

عنوان مقاله:

Floodwater Harvesting for Improving Dryland Agriculture

محل انتشار:

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خلاصه مقاله:

This paper proposes floodwater harvesting as a countermeasure for ever-increasing water shortages in a semi-arid region of Iran. Characteristics of local Mediterranean climate are highlighted as a major constraint for direct use of seasonal runoff produced by small catchments. Rainfall and runoff measurements were carried out during four consecutive years in order to evaluate hydrological data obtained by regional analysis. The result indicates that regional analysis might have caused overestimation for runoff volume and unreliable monthly distribution. Registered data, shows that occasional rainfalls (In this case only once a year) are the only opportunities for floodwater harvesting. It is therefore understood that the water storage is very important for regulating the individual runoff in order to support crop water requirements along the year. A design chart has been developed to be used for optimization of storage capacity with respect to cultivated area and the corresponding risk of water shortage.

کلمات کلیدی:

Floodwater harvesting, Arid region, Regional analysis, Reservoir optimization, Runoff estimation

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