

Interreg
Caribbean
European Regional Development Fund



EUROPEAN UNION



CARIBSAN

REGIONAL CONFERENCE

13 & 14 JUNE 2023

PRESS KIT



INRAE



Instituto Nacional
de Recursos Hídricos
REPÚBLICA DE CUBA



A WORD OF WELCOME

Kontan wè zot*
**Welcome*



It gives me great pleasure to welcome you to the first CARIBSAN international conference in Martinique.

This high-level event on sanitation and climate issues in the Caribbean brings together the region's water and environment players over two days.

A programme of presentations, round tables and field visits will plunge you into the heart of Caribbean cooperation on the issue of wastewater treatment using treatment wetlands. Our partners from Cuba, Dominica, Guadeloupe, St Lucia and mainland France will be sharing their expertise and their commitment to this ecological approach based on nature.

It's also an opportunity for us to engage in dialogue, develop our networks and learn from each other, so that together we can build fruitful and sustainable cooperation to tackle the challenges of adapting to climate change, which concerns us all.

I look forward to your participation in this conference, which you will help to make memorable.



Lucien SALIBER

**President of the Assembly of the Collectivité Territoriale de Martinique
President of the Office De l'Eau Martinique**

A WORD FROM OUR PARTNERS



" The countries of the Caribbean share the same climatic conditions and water-related problems, so the solutions must also be common, let's unite our efforts."

Bladimir MATOS MOYA, First Vice-President of the National Institute of Hydraulic Resources (INRH), Cuba.

"Dominica has had a heavy reliance on septic tanks and soak away systems which are not as efficient as we would like and if continued for too long could have the long-term effect of contamination of our ground water sources. It is for these reasons that we have been looking for alternative means for wastewater management in an environmentally friendly manner. We therefore see the CARIBSAN project and treatment wetlands as an environmentally friendly solution to wastewater management in the island. It is an easily implemented solution which can impact our society in a positive way and one that we therefore give our support to."

Louis Patrick HILL, Chairman Board of Directors of the Dominica Water and Sewerage Company (DOWASCO)



" WASCO, in partnership with CARIBSAN, continues to explore new technologies for efficient wastewater management, focusing on decentralised systems for environmental sustainability."

Zilta GEORGE-LESLIE, Managing Director of the Saint Lucia Drinking Water and Sanitation Company (WASCO)

" It is imperative for operators in the Caribbean sanitation sector to work together, because we must protect the environment; we must offer our people safe and secure places to live, work and play."

Ignatius JEAN, Executive Director of the Caribbean Association for Drinking Water and Sanitation (CAWASA), based in Saint Lucia



PROGRAMME

Day 1: Tuesday 13 June 2023 (morning)

 **Madiana Convention Centre**

8h30

Home

9h00

Official speeches

- **Luc CLÉMENTÉ**, Mayor of the commune of Schoelcher, President of the Communauté d'Agglomération du Centre de la Martinique (CACEM)
- **Éric TARDIEU**, Secretary General of the International Network of Basin Organizations (INBO), Director General of the International Office for Water (OiEau)
-  **Roland DUBERTRAND**, Ambassador for Regional Cooperation in the Atlantic Area
- **Louis Patrick HILL**, Chairman Board of Directors of DOWASCO, representing Dominica
- **Ricardo LIMIAS DIAZ**, Director General of Infrastructure Development at INRH, representing Cuba
- **Sylvie GUSTAVE-DIT DUFLO**, President of the Office Française de la Biodiversité, Vice-President of the Guadeloupe Region, President of the Comité de l'Eau et de la Biodiversité (Water and Biodiversity Committee)
- **Pauline ANTOINE-PROSPERE**, Secretary of State to the Minister for Education, Sustainable Development, Innovation, Science, Vocational Training of Saint Lucia
- **Lucien SALIBER**, President of the Assembly of the Collectivité Territoriale de Martinique & President of the Water Office Martinique (ODEM)
- **Bérangère COUILLARD**, French Secretary of State to the Minister of Ecological Transition and Territorial Cohesion, responsible for Ecology.

