





# **CARIBSAN**

THE CARIBBEAN COOPERATION FOR WASTEWATER TREATMENT INSPIRED BY NATURAL HERITAGE

### CARIBSAN, THE CARIBBEAN COOPERATION FOR WASTEWATER TREATMENT INSPIRED BY NATURAL HERITAGE

The majority of the Caribbean population lives near the fragile ecosystems of coastal areas. These zones are used for habitation (domestic pollutants), activities (industrial and agricultural pollutants) and leisure (swimming). However, wastewater is often insufficiently treated, leading to considerable discharges of pollution that are dangerous for human health and ecosystems.



REDUCING THE IMPACT OF WASTEWATER IS

CRUCIAL TO PROTECT THE ENVIRONMENT

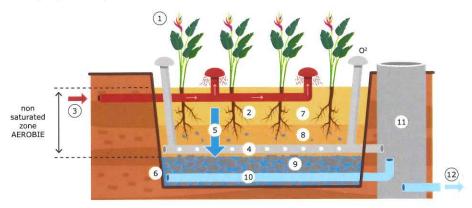
AND HEALTH IN THE CARIBBEAN

Cuba, Dominica, St. Lucia, Guadeloupe and Martinique have decided to work together to improve sanitation with the CARIBSAN project.

CARIBSAN promotes wastewater treatment using treatment wetlands. Tested in Guadeloupe and Martinique for several years, this nature-based solution has already demonstrated its effectiveness. Inspired by nature's purification capacities, it has the advantage of being simpler and cheaper to build and maintain than a conventional wastewater system and resistant to the climatic events that impact tropical regions (like cyclones).

#### TREATMENT WETLANDS

the example of the Taupinière treatment plant in Diamant commune (Martinique)



- 1) Birds of Paradise
- 2) Rhizosphere
- 3) Inlet of raw water to be treated
- 4) Aeration drains

- 5) Filtration, purification
- 6) Geomembrane
- 7) Filtration layer
- Transition layer
  Drainage layer
- 10) Collection drains for purified water
- 11) Loading manhole with drain plug
- 12) Purified water outlet

#### **CARIBSAN, A SOLUTION:**

- ) BASED ON NATURE
- TESTED AND APPROVED
- ADAPTED TO TROPICAL ISLANDS
- SIMPLE BUT INNOVATIVE
- ) INEXPENSIVE FOR SMALL MUNICIPALITIES
- > RESILIENT TO NATURAL HAZARDS



Which islands are taking part? Cuba, Dominica, Guadeloupe, Martinique, Saint Lucia



Planning phase 1: June 2021 December 2022



**Amount:** EUR 1.7 million, cofinanced by the EU through the INTERREG Caraïbes programme, the French Development Agency (AFD), and the Water Offices (ODE) of Martinique and Guadeloupe.

**Project management:**Office De l'Eau Martinique

**Project operator:** International Office for Water (OiEau)

#### **Project partners:**















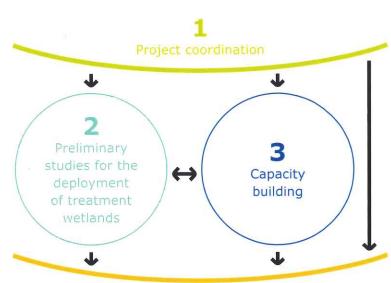






### CARIBSAN, WHO ARE THE PARTNERS?

The CARIBSAN project carries out research and training to develop the technology of treatment wetlands in Cuba, Dominica, Guadeloupe, Martinique and Saint Lucia. Different configurations are possible for this technology, and CARIBSAN supports beneficiaries to choose the most appropriate option.



Communication, capitalization and dissemination



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#### **INTERESTING FACTS**

A method has been specially developed to define the feasibility and most suitable configuration for treatment wetlands. It takes into account: population density, wastewater volumes and pollutant loads to be treated, climate, soil type, regulations, locally available materials and many other socio-economic aspects.

### **OUR** MISSIONS



### 1 DEPLOY TREATMENT WETLANDS

The treatment sites are determined following a multi-criteria method that can be replicated in all territories. In parallel, the most suitable local plants are identified with the help of local experts in biodiversity.



# 2 TRAIN WATER AND SANITATION ACTORS IN

Training on the technology of treatment wetlands is provided to authorities in charge of sanitation and technicians working on the design, construction and maintenance of sanitation facilities. Thanks to stronger technical capacities, actors can make informed, appropriate decisions and widely deploy the nature-based solution of treatment wetlands for wastewater treatment.



# SHARE KNOWLEDGE

New knowledge and experience acquired on treatment wetlands is shared between researchers, technicians and authorities responsible for sanitation.

Information and events raise the general public's awareness about the crucial issue of sanitation and the importance of preserving an exceptional environmental heritage.











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