QNo(2)

Answer

Eutrophication:

Eutrophication is a process in which excessive nutrients accumulate in water bodies. Nutrients include Nitrogen, sulphur and phosphorus.

- Due to these nutrients algae grow in water bodies. and that is known as algal blooms.
- The amount of algae depend upon the amount of nutrients.
- Due to it water become low in oxygen as a result fish die.

Causes of Eutrophication:

There are many causes of eutrophication.

1) **Agricultural Runoff**

Different fertilizers and pesticides are used by farmers to increase the production of crops. when these pesticides reaches water bodies then it become pollution. Nitrogen and phosphorus

of afertilizers accumulate in water bodies as a result the concentration of nutrients increases.

2) Sewage and household waste

Domestic sewage contain different types waste products, human waste, Kitchen waste and other waste materials.

- when these household waste mix with water bodies, it cause eutrophication.
- Household waste also includes soaps and detergents which are rich in phosphorus

3) Industrial Effluents

Industrial effluents are also major cause of eutrophication. Different Industries of cements, potentile release number of waste products which join with water and increase the concentration of nutrients.

4) Acid Rain

Acid Rain is produced when Nitrogen dioxide combines with water. This acid rain become a major cause

of eutrophication. It contains number of nutrients.

Effects of Eutrophication

•) **water pollution:**

The main effect of ~~water pollution~~ is eutrophication is water pollution. water is polluted due to excessive nutrients.

•) **Less Oxygen Concentration**

Nutrients causes the growth of algae. when algae die the concentration of oxygen decreases in water as a result aquatic animals face problems and die.

•) **Aqoatic Animals**

Different aquatic animals die due to less supply of oxygen which is known as hypoxia.

Measures

we can take multiple measures to solve this problem.

- **Less use of Fertilizer:**

  Fertilizers are the major cause of eutrophication. If the usage of fertilizers decreases then ultimately eutrophication decreases.

- **Treatment of Sewage waste**

  The sewage waste which mix with water bodies need to be treated first before discharge. This will decrease the concentration of nutrients (P and N) in water.

- **Treatment of Industrial Effluents**

  Same as sewage waste, Industrial effluents also need to be treated before their discharge. There are different steps of treatment. For example primary treatment, Biological treatment etc.

- **Awareness**

  Self-awareness is very important to control any problem. If everyone of us know about the effects of eutroplication then we will avoid to do such action which pollutes water.

Q No (3) (a)

Answer

Global warming :

It is the increase in average temperature of earth surface.

The overall temperature of earth is increasing vary rapidly due to number of causes.

For example

→ Increasing population

→ use of Fossil fuels

→ Deforestation

→ Urban expansion etc.

Global warming threat to humanity

Global warming is a major threat to humanity. It is not an issue of single state, it is a global issue which will effect all world.

There are number of threat to homans, Animals and our planet.

•) Temperature of Earth Increases :

The major impad of global warming

is it increases the temperature of Earth. It is increased by 1.2°C. If ~~it~~ it will continue then in next fifty years it will be difficult for everyone of us to survive.

- **Sea level rise:**

When temperature of earth increase it will also increase sea level. High temperature will cause the melting of of glaciers as a result sea level will increase.

- **Flooding**

The major problem which humanity is facing is flooding. Number of people across the globe faces the problem from last many years. If It will become more severe in the future.

- **Agricultural Loss**

When flooding will occur, it will take all the agricultural land along with it. Number of families depends upon agriculture for their needs and survival.

Water Scarcity:

Water Scarcity is a major threat due to climate change. If all the glaciers melt rapidly then in future no glacier will be there for water which will cause shortage of water.

Desertification:

Water scarcity will lead to desertification. Agriculture or fertile land will convert into desert. It will impact all the economy of a country.

Diseases:

Multiple diseases will spread due to extreme weather. e.g. Vector-borne diseases in flooding. These diseases will effect all population.

Ecological disturbance

Climate change will effect or distorts all ecological system. It will effect all plants, animals and humans living in this environment.

QNo(3)

(B)

Biodiversity:

Bio diversity means variety of life.

Bio means "living" and diversity means "variety".
It will include both plants and animals.

Causes:

1) **Habitat destruction**

Due to habitat destruction biodiversity losses. Number of plants and animals decrease from environment. Major causes of destruction are deforestation and urbanization.

2) **Overexploitation:**

Overexploitation of animals and plants reduces the species population and as a result biodiversity losses

3) Climate change