

KAZI NAZRUL UNIVERSITY  
1ST YEAR

WATER POLLUTION



NAME : SANDIPA SHIT  
ROLL NO. : 70  
CATEGORY : Zoology honours  
SEMESTER : 1st sem .  
SESSION : 2021-22

## **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

*Moumita Pal*

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 SANDIPA SHIT*

*Son/Daughter of DILIP SHIT*

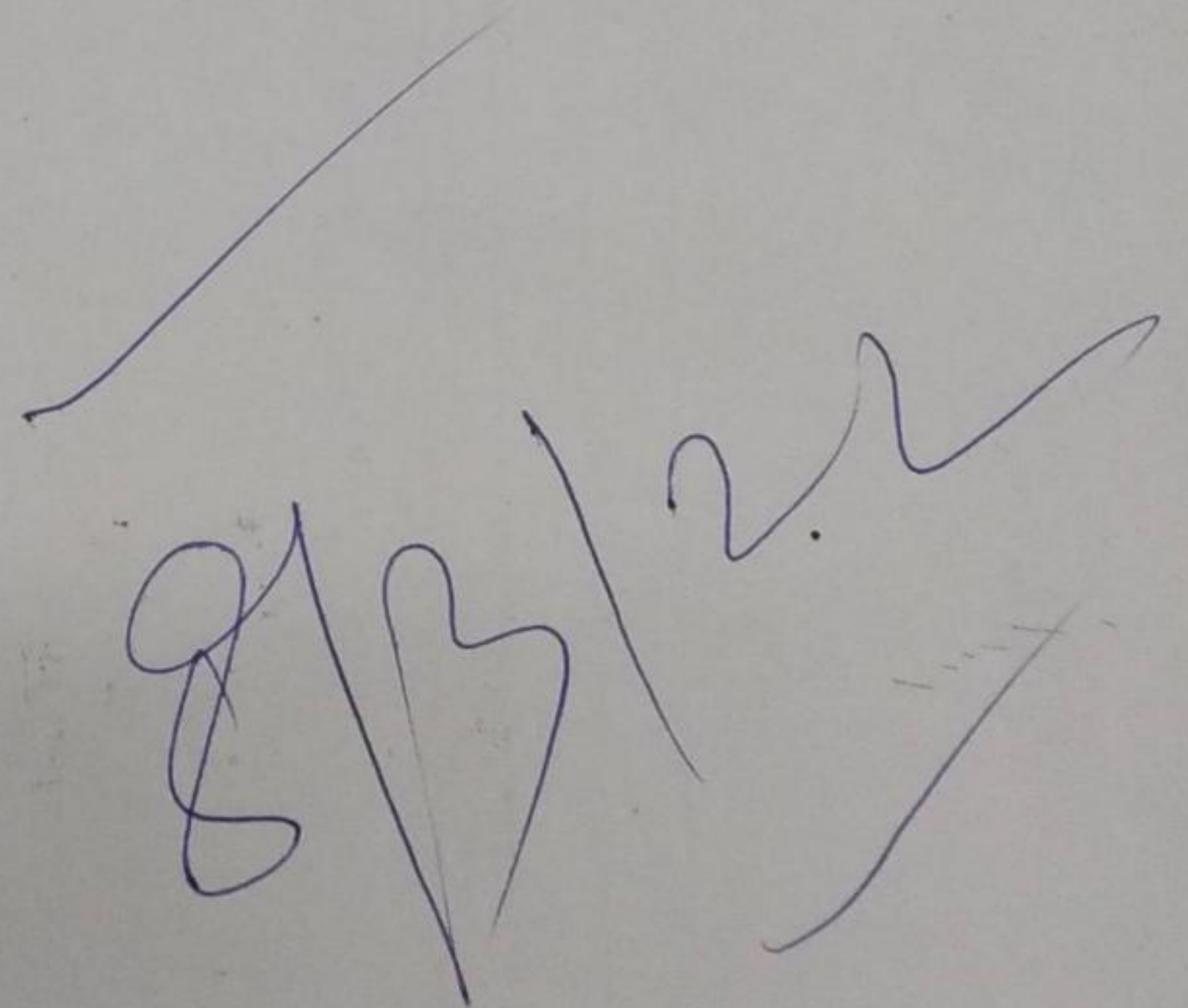
*of RANIGANJ GIRLS' COLLEGE*

*is registered as a student of this University,*

*His/Her registration number is 113211220031 of 2021-22*



  
Registrar



# INDEX

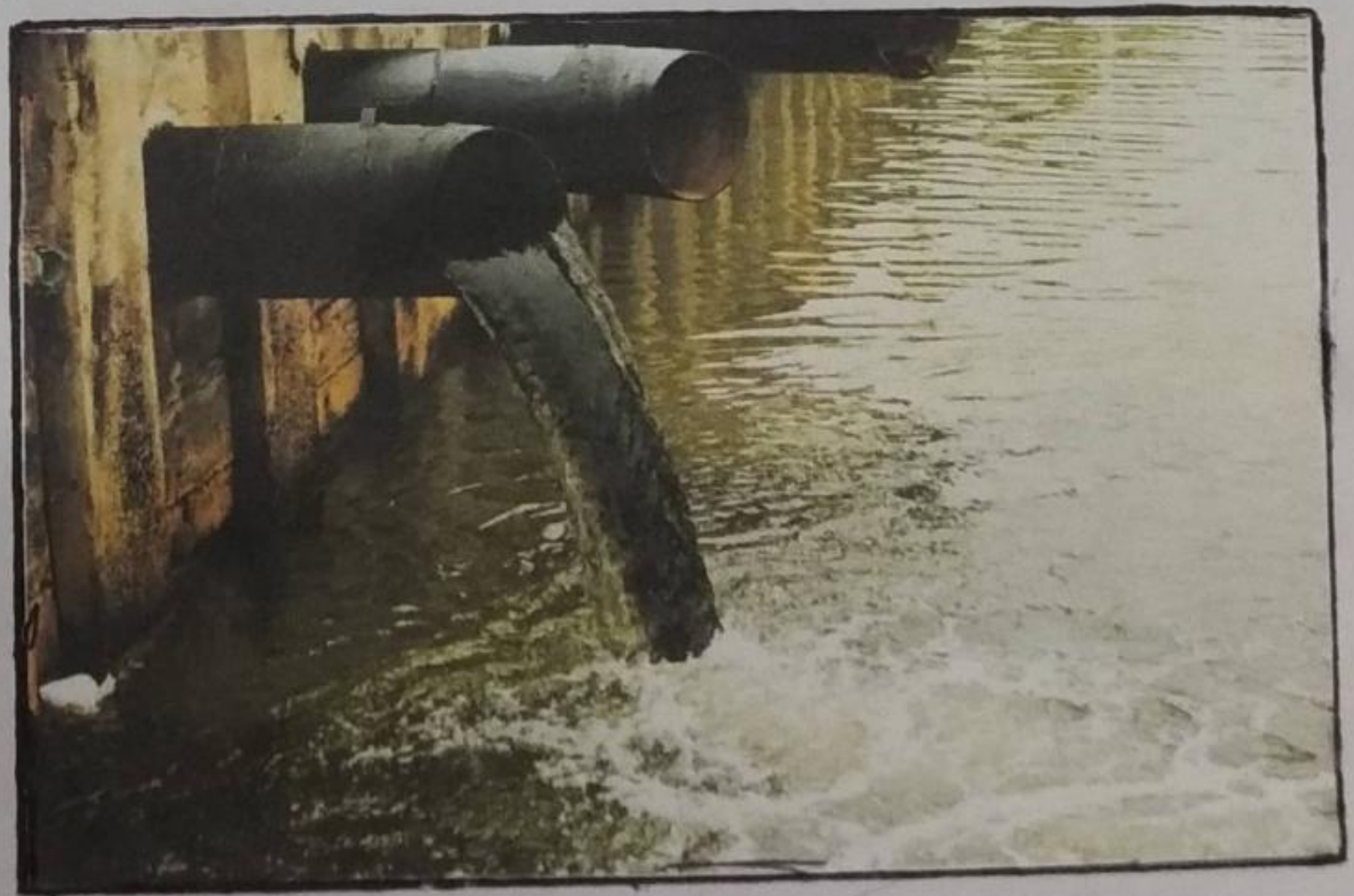
- Introduction.
- Definition of water Pollution.
- Causes of water Pollution.
- Effect of water Pollution.
- Prevention of water Pollution.
- Water pollution in Raniganj city.
- Acknowledgement.

# WATER POLLUTION

Introduction: Water pollution is a broad term that describes any kind of contamination of bodies of water such as rivers, lakes or wetlands with substances that can pose threats to human health or the natural environment.

The problem of water pollution is jeopardizing our health. unsafe water kills more people each year than war and all other forms of violence combined. Meanwhile, our drinkable water sources are finite. less than 1 percent of the earth's freshwater is actually accessible to us.

So, to better understand the problem and what we can do about it. Here's an overview of what is water pollution, what causes it and how we can protect ourselves.



## ■ What is Water pollution?

⇒ Water pollution is the contamination of water bodies (like oceans, seas, lakes, rivers, ponds, aquifers and groundwater) usually caused due to human activities. Water pollution is any change in the physical, chemical or biological properties of water that will have a detrimental consequence of any living organism.

Southwick (1976) has given a scientific definition of water pollution. This is — "The physical, chemical and biological changes of our natural water wealth reach such a stage at which it becomes unfit for human consumption then the water is said to be polluted".

