

## Rainwater Harvesting for Recharging Shallow Groundwater

Vahedberdi Sheikh\*

*Watershed Management Department, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Golestan, Iran*

### EDITORIAL NOTE

Water management is crucial for any economy's growth and development, especially in emerging countries like India. However, due to excessive groundwater abstraction in the process of socioeconomic growth and satisfying the growing needs of a growing population, the resource is currently under stress. As a result, we must both conserve and benefit from this valuable resource. People have been exploiting groundwater through dug wells and stone spouts for centuries, and it has now become a major natural resource contributing to the water delivery system in Kathmandu Valley. During rainy seasons, groundwater is usually refilled. Surface infiltration has decreased dramatically as a result of development, whereas groundwater use continues to rise. This rate must have been exceeded for more rates in today's scenario. As a result, we must evaluate how to preserve this valuable resource while taking full advantage of it for development. In terms of quantity and quality, groundwater is a reliable supply for drinking and production. However, due to excessive groundwater abstraction in the course of socioeconomic growth, the resource is presently under significant stress in most sections of the country, particularly in emerging countries. The repercussions of this excessive groundwater exploitation are either irreversible or take a long time to resolve. As a result, we must evaluate how to preserve this valuable resource while taking full advantage of it for development. Only 2.5 percent of the world's water is considered fresh, suitable for human use, agriculture, and industry. However, in many places of the world, water is being consumed at a rate far quicker than it can be replenished by rainfall. India's per capita water availability will be decreased to 1500 cubic

metres by 2025, down from 5000 cubic metres in 1950. According to the United Nations, a lack of freshwater could be the most important impediment to providing enough food for a growing global population, eliminating poverty, and protecting the environment. As a result, if water constraint is not addressed today, it will become a major issue. The basic three components of rainwater collecting; a collection surface, guttering, and a water store, when combined in a comprehensive system, give various benefits. The most significant advantage of rainwater harvesting is that the water is completely free; the only cost is the collection and usage of the water. Furthermore, the final use of harvested water is close to the source, obviating the need for sophisticated and expensive distribution infrastructure. Rainwater can be used as a source of water when groundwater is insufficient or unavailable, or it can be used to supplement restricted groundwater supplies. Rainwater harvesting is a superior alternative for landscape irrigation because it reduces flow to storm drains, as well as non-point source pollution and utility expenses. Rainwater, which has a lower hardness than groundwater, helps prevent scaling on appliances and extends their life. The demand for water resources is growing every day as a result of population growth, urbanisation, industrialisation, and irrigated agriculture. Embracing the concept of long-term sustainability and water resource conservation can assist in dealing with the worldwide water crisis shortage. One of the solutions that can be applied to address the water shortage problem is a rainwater collection system. Depending on the weather, geographic location, activity in the area, and storage tank, the quantity and quality of rainwater collected varies from place to place. Furthermore, due of its high quality, rainfall has a lot of potential as a future alternative water resource.

**Correspondence to:** Vahedberdi Sheikh, Watershed Management Department, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Golestan, Iran, E-mail:sheikh@vahed.ac.ir

**Received:** July 09, 2021; **Accepted:** July 23, 2021; **Published:** July 30, 2021

**Citation:** Sheikh V (2021) Rainwater Harvesting for Recharging Shallow Groundwater. J Geol Geophys. 10:e005.

**Copyright:** © 2021 Sheikh V. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.