

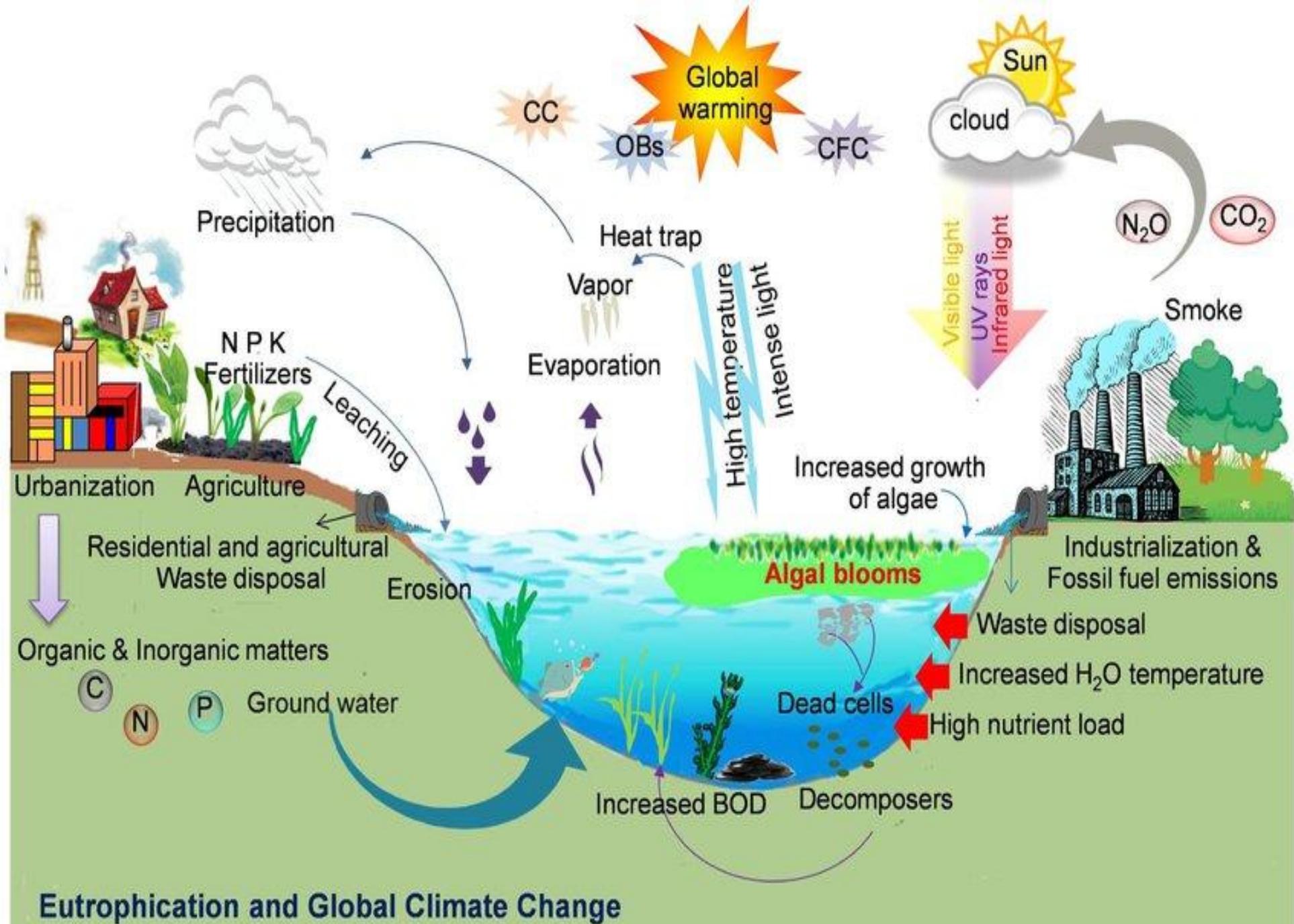
# ENVIRONMENTALOGY

**Environmentology-** It has been defined as the branch of biology that deals with the relations of living organisms to their surrounding environment & their way of living. It is related with human society in respect of economy & the particulars production

- Herbivores animals are domesticated for their by-products & aptness to training & management to uplift the agricultural status for their economy & living standards (riding, transport, draught, meat, milk, wool, skin etc.)

## **Physical reactions to environmental changes-**

- The heat content of an animal is determined by the heat produced during metabolism & the thermal flux between the animal and their surroundings
- The animal loses heat from the body has a negative value whereas the animal conserve heat or radiation from the surrounding/ environment has a positive value



**Conduction-** The amount of heat transfer between an object & substances when it comes in contact with each other. It results from the direct transfer of kinetic energy of the motion from molecule to molecule with the net flow of energy being from the warmer to cooler region

**Convection-** It is the mass transfer of heat due to mass movement of a gas or liquid. This transfer generally done between solid & liquid/fluid. Eg:- Animal tissue to its blood/water or lungs tissue to  $\text{CO}_2/\text{O}_2$

**Radiation-** The heat transfer through electromagnetic radiation /rays without direct contact between objects. Sun ray to black glass

**Evaporation-** To change the liquid state into gas of the same temperature; being energy fluid has its own latent heat of vaporization. Animals dissipate heat by allowing water to be evaporated from the body surfaces

