Potable Water Unit, Syros
Cyclades, Greece

Unit of Potable water in Syros
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Cyclades, Greece

Summary

Most of the islands in Cyclades region have drinking water shortage. In Syros, local people were used to purchase plastic bottles of drinking water to cover their needs until local authority inspired the idea of the desalination of sea water and its distribution through slot machines. The project was very successful!

Aims and Objectives of this Sustainable Energy Action

The aim of the project is to ensure drinkable water for the inhabitants avoiding the costs of the purchase of plastic bottles and the one of the transfer of water with boats. This transfer costs about 8-10 €/m^3.

Besides, the project aims to the protection of the environment as it avoids the plastic bottles which would end at the landfill of the island and would needs 500 years for decomposition, the energy they need to be produced and the CO_2 emitted during the transfer with the boats.

Results and Impacts

In one year, citizens and visitors to the island of Syros in the Cyclades have received water that corresponds to:

- 1 107 litres of water
- 13,28 tonnes of oil
- 22,14 tonnes of CO_2
- €365 720

The Annual operating cost is €18K

The Annual income is €300K

The potable water unit saved more than 246 000 plastic bottles in one year.

Bottled water consumed in the islands is one thousand times more energy consuming than tap water due to the transportation and construction of the bottles.

Technical and Financial Implementation

As the drinking water distribution network was very old, the water from desalination units is leaded to the Final Unit; there the water is purified and becomes drinkable. The slot machine includes the system for cleaning water. By inserting 20 cents, the user receives 10 litres of potable water, or by inserting 40 cents they receive 40 litres. Currently, there is only one slot machine but as it is considered so successful, the mayor is considering installing 2 more machines in 2 other areas of the island.

In one year, citizens and visitors to the island received water corresponding to 246 000 plastic bottles. The production of 246 000 fewer plastic bottles corresponds to 22,14 tonnes of CO_2 emissions savings.

The Partners and Stakeholders

The vice Governor Mr. G. Makryonitis, Mayor of Poseidonia at that time, inspired the initial idea, with the support of the Regional council and private companies.

Lessons Learnt

This initiative is so successful that municipal workers have to empty coins from the Unit twice a week. People come from all over the island to get water.

How this Action could be Replicated

The island of Amorgos has expressed an interest in replicating the project as have the islands of Anafi and Chalki which belong to the Dodecanese. The Dodecanese make up the ENNEREG twinning region for the Cyclades.

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Find out more about this and other Sustainable Energy Actions, online at: **www.regions202020.eu/gp**

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Further Information

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Other contact organizations: Region of South Aegean, DAFNI - Network of Aegean Islands for Sustainability

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