



RESCQ: Restoration of Ecosystem Services and Coral Reef Quality

Targeted territories: Sint Maarten, Saint Eustatius, Saba, Turks and Caicos

Total project budget: 393,468 Euros

BEST 2.0 grant awarded: 333,468 Euros

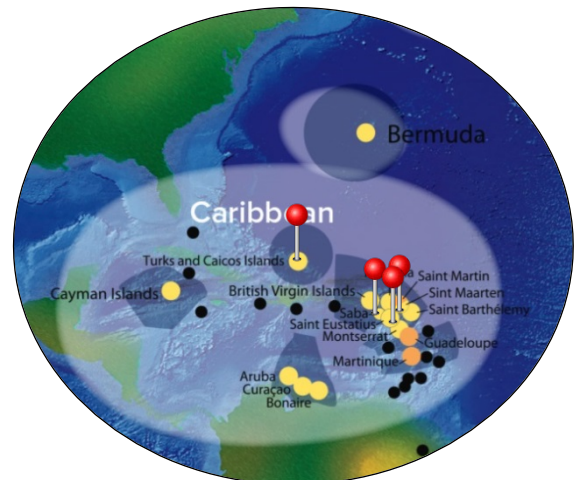
Duration: May 2016 – April 2019 (36 months)

Lead organisation:

Wageningen Marine Research



Partner organisations: Nature Foundation St. Maarten; Saba Conservation Foundation; St. Eustatius National Parks; Turks & Caicos Reef Fund



Background:

Coral reefs form some of the planet's most biologically diverse ecosystems, providing numerous ecosystem goods and services. Until the 1980's Acropora coral species dominated the near shore zone of many Caribbean islands with cover estimates of up to 85%, however, Elkhorn (*Acropora palmata*) and Staghorn (*Acropora cervicornis*) coral reef zones have almost disappeared from most islands in the region largely as a result of White Band Disease. They are currently listed as 'Critically Endangered' on the IUCN Red List.

The loss of these corals has had large negative effects on biodiversity, biomass of fishes, and coastal protection as well as a significant decline in the attractiveness of the shallow reefscape.

Some colonies have survived the outbreak of White Band Disease and have been reported to be resistant to the disease which still persists with much-reduced virulence. The remnant colonies have as yet not been able to recolonize the reef to anywhere near their former occurrence.

Description of the Project:

The project will restore Elkhorn (*Acropora palmata*) and Staghorn (*A. cervicornis*) coral reef zones by establishing a coral nursery on each of the four islands to grow coral fragment and transplantation at selected restoration sites. Genotyping and monitoring of the resilience of coral fragments will be used to maintain genetic diversity within the restored colonies and ensure that the most resilient fragments are transplanted to the restoration sites. Establishing multiple small, genetically diverse populations that will, in time, become sexually reproductive can contribute to species recovery, especially in areas of significant parent population declines.

A practical manual for coral reef restoration will be developed to enable the approach to be replicated throughout the region.

The project will work to ensure that the nursery facilitates established on each of the islands are self-sufficient and thus able to continue the work started by the project.

Intended results:

- Coral nurseries are established on each of the four islands and are self-sufficient by the end of the project.
 - One restoration site is established on each island with at least 100 restored colonies per site by the end of the project
 - On each island a coral restoration facility will be fully operational by the end of the project.
 - A practical manual for coral restoration is produced



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