



SEA TURTLES THREATENED BY RISING SEAS

05/04/2005 Climate change is warming the earth. Ice is melting and sea levels have started to rise. This causes damage, with serious consequences for nature and for coastal communities.

Scientists have now looked at the impacts of sea level rise on sea turtles. These ancient animals lay their eggs into the beach sand. Many turtle species return to the exact beaches that they were hatched to lay the eggs for the next generation of turtles.

However, sea level rise threatens beach habitat and turtle reproduction will be hard hit. To investigate the threat of climate change, a recent study examined the nesting sites of sea turtles in the Caribbean Islands under three likely sea-level rise scenarios.

The authors of this report found that with a moderate 0.5 m rise in sea level, a third of the total current beach area could be lost. Among the 13 beaches that were surveyed one particularly vulnerable beach could lose almost its entire suitable sea turtle habitat. This magnitude of beach habitat loss could literally be the point of no return for populations of already critically endangered sea turtles, such as the hawksbill turtle.

WWF is working across the globe to help protect hawksbill, leatherback, and other species of sea turtles and the habitats that they need to survive. They are threatened by hunting, pollution, beach development (such as coastal resorts), and by unsustainable fishing practices (for example, unintentionally catching turtles when harvesting fish). Now climate change adds an additional threat.



“As we continue to pollute our atmosphere with emissions from power plants, sea level rise increases and will drastically reduce sea turtle nesting sites,” says Michael Case, WWF Climate Change Research Scientist. “Climate change could well be the long-term threat that determines whether some species of sea turtles survive or go extinct.”

Will the people also be affected?

Nearly half of the world’s human populations live within 200 km of coasts. Many countries rely on the environmental and economic values of coasts such as fishing, tourism, and transport. Many of the largest cities are coastal cities, for example London, New York, Shanghai and Singapore.

According to the Intergovernmental Panel on Climate Change (IPCC), the current rate of sea level rise is 1-2 mm per year. By 2100 we could see the water rising between 90 and 880 mm. This rise in sea levels will have a number of impacts including coastal flooding, the destruction of coastal wetlands, increased erosion of beaches and other coastal land.

We can only guess how prohibitively expensive sea level rise will be.

Source: Fish et al. 2005. Predicting the Impact of Sea-Level Rise on Caribbean Sea Turtle Nesting Habitat. *Conservation Biology* 19(2):482-491.



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