



CAN-020-Saving Coastlines with Coral-World's Oceans

How do we save coral reefs?

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Coral Reef Restoration Cheap, Effective Way of Saving Coastlines

By Staff Reporter

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(Photo :
REUTERS/Susannah
Saylor)

Saving coral reefs could be an [efficient](#) and cheaper way of saving world's coastlines, a new study has found.

[Coral reefs](#) are delicate ecosystems and provide shelter to [25 percent of all marine organisms](#).

The latest study found that these reefs can act

as the "tough guy" against waves and can dissipate around 97 percent of the wave energy.

Researchers used [data](#) from 27 previous studies conducted in different regions around the world, from coasts that see normal waves to hurricane level waves.

According to the researchers, coral reefs are as good as specially engineered structures that are placed near the coast to prevent wave-related damage.

"It's obvious to the eye that waves inside a protected lagoon are much mellower than those crashing on the outer reef crest, but the extent and generality of the energy dissipation revealed by the [data analysis](#) for different locations and reef settings was surprising," said study co-author Fiorenza Micheli, a professor of biological sciences at Stanford and Stanford's Hopkins Marine Station,. "It is a huge reduction. The majority of wave energy is lost on the reef crest."



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Research has shown that human activities are negatively affecting coral reefs. [James Cook University](#) scientists recently found that rising [ocean](#) temperatures are causing corals to keep the larvae close to the home-reef. This change in coral behavior has led to less interlocked structures.

Coral reef restoration could [benefit](#) coastlines around the world.

Around 100 to 200 million people live in areas that are less than 10 meters above sea level. Countries near the Pacific Ocean will reap the maximum [benefits](#) of saving the coral reefs, researchers found.

The team even estimated and compared the costs of saving the coasts. They report that building breakwaters will cost around \$19,791 per meter (median cost). Saving coral reefs could be much cheaper, with the median cost coming up to \$1,290 per meter for coral restoration projects. Also, coral reefs grow, meaning that they could become more valuable in the future.

"Reef restoration can also provide additional benefits," Michele said in a [news release](#). "While reducing risk, coral reefs also support biodiversity, improve water quality, and support fisheries and tourism."

The study is published in the journal [Nature Communication](#).

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*The only thing necessary for the triumph of evil is that good men do nothing"....**Edmund Burke***