

5. Aquatic Ecosystem

- An aquatic ecosystem refers to an **ecosystem in a water body**.
- **Communities of organisms** which are dependent on each other and their environment live in an aquatic ecosystem.
- There are two types of aquatic ecosystems:
 - Marine ecosystem
 - Freshwater ecosystem

6. Mangrove Ecosystem

- A mangrove is a shrub or small tree that grows in coastal saline or brackish water.
- Mangroves occur worldwide in the tropics and subtropics, mainly between latitudes 25° N and 25° S.
- **Threats to Mangrove Ecosystem**
 - Climate change leading to ocean deoxygenation and Sea level rise.
 - Encroaching upon mangroves E.g. nearly 40% of mangroves in west coast of India is converted in to farmlands and housing colonies
 - Shipping Industry.
 - Discharge of domestic sewage and industrial effluents.
- **Steps to conserve Mangroves**
 - Coastal Regulation Zone guideline issued by GoI.
 - Integrated coastal Zone Management.
 - Constant Monitoring through Satellite images.
 - Innovative initiatives like SeaTrees initiatives in Indonesia

7. Ocean Deoxygenation

- Analyses conclude that the global ocean oxygen content has decreased by 1-2% since the middle of the 20th century.
- Global warming is expected to have contributed to this decrease, directly because the solubility of oxygen in warmer waters decreases, and indirectly through changes in the physical and biogeochemical dynamics
- **Causes of Ocean Deoxygenation**
 - Climate change