There are two types of water pollutants:—

- i) Natural pollutants.
- ii) Man-made pollutant.

## Causes of water pollution:

There are many sources of water pollution. They are —

1. Industrial waste:— Industries produce a tremendous amount of waste, which contains toxic chemicals and pollutants, causes our environment and us. They contain harmful chemical, including lead, mercury, sulfur, nitrates, asbestos etc. Many industries, not having a proper waste management system, drain the waste in the freshwater, which goes into canals, rivers, ponds, lakes. and later into the sea.

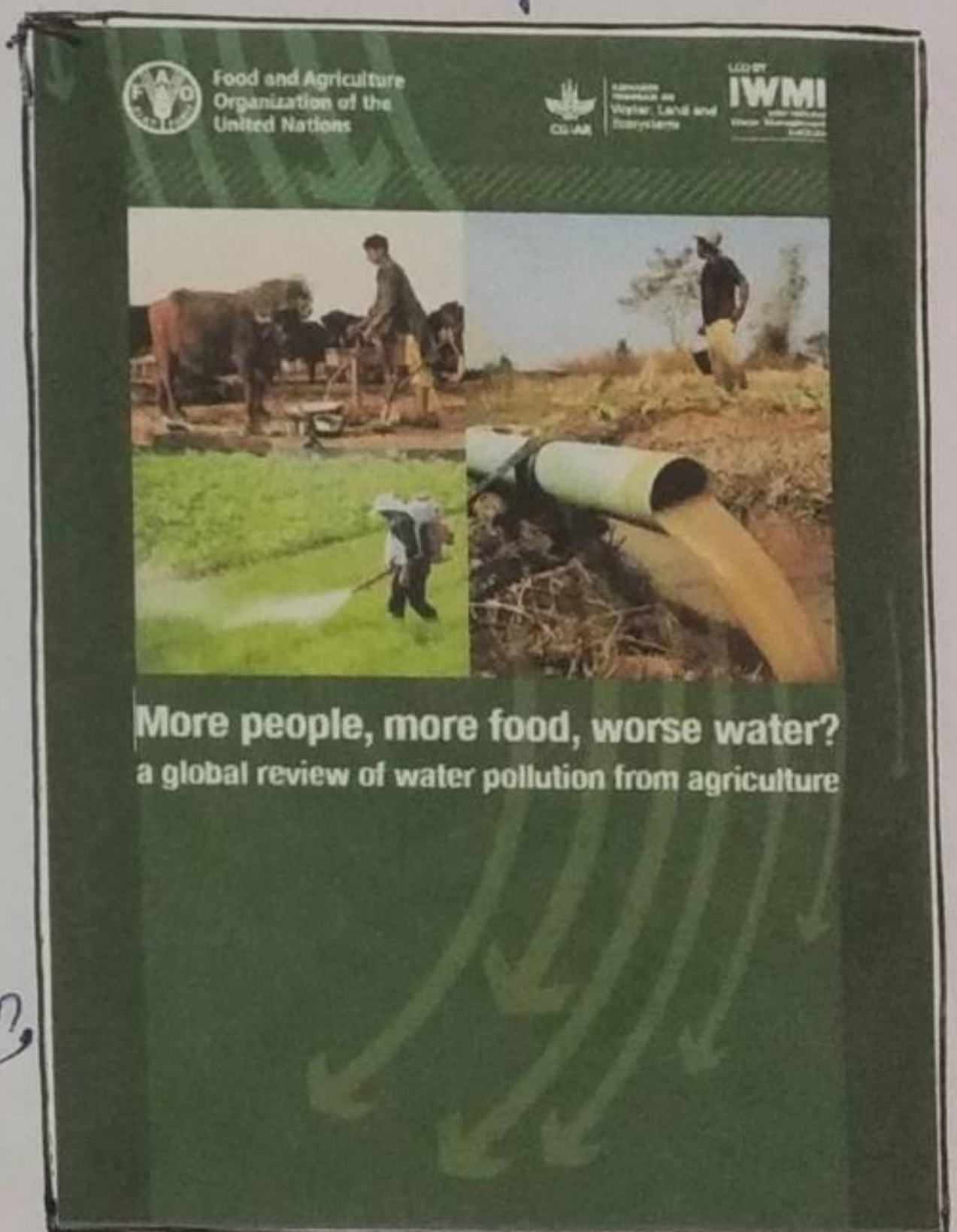
2. Sewage and wastewater:— The sewage and wastewater is produced in each household are treated chemically and released into the sea along with fresh water. The sewage water carries pathogens, a typical water pollutant, other harmful bacteria, and chemicals that can cause serious health problems and thereby diseases.





