14/11/18

(Q1) Plastics are posing a serious threat to Marine Biodiversity. What are the impacts of dumping plastics into the ocean? Discuss their consequences & suggest remedial measures to sustain Marine biodiversity.

Humans have been constantly altering the environment since the recorded history. Today, sustainable production being the norm, voracious consumption is largely unchecked. As a result, a serious threat in the form of dumping plastics into the ocean is impacting —

a) Marine biodiversity → Plastic debris is known to choke the internal organs causing unnatural deaths.
↳ Microplastics that constitute over 90% of debris causes bio-accumulation & bio-magnification in food chain.

b) Human life → Coastal livelihood suffers due to poor growth of marine species.

c) Blocking of sunlight → In presence of microplastics, photosynthetic capacity of plants/algae drops significantly.

Going by the existing rate of unchecked dumping of plastics into the ocean, it may lead to —

⇒ Dietary pattern shift: Marine communities will put additional stress on food grain production.

⇒ Missed opportunities on not effectively converting plastic wastes into construction material on land. Like Ghost-nets which are only recently used in road construction.

Fortunately, the dumping has led to positive consequences in the form of spur in technology & innovation as being witnessed in the cleanup process of Great Pacific Patch. It has also led to the rise of

environmental vigilantism wherein country like India has pledged to ban single-use plastics by next decade, following the global concern raised by European Union.

For the sake of sustaining marine life, policy measures can be taken to strengthen plastic-waste management in the consumer end. Recyclable, eco-friendly products must be made cheaper to limit the use of plastic. Installation of plastic waste collection system coupled with cashback incentive in public places must be expanded. Similar systems are already in place at major Indian Railway stations.