

# SUSTAINABLE WATER RESOURCES MANAGEMENT AND DRINKING WATER QUALITY - A SOCIAL SURVEY

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In the present study, water resources management and drinking water technology are investigated, through a literature review and particularly using a quantitative questionnaire survey, in order to explore the social opinions, perceptions and attitudes regarding the quality and adequacy of drinking water.

The public sample was selected through convenience sampling and the principal research questions were of the type:

- What are the perceptions and attitudes of the public regarding the quality of drinking water in Greece?
- What are the perceptions and attitudes of the public regarding the adequacy of drinking water in Greece?
- To what extent do the demographic characteristics of the sample influence social opinions regarding the quality and adequacy of drinking water in Greece?

The primary data collection tool was a questionnaire of 17 questions. After the survey questionnaire was designed, a Google Form was created, and thus the questionnaire was shared with potential participants by sending a link via email, social media, or other online platforms. After the collection of the questionnaire data (via Google forms), the data were appropriately coded and analyzed with the statistical program SPSS v.26.

According to the results of the survey, the majority of the sample consumes tap water with a filter and only about a third of the sample answers that they are satisfied to a large extent with their water supply network. About one in two people in the sample consider that the tap water in Greece is moderately safe, while the majority declares that they are very satisfied with the adequacy of the water provided by the water supply company, although they are aware of existing areas in Greece where the needs for water are not satisfied from a quantitative but also a qualitative point of view. In addition, almost one in two respondents are moderately satisfied with the water company's value for money but are willing to pay more for better drinking water services at the water company. Regarding the sample's view of whether climate change affects the state of water bodies in their Water District, almost half answered that it affects them, while more than half said that they control water use at home and at work and implement economy practices.

Regarding the third research part, about how the demographic characteristics of the sample influence their opinions regarding the quality and adequacy of drinking water, in Greece, it was initially found that there is a statistically significant difference between men and women on the way they consider the tap water in Greece to be safe and whether they are satisfied with the adequacy of the water provided by their water company. Also, it was found that age is statistically significant for the way the sample answers questions: 1. Do you know any cases of areas in Greece where water needs are not met from a quantitative point of view, and 2. Do you think you give water the respect it deserves as a precious natural resource that is difficult to renew. It was also found that the educational level is statistically significant for the way the sample answers the questions: 1. Do you think that the tap water in Greece is safe, 2. Do you know cases of areas in Greece where water needs are not met from a quantitative point of view, 3. Do you know of cases where water needs are not met in terms of quality, 4. Would you be willing to pay more for better drinking water services from the water company, and 5. Do you think that you give water the respect it deserves as a precious natural resource that is difficult to renew. On the contrary, for factors such as 'where the respondents live (in a city, town or countryside)' and the income, it was found that there is no statistically significant correlation with the way they answer the questions.

Recognizing differences in perceptions between genders, age groups and educational level can provide useful information for policy decisions, public awareness campaigns and targeted interventions to handling of any concerns or dissatisfaction identified. Furthermore, the place of residence of the sample could be further investigated, so as to identify the regions of Greece with the most focused problems regarding the quantity and quality of drinking water. In addition, qualitative research could be carried out using the interview method as a powerful tool, so as to investigate in depth the causes of the differences that were identified in the present research.

Concluding, water resources management and drinking water technology are issues that affect both quality of life and viable development. The challenge is twofold: to ensure the availability and quality of water, but also to manage the resource in a way that is sustainable and socially fair. Further research in this area is essential in order to solve the challenges we are going to face and shaping a sustainable future, given the challenges enforced by climate change in Greece.