

February, 2026

To,
The Additional Chief Executive Officer (Admin.)
Uttarakhand State Disaster Management Authority,
IT-Park Sahastradhra Road
Dehradun

Subject: Reference to letter No. 493/USDMA-2024 dated 7th June 2024 and email dated 04.11.2024.

Dear Sir,

With reference to the above-mentioned letter regarding the submission of the monthly progress report for the project **“Long-term Monitoring of the Gangotri Glacier, Garhwal Himalaya”**, sponsored by the **Uttarakhand State Disaster Management Authority (USDMA)** and undertaken by the **Wadia Institute of Himalayan Geology (WIHG)** since March 2022, the following update is submitted:

In February 2026, the watch and ward team undertook a field visit to the Gangotri Glacier region to ensure the smooth functioning of the instruments installed at all monitoring sites. Their inspection covered Bhojwasa, Chirwasa, and Maneri, where the operational status of all monitoring equipment was carefully checked. The visit was part of routine monitoring efforts aimed at maintaining continuous data collection despite the prevailing harsh winter conditions. Additionally, the team also carried out systematic observations to monitor any unusual activity in the Gangotri Glacier region.



Figure 1. Photograph of the inspection of the Automatic Weather Station at Bhojwasa on 9th February 2026 by the watch and ward team, displaying data under harsh weather conditions.

The watch and wards was planning to visit the snout region to confirm any unusual activity near the Gomukh area, but due to snowfall on the track, they were unable to proceed (**Figure 1**). During the visit, the watch and ward team checked the Automatic Weather Station installed at Bhojwasa and the broadband seismic station, and found that the data was being recorded in the data logger, with parameters, was being displayed correctly (**Figure 2**). The Bhagirathi River is almost silent and is flowing along its original path since the end of the last summer season.