Presentation of the CARIBSAN project

10h05

Nature-based solutions in tropical environments for sanitation

Pascal MOLLE, Director of Research at the French National Institute of Agronomic Research & Environment (INRAE)



PROGRAMME

Day 1: Tuesday 13 June 2023 (morning)

 **Madiana Convention Centre**

10h25




The challenges of sanitation in the Caribbean» round table discussion

Moderator :

Ignatius JEAN, Executive Director, CAWASA

Participants :

 **Jules DIDACUS**, Director General of the Organisation of Eastern Caribbean States

· **Ricardo LIMIAS DIA**, Director General of Infrastructure Development at INRH, representing Cuba

· **Louis Patrick HILL**, Chairman Board of Directors of DOWASCO

· **Zilta GEORGE-LESLIE**, Managing Director of the Saint Lucia Drinking Water and Sanitation Company (WASCO)

· **Lucien SALIBER**, President of the Water Office Martinique (ODEM)



11h30

Feedback on treatment wetlands in Martinique

Frédérick VOYER, Director for sanitation at the Communauté d'Agglo-mération de l'Espace Sud de Martinique (Martinique South Area Conurbation Community)



11h55

Morning session closes



Presentation of the CARIBSAN project by INRH Cuba

12h00

Lunch
Restaurant LE DECK

PROGRAMME

Day 1: Tuesday 13 June 2023 (afternoon)

 **Madiana Convention Centre**

14h00

 **CARIBSAN results**

Presentation of results and outlook for CARIBSAN

- **Philippe SEGUIN**, Project Manager International Office for Water
- **Gaëlle HIELARD**, CARIBSAN Project Manager, Water Office de Martinique

14h40

 **Training on treatment wetlands**

EXCHANGE
WITH THE
AUDIENCE



14h50

Presentation of pilot sites by CARIBSAN partners

- **Amauri DE LA PEÑA MATOS**
Head of the CARIBSAN project for Cuba- INRH
- **Magnus WILLIAMS** CARIBSAN Project Engineer for Dominica - DOWASCO
- **Shervon PLACIDE & Chantal GASTON**
CARIBSAN project engineers for St Lucia - WASCO

EXCHANGE
WITH THE
AUDIENCE



PROGRAMME


Day 1: Tuesday 13 June 2023 (afternoon)

 **Madiana Convention Centre**

15h50



Round table «Caribbean cooperation to tackle climate change».

 **Christopher CORBIN**, Coordinator UNEP for the Cartagena Convention

Moderator :

· **Pascal SAFFACHE**, University Professor and Director of the Master's degree "Territorial Diagnosis and Management of Island Spaces" at Université des Antilles.

Participants :

· **Simone LEWIS**, representing the President of the Caribbean Water Association and Wastewater (CWWA) & Coordinator of the Global Water Partnership Caribbean (GWPC)

· **Sylvie GUSTAVE-DIT DUFLO**, President of the French Office for Biodiversity (OFB), Vice President of the Guadeloupe Region, President of the Regional Biodiversity Agency for the Guadeloupe Islands, President of the Guadeloupe Water and Biodiversity Committee

· **Christelle OUTREMAN**, Counsellor for Regional Cooperation at the French Embassy in Saint Lucia.

· **Pauline ANTOINE-PROSPERE**, Secretary of State to the Minister for Education, Sustainable Development, Innovation, Science, Technology and Training of Saint Lucia



16h45

Summary of the conference

· **Michéla ADIN**, Director General of the Water Office Martinique (ODEM)

· **Stéphanie LARONDE**, Director of Institutional and Technical Support and Cooperation at the International Office for Water (OiEau)

17h00

Closing remarks

Lucien SALIBER, President of the Assembly of the Collectivité Territoriale de Martinique & President of the Water Office Martinique (ODEM)