### 3. Chemical fertilizers and pesticides:-

Chemical fertilizers and pesticides are used by farmers to protect crops from insects and bacteria. They are useful for the plant's growth. However, when these chemicals are mixed up with water, they produce harmful pollutants for plants and animals. Also, when it rains, the chemicals mix up with rain water and flow down into rivers and ponds, which pose serious damages for aquatic animals.



### 4. Marine dumping:-

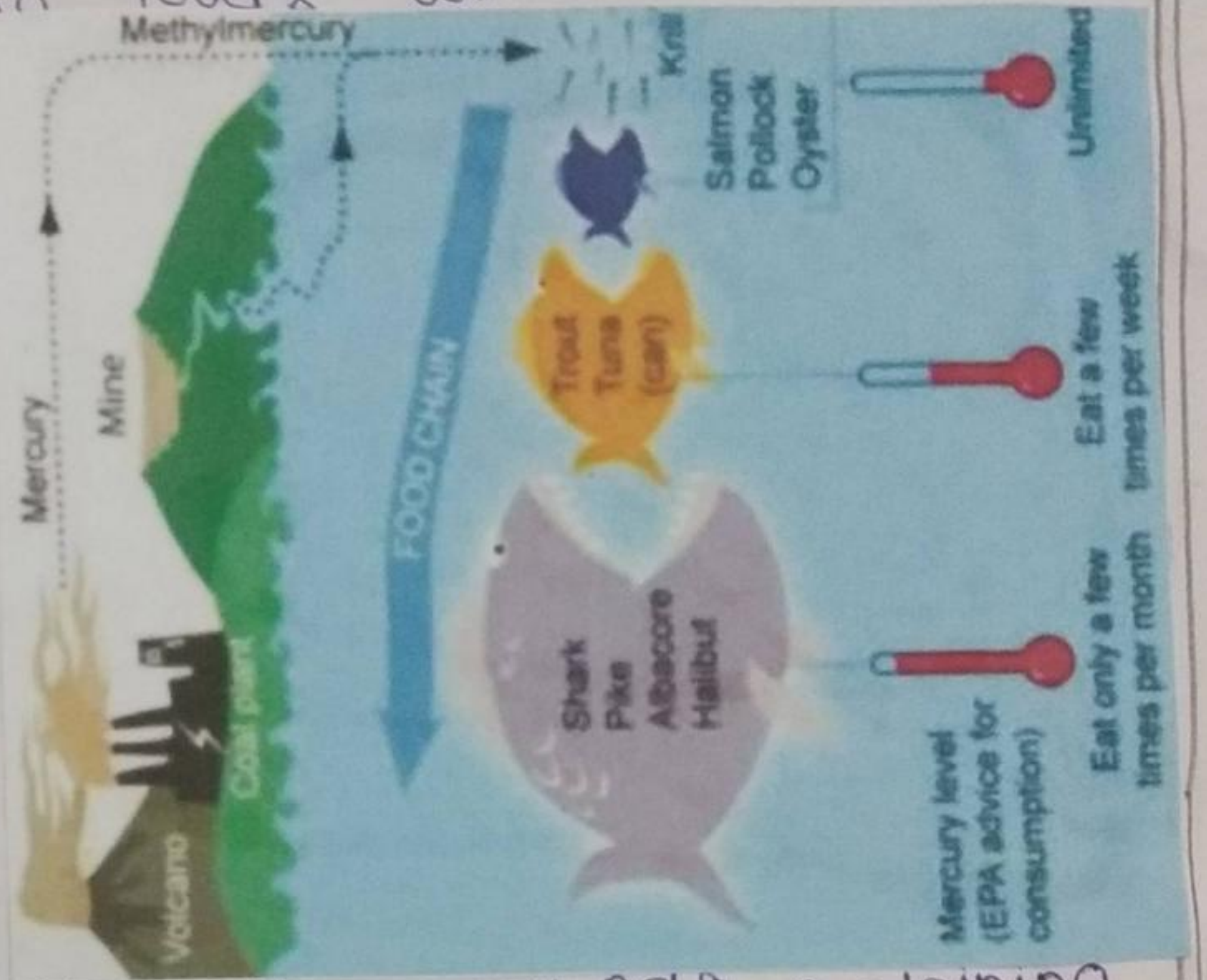
The garbage produced by households in the form of paper, plastic, food, aluminum, rubber, glass is collected and dumped into the sea in some countries. These items take 2 weeks to 200 years to decompose. When such things enter the sea, they not only cause water pollution but also harm animals in the sea.



