# ENVIRONMENTAL POLLUTION

Soil Pollution

**Definition:** Contamination of soil by human and natural activities that causes harmful effects on living beings.

Composition of soil:

Components	%
Mineral matter – in organic	45
Organic matter	5
Soil water	25
Soil Air	25

#### Types, effects and sources (Causes):

Soil pollution is mainly because of following sources.

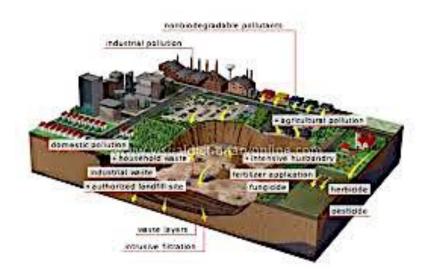
1. Soil erosion: Movement of top soil from one place to another.

**Sources:** Wind, floods and human activities like construction and deforestation etc.



2. Industrial wastes: various pollutants released from industries.

**Sources:** Pulp, paper, chemical, food, pharmaceutical, mining industries etc.



3. **Urban waste:** Urban waste includes both domestic and commercial wastes.

**Sources:** rubbish materials like plastics, glasses, metallic cans, paper and rubber etc.

### 4. Agricultural waste:

**Sources:** Use of strong fertilizers, pesticides, having inorganic and organic chemicals yields soil pollution.



#### 5. Biological agents:

**Sources:** human and animal excreta constitutes major pollution to soil.

**6. Radio active pollutants:** radioactive substances form explosions. **Ex:** Sr-90 deposits in bones and tissues.





#### Effects of soil pollution:

- 1. Toxic compounds effects plant growth and human life.
- 2. Hazardous chemicals enter food chain and disturb biochemical process.
- 3. Nervous disorders, joint pains can be seen on humans.
- 4. Sr-90 deposits in bones and tissues.
- 5. Water logging and salinity makes soil infertile.





#### Control measures of soil pollution:

- 1. Soil erosion must be prevented or controlled by proper plantation.
- 2. All the waste from industry and urban places must be treated before release in to environment.
- 3. Use of synthetic fertilizers must be avoided. Instead natural fertilizers must be encouraged.
- 4. Educate the people about soil pollution and prevention.
- 5. Strict enforcement of environment protection law.
- Toxic and non-biodegradable material must be banned.
- 7. Recycling and reuse of waste reduces soil pollution.