

Multi annual flow calculation of the river by the satellite data (with example of Tsagvriskhevi river)

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Nowadays both scientific and technical hydrological filed satellite data are widely used, which has continuous row data of observations. This data is taking a much larger place for rivers that are not hydrologically studied yet, and such rivers number are quite large in Georgia and globally.

Today in Georgia, multi annual flow of the non-studied river is determined by the methodology which is given in the monograph "Water Balance of Georgia" (L. Vladimirov, & ather 1974), where Georgia is divided by the small hydrological region and for all those regions specific runoff volume is determined, which depends on the average height above sea level. The above mentioned data was obtained from the hydrological stations which were in the hydrological region and the last observed figure is dated by 1968 year.

Aim of the study is that to see what difference between theoretical methods and new satellite data is, compare their data and results of calculation (multi annual flow for selected river) it to one river, to see the reasons why they are different from each other. For satellite data mentioned above, it is necessary to calibrate it used by ground station's row data. For example, the river, where in the river valley there was no hydrological station but observation of precipitation by the ground station was and it is still existing in the catchment area.