

REVIEW ARTICLE

ASPECTS OF WATER POLLUTION: DATA ANALYSIS

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ABSTRACT:

From last few decades world is shouting against the pollution and its harmful effect. Pollution became a hot issue all over the world. All the countries have taken a serious action to control the pollution. Each and every nation has been engaged in preparation of National Environmental Policy for sustainable development and conservation of natural resources. Now a days pollution is a global issue. Earth summit held on Environment and Development at Rio-de-Janerio in 1992 concluded that the continuous degradation of environment will never achieve sustainable development. Water is the most essential component for human existence. Mankind has definitely polluted the water resources of the world. This is so because we have not limited our use of water. We have over used water to make it a scarce element and our continuous usage has made it become polluted and contaminated over the course of time. It is the need of time to be aware about water pollution. So purpose of this paper is to create awareness about causes effects and prevention of water pollution among each and every person.

KEYWORDS: Water pollution; aspects

INTRODUCTION:

Water is the most essential component for human existence. The Earth is called as 'Blue Planet' because of water. Water covers almost three fourth of earth's surface. Water is not only essential for survival of all living things but is also the source of economic wealth and the creator of beautiful environment. Water is needed for agricultural production, industrial production and to meet various other needs for human survival. Now a day, this precious resource is facing the two serious problems pollution and acute shortage. Fresh water and marine water, both are facing the problem of deterioration of

water due to anthropogenic activities like industrialization urbanization and population explosion. So it is very essential to know our responsibility to save water and also to prevent water pollution.

OBJECTIVES OF THE RESEARCH WORK:

- i. To study the concept and causes of water pollution.
- ii. To study the effect, prevention and control of water pollution.

SCOPE AND IMPORTANCE OF THE RESEARCH**WORK:**

- i. Present paper is important for all student and teacher of environmental science faculty.
- ii. Present paper is important for all human being who can understand the issues of water.

RESEARCH METHODOLOGY:

For present research researcher used document analysis method.

DATA ANALYSIS AND INTERPRETATION:

Today everyone is discussing about the pollution. Pollution is defined as, undesirable change in the physical chemical or biological characteristics of natural water, air, or soil, which can adversely affect on the life or can create a potential health hazards to any living organisms or can cause damage to non-living things material or property.

WATER POLLUTION:

The negative change in physical, chemical and biological properties of natural water due to addition of pollutants causing adverse effects on aquatic life and other living being including man is called water pollution.

The classification of water pollution can be done on the basis of

- i. Origin of pollution
- ii. Source of pollutants
- iii. Nature of pollutants
- iv. Habitat and storage site.

The water pollution can be studied on the basis of nature of pollutants like physical pollution, chemical pollution and biological pollution, etc. The water pollution can be studied on the basis of habitat and storage site in which the water resource is divided into surface water pollution and ground water pollution. The surface water pollution involves the river water pollution, lake water pollution, estuarine water pollution, sea water pollution, etc.

The ground water pollution involves change in quality of hand pumps, bore wells, open wells, etc.

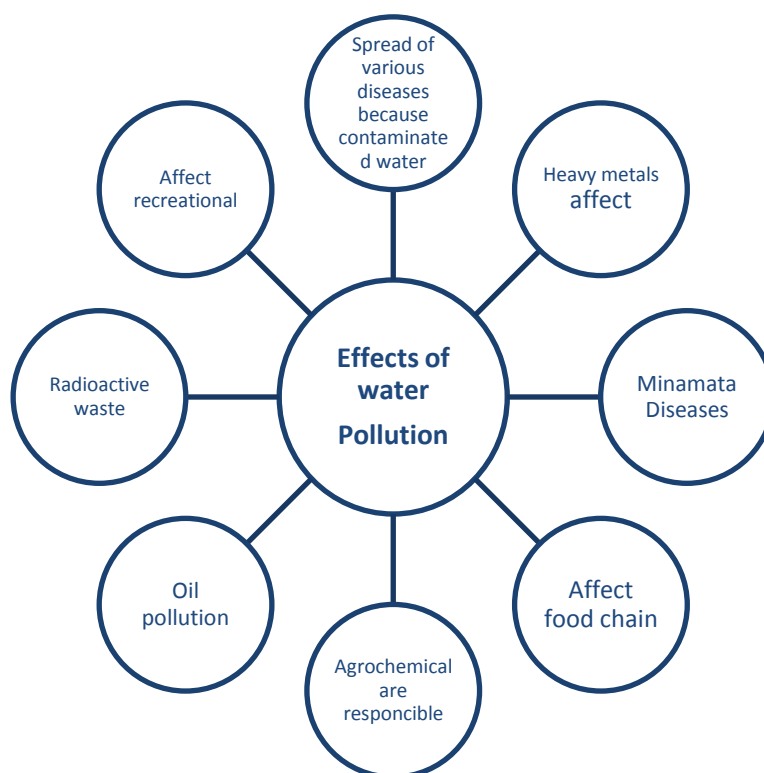
HOW CAN WE CHECK THE PURITY OF THE WATER?

