

## **A COMPARATIVE ANALYSIS BETWEEN TWO SIMILAR AQUIFERS WITH A DIFFERENT DEGREE OF EXPLOITATION**

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An adequate knowledge of groundwater behavior is fundamental not only for a correct regional planification but also to forecast any possible alteration of water resources. This paper presents a comparative analysis between two different groundwater systems (aquifers) characterized by their high potential and water quality. One of them, located in the Venetian plain (Italy), has been highly exploited for supplying water to cities, industries and agricultural activities. The other is in the alluvial plain basin of Mojotoro river (in northwestern Argentina), and shows a scarce but increasing degree of exploitation mainly towards industrial activities. In both cases, the hydrogeological, water dynamics (recharge-discharge) and water chemistry characteristics were analyzed in relation to the environment. Overexploitation in the Venetian plain has excessively lowered the water table level, producing a degradation of the water chemical quality because of an increasing salinity, and a contamination risk. This has led to take expensive remedies to protect groundwater resources. In the Mojotoro river case, natural conditions still prevail, and use of groundwater does not show negative signs until now. A future expansion of the economical activities of the region would significantly increase groundwater exploitation. It is proposed that the experience obtained through the Venetian plain research be applied to the Mojotoro river region. The aim would be to perform a suitable management of water resources in order to reach an acceptable balance between water consumption, water quality and environmental problems. This would result in a positive cost-profit-risk relationship.