Loss of Great Barrier Reef Coral

Prelims – *Current events of national and international importance | General issues on Environmental ecology, Bio-diversity and Climate Change.*

Why in News?

Recently, Australian authorities reports that the Great Barrier Reef has experienced its greatest annual loss of live coral across most of its expanse in four decades.

Great Barrier Reef

- It is located in the Coral Sea off the coast of Queensland, Australia.
- It is the ***world's largest and longest coral reef system***.
- This complex ecosystem built over millions of years from the calcium carbonate skeletons of coral polyps and hydrocorals.
- It is a ***UNESCO World Heritage site*** and a significant tourist attraction.

- **Divisions –** They extend 1,500 kilometres along the Queensland state coast, into three similarly-sized regions.
    - Northern, Central and Southern.

Recent findings

- Living coral cover shrunk by almost a third in the south in a year, a quarter in the north and by 14% in the central region.
- It shows that more than 30% were bleached across the *Torres Strait and the entire northern Great Barrier Reef*.
- Nearly 84% of the ***world's coral reef area*** has been affected because of heat stress, at least 83 countries are impacted.
- Coral bleaching has been intensified by back-to-back record global heat years.
- The report highlighted that coral reefs are especially at risk if global warming *exceeds 1.5°C (2.7°F)* above pre-industrial levels.
- Warm water (tropical) coral reefs are projected to reach a very high risk of impact at 1.2°C, evidence suggesting that coral-dominated ecosystems will be non-existent at this temperature or higher.
- At this point, coral abundance will be near zero at many locations.

Quick Facts

Corals

• Corals are animals from the ***phylum Cnidaria***, typically found along tropical coastlines.
• They comprise hundreds to thousands of living organisms called polyps, each only a few millimeters in diameter.
• Each polyp has its own body and a mouth with stinging tentacles to capture food such as plankton and small fish.
• The polyps grow together until they form a colony, and it is this colony that we recognize as a coral.
• **Types of coral -** hard corals and soft corals.
• **Coral bleaching** - Occurs when corals become stressed by changes in environmental conditions such as temperature, light, or nutrient levels and expel the symbiotic algae living in their tissues.
• This loss causes the corals to turn completely white. Bleached corals are not dead, but they are weaker and more vulnerable to disease.
Coral reefs cover only 1% of the ocean floor, but support an estimated 25% of all marine life in the ocean, earning them the moniker 'rainforest of the sea.'

Reference

The Hindu| Great barrier reef loss

