

THE MALDIVES AND THEIR FIGHT

by Colette Weil Parrinello

Rising sea levels are putting the Maldives at risk. The flattest country on Earth, nearly 80 percent of its tiny coral islands are only 3.3 feet above sea level. The people of the Maldives are fighting for worldwide support and investment to keep the rise in sea level and warming of the oceans due to climate change from devastating their islands and way of life.

THE IMPACT OF SEA LEVEL RISE AND CLIMATE CHANGE

Located in the Indian Ocean, the Maldives are among the most beautiful islands in the world, with sandy white beaches, crystal clear water, and spectacular coral reefs. The country relies on tourism, fishing, and shipping. But the rising sea level and the carbon pollution causing warming oceans are threatening their existence. Harsher storms, more widespread and more frequent flooding, sea water intrusion into fresh water, beach erosion, sewage leaking into the ground water, coral bleaching and death of coral reefs, and the decline of fisheries are changing the ways Maldivians see their world.

Even a small rise in sea level can bring devastating floods. Rainwater provides water for 87 percent of the population, but in dry months, ground water is used. The floods pour salt water into the fresh water supply and invade the sewage and water system. Only 31 of the islands have a sewage system, and just six have a waste system.

THE MALDIVES FIGHTS BACK

The Maldives have asked for international help. They are a tiny country. The big polluters of the world are responsible for climate change and the rising sea level—China, United States, the European Union (E.U.), India, and the Russian Federation among others. The World Bank, the United States, the E.U., and many other groups have offered money for safeguards against climate change.

To protect the islands, the Maldives have built sea walls and increased the elevation of critical infrastructure and services such as the two international airports, which lie just 165 feet from the coastline. More than two-thirds of all critical

The Maldives are made up of 26 atolls and more than 1,000 islands.



AGAINST RISING SEAS



A playground sits on the Hulhumale, an artificial island built off the coast of the Maldives.

buildings and roads lie just 365 feet from the shore.

They're also fortifying and building up islands such as the Hulhumale. Within 77 days, deep-sea dredgers poured millions of tons of sand from surrounding atolls onto lagoons to raise the island seven feet above sea level. The new island is encircled with nine-foot seawalls. More than 40,000 people live there. The plan is to house 240,000, providing new opportunities for jobs, retail, and businesses. The goal is a master planned community with sustainable housing and buildings sensitive to the environment and needs of the people.

"It takes four weeks to build an island and a couple more to put boulders around to stabilize it. All you do is bring the dredgers, suck up the sand and pump it on low-lying land in shallow waters," said Shiham Adam, director of Maldives Marine Research Centre. Eight islands have been built, and many more are planned.

The government will relocate people living on smaller, lower-lying islands to the new built-up, flood-resistant islands. It's estimated that one in three of the 185 inhabited islands will have to be abandoned. The new islands offer free houses, new schools, health clinics, fresh water, and waste treatment.

The country thrives on tourism and hopes to build 50 more tourist resort islands. New laws make it easier for foreigners to develop land if their project site is made up of land reclaimed from the sea.

"Climate change is happening, but we are not leaving the Maldives to the waves," said Environment Minister Thoriq Ibrahim. The Maldives will protect their islands, people, and tourism with new islands, outside investment for resorts, and ongoing island development to protect against rising sea level.



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WORD HELP

- The spectacular colors in corals come from marine algae living inside their tissues called **zooxanthellae**. The algae provide the coral's food supply from **photosynthesis**, giving corals energy to grow and reproduce. When corals get stressed from heat or pollution, they expel these algae, leaving a ghostly, transparent skeleton, known as coral bleaching. Some corals can feed themselves, but without the zooxanthellae most corals starve.
- A **sea wall** is a defense barrier to protect further erosion of the coast from powerful ocean waves and rising sea levels. The wall may be made of steel, concrete barriers, earth mound structures, brick or block walls, or gabions (wire baskets filled with rocks.)