SOIL POLLUTION

Soil pollution is contamination of upper layer of earth's crust by chemicals or other toxic substances that lead to either reduction in fertility of soil in terms of crop production or whose addition results in detrimental effects to soil microorganism, insects, plant life and organism who consume those plants.

Sources of Soil Pollution

- Industrial Wastes.
- Improper Use of fertilizers, insecticides, pesticides, etc.
- Urban waste consisting of solid waste and sludge also contribute heavily towards soil pollution.
- Radioactive Pollutants

Effects of Soil Pollution

Industrial effluents containing toxic chemicals dumped on land cause soil pollution and enter in food chain, which has adverse effect on human health .

Solid waste dumped on land cause disruption in everyday life and destroys natural beauty of the landscape.

Dumped waste and organic waste give rise to foul odour.

Pathogenic bacteria cause diseases like cholera.

Biomagnification: Biological magnification also known as bioamplification, is the increase in concentration of a substance that occurs in a food chain. Biological magnification refers to the process whereby certain substances such as pesticides or heavy metals move up the food chain, work their way into rivers or lakes, and are eaten by aquatic organisms such as fish, which in turn are eaten by large birds, animals or humans. Bioaccumulants are substances that increase in concentration in living organisms as they take in contaminated air, water, or food because the substances are very slowly metabolized or excreted. There is good evidence that DDT, DDE, PCBs, toxaphene, and the organic forms of mercury and arsenic do biomagnify in nature. e.g endosulphon banned in some states due to overuse on cashewnut plantations.

Control Measures of Soil Pollution

- Industries should be banned from dumping toxic chemicals on agricultural land and proper disposal methods should be used.
- Government should provide subsidies, concessions and tax exemption to companies that use recycled raw materials.
- Application of organic manures and pesticides should be encouraged in agriculture.
- Plastic carry bags should be replaced by jute bags.
- Public awareness campaigns should be organized.
- Solid waste from urban and industrial areas should be disposed of using proper techniques.
- Trees and grass should be grown to check soil erosion.