

# Alaknanda glaciers reducing, may cause Ganga water shortage: Study

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**Meerut:** In the first detailed “inventory of glaciers” at the Alaknanda river basin, which contributes the maximum water to river Ganga, a source of livelihood for millions, scientists discovered a reduction of 59 sq km in the glacier area over a period of almost 50 years, between 1968 and 2020. This meant that 8% of the total area of glaciers decreased. Scientists said this could potentially cause a water shortage in the holy river. Regional climate change was a big reason behind the development, they added.

This study of the river basin was published in the *Geocarto Journal* by Taylor & Francis. The average retreat rate of glaciers in the basin was 11.7 m per year.

The analysis of climatic parameters in the basin suggested substantial evidence of deglaciation due to global warming, especially since the winter temperature increased by 0.03 celsius per year between 1968 and 2020.

The team of scientists studied almost all satellite imagery since 1968 meticulously, and found that though the area of the glaciers reduced in the river basin, the number of gla-



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ciers increased from 98 to 116. “Glaciers are like trees, with many branches coming out of them. In the Alaknanda river, we found that many extended portions of the glaciers got separated from the main glacier, mainly because of climatic reasons. This increased the number of glaciers in the area,” said Remya.

However, scientists said the increase in numbers was “nothing to celebrate”. Small portions of the glaciers were melting in a way that they would not contribute water to the river and hence, there would be a “cascading effect” on the water security of the people living downstream, they said.