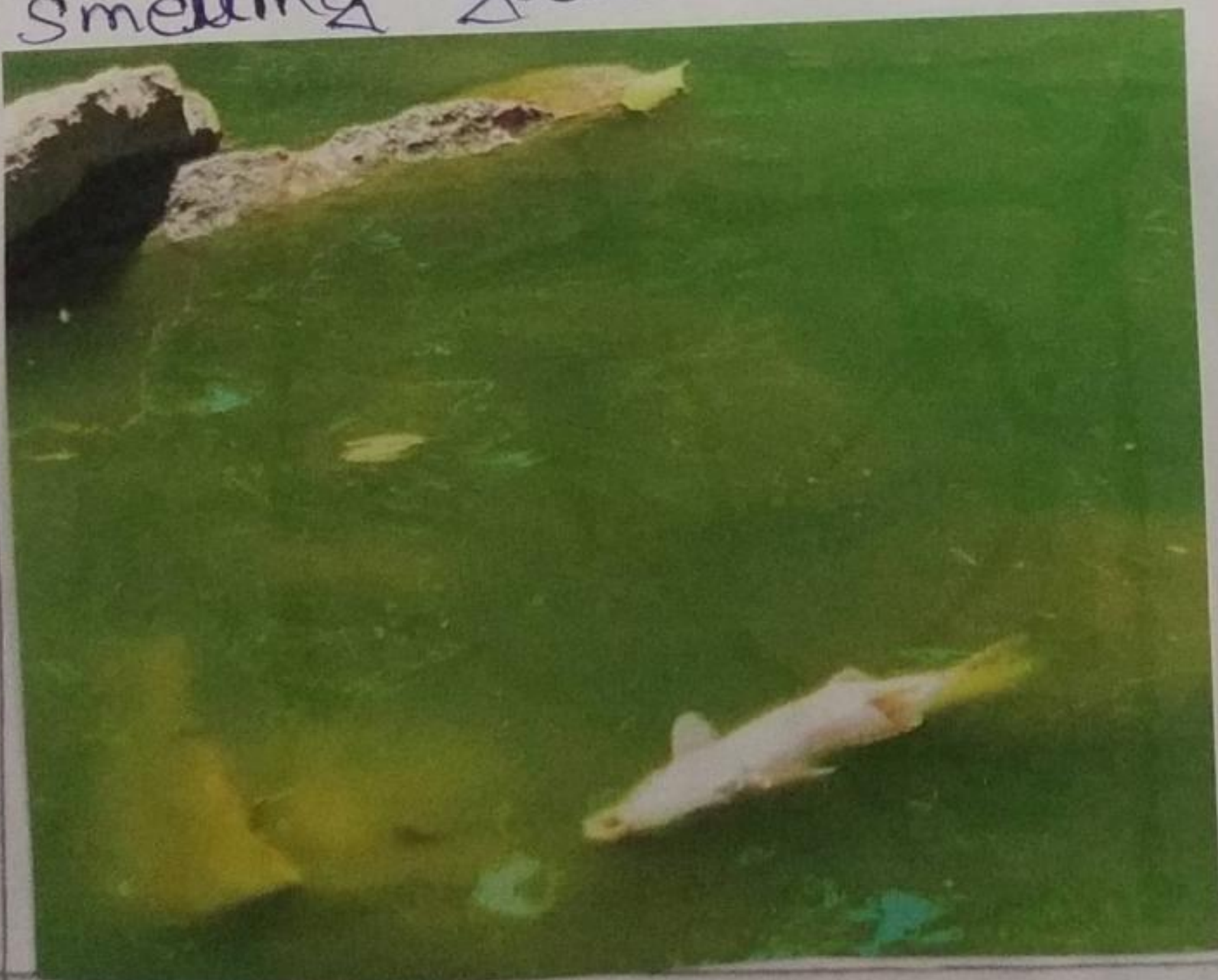
# Effect of Water Pollution:

Deteriorating water quality is damaging the environment, health conditions and the global economy. Some of them are —

