

## Maximum discharge calculations modern approaches

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Maximum discharge calculations and report on the different rivers around Georgia plays an important role in performing of designing various types of roads, hydropower plants, bridges, etc. Because of the lack of hydrological observation in Georgia, the Rostomov formula, which has been specially developed for Georgian rivers in the 70s of the last century, has been used to account for maximum expenditures in Georgia. As usually, the data and the parameters which are used for calculation give 20-25% higher data.

However, modern approaches in hydrology is changing in parallel with development of scientific-technical methods, this is main reason that's why today for maximum discharge calculation we use different software's and program's, despite the fact that the mathematical formulas between them is not that different, but input parameters and the basic information which are necessary for the calculations are different. Today, European and American scientist widely use to compute calculations based on computer programs and satellite images that reflect current processes on the background of global climate change, which can make calculations more reliable.

The recent political and economic changes, and the Association Agreement with the European Union, country slowly moving from old Soviet standards to new European standards. That is why it is important to compare old and new methods to some extent, which will help us to increase the reliability of hydrological calculations for Georgia's territory and further improve.