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Estimation of Actual Evapotranspiration in Sefidrood Basin with Satellite Image Processing.

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Abstract

Evapotranspiration is one of the important hydrologic cycle components that have very considerable effect in local and global climate. 70% of precipitation in the world and 90% of it in Iran returns in hydrologic cycle with Evapotranspiration and for this reason its estimation is very valuable. One of important factors in local actual Evapotranspiration is land surface temperature that its increase causes to decrease of actual evapotranspiration. In this study Satellite images of Terra-MODIS used for estimation of Evapotranspiration in Sefidrood basin between 2002 -2008.

Satellite image processing for mountain SEBAL method show's actual Evapotranspiration distribution in basin. Relationship between land surface temperature and vegation cover and actual Evapotranspiration was studied .results

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shown decrease in actual Evapotranspiration and the reason is decrease in precipitation about 78% in 2008 year.

Key words: Evapotranspiration, LST, SEBAL, Sefidrood basin, NDVI

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