NRPB
NATIONAL RECOVERY
PROGRAM BUREAU

National Recovery Program Bureau

Artificial Reef

One Pager

Overview
The Sint Maarten Recovery, Reconstruction and Resilience Trust Fund was established to respond to the devastation caused by Hurricane Irma in September 2017. The Trust Fund is fully financed by the Government of the Netherlands for up to 470 million euros (US $553 million) and is managed by the World Bank. The National Recovery Program Bureau (NRPB) is responsible for the preparation, implementation and evaluation of the projects that are financed by the Trust Fund on behalf of the Government of Sint Maarten.

Shipwreck Salvaging and Lagoon Debris Removal and Disposal Project
The Shipwreck Salvage and Lagoon Debris Removal and Disposal Project was proposed by the Government of Sint Maarten to address the issue of shipwrecks and shoreline debris which resulted from hurricane Irma. The project took place from March to December of 2021 and consisted of the successful removal, decommissioning and disposal of 139 damaged vessels which were observed to either be moored, partially submerged, submerged or run aground in the Dutch Side of the Simpson Bay Lagoon and Mullet Pond. Additional collection, processing and disposal of storm debris located along the Dutch side of the Lagoon's shoreline and Mullet Pond also took place. As part of the project, it was proposed that one of the shipwrecks scheduled to be decommissioned could be sunk for the purpose of creating a new artificial reef/ dive site.

Artificial Reef Project
As an extension of the "Shipwreck Salvage and Lagoon Debris Removal and Disposal Project", this project proposes to appropriately and safely prepare (decommission) and sink a floating tugboat called the *Marion* in Dutch Sint Maarten Coastal waters to create an artificial reef.

The Nature Foundation's annual assessments of St. Maarten's coral reefs confirm the alarming rate of decline of coral reef ecosystems, specifically in non-protected areas. Natural reefs are threatened by large amounts of wastewater contamination and the Stony Coral Tissue Disease, a fatal and highly contagious disease. Deteriorating coral reefs negatively affect marine biodiversity and limit the number of available dive sites for residents and tourists to visit, shrinking the market for recreational diving.

In many cases globally and within the Caribbean region, the creation of artificial reefs has successfully offset the decline of natural reefs overtime. The project aims to rehabilitate the marine environment while also creating economic benefits as a new dive site. The *Marion*, amongst the other shipwrecks salvaged was selected because it met the ideal requirements for sinking to create an artificial reef. The wreck's sound structural integrity, manageable size, high density, and corrosive-resistant iron/steel body is suitable for colonization by soft corals, sponges, plants, and barnacles. Stakeholder consultations were organized in coordination with the Nature Foundation to determine a fitting location for the *Marion*; these consultations took place via means of two online surveys along with an in-person consultation. Based on feedback from all stakeholders and the criteria set forth by NRPB with Nature Foundation, Tiegland located in the Man of War Shoal Marine Park was selected as the preferred location. This selection was made based on the preference for a shallower depth in a protected area so that the artificial reef can bolster fish populations and the aquatic ecosystem while also being accessible to all levels of skilled divers.

In order to mitigate any environmental and social risks of this project, national legislation as well as the World Bank Safeguard Policies including Occupational Health & Safety Policies are integrated in the project design.