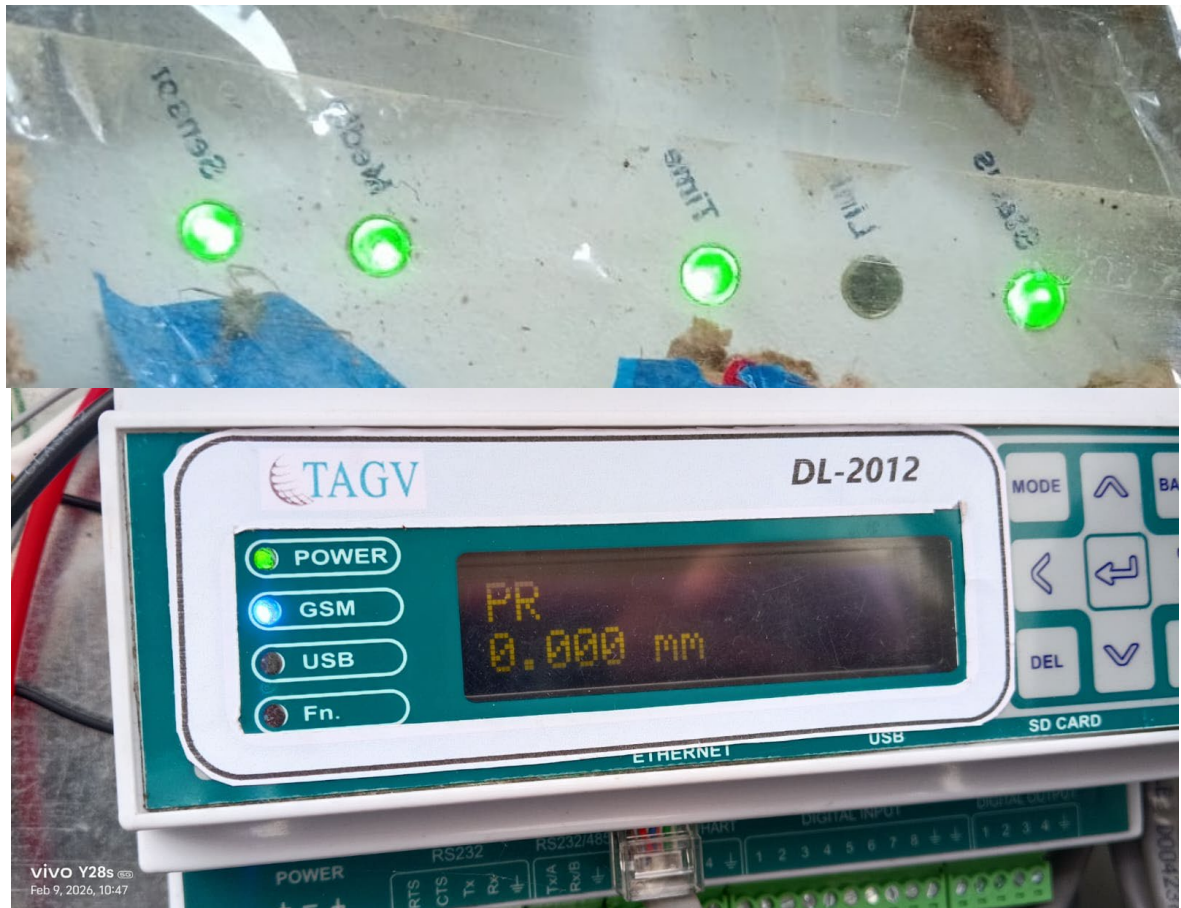


Figure 2. Photograph of the data logger of the Automatic Weather Station at Bhojwasa on 9th February 2026, displaying data under harsh weather conditions.

The February observations show a significant rise in snow cover over the Gangotri Glacier basin, which is different from the changing snow cover conditions seen in January. Based on Sentinel-2 images, the assessment shows that the snow cover was about 91% at the start of the observation period (04th February). This shows that a lot of snow had built up across the basin. Then, it slowly dropped to about 80% (14th February) and then to 71% (24th February), showing that it was slowly melting over time (**Figure 3**). Even though there was less snow, the overall extent of snow was still much higher than it had been in previous months. We calculated the snow cover area (in percent) for the basin up to Bhojwasa to ensure consistency with earlier results.

This pattern suggests that February started with a strong accumulation phase, probably because of new snowfall, and then moved on to a steady melting trend as temperatures and solar radiation rose. February shows a more systematic loss of snow cover after peak accumulation than January, which had alternating phases of accumulation and melt. The distribution pattern stays the same across space, with higher elevations and shaded slopes keeping a lot of snow cover and lower valley areas losing it more quickly.

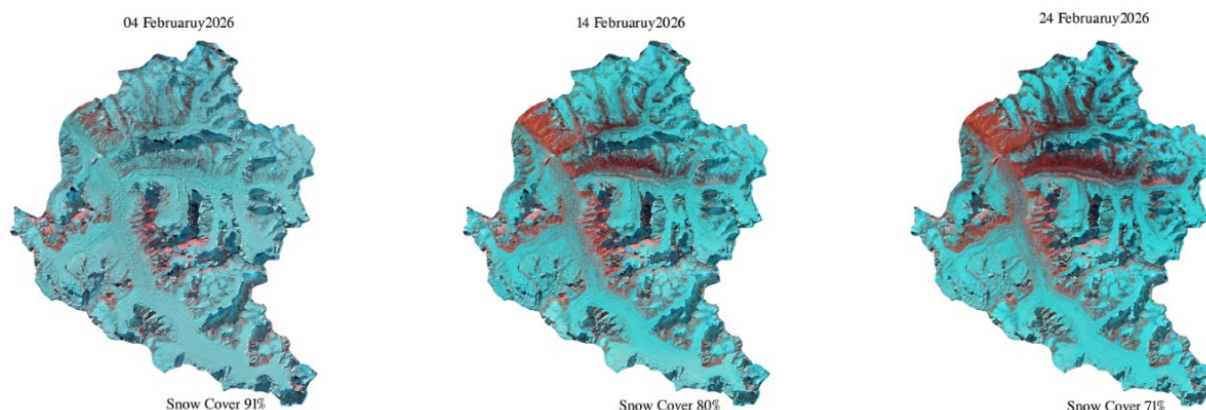


Figure 3. Distribution of snow cover conditions in Bhojwasa during February, derived from Sentinel-2 imagery.

These observations show that the seasonal snow dynamics in the Gangotri Glacier region are changing, with a peak snow storage condition followed by gradual melting (**Figure 3**). The team also visited another Automatic Weather Station installed at Chirwasa and checked its functionality by connecting a display device to the data logger. They found that the instrument was recording data successfully and that the battery condition was within the normal range.

Based on the field visit, it was verified that the instruments installed at Bhojwasa, Chirwasa, and Maneri were functioning properly. Available satellite data and field observations were jointly examined to identify any major events, such as debris flows or the formation of new glacial lakes near Gaumukh. The analysis confirmed the absence of debris flows, major glacial lake development, or significant geomorphological changes in the vicinity of the Gangotri Glacier.

Thank you for your attention to this matter.

Amit Kumar

Dr. Amit Kumar
Scientist C

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