

## **Pollution threatens Caribbean**

The Caribbean coast is being endangered by pollution, development and overuse, according to a new environmental report. The capacity of Caribbean countries to treat sewage has not kept up with the large numbers of tourists, according to the report by the World Resources Institute group. Cruise ships - a major component of the Caribbean's tourism market - were singled out as being major polluters because they release sewage offshore. Mangrove and coral reef areas have been contaminated by fertiliser from farms, and the reefs have been further degraded by human contact and destructive fishing practices. This could result in a drop in tourism revenues, because many tourists travel to the Caribbean's coastal areas to explore pristine marine environments, according to the report. The report noted similar problems worldwide but argued that, because the Caribbean relies largely on tourism, harm to coastal areas could have major economic effects. With the number of visitors projected to rise, the group predicts additional environmental pressures in the region.

## **Caribbean Sea under threat**

The Caribbean Sea has been listed as one of the areas most seriously damaged by human activity. A new study points to pollution from ships, over-fishing - and climate change as the three major causes of damage to marine ecosystems in the waters around the region. Scientists say nearly every corner of the world's oceans have been damaged in some way by human activity. The report recommends shifting shipping lines away from sensitive areas. While subsistence fishing has a limited impact on ocean ecologies, high-impact commercial fishing dumps millions of pounds of unwanted dead fish, birds and mammals back into the ocean. This has threatened many species of turtles, birds, whales, and dolphins with extinction. According to the findings, shipping traffic is the third largest cause of damage. The fuel gets spilled, there's noise pollution which is disturbing to whales and such... which has a major affect on the ecosystem. It's recommended that shifting shipping lines away from sensitive areas like coral reefs and continental shelves could significantly reduce the impact on ocean life.  
*BBC.co.uk*

## **Land Based Sources of Marine Pollution**

The major sources of coastal and marine pollution originating from the land vary from country to country. The nature and intensity of development activities, the size of the human population, the state and type of industry and agriculture are but a few of the factors contributing to each country's unique pollution problems. Pollution is discharged either directly into to the sea, or enters the coastal waters through rivers and by atmospheric deposition. Human activity in the area also accounts for a significant amount of pollution, The Pan American Health Organization estimated in 1993 that only about 10% of the sewage from the Central American and Caribbean Island countries is properly treated before being released into the Sea.

## **Marine pollution issues in the Caribbean**

Marine pollution and coastal degradation have become serious development issues in the Caribbean. Early evidence of marine pollution was mainly anecdotal, but within the last 10-15 years, work conducted by universities and research institutions in the Region has provided the beginnings of a database that identifies several common marine pollution problems. The United Nations Environment Programme (UNEP), the Intergovernmental Oceanographic Commission (IOC) and the Pan American World Health Organization (PAHO/WHO) have also been instrumental in co-ordinating several marine pollution studies. In the English-speaking Caribbean, the University of the West Indies, the Institute of Marine Affairs in Trinidad and Tobago, and the Caribbean Environmental Health Institute located in St Lucia, have taken a lead role in identifying marine pollution problems in their Sub-Region. For the Wider Caribbean a database for petroleum pollution and marine debris has been developed. Land-based sources of marine pollution have been identified as a major problem, with several 'hot spots' identified in mainland countries and in some of the larger industrialised islands. Organic and nutrient pollution, particularly from sewage, is most widespread and is possibly the most serious marine pollution problem in the Caribbean. A lack of capital investment funds to install the appropriate infrastructure to deal with sewage and other liquid effluents is a major stumbling block to solving the problem of marine pollution in the Caribbean. Other factors include political will and administrative and legal structures to regulate human development activities.

## **Plastic Pollution**

In past centuries on beaches everywhere, including those encircling the Hawaiian islands, beachcombing could be a profitable business, offering a potential treasure chest of material washed ashore from ships sailing the vast oceans. Today what is washed up on most beaches is far less appealing or rewarding and is only a small part of the massive amount of pollution that is dumped or flushed into the sea every year. The world's largest marine reserve sits next to one of the world's largest floating garbage dumps. Between Hawaii and the United States mainland is the North Pacific Gyre, the epicenter of a giant circulating system of winds and currents encompassing the whole North Pacific. Plastic pollution from Asia, the Pacific and North America is sucked into this area, where it mingles with sea life, choking and ensnaring marine wildlife, and disturbing every level of the food chain.

## **Birds are Dying**

When researchers on Midway Island (near Hawaii) looked to see why juvenile albatrosses were dying, autopsies found their stomachs filled with large chunks of plastic. Tracking the adults' journeys led researchers to a "plastic soup" in the Pacific gyre, created by a whirling vortex of currents that pull in detritus from the Pacific Rim. The adult albatrosses were feeding their chicks the colorful debris, mistaking lighters for squid. Estimated to cover an area the size of Texas or larger, the "Great Pacific Garbage Patch" is growing rapidly.