



# Gangotri Glacier Retreat Signals Climate Peril

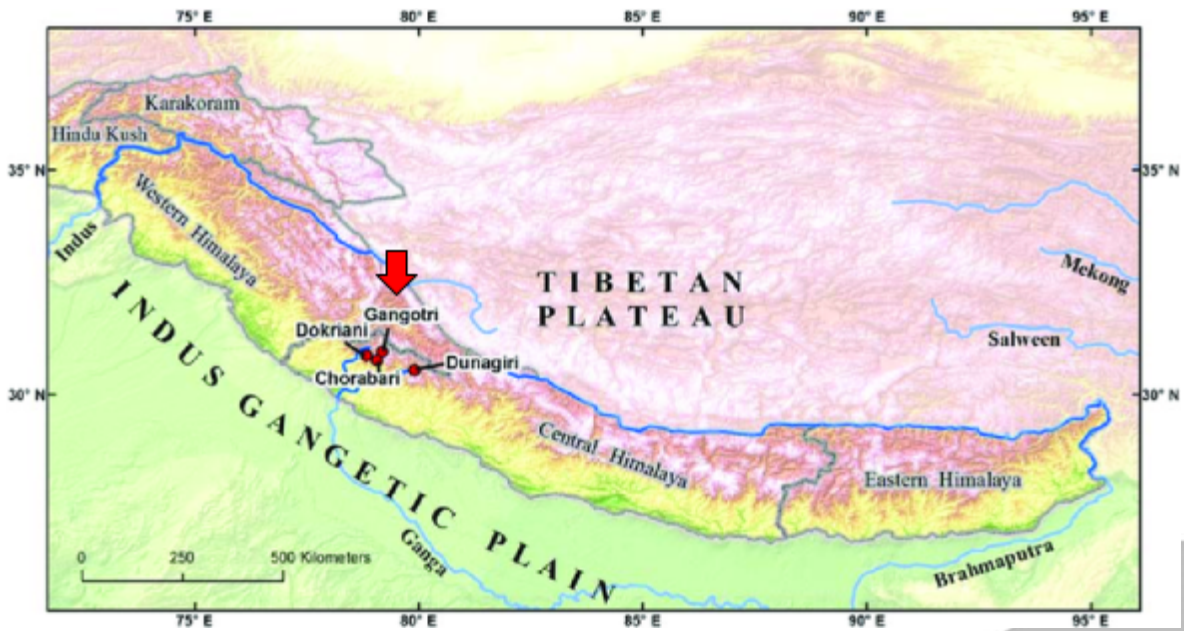
[Source: DTE](#)

A study by IIT Indore and ICIMOD (Nepal) reveals that the [Gangotri Glacier System \(GGS\)](#), the primary source of the [Ganga](#), has **lost 10% of its snowmelt flow over 1980-2020** due to **rising temperatures and climate change**.

- [Himalayan glaciers](#) are thinning at an **average of 46 cm/year**, and Gangotri's snout is steadily receding. Increasing rainfall-runoff and base flow indicate **climate-induced hydrological changes**.
  - [Glacial lakes](#) and other water bodies across the Himalayan region saw a **10.81% increase in area** from **2011 to 2024** due to **climate change (Central Water Commission)**.

Gangotri Glacier

- **About:** Gangotri Glacier, located in **Uttarkashi, Uttarakhand** is one of the **largest Himalayan glaciers** originating from the northern slopes of the **Chaukhamba range**.
  - It is a **compound valley glacier**, fed by several tributary glaciers like **Raktvarn, Chaturangi, and Swachand glaciers**.
  - **It is fed by peaks including Shivling, Thalay Sagar, Meru, and Bhagirathi III & it terminates at Gaumukh, from where the Bhagirathi River emerges and later joins the Alaknanda to form the Ganga at Devprayag.**
- **Gangotri National Park:** Established in **1989**, it encompasses **Gaumukh**, the source of the Ganga, and the popular **Gaumukh-Tapovan Trek**.
  - It has dense **temperate coniferous forests** including **chirpine, deodar, fir, spruce, oak, and rhododendron**, and is home to **rare and endangered species** such as [Black Bear](#), [Brown Bear](#), [Himalayan Monal](#), Himalayan Snowcock, [Himalayan Tahr](#), [Musk Deer](#) and [Snow Leopard](#)



Read More: [River Ganga](#)

PDF Reference URL: <https://www.drishtiias.com/printpdf/gangotri-glacier-retreat-signals-climate-peril>

