



The first global stocktake of the Paris Agreement

Submission by the International Centre for Integrated Mountain Development (ICIMOD)

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ICIMOD is a unique knowledge and learning centre working towards a greener, more inclusive, and climate-resilient Hindu Kush Himalaya (HKH). As an intergovernmental organisation with observer status at the UNFCCC, ICIMOD takes this opportunity to amplify the case for dedicated attention to urgent and effective climate action for mountains and people, particularly in the HKH region.

1. Climate crisis and the need for urgent action in the HKH

Mountains occupy 22% of the Earth's landmass and act as a barometer of the planet's health. Being at the top of the world, mountains, and in particular the HKH, are bearing the brunt of the climate crisis, as changes happen here before they happen anywhere else. The HKH region is home to the largest ice reserves outside the poles, and the melting of snow and ice in the mountains substantially [contributes to sea level rise](#) and triggers a host of cascading issues. However, despite their global importance, mountains and their unique issues have yet to receive the level of attention that oceans garner in global processes and environmental discourse.

The mountains of the HKH harbour four global biodiversity hotspots and function as water towers for 10 major Asian river systems, providing water, ecosystem services, and the basis for livelihoods to a population of around 240 million people in the region. The basins of these rivers provide water to 1.9 billion people, a fourth of the world's population.

The [IPCC's Sixth Assessment Report \(AR6\)](#) confirms that, concurrent with ice sheet loss, most of the world's glaciers have been shrinking since the 1950s at a pace unprecedented in at least the last 2,000 years. In the HKH, the pace of glacier retreat is similarly alarming. The

total glacier area in the region [decreased by 24%](#) between 1977 and 2010. Under current emission trends, around 65% of HKH glaciers will [likely be lost](#) by the end of century.

Even under the ambitious goal of the Paris Agreement to limit global warming to 1.5 °C, the HKH region will likely experience temperatures that are at least 0.3 °C warmer [than the global average](#). Under the same scenario, about 30%–35% of HKH glaciers will be lost by the end of the century. These changes in the cryosphere are irreversible and will undoubtedly have serious impacts elsewhere: increase in the risk of extreme weather and disaster events, disturbances to the hydrological cycle, and immense challenges to sustenance.

Air pollution is another critical issue with profound impacts on the HKH: [air pollutants originating in and near the HKH amplify climate change](#) through raised temperatures, accelerating glacier and snow melt, affecting the circulation of monsoons and distribution of rainfall over Asia. The IPCC's AR6 assessed the impact of such short-lived climate forcers, which negatively affect the health, environment, economy, and food security of the region. The Indo-Gangetic Plain has one of the most polluted airsheds in global comparison, with a large part of the population exposed to air pollution levels much higher than WHO recommendations. As the fifth leading risk factor for mortality in the world, the socioeconomic impact of this slow-motion disaster on human health and society is colossal.

The [cross-chapter paper on mountains](#) in the IPCC's AR6 report notes that climate risks are transboundary, cascading, and systemic. Weather and climate extremes have economic and societal impacts across national boundaries through supply chains, markets, and natural resource flows, with increasing transboundary risks projected across the water, energy, and food sectors. Disasters have increased in both frequency and intensity.

Existing global partnerships and processes need to consider the scale of the problems facing mountain regions and their wider global implications, and this warrants a much higher degree of collective engagement. Our battle against climate and other changes must be fought at this front – at the highest, most fragile regions of the world where impacts are [accentuated](#) – if we are to secure our collective future.

2. Recommendations

Given the global importance of the HKH region, ICIMOD calls for:

- The GST to dedicate space for technical discussions at COP28 to recognise the importance of mountains and address the rapid changes confronting these regions. These changes are irreversible and have impacts within the region and far beyond and therefore need to be discussed at the third Technical Dialogue (TD 1.3).
- The GST to ensure the inclusion of the sustainable mountain development agenda in the plenary of the upcoming COP28, and also consider dedicating space at COP28 for the sharing of experiences and synergising representation of key regional mountain organisations across the globe.
- The GST to provide mechanisms and opportunities to achieve the 1.5 °C goal, including in the HKH and other mountain areas, and recommendations to drive urgent action across mitigation, adaptation, loss and damage, and access to finance. In addition, we call for the GST to include a discussion on the role of air pollution on HKH and its mitigation and adaptation measures working on solutions for improving air quality for climate co-benefits within the targeted 1.5°C goal.
- The GST to consider transboundary climate risks and loss and damage as a crucial factor for effective adaptation in the discussions and findings to the technical assessment process, including recommending improvements to Paris Agreement mechanisms that would recognise the interconnections between economies and ecosystems in adaptation efforts.

Given the significant impacts of the climate crisis on the HKH, it is crucial that finance, technology, and capacity building be urgently directed to this region.

ICIMOD – further information

[ICIMOD](#) is a leading knowledge and learning centre serving the eight [HKH](#) countries: Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan. ICIMOD supports the HKH countries' efforts to address climate and environmental challenges, including supporting them with their national climate and other environmental policies. ICIMOD was instrumental in coordinating the [HKH Call to Action](#), which was endorsed by ministers from all eight HKH countries in October 2020 during the [first HKH Ministerial Mountain Summit](#). The HKH Call to Action is a clarion call for urgent collective action to protect the health of the peoples and environments of the HKH. It aims to enhance regional cooperation and leverage more resources, investment, and technical support – from South–South and North–South engagement – around six urgent actions.