



KAZI NAZRUL UNIVERSITY

RANIGANJ GIRLS' COLLEGE

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TOPIC = Raniganj water pollution

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## **Raniganj Girls' College**

**Course Name: Environment Studies**

**Course Code: AEE101**

**Topic of the project: Water pollution**

### **A Project Report**

**Submitted by Semester-I students (Academic Year 2021-22)**

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## CERTIFICATE

This is to certify that this project titled “Water pollution” submitted by the students for the award of degree of B.A. Honours/ Program is a bonafide record of work carried out under my guidance and supervision.

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Place: Raniganj

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Date: 18.03.2022

Assistant Professor, Department of Zoology

Signature of the supervisor with designation and department



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**REGISTRATION CERTIFICATE**

This is to certify that **DIPALI KUMARI BURNWAL**

Son/Daughter of **UMESH LAL BURNWAL**

of **RANIGANJ GIRLS' COLLEGE**

is registered as a student of this University,

His/Her registration number is 113211210064 of 2021-22



*Handwritten signature and date: 8/3/22*

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Registrar

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# Water

# Pollution

Beside atmosphere life supporting and life sustaining element is the hydrosphere. water is the most essential natural wealth. water is essential for agriculture, industries, for domestic purposes, for irrigation, for sewage transshipment, for removal of water and to maintain health. Due to rapid development of industries but unscientific disposal of industrial effluents.

water Pollution of Definition: Southwick (1976) has given a scientific definition of water pollution. According to this definition "The physical, chemical and biological changes of our nature water wealth

reach such as stage at which it becomes unfit for human consumption then the water is said to be polluted".

## Types of Water Pollution

Water pollution can be classified variously as-

i) According to medium

- (i) Surface water pollution
- (ii) Soil water pollution
- (iii) Subsoil water pollution

ii) According to the habitat

- (i) Lake water pollution
- (ii) River water pollution
- (iii) Marine water pollution

iii) According to the source

- (i) Nutrient pollution
- (ii) Bacterial pollution
- (iii) Viral pollution
- (iv) Chemical pollution
- (v) Radio active pollution



Source of water pollution  $\frac{\bullet}{\bullet}$  Water pollution come from various sources. Nitrates and phosphates riched rain and dirty water reach the water reservoir like lakes, big ponds, rivers etc, agricultural wastes and decomposed bodies of animals may reach the water.

Ecology of water pollution  $\frac{\bullet}{\bullet}$  Polluted water in which ways it becomes polluted, influence various factors of aquatic ecosystem. It also affect the health and as well as economic condition of human being. Thus water may be polluted in two ways as.

(1) sewage pollution  $\frac{\bullet}{\bullet}$  All fresh water and coastal sea water are seriously polluted by sewage. According to Simmons (1979) The sewage contain 99.9% water, 0.02-0.04% solids and other materials, 40-50% are carbohydrates and proteins and 5-10% fat.

(2) Industrial pollution  $\frac{\bullet}{\bullet}$  All lakes, rivers ponds canals etc of India are polluted by industrial effluents of

different industries like Petrochemical, fertilizers factories, Oil refineries, Paper mill, cloth mills, sugar factories, steel factories, leather industry, medicinal factories, Paint factories etc. Wilbur (1969). This industrial effluents are very toxic to aquatic communities and most of the die. Such epidemic of fishes took place recently in Shone river in UP receiving industrial water from industrial complexes of Mirzapur (UP).

(3) Pesticides and Herbicides of Agriculture • In modern agriculture use of fertilizers and pesticide are intimately related. These fertilizers and pesticides are chemically synthesized. These chemicals are transported to ponds, lakes, canals, rivers etc. through rain drainage and destroy the aquatic ecosystem. According to soil chemist H.H. Koeff (1978) we have received three crops from modern agriculture they are (i) diseases, (ii) pests and (iii) toxins as nitrates and nitrites. These nitrates used in the cropland get mixed with fresh water

through irrigation and rain and pollute the water in such a way that it becomes unrefresh for drinking. These nitrates get entry into human body through food and drinks and become converted into nitrites by the microfauna of gut.

4) Hot water :- Some time very hot water from the industries, discharged in the river and canals. This hot water destroy the ecosystem of the river, ponds, lakes etc and then the water is said to be polluted.

## Water Pollution of Raniganj city

Municipal consists of the faeces and nitrogenous wastes of animals. It is rich in organic matter and nitrogen compounds. Due to the discharge of untreated or partially treated sewage into the drinking water resources, such as rivers, lakes, etc, and as it is

allowed to accumulate, it will have serious effects in the ecosystem. Bacteria will proliferate enormously causing depletion of oxygen content of the water as they use up oxygen and increase the amount of toxic nitrogen compounds.

Treated and untreated discharges from fertilizer factories, distilleries, paper mills, etc, are capable of causing dangerous water pollution. There is a depletion in the oxygen content of water. These wastes alter the temperature of the water and change the colour of the water which sometimes becomes turbid and the surface water is covered with oil-film.

The discharge of heat from power stations, raises the temperature of the water of rivers, streams, lakes, estuaries etc.

# Acknowledgement

I would like to express my special thanks of gratitude to my teacher Moumita Pal, who gave me the golden opportunity to do this wonderful project of Moumita Pal. who also helped me in completing my project. I come to know about so many new things. I am really thankful to them.

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Date : 6/03/22

your faithfully

Dipati Kumari Barmwal

