

Assessing the available surface water resources of torogh dam for agricultural consumption-problems and solutions for future.

ABSTRACT

Shortage of water resources in Iran especially the Mashad area is a very severe problem due to the prevailing condition of arid and semi-arid climate. Prolong droughts will affect the availability of water in Iran. Therefore Torogh Dam Watershed of Mashad has been studied. It is located in a semi arid zone of the southeast corner of Mashad city with a population of 2.5 million covering an area of 16400 km . Water scarcity 2 is a major issue in the study area. About 40% of the surface water resources of Torogh Dam are used to irrigate agricultural land. Lack of precipitation and inefficient management of the irrigated water have caused the cultivated land not fully exploited. In summer water demand and water supply is not equal for irrigation because amount of water for irrigation is not sufficient. This Paper reviews current and future scenario, problems and solutions in sustaining water resources at the downstream of Torogh Dam for agricultural consumption for the centre of Khorasan Razavi County. Result of this review indicated that low efficiency of irrigation, lake on modern irrigation system and lack of participatory irrigation management are important factors for surface water resources management.

Keyword: Surface water resources; Water demand; Water supply; Irrigation efficiency; Mashad; Torogh dam.