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QUANTITATIVE WATER MANAGEMENT IN RABAT, SALE, AND TIMISOARA DRINKING WATER SYSTEM

Ziane Imane[1*], Mohammed Karim Ben Hachmi[1], Rares Halbac-Cotoara-Zamfir[2]

[1]*Department of Process Engineering and Environment, University Hassan II of Mohammedia, Science and Technology Faculty of Mohammedia, 20650 Morocco*
[2] *Department of Hydrotechnics, Faculty of Civil Engineering, Polytechnic University of Timisoara, George Enescu Street, No. 1/A 300022 - Timisoara, Romania*

Abstract

For efficient management of the losses of drinking water distribution networks, it is essential to have a precise knowledge of the system and its infrastructures. In this context, our study focused on describing two drinking water distribution networks, from two different countries: Rabat and Sale, Morocco and Timisoara, Romania, for water losses over a period of four and five years, respectively. The work consists of calculating some performance indicators to establish thematic maps using Geographical Information System (GIS) in order to identify and prioritize the critical sectors by the method Analytical Hierarchy Process (AHP) based on technical criteria. Timisoara, Romania has a huge volume of water losses, inefficient use of resources, scarce data and poor control. Whereas, the Rabat and Sale, Morocco network also has significant water losses, but the great contribution provided by the sectorization network and flow measurements that the data are available for local managers. The technical performance indicators and the results obtained gave us an idea of the reliability of the leak management methods adopted by each manager.

Key words: drinking water system, geographic information system (GIS), leaks, multicriteria analysis method

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[*]Author to whom all correspondence should be addressed: e-mail: imaneziane91@gmail.com; Phone: +212615372167