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Effect of Water Pollution of an Organism Godavari River Nanded District Maharashtra State

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ABSTRACT

Water Pollution is the major problem in Maharashtra as well as other states in India. Due to the water pollution a large number of aquatic plants and animals are affected. They suffer from various diseases and also respiratory problems. The term water pollution control is used to indicate the control of pollution of water from any source. The man requires clean water for drinking purposes to promote healthy living. Near about 71% of earth's surface is covered by water. The total Volume of water on the earth is 1011 million cubic kilometers; only 2.5 to 3% is fresh water which is able for drinking purposes.

Water contains various types of different inorganic and organic substances that are harmful for living organisms including also human beings. Domestic sewage industrial wastes, oily wastes, radioactive wastes, and also agricultural wastes etc affects pure water and water become polluted. Role of human beings is to control water pollution by avoiding supply of unwanted wastes.

Key words: Godavari River, different pollutants, aquatic Organism (plants and animals)

I. INTRODUCTION

Water is one of the most important factors of living organisms and also basic components. Water is called a Universal solvent because all living organisms like plants, animals and also microorganisms need water for growth. development and without water we can not prepare.

Water occupies 71% of the earth and 29% land. Out of 71% of water 97 to 97.5% marine water and 2.5 to 3% fresh water. Fresh water is very useful. Its main source is damp, Ponds, lakes, streams, rivers and melting ice caps. In Maharashtra mostly drinking water for agriculture, industries supplied by mostly rivers.

Godavari is the second largest river in India after Ganga. Its source is in Trimbakeshwar in Maharashtra. It flows east from 1465 km. draining the state of Maharashtra (48.6%). Fair *et al.* [1]. Support element of water supply and waste disposal.

Most of river of Maharashtra specially Godavari river supplies large number of chemical wastes, agricultural wastes drainage water pesticides different elements in water supply and ashes of dead bodies due to this source water become totally polluted, such water is not useful for drinking and its effect on flora and fauna.

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In Nanded more than 75% people supplies domestic wastes Industrial wastes drainage water in Godavari river due to this process pure water quality change becomes impure and liable to drinks the fresh water pollutants are harmful to environment and public health. Due to supplying these components in water its results killing aquatic animals like fish, crabs, toads and also harmful hydrophytic plants like hydrilla, lotus. Maximum water borne disease like amoebiasis, cholera, dysentery produces due to water pollution. Richman [2] Studied water pollution and waste water.

II. HARMFUL EFFECT OF WATER POLLUTION

Goel [3] supports water pollution effect and control. various harmful effects of water pollution are described as below.

1. **Toxic Effects:-**

Harmful substances like heavy metals, Organic and inorganic compounds, cyanides and biocides are harmful to aquatic organisms (flora and fauna) specially animals that create respiratory problems.

2. **Physicochemical Effects:-**

Many water pollutants produce Undesirable taste, odour and colour in water and make it unpleasant and non-useful for drinking and domestic use. The changes in nature of temperature, oxygen content and pH of water affects the physiochemical nature of water. In addition, plant nutrients to the water bodies result in alga and other biological growth. The alga photosynthesis produces an increase in pH of water by consuming. The carbon dioxide dissolved in water produces carbonates.

3. **Biological effects:-**

Excess harmful pollutant affects aquatic flora and fauna Excess of nutrients in water promotes algal growth and formation of water blooms by Cyanobacteria. Most of the freshwater algae are highly sensitive to pollutants and their elimination modifies the prey predator relationship by breaking down the food chain and affecting its life cycle. Maduka, Hugh,[4] supports the relation between water pollution and human health and creates gastric problems.

4. **Pathogenic effects:-**

Specially swage contain several pathogenic bacteria, viruses and fungi. This pathogen causes various types of food poisoning, pathogen of water causes several water borne diseases and produces various diseases like typhoid, cholera, jaundice, dysentery etc.

III. ANALYSIS DATA AND SUGGESTION

Water of Godavari river contains large amounts of sewage by industrial wastes. agrochemical wastes, domestic wastes, drainage water etc.

Analysis of sewage:-

After sewage analysis, the nature of polluted water was cleared. These tests can be divided into physical and chemical tests.

I) Physical test:-

It clears the nature of water by colour and odour. If the colour of sewage is yellowish gray or light brown It indicate fresh sewage. If the colour changes to black or dark it indicates industrial wastes supplies in the river.

The normal fresh domestic sewages there are no odour but polluted water shows like the smell of hydrogen sulphide.

II) Chemical test:-

These tests were carried out to examine sewage by chlorine residual test and oxygen.

III) Chlorine residual test:-

After sewage treatment chlorinate to kill the bacteria present in it. If residual chlorines come out after 15 minutes of its application and it is cleared that the reduction of bacteria from sewage is sufficient.

Oxygen: oxygen in a sample of sewage is reported in oxygen demand.

IV. OXYGEN DEMAND

The demand of oxygen by organic matter in sewage is called B.O.D. (Biochemical Oxygen demand). The bacteria get energy by decomposing organic matter into simple form carbon dioxide and water in presence of oxygen due to this process dissolved oxygen (Do) depletion takes place. The concentration reduces from 7-8 mg/lit to 2-3 mg/lit. The Do depletes, the flora will be subjected to decompose. Dissolve oxygen is essential in aquatic animals Do goes depletion Biological oxygen demand (BOD) and chemical oxygen demand (COD) increases.

V. SUGGESTION

The main suggestion is the people who live nearby Nanded and Nearest Village Not supplied domestic wastes, drainage water, chemical wastes etc due to water will not pollute and save aquatic life like flora, fauna and maintain biodiversity.

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