

**Snow and Glacier Contribution in the Ganga River at Devprayag**

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**ABSTRACT**

The contribution of snow and glacier melt runoff in the all the Himalayan rivers originating from Himalayas is significant and required for water resources development of the region. The water derived from the snow and glaciers make these rivers perennial in nature. In the present study, the average contribution of snow and glacier melt runoff in the annual flow of Ganga river at Devprayag has been estimated. A water balance approach is adopted for this purpose. The total water budget of the basin was made for a period of 10 years (Oct.1982-Sept.1992). Daily rainfall data of 12 stations is used to compute total annual input to the basin and total annual volume of flow for 10 years period is computed using flow data at the Devprayag gauging site. Evapotranspiration losses are estimated for the same period. Evapotranspiration losses from the basin are considered only from the snow free area and evaporation losses from the rain falling on the snow covered area are considered negligible. Snow covered area in the basin was determined using satellite data for the same period. The variability of the snow cover area in the basin was also studied. On average snow and glacier melt runoff contribution In the annual flows of Ganga river at Devprayag is found to be 28.68% and rest from the rain.

