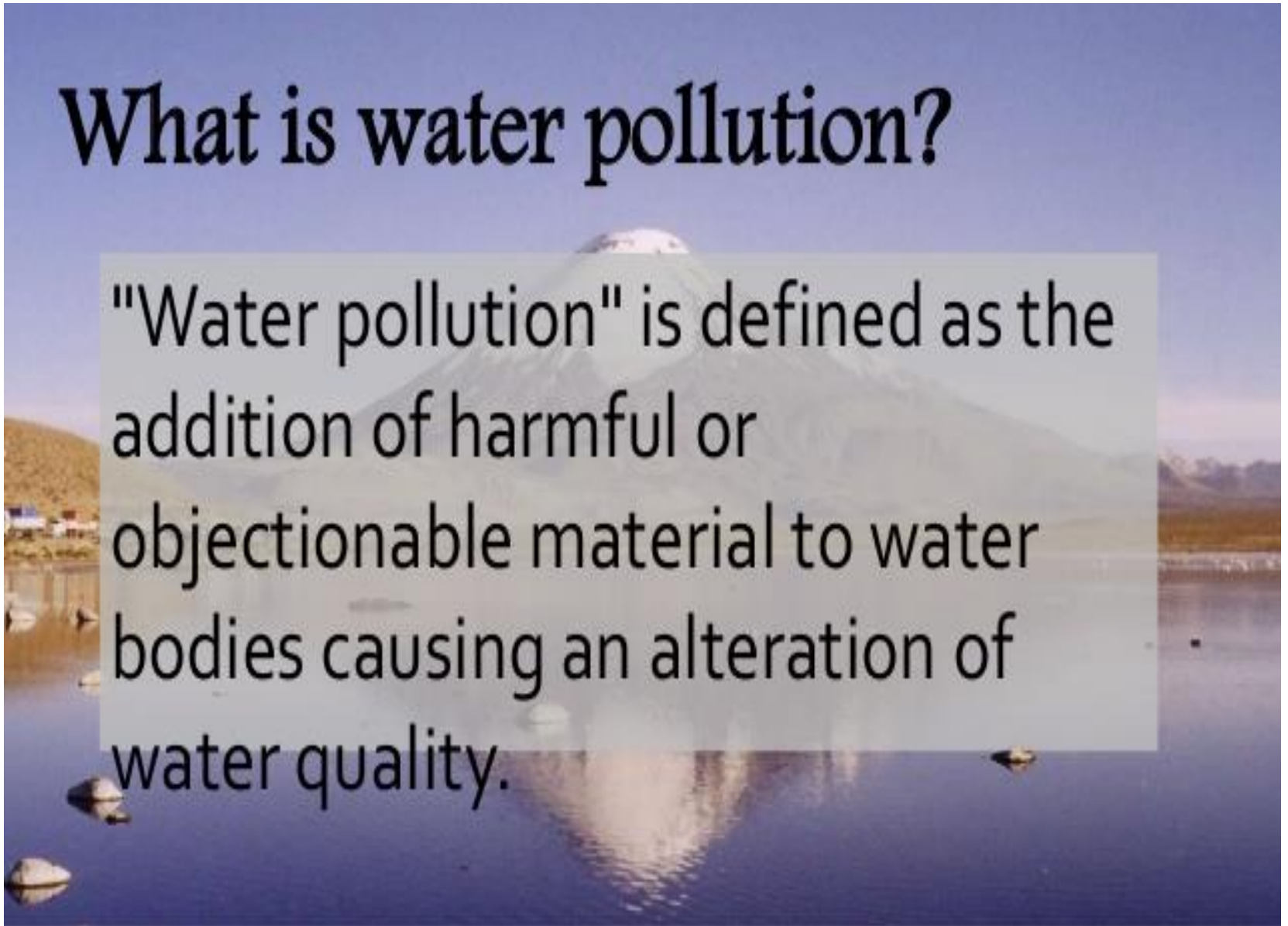


EFFECTS OF WATER AND SOIL POLLUTION ON VEGETATION

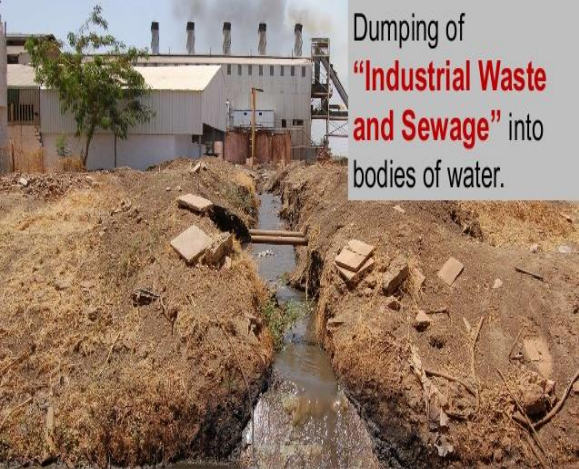
What is water pollution?

"Water pollution" is defined as the addition of harmful or objectionable material to water bodies causing an alteration of water quality.



How does water pollution occur?

Water pollution can occur via several mechanisms, here are some common causes:



Dumping of **“Industrial Waste and Sewage”** into bodies of water.



Use of **“Toxic Substances”** in agriculture.



Accidental **“Spills from Oil Rigs”**.



Effects of Water Pollution

Agriculture

The background of the slide shows a lush green agricultural field in the foreground, with a line of trees and mountains in the distance under a clear sky.

The waste that we dump on water bodies gets accumulated on surface water and ground water, this will contaminate crops and cause diseases to consumers and farm workers. Depositions of deleterious chemicals in soil also leads to loss of soil fertility.

Ecosystem

The background of the slide is an underwater scene showing a coral reef with various colorful coral species and fish swimming in the blue water.

Ecosystems are destroyed by the rising temperature in the water, as coral reefs are affected by the bleaching effect due to warmer temperatures. Additionally, the warm water forces indigenous water species to seek cooler water in other areas, causing an ecological damaging shift of the affected area

Sources

Caused by the presence of **micro organisms** in water (pathogenic agents)

- Food industry
- Paper industry
- Fermenting

Biologic Pollution

Effects:

eutrophication

anaerobic decompositions

bacteriological contamination

of plants



Eutrophication

Causes:

Rise of the number of **micro organisms** in a lake, river or sea

Fertilizers

Waste waters

Hot water

Climate/ Geological changes

Phosphorus (P)



Effects

Oxygen level decrease

Flora's death

Prohibition of any activities on lakes

Massive plankton development

Producing poisonous gases

Damage water quality

Fighting against

Eliminating Phosphorus / 90% efficiency

Creating of a **tampon zone** between field and water

Wastes disposal technologies

Using **natural fertilizers**



Physical Pollution

Produced by:

- soil erosion
- **deforestation**
- landslide
- **ionic radiations**
- solide particles

Effects:

- blocked rivers
- aquatic plants death
- river speed modification:
 - changed aeration



Effect of soil pollution

1. The pathogenic bacteria spread infection
2. Chemicals such as Arsenic, mercury, chromium, Nickel, lead, cadmium, Zinc, Iron being toxic affect the living beings



Effects of soil pollution

- Excess use of fertilizers and pesticides affects the plant growth besides reducing crop yield



Effect of soil pollution

- Water logging and salinity may increase the level of dissolved salt content in ground water as well as in the soil



Control of soil pollution

- Treating the sewage before land disposal.
- By preserving and protecting the top fertile soil, we can control erosion.
- Disposal of wastes in landfill.
- Utilizing optimal dose of fertilizers and pesticides .
- Rotating the crop pattern