PROJECT LEADER

BRGM
French Geological Survey.
brgm.fr

COMMUNITY PARTNERS

Ifremer
French Research Institute for Exploitation of the Sea.
ifremer.fr

ONF
National Forestry Office.
onf.fr

IRD
Research and Development Institute.
ird.fr

CNRS
French Center for Scientific Research.
cnrs.fr

CAR-SPAW
Regional Activity Center for the protocol related to Specially Protected Areas and Species (SPAW) of the Greater Caribbean Region.
car-spaw-rac.org

EXTRA-COMMUNITY PARTNERS

ACS AEC
Association of Caribbean States.
acs-aec.org

UWI St Augustine
The University of St Augustine in Trinidad.
sta.uwi.edu

IMA
Institute of Marine Affairs in Trinidad et Tobago.
ima.gov.tt

MonaGIS
The Mona Institute of Geoinformatics at the University of the West Indies of Jamaica.
monagis.com

CARICOOS
Caribbean Coastal Ocean Observing System.
caricoos.org

CARIB-COAST'S PROJECT

Carib-Coast is a collaborative project led by BRGM and financed by the European program INTERREG Caribbean. Its ambition is to pool, co-construct and disseminate monitoring and coastal risk prevention approaches and adaptation to climate change.
The associated challenges primarily concern the safety of goods and persons, but also the tourism economy linked to the preservation of beaches and the natural heritage of these interface environments, rich in biodiversity (mangroves, coral reefs, sea grass beds)."

It is organized around four work modules:

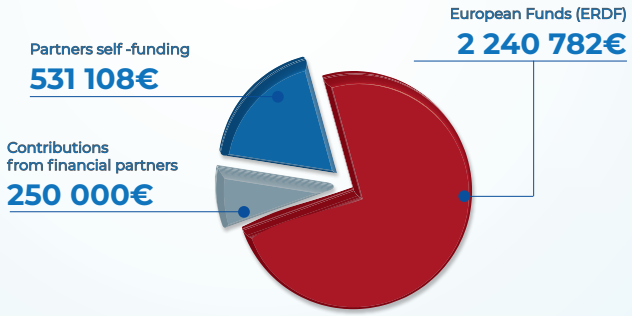
1. Project coordination and management
2. Observation and modeling of coastal hydrodynamics
3. Coastal erosion monitoring and Mitigation
4. Tools for decision support, risk management, adaptation and restoration of ecosystem services

DURATION

From November 1st, 2018 to October 31st, 2022

BUDGET

Total cost : **3 021 890€**



MORE INFORMATION :

carib-coast.com

INTERREGCARIBCOAST

CARIB_COAST #CARIBCOAST

interreg-carib-coast

Funded mostly by :

Interreg Caraïbes
Fonds européen de développement régional
UNION EUROPÉENNE

CaribCoast

CaribCoast

Caribbean network for the prevention of coastal risks related to climate change

To pool, co-construct and disseminate monitoring and coastal risk prevention approaches and adaptation to climate change.

Funded by :

Coastal hydrodynamics

CREATE A HYDRODYNAMIC MODELING CATALOG FOR THE SIMULATION OF CURRENT AND FUTURE HAZARDS

This first work module is composed of 3 major steps that will ultimately provide a clear vision of hydrodynamics in the Caribbean zone.

1

Assess existing knowledge and programmes in the region

This component, operated by IRD, IFREMER and BRGM, aims to take stock of general knowledge, observation networks and hydrodynamic modeling platforms in the Caribbean zone and for the different members of the network.

2

Refine data

Several measurement campaigns are organized in the French West Indies ,Trinidad and Tobago, Jamaica and Puerto-Rico. The objective is to collect data to feed numerical models that simulate current and future hazards (coastal erosion, marine submersion).

Release of drifting buoys measuring the currents

3

Model to prevent coastal hazards in the area

Hydrodynamic modeling is implemented in order to improve the knowledge of the 3D circulation of water masses in the region by detailing the role of eddy structures (< 30 km) in the control of hydrological properties in the vicinity of Caribbean islands up to marine coastal flooding taking into account the impact of extreme events such as cyclones.

Coastal erosion

DEVELOP EXISTING OBSERVATORIES AND BEST SHARE GOOD PRACTICES AROUND A COMMON PROTOCOL.

This work module will analyze existing monitoring practices and the needs for coastal monitoring in the Caribbean territories. Eventually, a common data acquisition strategy will be proposed. This strategy will be based on the experiences carried out in the different participating countries. In this respect, pilot sites have been identified to strengthen or initiate coastal monitoring approaches.

Pilot sites :

Actions for the protection by nature of the coastline will be monitored and reinforced. The impact of the present ecosystems on the protection of the coastline will be analyzed. In this respect, the 4 following ecosystems will be treated:

Mangroves

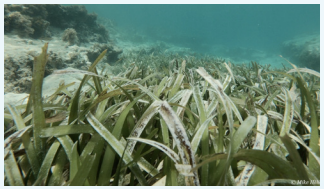
Pursue mangrove restoration actions and initiate other regional initiatives .

Coral Reefs

Evaluate their evolution and their role on erosion through an analysis by satellite imagery.

Sea grass

Promote the protection of this habitat and the use of eco-designed moorings.



Beach vegetation

Elaborate a guide of best practices for the Caribbean territories focused on the impact of plants on coastal protection.

Decision support

PROVIDE DECISION SUPPORT TOOLS FOR THE PREVENTION OF NATURAL COASTAL RISKS

This component concerns the risk and adaptation management strategy, the implementation of operational tools, the dissemination and availability of results through a web portal and training and awareness-raising actions.

PLATFORM AND DATABASE <1>

The results of the project will be made available through a web portal. This platform will also serve as a database for the storm and impact monitoring network.

It will allow to :
Coordinate the actors (observers) of the Caribbean territories.

Collect, capitalize and mutualize information.

<2> **THE NETWORK FOR MONITORING STORMS AND THEIR IMPACTS**

THE COMMON STRATEGY FOR THE CARIBBEAN TERRITORIES <3>

A common strategy will be defined based on the state of the art of current practices in the different countries. It aims at supporting the institutions in charge of natural risk management.

They target the coastal actors of partners territories and the general public. They must encourage the transfer of skills between the project partners and the coastal managers.

<4> **AWARENESS WORKSHOPS**