

## عنوان مقاله:

BUILDING NEW CONCEPTS ON OLD TRADITIONS Rainwater harvesting as a tool to move towards sustainability of water resources

## محل انتشار:

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## خلاصه مقاله:

Water is the vital element of life. The history of civilization and urbanization are tied to the sources of water and our future also depends on it. Rapid urbanization and increasing water demands of growing urban population result into decreasing water supplies of the country, and water scarcity seems to be among the main issues of Iranian cities. The emergence of urban water systems, albeit solving some problems and facilitating access to clean water, left some negative environmental imprints. Thus, due to the importance of the problem of water scarcity in Iran and to move towards a sustainable development, we need to rethink of our available water resources. To reduce the stress on surface and underground water resources their share of usage in urban water systems must be reduced while stormwater and used water must be introduced as new sources of water. While Caspian plain is the only region of Iran which enjoys high annual rainfall, the main source of water of the cities located in Northern Iran include surface and ground water; rainwater is mainly neglected or forgotten. Despite the long history of rainwater harvesting and storing, rainwater has lost its value as a source of water and asset for the cities, rather it is currently considered a problem. The author, however, is aware that traditional practices are not able to solve all water-related issues of the current time; the study aims to identify the traditional practices of water management in northern Iran, and to find the right mix of old and new practices and techniques to reduce the growing threat of water scarcity within Iranian cities. In other words, under a new paradigm of urban water system, instead of large distance transfers of water/wastewater, on-site and local harvesting and treatment will form a decentralized cluster-based water system. Moreover, instead of underground water/wastewater infrastructure, surface stormwater in form of natural drainage will be implemented to manage urban runoff as well as providing recreational amenities to the community and contributing to the aesthetic qualities of a given space

## کلمات کلیدی:

Rainwater harvesting, stormwater, water resources, urban sustainability

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