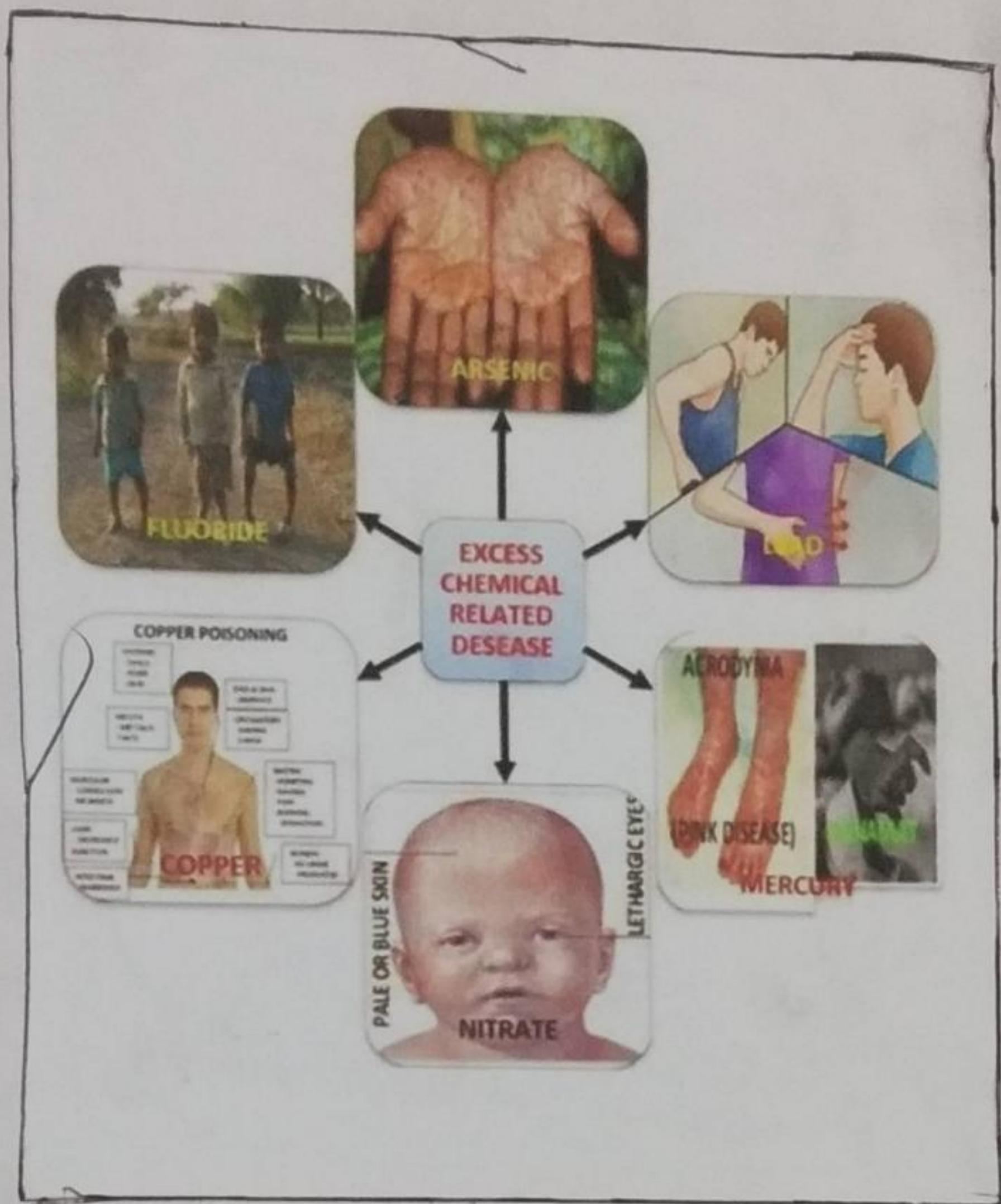
1. Contamination of the food chain:— Fishing in polluted waters and the use of waste water for livestock farming and agriculture can introduce toxins into foods which are harmful to our health when eaten.



2. Algal bloom:— Addition of compounds containing nitrogen and phosphorus helps in the growth of algae and other plants which when die and decay consume oxygen of water. Under anaerobic condition foul smelling gases are produced. Excess growth or decomposition of plant material will change the concentration of  $CO_2$  which will further change pH of water. Many physicochemical characteristics of water changes for it.



