



FIFTY FACTS ABOUT WIDER CARIBBEAN CORAL REEFS

DID YOU KNOW?

1. The Caribbean region has an estimated 26,000 km² of coral reef surface, possessing an estimated 7% of the world's shallow coral reefs.
2. In the Greater Antilles, coral reefs cover over 8,600 km².
3. The Eastern Caribbean has a coral reef area of 2,600 km².
4. The Wider Caribbean region has over 285 Marine Protected Areas (MPAs), containing 20% of the region's coral reefs.
5. Time series data show declines in live coral cover from 1993 to 2001 in almost 2/3 of the sites investigated.
6. Human activities threaten 2/3 of the Caribbean's coral reefs, placing 1/3 at high risk.
7. About 9,000 km² of coral reef is threatened by increasing sedimentation and pollution related to land use activities.
8. Coastal development including construction, urban run-off, tourist development and sewage discharge threatens 1/3 of the reefs of the Caribbean.
9. A sewage pollution problem exists in almost 1/4 of the coral reefs surveyed since 1998.
10. Treated sewage accounts for less than 20% of total sewage generated in the Caribbean.
11. Only 1/4 of hotel and resort wastewater treatment plants are in good operating condition.
12. In 1996, 3/4 of treatment plants operated by hotels and resorts did not comply with effluent discharge criteria.
13. In the Caribbean, daily water consumption per tourist is an estimated 300 liters/day, which is about 3 times the per capita demand for domestic consumers.
14. Coastal development resulting from population growth and intensive tourism, along with overfishing has threatens over 80% of Caribbean reefs.
15. Thirty six percent of coral reefs in the region lie within 2 km of inhabited land.
16. The population living within 10 km of the Caribbean coast grew from 36 to 41 million during 1990-2000.
17. Increases in coastal zone population density leave reef resources susceptible to exploitation to provide livelihoods and sustenance to coastal inhabitants.
18. Overfishing is the most pervasive direct human threat to reefs and threatens 60% of them.
19. Overfishing poses greatest threat to the Eastern Caribbean reefs followed by coastal development and sedimentation and pollution.
20. The ecological balance of reefs is altered by overfishing due to increased algal growth and decreased coral cover.
21. Caribbean coral reefs have evolved from a coral dominated to an algal dominated state over the past decades.
22. Marine based sources of pollution such as wastewater discharge from cruise ships and other vessels, and leaks and spills from oil infrastructure threaten 15% of the region's reefs.
23. In the last 20 years, cruise ship tourism has quadrupled worldwide, with 58% of the world's cruise ship passengers occupying the Caribbean cruise industry.

24. Generally, cruise ships and cargo ships contribute 77% and 20% of all ship type waste respectively.
25. Typical cruise ships generate daily averages of 2,228 gals and 278.5 gals of oily bilge water and garbage respectively.
26. A cruise liner's anchor can ruin up to 200 km² of ocean floor by direct physical damage.
27. In the next 5-10 yrs. further coral degradation will occur in many threatened areas.
28. The Earth's average temperature has risen by .6-.8 ° Celcius in the last 100 yrs., leaving corals more susceptible to bleaching.
29. Over 500 significant coral bleaching incidents have been reported in the Wider Caribbean Region since 1980.
30. It is predicted that by 2020, bleaching of reefs will be an annual event.
31. Atmospheric temperature in the Caribbean would have risen by 2-4 ° Celsius by 2070.
32. Sea surface temperature levels are currently close to the upper thresholds for coral survival, placing stress on long-term coral survival.
33. Currently, threats from predicted sea level rise of 3-10 cm/decade are unknown for damaged reefs and those under anthropogenic stress.
34. Coral diseases have caused widespread changes in the Caribbean's coral reefs over the past 30 yrs.
35. Coral diseases coupled with bleaching, pose a serious threat to the Caribbean's reefs.
36. Tourism and recreation contribute the largest shares of the total economic value of Caribbean coral reefs, which is estimated between US\$100,000-\$600,000.
37. Annually, tourism contributes an estimated US\$105 billion to the Caribbean economy.
38. In at least 8 Caribbean countries, tourism accounts for over 30% of the GDP.
39. International tourist revenues in the Caribbean totaled US\$25.5 billion in 2000.
40. In 2000, approximately 1.2 million divers visited the Caribbean, accounting for an estimated US\$4.1 billion in gross expenditures.
41. In 2000, net annual benefits of Caribbean dive tourism were an estimated US\$2.1 billion.
42. Close to half of all diving tourism in the Caribbean occurs in MPAs.
43. Coral reef ecosystems provide shoreline protection, as reefs dissipate wave and storm energy.
44. An estimated 21% of the Caribbean's coastlines are protected by coral reefs.
45. Annual benefits of shoreline protection by healthy reefs are an estimated US\$740 million to \$2.2 billion per year.
46. In the Eastern Caribbean, 70% of monitored beaches were eroded from 1985-1995.
47. By 2050, 10-20% of current protection services could be lost on over 15,000 km of shoreline.
48. The net value of lost benefits from reef shoreline protection could range from US\$140-\$420 million/yr. over the next 50 years.
49. Continued reef degradation could reduce net annual revenues derived from coral reef fisheries by US\$95million-\$140 million/yr. by 2015.
50. Net benefits derived from tourism, fisheries and shoreline protection could be reduced due to coral degradation by an estimated US\$350-\$870 million/yr.

Main References:

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