

WHAT IS THE SITUATION OF WASTEWATER MANAGEMENT IN THE WIDER CARIBBEAN?

- 15%** of the region's GDP **depends on tourism** (World Bank, 2019).
- 9%** of the planet's **reefs are in our region** (World Bank, 2019).
- 85%** of **wastewater discharged into the Caribbean** is not properly treated (GEF CReW+, 2020).
- 70%** of the population **lacks proper sanitation services** (GEF CReW+, 2020).
- 80%** of **living corals have been lost** in the last 20 years (GEF CReW+, 2020).

It is necessary to promote the proper wastewater treatment and its reuse in various areas.

Using properly treated water benefits us!

By paying the fee for water service and proper wastewater treatment we promote benefits such as:



Taking care of people's health.



Preserving the availability of water resources



Protecting our environment.

Gef CReW+ Project in the Wider Caribbean Region



in 18 countries of the Wider Caribbean Region.

This is a collaborative project financed by the Global Environment Facility (GEF) that is co-implemented by the Inter-American Development Bank (IDB) and the United Nations Environment Programme (UNEP).

Innovative: It offers innovative, nature-based solutions to mitigate the effects of untreated wastewater on the environment and public health.

Circular economy approach: Circular economy approach: It is based on the four R's: reduce, reuse, recycle and recover. The project considers wastewater as a valuable resource with potential for reuse in agriculture, industry and other sectors.



LET'S GIVE LIFE TO WATER!

Wastewater: from waste to valuable resource

With **proper wastewater treatment** we can help to preserve the health of the Caribbean Sea for present and future generations.



Co-implemented by:



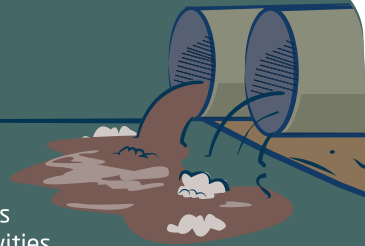
Co-executed by



OAS More rights for more people

WASTEWATER

This is water whose quality, due to its use in various activities, has been negatively affected. Wastewater comes from domestic, industrial and urban activities.



What happens if we DO NOT properly treat wastewater?

When wastewater is not properly treated can have serious consequences for people and the environment:

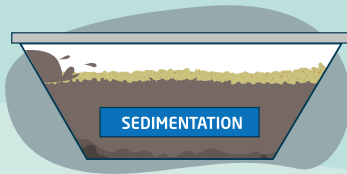
- Contamination of aquifers that provide drinking water.
- Impact on and decrease of economic activities such as fishing and tourism.
- Increase in cases of gastrointestinal infections.
- Degradation of coastal and marine ecosystems.
- Increased eutrophication, i.e., toxic algae blooms that reduce biodiversity.

Wastewater treatment benefits us. Let's pay for water and sanitation services to contribute to our health and well-being.

What is the process for proper wastewater treatment?

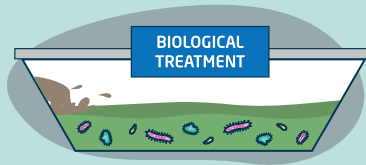


When wastewater enters the treatment plant, the larger solids are removed.



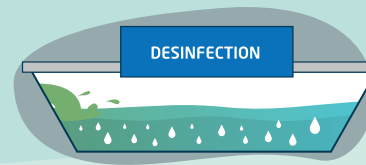
Anaerobic lagoon

In the first lagoon heavier contaminants are sedimented and removed.



Facultative lagoon

In the second lagoon the organic matter is removed by biological treatment.

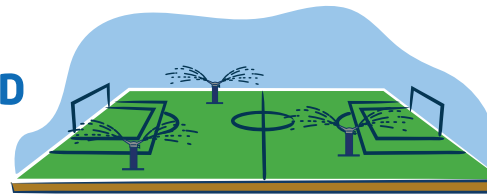


Maturation lagoon

Finally, the water is disinfected to remove harmful microorganisms.

The treatment process may vary depending on the use to be given to the water.*

USE OF TREATED WASTEWATER



By properly treating water in line with the purpose for which it is required, we can safely use the water resource in various activities.

How can we use treated water safely?

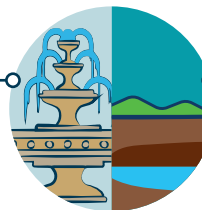
Crop irrigation and reforestation:

Reduces the use of fresh and/or drinking water in areas with scarcity and enables to use the nutrients already present in treated water.



Industrial processes:

Optimizes water use in industrial processes, for cooling systems, energy production, metallurgy, textiles and paper.



Commercial and recreational sector:

Promotes reducing the use of drinking water for cleaning certain surfaces or in artificial water fountains and waterfalls.

Groundwater recharge:

Helps in preserving groundwater resources in case of, for example, overexploitation of aquifers.

Treated water benefits us!

It is a valuable economic resource:

- By using treated water, costs in industry and agriculture are reduced.
- The treatment process enables the extraction of certain raw material to produce clean energy.
- Biosolids resulting from the wastewater treatment process are used as fertilizers.

It improves people's health and quality of life:

- By returning treated water to rivers, lakes and seas, pathogens and cases of gastrointestinal infections are reduced.
- By irrigating crops with properly treated water, nutrients are added to the products which prevents gastrointestinal infections caused by irrigation contamination.

It promotes the preservation of environment:

- By replacing fresh water with treated water in irrigation and industrial processes, drinking water sources are preserved and overexploitation of aquifers is prevented.
- By treating water before it is discharged into water bodies (rivers, lakes and seas) marine ecosystems are protected.



To enjoy these benefits, the water and sanitation service fee needs to be paid.



The proper wastewater treatment process is based on the **circular economy** principles of the 4 Rs:

- Reduce
- Reuse
- Recycle
- Recover