Sapatgram College

Sub :- Environmental studies.

Class:- BA2nd and4th sem.

**Topic: Water Pollution**. Argeng Narzary

Water is the elixir of life and no other living organisms can survive without it. But increasing population and industrial units have greatly polluted the water. Water pollution can be defined as alteration in physical, clinical or biological characteristics of water making it unsuitable for designated use in its natural state. It is the contamination of water with other materials such as micro-organisms, chemicals industrial or other wastes, or sewage. Such matter deteriorates the quality of the water and render it unfit for its intended use.

**Sources of water pollution**: Water pollution can be caused by point sources or non-point sources. Major point sources of water pollution are industries, power plants, underground coal mines, off-shore oil wells, etc. The discharge from non-point sources is not at any particular site. These sources are scattered which pollute water individually or collectively. When a source of pollution can not be readily identified such as agricultural run off, acid rain, etc. They are said to be non-point sources of pollution. Septic tanks, textile and chemical industries, deep well injection, mining, etc. are the main sources of groundwater pollution.

The major sources of surface water pollution are sewage, industrial effluents, synthetic detergents, agro-chemicals, oil spillage, waste heat, etc. The sewage pollutes the river sources and sea coast. Industrial wastes containing toxic chemicals, acids, alkalis metallic salts, phenols, radioactive substances pollute water. Also agro-chemicals like fertilizers and pesticides washed by rainwater and surface run-off pollute water. Water pollution is also caused by oil spills into sea water during drilling and shipment.

**Effects of water pollution**: Water pollution causes human illness. Many waste waters especially sewage contain many pathogenic and non-phogenic organisms and many viruses. Water borne diseases like cholera, dysentry, typhoid, jaundice, etc. Are spread by water contaminated with sewage. Water pollution also causes Hepatitis A, Hepatitis B and food poisoning. Heavy metals, pesticides, cyanides and many other organic and inorganic compounds are harmful to aquatic organisms. Toxic substances which pollute the water affect human health. Heavy metals like lead, mercury and cadmium cause various types of diseases nitrate in stomach partly gets changed into nitrites which can produce cancer causing products in the stomach. Excess fluoride in drinking water causes defects in teeth and bones called fluorosis.

Control of water pollution: There are some simple ways we can prevent water pollution or at least limit our contribution to it.

(1) Reduce your plastic consumption and re-use or recycle plastic when we can.

(2) Properly dispose of chemical cleaners, oils and non- biodegradable items to keep them from ending up down the drain.

(3) Maintain our car so it does not leak oil, anti freeze or coolant.

(4) If we have a yard consider landscaping that reduces run off and avoid applying pesticides and herbicides.

(5) If we have a pup be sure to pick up its poop.

(6) The water pollution (Prevention and control) Act., 1974(amended in1988) which aims at the maintenance of good water quality for human use must be strictly enforced.