

What is meant by Blue tide? How does it affect the marine ecosystem of the country?
Examine.

Blue Tide refers to the blue sparkle in waves that reach shores due to blue bioluminescence of phytoplanktons such as dinoflagellates which is common along the west coast of India. It is an indicator in the health of marine ecosystem affected by climate change and environmental change.

Blue Tide — Indicators in the ecosystem:

1. Climate change affected marine ecosystem:
 1. Blue tide at a coast indicates the climate change in the environment
 2. Thus it affects the ecosystem through rise in temperature of ocean damaging small fish, big fish, corals etc,
 3. (e.g) Australia's - North East Barrier reef are affected by climate change indicated by Blue tide due to toxin in industry products.

2. Degraded Water Quality:

1. Blue Tide represented degraded water quality as the phytoplanktons - diatoms grow in low dissolved oxygen.
2. Blue Tide shows more diffusion of N_2 in affected marine ecosystem.
3. Mumbai coast annual Blue Tide damages the zooplanktons due to more sewage disposal.
3. Increase in heavy metals and nutrients:
 1. Blue Tide - diatoms occur at coast where there is more fertilizers runoff and sewage disposal.
 2. (e.g) Recently Chennai coast had Blue tide due to unauthorised sewage disposal and thus damages marine algae and bacteria.

Future Prospects:

1. Sewage should be treated by biological filters before disposal at sea.
2. Blue tide appearance should be regularly monitored through drones and its movement should be checked to view its damage on marine.
3. Community participation is a requisite condition to prevent Blue tide from affecting marine ecosystem.