



World Sustainable Development Summit 2019

Chennai Regional Dialogue on 'Clean Oceans' | December, 7 2018

Venue: National Centre for Coastal Research (NCCR) campus, Rajendra Chola Hall, NIOT Campus, Velachery-Tambaram Main Road, Pallikaranai, Chennai - 600100, India

Background Note

Historically man induced land based activities are responsible for pollution of coastal water and seas. It is established that any pollutant discharged in water bodies especially rivers finally end up in seas and oceans thus causing their pollution. Nutrient run offs from agricultural activities, discharge of municipal sewage and industrial wastes in to the rivers and coastal waters was considered to be source land based pollution in early days but the debate now has shifted to accumulation marine debris including plastics due to its long life in receiving environment.

The problem with using plastics especially packaging plastics and single use plastics are generally used to pack materials for short term use (e.g. food products) and discarded almost immediately after use. According the Allen MacArthur Foundation (2016), globally only 14% of the plastics waste is collected after generation and the plastics that are sent for recycling are also mostly recycled to produce single use products which eventually end up at landfills after that. The study shows that 72% of plastic packaging is not collected all, 40% ends up at the landfills and 32% leaks out of the collection systems and eventually end up in the coastal waters and the marine ecosystem.

According to Jambeck et al. (2015), at least 8 million tons of plastics leak into the oceans every year. There is over 150 million tons of plastic waste in the oceans today, and without significant intervention, there could be more plastic than fish in the seas, by weight, by 2050 (Ocean Conservancy, 2015). From the rivers and coastal areas where people live, garbage is carried into the open sea where garbage patches, or gyres, are then formed. Worldwide, there are five major subtropical oceanic gyres: the North and South Pacific Subtropical Gyres, the North and South Atlantic Gyre and the Indian Ocean Subtropical Gyre.

The health hazards arising out of ocean based plastics waste pools are well studied and documented. The plastics on marine environment often break down into micro plastics and consumed by marine fauna mistaking them for food. The studies in Europe also suggest that micro plastics from seas have also been transported to salt made from sea waters and are causes of concern for humans consuming that.

Though plastic consumption per capita per year in India at 11 kg is much lower than global average consumptions at 28 kg, the cumulative consumption is higher than comparable economies like Brazil. So far as production is concerned, current plastics production in India is estimated at 13.4 million metric tonnes per annum and the industry is growing at the rate of 10% CAGR. Around 40% of this production is packaging plastics comprising both of rigid and flexible packaging and is expected to growth at the rate of 18% CAGR. Central Pollution Control Board estimates that 80% of this plastic packaging production is discarded as waste annually.

Though currently there is no inventory in the country of fate of plastic waste, it is estimated that India recycles around 60% of plastics. The concern is about the 40% which is probably neither collected nor recycled mainly due being low value plastics. These are mostly single use plastics such as cutlery items and plates and saucers and multilayered such as wafer packets. It would be thus necessary to arrive at inventory of the fate of plastics leaking out of the collection and recycling net and finally those reaching coastal waters either through direct disposal or through river waters and drains leading to coastal waters.

The deliberations therefore would focus on the best practices adopted to tackle marine litter especially plastics in European countries and how these approaches can be custom made to be adopted in India and the other South Asian countries to arrive at arresting leakage plastics wastes by adopting better collection strategies, avoid litter finally going to coastal waters and devise mechanism to retrieve marine litter thus achieving the global goal of clean oceans.