19h00

Cocktail reception at the BATELIERE hotel

PROGRAMME

Day 2: Wednesday 14 June 2023



Site visit

8h00 - 9h00	<i>Departure of groups from the Hôtel Batelière for field visits</i>
9h00 - 12h00	<i>Groupe 1 : Visit to the treatment wetlands plant at La Taupinière, Diamant</i> <i>Groupe 2 : Visit to the treatment wetlands plant at Maupéou, Rivière-Salée</i>
12h30 - 14h00	<i>Lunch, Rivière-Pilote</i>
14h00 - 14h30	<i>Group 1: Bus journey to the Maupéou site, Rivière-Salée</i> <i>Group 2: Bus journey to the Taupinière site, Diamant</i>
	<i>Group 1: Visit to the treatment wetlands plant at Maupéou, Rivière-Salée</i> <i>Group 2: Visit to the treatment wetlands plant at Taupinière, Diamant</i>
17h30	<i>Groups return to the Hôtel Batelière</i>

THE CARIBSAN PROJECT

What is it?



Caribsan project team in Saint Lucia

The CARIBSAN project,

aims to promote wastewater treatment using treatment wetlands technology throughout the Caribbean. Inspired by the purification processes found in nature, treatment wetlands are a more environmentally-friendly wastewater treatment solution, as they do not require materials such as concrete, and certain processes can be carried out without electricity. They are also more economical than a conventional wastewater treatment plant, and are resilient in the face of natural hazards such as hurricanes and earthquakes.

Treatment wetlands are particularly well suited to tropical climates, where they require less area than in temperate climates.

Led by the Office de l'Eau de la Martinique (ODE), the CARIBSAN project is coordinated by the **Office International de l'Eau** (OiEau).

This project is being implemented with the French partners of the French National Institute of Agronomic Research & Environment (INRAE) and also by the technical partners of the beneficiary countries:

Cuba's National Institute of Hydraulic Resources (INRH), the Caribbean Water and Sanitation Association (CAWASA), and the water and sanitation management companies of **Saint Lucia** (WASCO) and **Dominica** (DOWASCO).

The CARIBSAN project is co-financed by the European Union through the **INTERREG Caribbean programme** under the European Regional Development Fund (€2.4 million), by the Agence Française de Développement (AFD) and by the Offices de l'Eau (ODE) of Martinique and Guadeloupe.

TREATMENT WETLANDS

What is it?



Treatment Wetlands

Treatment wetlands are inspired by nature's nature's self-purifying capacities. Wastewater infiltrates through layers of gravel, and bacterial activity eliminates organic pollution. Their long-term performance depends on the achievement of equilibrium conditions. Treatment wetlands constitute a family of varied processes depending on flow types, saturation levels, etc., and their associations among themselves or with conventional methods provide a multitude of possible treatment methods.

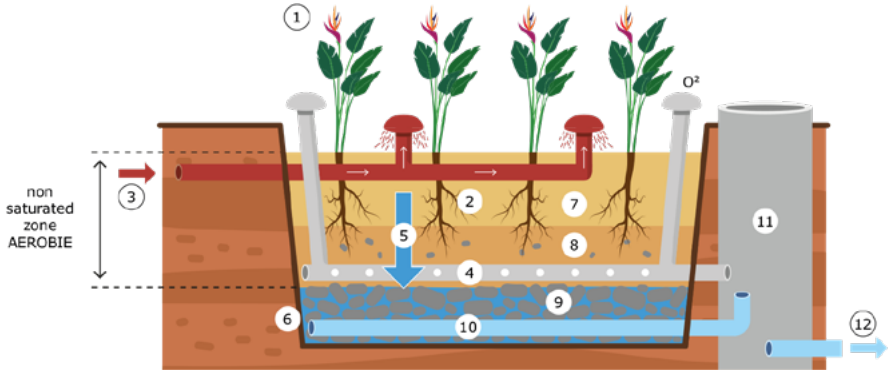
The advantages of treatment wetlands

One of the keys of treatment wetlands' success is their operation's simplicity: with little or no electricity if the topography allows it, the operator's tasks are simple and the risks of breakdowns are low. The maintenance of the plants is the main task since it is more constraining in tropical areas. The French system is very popular among small communities. Its originality relies on its ability to treat wastewater and sludge at the same time.

