

#built-in

#cooperation

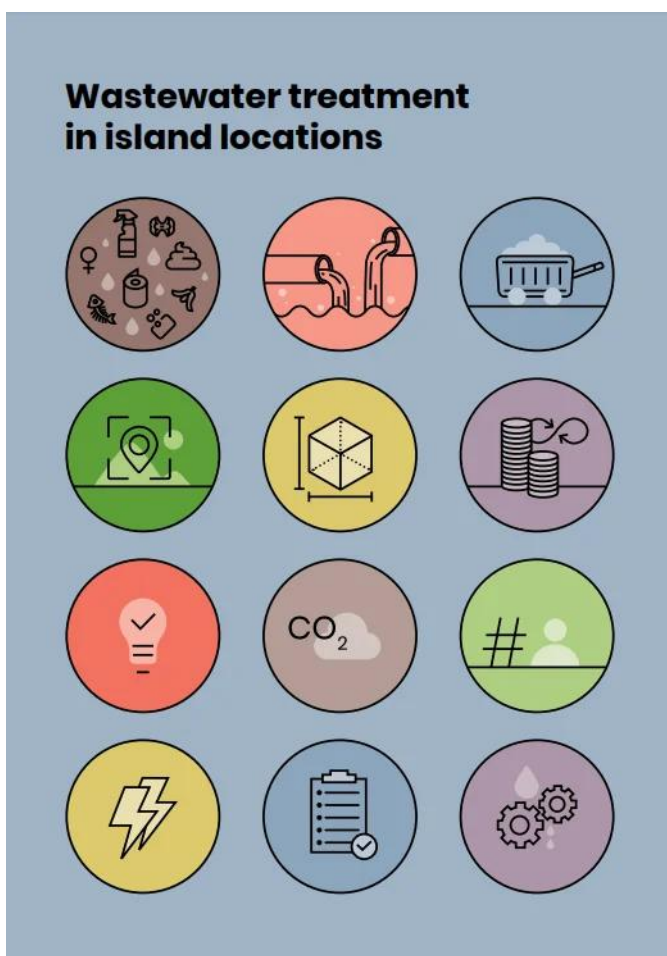
#management

#sustainable

GUIDE TO SANITATION IN ISLAND SETTINGS

Structure : SMILO

Difficulté : facile



Why treat wastewater on small islands?

The discharge of untreated wastewater into the oceans is a common occurrence on small islands that lack adequate sanitation systems. This wastewater is often contaminated with pathogens, chemical pollutants, pesticides, fertilizers, and other hydrocarbons or used oils. This has negative impacts on both the health of residents and freshwater and marine environments.

These impacts must be reduced by implementing wastewater treatment to remove pollutants before discharging the treated water into the natural environment or reusing it. Sanitation on islands faces numerous constraints, such as limited space, often limited financial and technical resources, and dependence on other territories for both supply and the disposal of byproducts (e.g., importing materials, exporting waste). These factors are particularly acute on small islands not connected to the mainland.

Objectives of the guide

This guide is intended for managers of small islands seeking to reduce the impact of wastewater on their environment by implementing adequate sanitation systems. It provides simple and practical recommendations to guide their selection of sanitation systems. While the recommendations primarily focus on the construction of new networks and wastewater treatment plants, they are also relevant for upgrading existing facilities. It aims to demonstrate that wastewater management is a major challenge for sustaining human activity and water use in a way that respects the often-sensitive island environment. Furthermore, wastewater treatment produces certain resources that are useful or even necessary to recover on the island; the concept of the circular economy is addressed through the reuse of treated wastewater (REUT) and the return of organic matter to the soil (sewage sludge management).

Methodology

The wide variety of constraints specific to each island is a major factor: island size and available space, distance from the mainland, water and energy resources... all criteria that can complicate the choice of a sustainable and suitable process. This guide helps identify the specific characteristics of an island territory that may influence this choice, and consider solutions that balance local needs and uses. This guide also supports decision-making regarding the planning of collective or individual wastewater treatment systems.

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