[**Recurring disasters**](https://www.dawn.com/news/1689271/recurring-disasters)

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THE recent [disaster on Shisper Glacier](https://www.dawn.com/news/1688466/shishper-glacier-outburst-sweeps-away-bridge-in-hassanabad-area-of-hunza) in Hunza Valley should not have come as a shock to the Disaster Management Authority in Gilgit-Baltistan (GB). Rising temperature and accelerated melting go hand in hand.

Pakistan is home to the largest and densest collection of glaciers outside the polar region. This vast reservoir of frozen water is a valuable resource but it can also turn into a looming threat that can unleash hydro-meteorological disasters of mega proportions. This can range from Glacial Lake Outburst Floods (GLOF) to glacier bursts, and riverine to flash floods and landslides.

A glacier burst is different from GLOF. Under this phenomenon, water accumulates under the terminus of the glacier and is not visible. Once the glacier bursts it can fill up again and pose a recurring threat of varying intensity. This is the fourth time the Shisper Glacier has burst. The last two occurrences were in February and June 2020. The GB government has been monitoring the glacier and using its resources to take precautionary measures. But this time, the volume of water and its velocity were fierce and caused more damage than ever before. The most likely cause is the latest heatwave that triggered accelerated melting, resulting in a sudden increase in the meltwater volume.

Heatwaves, changes in precipitation and hydrological imbalances will be the new normal. Scientific modelling of cryospheric behaviour in the Himalaya, Karakoram and Hindu Kush mountains project accelerated melting till 2040 (floods) and reduced snow/ glacier melt/ run-off after that (reduced water flows). Both scenarios are fraught with risks and must be addressed using the best available knowledge and science to prepare an anticipatory adaptation plan that can help mitigate losses.

Pakistan received $4 million from the Adaptation Fund and UNDP (2011-2015) to address GLOF-related disasters. This was utilised to address threats from glacial lakes in Bagrot (GB) and Golain (Chitral). The second funding of $37m from the Green Climate Fund (2017-2024) was designed to address nine GLOF projects in Khyber Pakhtunkhwa and 16 in Gilgit-Baltistan. In GB, seven projects were completed in the first phase and an agreement to start work on the remaining nine has just been signed. However, Shisper is not a GLOF event and its massive burst this year should ring alarm bells.

**Read:** [*The climate story*](https://www.dawn.com/news/1681087/the-climate-story)

Altogether there are more than 3,000 glacial lakes in Pakistan of which 33 are ranked as high risk and can burst at any time. Similarly, we have 7,253 glaciers of varying lengths and density but have little knowledge about their behaviour and response to climate change. This means more Shisper-like events can happen.

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It is not just ironic but potentially dangerous to have such a vast cryopheric space without the capacity for research and monitoring, and not possess the tools for analytical risk assessment to relate the level of risk with preparedness. This knowledge deficit and lack of scientific application in planning, result in delays and ill-conceived projects that don’t always meet the technical criteria for designing effective engineering solutions for mitigation.

The National Disaster Risk Management Fund has been unable to fully utilise the $128m that was made available to it by the World Bank in 2020 for ecosystem restoration and $60m for enhancing hydro-meteorological capability. We bemoan our fate as a low emitter and being high on the vulnerability index but do little to show capacity for effective utilization and efficient service delivery when funds are made available to address priority challenges.

After the release of the [IPCC’s Sixth Assessment Report](https://www.dawn.com/news/1677703), it should be clear to everybody that climate change impacts are going to overtake our lives and exacerbate existing vulnerabilities manifold.

In Pakistan, hydro-met disasters will increase in frequency and intensity.

The Ministry of Climate Change needs to reset its agenda and focus on adaptation to reduce vulnerability. The best way to fast-track momentum is to operationalise the Climate Act 2017 and call for a meeting of the Council to identify priority concerns and devise a realistic action plan for implementation.

The ministry also needs to accelerate work on completing the National Adaptation Plan and prepare a strategy for coping with multidimensional threats. The climate crisis will spiral out of control as the planet continues to warm and the greenhouse gases trapped in the atmosphere play out the uncertain impact of this dangerous accumulation.

It is time to increase the budget of the Ministry of Climate Change, equip it with technical human resource and strengthen its capacity for facilitating the provinces to meet their mitigation and adaptation goals and accessing finance and technology. We are running out of time and must act now.

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