Plastic Pollution in the Atlantic Ocean

Why in news?

A new study has estimated the amount of microplastic pollution in the Atlantic Ocean.

What are microplastics?

- Microplastics are plastic debris smaller than 5mm in length.
- They come from a variety of sources.
- One of the sources is when larger pieces of plastic degrade into smaller pieces, which are difficult to detect.

How does plastic reach the oceans?

- There are multiple pathways, which includes,
    1. Riverine and atmospheric transport from coastal and inland areas,
    2. Illegal dumping activities and
    3. Direct-at-sea littering from shipping, fishing and aquaculture activities.
- According to the International Union for Conservation of Nature, at least 8 million tonnes of plastic end up in the oceans every year.
- This makes up about 80% of all marine debris from surface waters to deep-sea sediments.

Why is plastic pollution especially harmful?

- The durability of plastic makes it difficult to decompose depending on the type of plastic and where it has been dumped.
- In the oceans, plastic pollution impacts marine life, ocean health, coastal tourism and even human health.

How does it impact the marine life?

- Over the past few years, all sorts of marine animals such as whales, seabirds and turtles unknowingly ingest plastic and often suffocate.
- But bigger marine species tend to get more attention because of the amounts of debris they can hold up.

How does it impact humans?

- For humans, marine plastic pollution is harmful if it reaches the food chain.
- A 2019 study found that an average person eats at least 50,000 particles of microplastic each year.
- Consumption of plastic by humans is harmful since several chemicals that are used to produce plastics can be carcinogenic.
- Even so, exact risks of the microplastics on the environment and human health are not clearly known.

What does the study?

- **Study** - In the study, scientists studied pollution of the Atlantic Ocean caused by three types of plastics: polyethylene, polypropylene, and polystyrene.
- These plastics, most commonly used for packaging, were suspended in the top 200 metres of the ocean.
- **Smaller plastic particles** - They are a hazard as it is easier for them to sink to greater ocean depths.
- Some marine species such as zooplanktons show preferential ingestion of smaller particles.
- This makes them easier to enter the food chain and their conversion to fast-sinking faecal pellets.
- **Underestimated** - Scientists say that pollution caused by microplastics has been “severely” underestimated in previous assessments.
- They said that a considerable amount of small microplastics are lost from the surface and are stored in ocean interiors.
- **Amount** - The study have estimated that the Atlantic waters could hold 17-47 million tonnes of plastic waste.
- This estimation is based on the trends of plastic waste generation from 1950-2015.
- This is also based on the fact that the Atlantic Ocean has received 0.3-0.8% of the global plastic waste for 65 years.

Source: The Indian Express

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