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Reef Check

## EMPOWERING LOCAL COMMUNITIES TO IMPROVE REEF HEALTH

In 1993, an international meeting was held in Miami to determine the state of the world's coral reefs. 150 top scientists were unable to answer the question because data was available for only a few reefs. It would cost millions of dollars to hire marine biologists to survey the world's reefs. Countries don't spend much on tracking suspected reef problems, yet they provide millions of dollars of value in recreation, fisheries, boating, scuba diving in many locations across the globe from Florida to Tahiti. More data was needed.

To solve the issue of reliable, comparable scientific data on their status, Dr Gregor Hodgson designed a simple yet extremely innovative and scientifically rigorous method called Reef Check to survey coral reefs using citizen scientists from local communities, trained and led by professional marine biologists. The innovation uses 30 easy-to-identify indicator species such as lobster and butterflyfish to represent the broader ecosystem. By training community divers, only 20 volunteer scientists were needed to complete the first global survey of coral reefs in 1997. The survey of 350 reefs in 31 countries was done without any funding. The results of the first global survey of coral reefs were shocking – a global crisis due primarily to overfishing of herbivores. By catching most algae-eating fish, algae could out-compete corals and smother many of the reefs surveyed – even in very remote areas. How to fix this problem? It would cost even more to fund better management of coral reefs.

Hodgson then began to experiment with training fishermen - using part of the problem, to become part of the solution - by having them take part in Reef Check training and surveys of their own reefs. The first test was at Gilutungan Island Philippines, where after seeing the problem underwater for themselves the fishermen worked together with Reef Check to establish a marine park and a tourism business offering snorkeling and kayaking. Today, Gilutungan Island is an economic and ecological success story, with many fish, a healthy reef and economy due to Reef Check's monitoring programme that engaged the fishermen in solving their own coral reef problems. These methods have now been replicated in the Philippines, Indonesia and in other countries including the Dominican Republic and Haiti, the worst affected coral reefs in the world.

Reef Check teams now operate in 90 tropical countries and in 2006, the programme was expanded to California's cold-water rocky-reef ecosystem. Their volunteer teams monitor rocky reefs along the entire 1,000-mile coast of the state and provide the data and analyses to natural resource managers. This saves California millions of dollars and allows professional marine biologists to focus on critical problems discovered by volunteer teams of citizen-scientists such as an abalone die-off or fish kill. All the data is available online and is freely accessible to scientists, fishermen, marine managers, and the general public. Funds from The St Andrews Prize for the Environment will be used to fill in gaps in the coral reef monitoring network, to train new teams and to support conservation initiatives including the newly declared marine parks in Haiti.

[www.reefcheck.org](http://www.reefcheck.org)