TREATMENT WETLANDS

How does it work?

Diagram of the treatment wetlands process



- | | | |
|-------------------------------------|-----------------------------|--|
| 1) Birds of Paradise | 5) Filtration, purification | 10) Collection drains for purified water |
| 2) Rhizosphere | 6) Geomembrane | 11) Loading manhole with drain plug |
| 3) Inlet of raw water to be treated | 7) Filtration layer | 12) Purified water outlet |
| 4) Aeration drains | 8) Transition layer | |
| | 9) Drainage layer | |

our solution

«With treatment wetlands, wastewater can be treated to different levels of quality, and even reused for irrigation, street cleaning, or domestic purposes. CARIBSAN aims to develop treatment wetlands in tropical climates and island conditions, where it is not always possible to import material from far away.»

Pascal MOLLE - Director of Research at the French National Institute of Agronomic Research & Environment (INRAE)

Video of the
treatment wetland system
at La Taupinière :



Leaflets «the
different treatment
wetlands processes» :



RESULTS

and outlook

Launched just over two years ago, the CARIBSAN project has achieved a number of results:

- more than **200 professionals for sanitation** in Caribbean trained to treatment wetlands technology.

- **4 pilot** construction sites for future treatment wetlands identified in Cuba, Dominica and Saint Lucia.

- **preliminary studies** launched on these sites to gain a better understanding of the area and the quantities of pollutants released by the population.

- **decision-making tool** currently being developed to enable as many people as possible to choose the type of planted filter best suited to their needs.

- **a botanical research partnership** with Cuba, to select the best plant (the plant plays a purely mechanical role, it allows waste water and air to infiltrate).

- The website, social network, the participation to numerous events as well as a number of videos and documents, help to **raise awareness of the treatment wetland solution throughout the Caribbean.**

This conference marks a turning point in the CARIBSAN project, and it kicks off a second phase, which will build on the results obtained during the preliminary studies and the knowledge acquired during the training courses to continue implementing the treatment wetlands on the pilot sites.

POGOLOTTI

CUBA

GUADELOUPE
DOMINICA
MARTINIQUE
SAINT LUCIA

LA PLAINE

BLACK BAY



Video :

INDICATORS

Caribsan in figures

42

engineers involved
(including 21 women)



9

team members
pilot project
(including 6 women)



DOMINIQUE



SAINTE-LUCIA



CUBA

4 technical missions

1 institutional mission

Meeting of work



technical groups



technical groups



steering committee



4
donors

- European Union
- French Development Agency
- Martinique Water Office
- Guadeloupe Water Office

200

Sanitation stakeholders trained in the Caribbean via webinars



7

training sessions

90

people trained
(face-to-face)



COMMUNICATION

1800

visitors on the website



30

Articles on CARIBSAN in the media

14

materials to popularise planted filters of plants



185

subscribers on FB

11

Preliminary studies produced



6

CARIBSAN Representations
(World Water Forum in Dakar / CWWA Bahamas / SMILO network / Bonn / UN World Water Conference)



NOTES

to remember

A series of horizontal dotted lines for writing notes.



Heliconia psittacorum



Treatment wetland station - Bord de l'Étang district - St Joseph, Martinique

PRESS CONTACT

Who can I contact?

For Martinique (in French)

MATHILDE EDMOND-MARIETTE MINOTON

✉ mathilde.edmond-mariette@eaumartinique.fr

☎ +595 696 35 37 52

For partner countries (in English and Spanish)

VIRGINIE CLÉRIMA

✉ v.clerima@oieau.fr

☎ +33 6 29 84 72 91

CHLOÉ DÉCHELETTE

✉ c.dechelette@oieau.fr

☎ +33 6 16 82 90 87

Press release from the regional conference :

In French :



In English :



In Spanish :



@caribsan



www.caribsan.eu