



## **Rainwater Harvesting and Consumption in urban Area**

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The soaring rate of urban demand for soft water and the rising cost associated with construction and protection of centralized large-scale water treatment and distribution systems associated with expansion of cities and immigrations of rural population to cities have contributed to increase acceptance of water harvesting systems in urban areas at least. This issue requires special attention in Iran as a developing country in the Middle East semitropical area. In this context, a recent pilot project has been proposed to analyze the performance of rainwater harvesting systems as an answer to some parts of soft water demand in Iranian urban society. A system of rainwater draining and storage has been implemented in a two hectares urban area. Observations and analyses related to runoff quantity and quality have been performed between November 2007 and November 2009 at the basin outlet as well as inside a storage tank which has been set up in the area for water harvesting purposes. The potential of the harvested rainwater to be employed in different consumption contexts has been analyzed in light of national and international standards. Although most of the sampling results support the idea that the quality of harvested water is adequate for any field of consumption, including drinking use (especially during rainfall period of time), a comparison between biological quality evaluation plus turbidity and color of samples with the related standards has led to identify limitations of harvested water usage with particular reference to plant consumptions.

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