



# **Plastic Pollution affecting Mahoma Island**

## **Issues:**

- Plastic pollution washes up on beaches and collects on the coral reef: it's unsightly and puts tourists off, as well as affecting photosynthesis of phytoplankton and algae and coral growth
- Plastic pollution harms marine species through entanglement
- Small pieces of plastic are ingested by seabirds and marine animals mistaking it for food, which ultimately kills them (at least 267 species are known to be affected!)
- Plastic gets into the food chain and ultimately poisons much larger species of fish and marine mammals and affects humans

## **Introduction/Background Information:**

- Most of the plastic washing up on the beach of Mahoma Island and getting caught in the reef comes from the mainland. The residents of Mahoma Island have petitioned their local government to deal with this issue from the mainland but with little effect.
- Because the mainland, and to some extent Mahoma island, is a NIC, rapid development has meant an increase in plastic waste entering the marine environment. Tourism has exacerbated the problem with an increase in litter left behind by tourists and the establishments that cater to them.
- The effect of the plastic pollution is that Mahoma island residents and tourists are starting to notice fewer species of seabirds and fish around the reef.
- The unsightly litter is starting to be commented on by tourists writing reviews on Tripadvisor and people are being put off coming.

## **Key Terms:**

- Marine debris - solid material, typically waste, that has found its way into the marine environment
- Persistent - waste material or chemicals that are resistant to degradation and remain in the environment for an extremely long time
- Degradation - the breakdown of waste material in the environment
- Microplastics - tiny plastic particles the size of grains of sand which are easily ingested by organisms
- Persistent organic pollutants (POPs) - organic compounds that are resistant to environmental degradation through chemical, biological, and photolytic processes, can be concentrated by microplastics in the bodies of marine organisms.

## **Past Actions:**

- After criticism from tourists, the local government has installed some recycling bins for plastic waste, however it is questionable how much of the plastic from these bins is actually recycled rather than ending up in landfill or even in the sea
- Local primary schools organize a regular 'beach clean' but no sooner have they collected all the plastic rubbish than it returns and it's getting worse.
- One retailer on the mainland has stopped using plastic bags and now uses paper ones and boxes instead.