# Snowfall in Hindu Kush Himalayas hits 23-year low, threatening water security of two billion



The Business Recorder is reporting on a significant environmental development in the Hindu Kush Himalayan (HKH) mountain range, which extends from Afghanistan to Myanmar and is known for having the largest permanent ice cover outside the Arctic and Antarctic regions. The HKH region has experienced a 23-year low in snowfall, a phenomenon attributed to climate change with serious implications for the water security of nearly two billion people living in the area.

This information comes from a study conducted by the International Centre for Integrated Mountain Development (ICIMOD), an inter-governmental organisation that includes Afghanistan, Pakistan, China, India, Nepal, Bhutan, and Bangladesh. The study reveals that the 2024-25 winter snow persistence level—that is, the duration snow remains on the ground—has been 23.6 percent below the normal average for the third year running.

Supporting these findings, the United Nations’ World Meteorological Organisation reported that five of the past six years have seen record levels of glacier retreat worldwide. Experts warn that at the current pace, the glaciers in the HKH region—renowned as the largest freshwater reservoirs on earth—could shrink by two-thirds by the year 2100. Such a drastic reduction threatens water availability critical to agriculture, energy production, and various economic activities across the region.

Pakistan, which hosts over 7,000 glaciers—the highest number outside of the Polar Regions—has already faced environmental and humanitarian crises related to these changes. In areas such as Gilgit-Baltistan and Chitral, thousands of people have been affected by glacial lake outburst floods and landslides. Additionally, altered rainfall patterns have caused damage to homes, agricultural lands, and infrastructure throughout other parts of the country.

The analysis notes that greenhouse gas emissions by countries including India and China have contributed to higher-than-global-average temperature increases in the HKH mountains, accelerating glacier melt. Scientists had long predicted that global warming–induced glacial melting would cause cyclical periods of flooding and drought, a pattern now unfolding. In light of these risks, several regional nations have issued drought warnings for the agricultural sector. Prolonged and intensified heat waves and longer summers are increasingly being experienced by local populations.

ICIMOD’s report highlights the broader impact of these environmental changes on twelve major river basins, including the Indus River System, which is vital to Pakistan’s largely agrarian economy. As one of the world’s most water stressed countries, Pakistan faces the urgent need to respond by enhancing regional and international cooperation to tackle water resource depletion.

The Business Recorder suggests that governments, both at the federal and provincial levels, focus on measures such as water conservation, constructing small dams where viable, and protecting the livelihoods of millions dependent on the river systems. These steps form part of necessary adaptation and mitigation strategies in response to ongoing climate challenges in the Hindu Kush Himalayan region.

Source: [Noah Wire Services](https://www.noahwire.com)

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