

ENVIRONMENTAL POLLUTION

Soil 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

Soil Pollution

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.



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2. Industrial wastes: various pollutants released from industries.

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



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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.



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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.



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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.



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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.
6. Toxic and non-biodegradable material must be banned.
7. Recycling and reuse of waste reduces soil pollution.