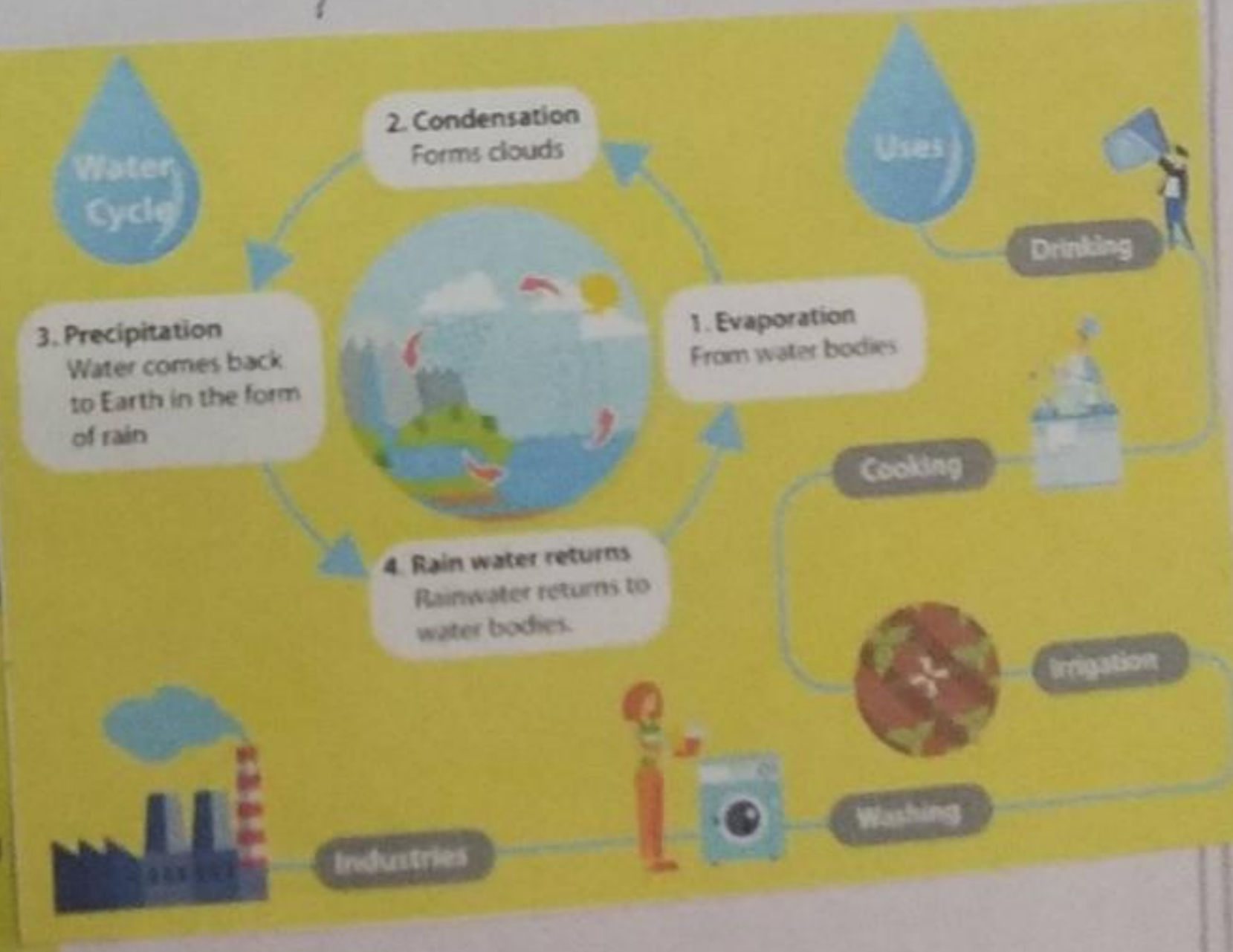
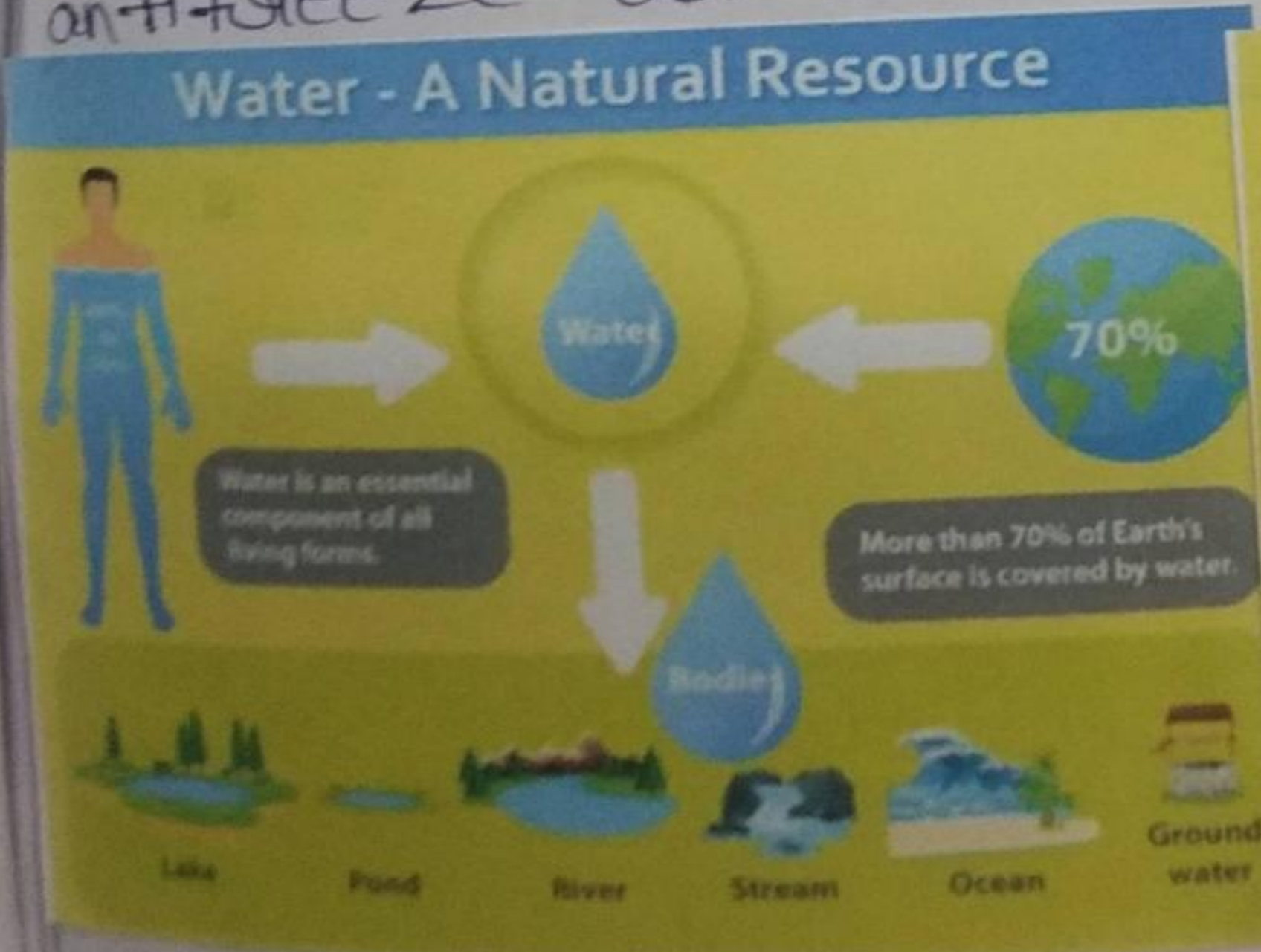
3. Disease :- In polluted water many harmful pollutants lives like lead, mercury, asbestos, sodium etc. They build many disease in human beings like cholera, lung cancer, liver cancer, and many nervous disorders.



