



Sewage in Our Seas: *Unmonitored and Unregulated*

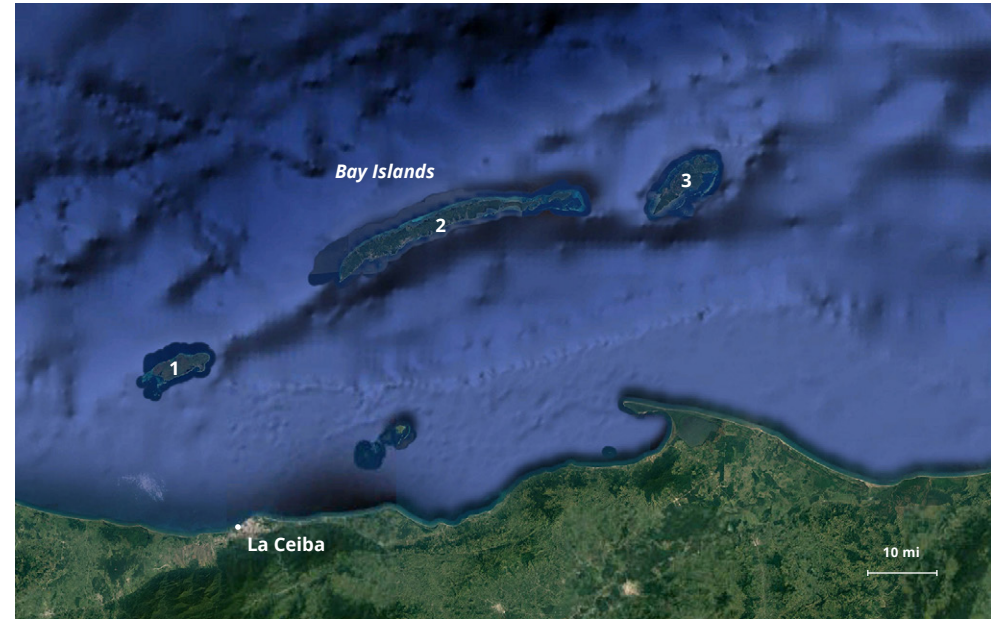
CASE STUDY

Honduras

Honduras' waters contain some of the most important reef ecosystems in the Western Hemisphere. Honduras' Bay Islands, which lie along the Mesoamerican Reef are undergoing rapid development as tourism grows, increasing sewage discharge into the reef. Although the government of Honduras does not monitor coastal water quality or manage coastal pollution rigorously, local NGOs have been collecting water quality samples since 2013. The Bay Islands and Honduras' coastal cities are the subject of a potential \$160 million USD integrated water management loan from the Inter-American Development Bank to finance water infrastructure.

COUNTRY OVERVIEW

The Mesoamerican Reef is the largest coral reef in the Western Hemisphere and stretches 1,000 kilometers from Mexico to Honduras. Honduras' waters are home to over 500 fish species, 60 types of hard corals, and five species of marine turtles. It attracts one of the world's largest congregations of whale sharks. Tourism and coastal development are rapidly expanding on Honduras' Bay Islands, which are located right alongside the reef. The waters surrounding the three Bay Islands of Honduras are all part of the Bay Islands National Marine Park, covering a marine area of 647,152 hectares. The island of Utila is a destination for backpackers and scuba diving tourism. The island of Guanaja is a higher-end tropical tourism destination. Finally, the island of Roatán is by far the largest island and a major tourism destination with a commercial airport and two cruise ship docks. While the islands themselves are home to a local population of less than 200,000 people, they serve over a million tourists each year.



(facing) Cruise ships at Mahogany Bay, Roatán. Source: iStock / dstephens; (this page) Whale shark feeding. Credit: Amanda Cotton / Coral Reef Image Bank; Satellite view of the Bay Islands, Honduras. Source: Google Earth. The Bay Islands: 1. Utila, 2. Roatán, 3. Guanaja

Most of the pollution impacting the Mesoamerican Reef originates in Honduras.

POLLUTION SOURCES

The major pollution threats in Honduras and other areas along the Mesoamerican Reef are sewage and solid waste pollution due to increasing coastal and tourism developments and sedimentation from extensive and unsustainable use of watersheds and inland deforestation. A 2006 study of watershed pollution by the World Resources Institute found that the majority of the sediments and nutrient pollution impacting the Mesoamerican Reef originates in Honduras—over 80 percent of the total sediment load and over 50 percent of the nutrient load (both nitrogen and phosphorous).¹

WATER QUALITY MONITORING

In general, governments tend not to focus on coastal water quality monitoring or management issues across the Mesoamerican Reef. The government of Honduras does not systematically monitor coastal water quality or publish information on current water conditions. However, since 2013, the Coral Reef Alliance (CORAL) and local NGO partners like the Bay Islands Conservation Association (BICA) have collected information on coastal water quality across over 50 monitoring sites in the Bay Islands.

COASTAL WATER QUALITY MANAGEMENT

Historically, the government of Honduras has effectively ignored coastal water quality, and there is little to no enforcement of coastal water pollution. That may be changing soon. In October 2018, Honduras became the 26th country to ratify the Cartagena Convention, which promotes regional cooperation for protection and sustainable development of the Caribbean Sea. The Convention requires its signatories to develop and implement plans to monitor coastal water quality and address sources of pollution. In theory, the protocol will provide the policy framework needed to strengthen and enforce water quality regulations for all of Honduras.

To date, water quality management in Honduras has been sporadic. For example, each of the Bay Islands has a wastewater treatment facility but they are rarely in operation due to a combination of engineering and financial problems. When new sewage pipes are installed, they often consist of a single main line but none of the connecting extensions to actually link homes and businesses to the system. The Summit Foundation, the Mesoamerican Reef

1. The study did not examine the flow of sewage into the Mesoamerican Reef.

Fund, the Healthy Reefs Initiative and CORAL have worked on Roatán to connect 282 of 360 homes and businesses located in the town of West End to the treatment network.

Similarly, there is little effort to regulate pollution generated by the tourism industry. Cruise ships are generally charged a fee per passenger when they dock at a port. In theory, those funds should be used to manage the waste generated by the cruise ships and their passengers, but in reality, the funds are often used for other purposes.

SUGGESTED RESOURCES

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Wilkinson, C. (2008). *Status of coral reefs of the world: 2008*. Global Coral Reef Monitoring Network and Reef and Rainforest Research Centre, Townsville, Australia.

Banco Chinchorro, Mesoamerican Reef. Source: Philip Hamilton / Coral Reef Image Bank