To check the pollution load and water safety for different uses, regular monitoring is required. Water quality is determined by different parameters like PH, turbidity, dissolved oxygen, biological oxygen demand, chemical oxygen demand, nitrates, phosphate sulphate, chlorides, etc. The biological parameters involves most probable number (MPN) and standard plate count (SPC), detection of pathogens, also some phytoplankton and zooplankton are used as pollution indicator species.

EFFECTS OF WATER POLLUTION:

- i. Diseases like cholera, typhoid, dysentery, poliomyelitis etc. spread by contaminated water.
- ii. Many organic and inorganic compounds are harmful to living system, toxic compounds like heavy metals, pesticides, cyanides are also harmful.
- iii. Mercury and cadmium cause diseases like 'Minamata' and 'Itai-Itai' respectively.
- iv. Chemical pesticides undergo biotransformation through food chain.
- v. Because of agrochemicals like nitrates and phosphates coming from field runoff causes nutrient enrichment of water body. It favours luxuriant and rapid growth of aquatic weeds. This process is known as 'Eutrophication'. Here the dissolved oxygen gets depleted and leads to suffocation of aquatic life. Higher levels of nitrates are responsible for 'Methaemoglobinemia'

- vi. Oil pollution in water forms a distinct layer on upper surface which inhibits the mixing of dissolved oxygen. The aquatic animals get killed as the oil coats the body surface and prevents the gas exchange.
- vii. Radioactive waste in aquatic bodies leads to genetic damages mutation and mortality.
- viii. Polluted water affects the recreational value as well aesthetic beauty of any water body.



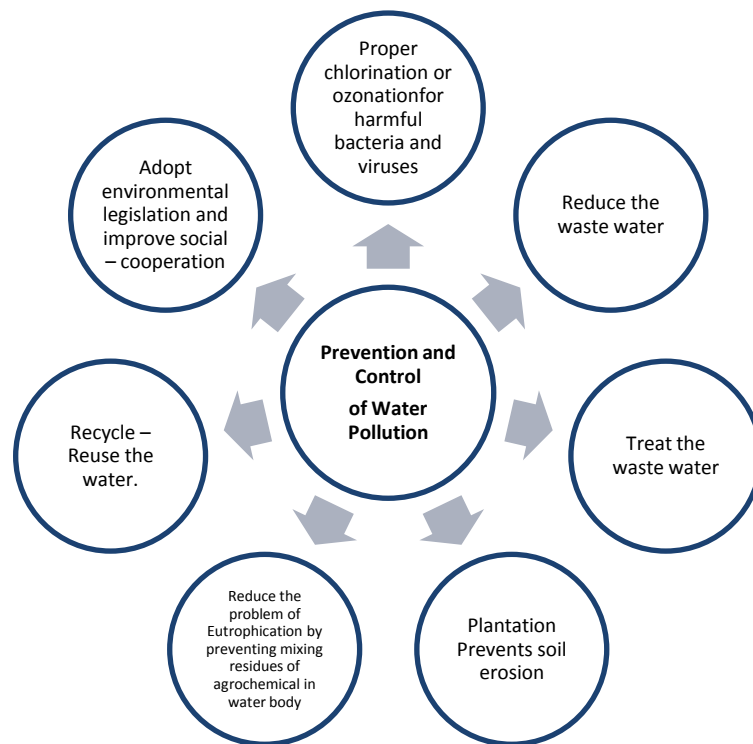
INTERPRETATION:

Saving of water is important and people must learn to conserve it. We are already short of fresh water is the basic to our living. If we can't save the water, then the next wars in the world will be fought over water. So saving of water is important and people must learn to conserve it.

CONCLUSIONS:

- i. The negative change in physical chemical and biological properties of natural water due to addition of pollutants causing adverse effects on aquatic life and other living being including man.

- ii. Effects of polluted water are – heavy metals affect, agrochemicals are responsible, oil pollution affect, radioactive waste, Affect recreational it spreads various diseases.
- iii. We can prevent and control water pollution by – Recycling water, Reducing over use of water, preventing mixing of agrochemical, by doing plantation, proper chlorination, ozonation for disinfection of harmful bacteria and viruses.

PREVENTION AND CONTROL OF WATER POLLUTION:**REFERENCES:**

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