# Prevention of Water Pollution:

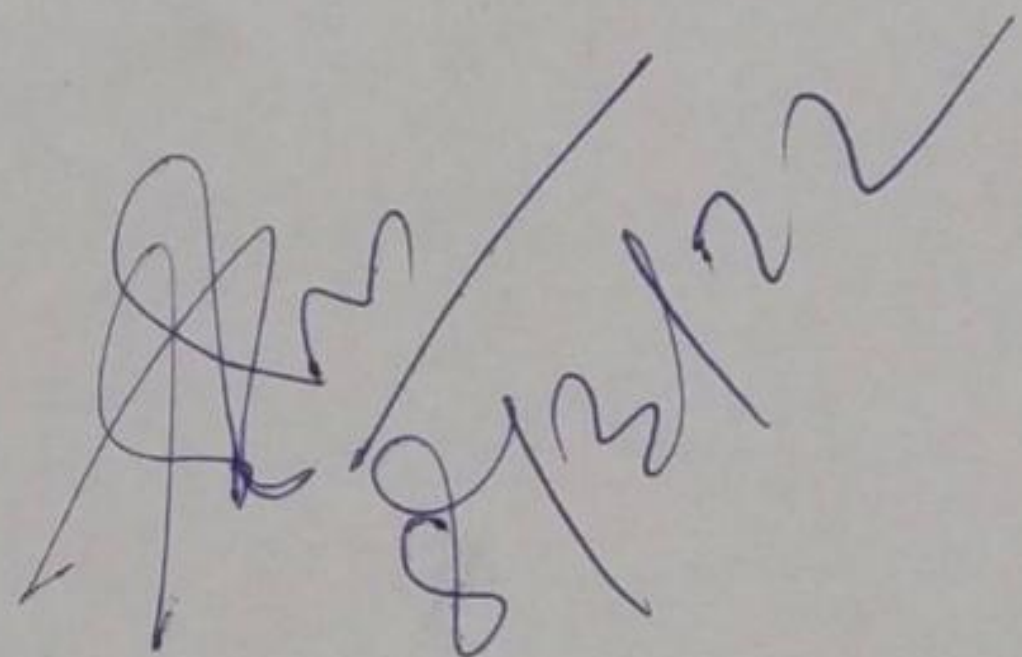
In these days water pollution is the biggest problem in world. So, we must prevent water pollution with measures like are following :-

- (i) Reduce CO<sub>2</sub> emissions to prevent global warming and acidification of the ocean.
- (ii) Reduce the use of chemical pesticides and nutrients on crops.
- (iii) Restrict the use of single-use plastics that end up floating in rivers, lakes and oceans, many as microplastics.
- (iv) If you have a yard, consider landscaping that reduces runoff and avoid applying pesticides and herbicides.
- (v) Properly dispose of chemical cleaners, oils, and non-biodegradable items to keep them from ending up down the drain.
- (vi) Maintain cars so it doesn't leak oil, anti-freeze or coolant.



# Acknowledgement

I am sincerely grateful to the teacher Moulmital pal for choosing this project. Without her personal cooperation and advice, such a project would not have been possible. We thank them for their direct and indirect help in the first phase of project.

A handwritten signature in blue ink, appearing to be 'Anjali', written in a cursive style.