

**The title:** Rainwater – An alternative

**The problem:**

Nowadays we live in a society that has the knowledge at the distance of one *click*. Internet has provided us with immense information about almost (if not) every topic that can occur to us. However, we see that it is hard for people to adopt new measures, new alternatives that are more ecological and sustainable because: it's expensive, it needs effort and commitment or just because people don't have the awareness of the impacts of current choices.

So, as the city of Sabadell crosses a problem of excessive consumption of drinking water it is crucial to support management technologies and provide sensibilization sessions to the public in order to prevent this problem.

**The solution:**

Firstly, it is required to know which house devices and equipment that can use non-drinking water, for example: toilets and washing machine. Then it is possible to divide the water distribution system in two categories of consumption: drinking and non-drinking water. With this implementation, the use of drinking water decreases significantly.

Sabadell has periods of precipitation throughout the year, emphasizing in May and October, where these values are higher. Given this feature, rainwater harvesting equipment and reservoirs for domestic consumption can be used and implemented, in order to further reduce water consumption in the supply network.

These reservoirs can be implemented by the water company in order to provide non-potable water directly to sources of water use, such as recreational sources, garden irrigation system and street washing.

Different methods of reuse (rainwater) and reduction of water should also be distributed and taught to the population. Training workshops, environmental and economic awareness raising actions, as well as publicizing the different water reuse options in schools and universities are ways to propagate and share information with the local community and encourage it to use the water more efficiently.

**Transferability to a city / a community of your choice:**

This method can be applied in any community and city whose annual rainfall is relevant and justifies the construction of reservoirs, for example.

Given that the treatment of drinking water is often unnecessary, I think it is relevant to have two types of water distribution piping, thus reducing the costs of consumption of unnecessary drinking water, which favors the population; and also the water company that no longer needs to spend more money to treat the water in order to be safe to drink, which is also economically benefiting to the water management entity.

Ana Catarina Oliveira

acr.oliveira@campus.fct.unl.pt