

## عنوان مقاله:

Economic study of the rainwater collection system in drought conditions

## محل انتشار:

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## نویسندگان:

Payam Ebrahimi - Assistant Professor; Forests, Rangelands and Watershed Research Department; Sistan  
.Agricultural and Natural Resources Research and Education Center; AREEO, Zabol, Iran

Mohsen Mohseni Saravi - Retired professor, University of Tehran

## خلاصه مقاله:

Collecting rainwater is one way to make life easier for local communities during periods of drought. The lack of uniform distribution of rainfall in all seasons makes it necessary to store the water needed by households. Iran is one of the arid and semiarid countries facing water scarcity problems, but in the city of Taleghan, average annual rainfall is above the national average. The roof surfaces were used to measure the quantity of water stored. The surface which can be created on the roofs of houses has been calculated using the SPOT 5 satellite. It has a total accuracy and a kappa coefficient of 91.2 and 88.5, respectively. While there are many benefits of the rainwater collection system, the results of this study showed that the economic benefits are different. If the estimated life of the rainwater collection system is 10 years and annual inflation increases at least 1% each year, this system is not economic. The initial capital requirement for a rainwater collection system was estimated at  $679 \pm 278$ . The results show that the costs of setting up a rainwater collection system and at least the 18% yearly financial interest on bank deposits are not equal. Besides the results show that the high cost of building the rainwater collection system is linked to the storage tank and it needs the government's financial support.

## کلمات کلیدی:

Drought, Economic Estimation, Rainwater collection system, Taleghan

## لینک ثابت مقاله در پایگاه سیویلیکا:

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