UABUniversitat

Autònoma

de Barcelona

Water sustainability: Promoting tap water consumption

Final Degree Project – A Service-Learning Project

Marta Mateu Céspedes, June 2023



INTRODUCTION

Parc de la Sèquia [5]

- Manage areas and facilities related to the Sèquia de Manresa.
- Raise awareness about the importance of water for human development.

Social Need [3]

There has been an increase in consumption of bottled water.

Increase of the concern of resources, human health and environmental impact of the water industry.

Aim

To develop an activity promoting tap water consumption as an alternative to bottled water to achieve:

- Reduce plastic usage
- Minimize energy costs.



SDG 6: Ensure availability and sustainable management of water and sanitation for all. [4]



BACKGROUND

Water is a limited resource and a public good essential for humans [4].

We must find a balance between human activity and resources in order to [1]:

- Mitigate the negative impact on the environment
- Create a more sustainable future

Environmental impact

Tap water: purification + distribution [7] **Bottled water:** bottle production + transport [2]

Table 1. Comparing the environmental impact between tap water and bottled water.

	TAP	BOTTLED
Energy consumption	<u>lılı.</u>	
Greenhouse gases	<u>lılı.</u>	<u> </u>
Amount of waste	<u>lda</u>	4



Organoleptic quality





SERVICE: "REGUEM EL FUTUR"

- 5 groups of 12 years old children
- 5 different paths to find 3 informative pills





Figure 2. Example of informative pills.

Figure 1. Map provided to the students.

PERSONAL REFLECTION

Tap water production has considerably less environmental impact than bottled water and its quality is guaranteed.

Developing this project is a way to put into practice what I studied to contribute to solve a social need.

References: [1] Baldwin CJ. 2009. Sustainability in the Food Industry. [2] Dettore C. 2009. Comparative Life-Cycle Assessment of Bottled Versus Tap Water Systems. Michigan: University of Michigan. [3]Horowitz N, Frago J & Mu D. 2018. Life cycle assessment of bottled water: A case study of Green2O products. Waste Management 76: 734-743. [4] Naciones Unidas. 2002. El derecho al agua. Naciones Unidas. [5] Parc de la Sèquia. 2016. El Parc de la Sèquia compromès amb la sostenibilitat. [6] Real Decreto 3/2023. Real Decreto 3/2023, de 10 de enero, por el que se establecen los criterios técnico-sanitarios de la calidad del agua de consumo, su control y suministro. Boletín Oficial del Estado. [7] Sanjuan-Delm As D et al. 2014. Environmental assessment of drinking water transport and distribution network use phase for small to medium-sized municipalities in Spain. Journal of Cleaner Production 87, 573-582.