.