

Defending Our Oceans

"Greenpeace is committed to defending the health of the world's oceans and the plants, animals and people that depend upon them."

The Plastics Pollution of Manila Bay

"We are facing a gathering wave of ocean extinction... the seas have reached a tipping point, with scores of species of ocean-dwelling fish, birds and mammals edging toward extinction."

Pew Institute for Ocean Science 2005





The beauty of Manila Bay is recounted in songs, poems, and stories of old. Historic battles have been fought and won in this body of water and its waters once teemed with fish and other marine life.

However, the beauty, history and richness of the Bay are no more. Manila Bay is now considered one of the most polluted bays in the world. Aside from the sludge, human sewage, and industrial waste that regularly finds its way to this body of water, its legendary beauty is now marred by a 19th century human invention: plastics.

A visual survey of solid wastes in Manila Bay or in any aquatic ecosystem, fresh- and saltwater alike will show that plastics comprise most of the floating objects. Because they are so light, they stay on the water's surface most of the time and are carried by winds and waves far away from the source, causing damage along the way.

In Manila Bay, most of the plastics come from land-based sources. There is especially a higher density of plastic wastes along the deltas of rivers and esteros especially after heavy rains. Some plastic trash even ends up smothering mangrove trees along the coast.

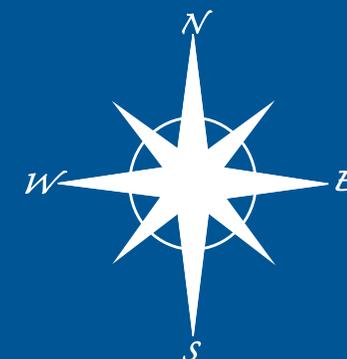
Plastics that are intended for disposal after only one use are defined as single-use plastics. They are generally derived from petroleum products and are predominantly used as packaging material. However, often, in the Philippines, reusing single use plastic packaging is common. Plastic beverage bottles or cups are used over and over again until they start to leak.

Plastic waste pollution contributes to the loss of economic resources, especially in fishing. It is often implicated in the shortfall of tourism opportunities, as the presence of plastic litter mars the natural beauty of the environment. It incurs economic costs in the form of damage to ships, infrastructure or water flow systems; and it means more resources being poured into clean-up efforts and waste management. It may also pose physical hazards to humans swimming or diving in plastic-littered waters.

Plastics have also been identified as culprits in the deaths of birds, turtles, fish, crustaceans, marine mammals and other terrestrial animals via ingestion or entanglement.

Plastic bits tend to converge in certain ocean gyres such as the North Pacific Central Gyre. Estimates indicate that in the worst affected areas there are six times more plastic in the oceans (by dry weight) than zooplankton. It is impossible to clean or filter out these tiny bits of plastics from the ocean floors or from the surface. Larger pieces of plastic tend to sink once fouling organisms attach to them but may be brought to the shore by strong ocean currents. Further, there have been no studies done to determine the impacts of ingestion of plastic bits by filter-feeding animals, which have no ability to distinguish between plankton and plastic debris.

The ecological footprint of plastics is gargantuan. There is a need to rethink our consumption patterns so that quality, long-term use, ecological soundness and environmental sustainability are given higher premiums over convenience (i.e. disposables), fashion and artificially low prices. Waste reduction and use of substitute non-toxic alternatives should be given utmost priority and systems to support such approaches should be instituted. Moreover, corporations and retailers who benefit from the rampant manufacture and use of single-use plastics should ultimately be made responsible for the damage these throw-away materials have on the environment.



Greenpeace is an independent, campaigning organisation, which uses non-violent, creative confrontation to expose global environmental problems, and to force solutions essential to a green and peaceful future

Greenpeace International

Otto Helderlingstraat 5, 1066 AZ Amsterdam
Netherlands T +31 20 514 8150 F +31 20 514 8156
www.greenpeace.org