

Comparative analysis of minimum discharge on some rivers of Georgia

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Water has special importance among the natural resources of Georgia. It is equally essential to meet vital needs of a person as well as to carry out agricultural activities. The use of potential of water resources must be taken into consideration to completely meet ecological requirements as much as possible.

The master's thesis represents a comparative analysis of minimum discharge on some rivers of Georgia. Minimal runoff plays a crucial role in designing industrial and domestic water supply, to determine minimal discharge of water in rivers observation data of winter and summer-autumn seasons are used. There are selected the stations of rivers which have the longest observed data series. These rivers are Alazani (H/S shakriani), river Mtkvari (H/S Khertvisi), river Paravani (H/S Khertvisi), river Supsa (H/S Chokhatauri), river Tekhuri (H/S Nokalakevi), river Rioni (H/S Alpana), river Gujaretistskali (H/S Tsaghveri), river Dzirula (H/S Tseva), river Khobistskali (H/S Legakhare), river Bakhvistskali (H/S kveda bakhvi).

As a result of actual observed data of minimum discharges were allocated to the research rivers, such as:

- 30-day minimum discharge (non-calendar year)
- Instantaneous minimum discharge
- Minimum discharge taken from daily average data.

Nowadays, in Georgia there is no legal basis and corresponding normative-technical documentation for determining the normative values of discharge of water discharged for ecological purposes which of course is the cause of numerous problems in terms of conservation and use of water resources. Therefore, it is crucially important to take into consideration the complex relationship between minimum and environmental flows.