

ENVIRONMENTAL POLLUTION

Marine Pollution



Marine Pollution

Definition: Discharge of substances into the sea or marine environment resulting in adverse effects on human health, aquatic activities and marine water.

Marine pollution is associated with the changes in physical, chemical and biological conditions of the sea water.

Sources of Marine Pollution:

- 1. Municipal waste** and sewage from coastal cities are directly discharged into sea.
- 2. Dumping of industrial waste** ex: acids, pesticides etc.
- 3. Oil spills** (petroleum and its products) by oil refinery companies.
- 4. Waste of ship yards** and shipping companies.
- 5. Solid waste-garbage**, trash, explosives, radio active waste.

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Effects of marine pollution:

1. Toxic pollutants causes death and reduces **reproductivity** of **marine organisms**.
2. Oil spills covers the surface of see/ocean **stops the the sunlight to penetrate** the see water and it also **inhibit photosynthesis and stops the growth of phytoplankton**.
3. Organic materials decreases **DO** because of its degradation.
4. Toxic elements like **Hg can be easily transmitted** to **human** through food from **marine fish** and effects the human **health**.

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Control measures:

1. Municipal and industrial waste must be **treated before releasing** into sea water.
2. **Urban growth** near the coastal lines **must regulated**.
3. Periodically **analysis of coastal** analysis.
4. Oil spills should be **rectified** by means of **bio remediation**.
5. Beaches should be **maintained in neat and tidy** manner.
6. **Educating** people regarding marine pollution.

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Coral reefs: these are underwater structures made from CaCO_3 secreted by corals.

Benefits of importance:

1. Coral reefs supports more than one millions sps. Lives.
2. They provide feeding, breeding and nursery areas to fish and shell fish.
3. Medicines can be synthesized form these coral reefs.
4. They protect costal belts from storms and so on.
5. It gives economical benefits.

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Factors affecting coral reefs:

1. Sediments from various sources carried to seas by runoffs.
2. Agricultural and industrial chemicals.
3. Boat anchors and the careless drives.
4. Rising ocean temperatures and acidification.