

Nepal's glacial area depleted by 21 percent in 30 yrs: Report

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A Kathmandu based international organization working in the environment and climate change sector has stated that Nepal's glacial areas have been depleted by 21 percent over the past 30 years.

The International Centre for Integrated Mountain Development (ICIMOD) stated this recent data in a report, "The Status of Glaciers in the Hindu Kush-Himalayan (HKH) Region" which was released on Sunday during Mountain Day, a convening of mountain experts, policy makers, and climate change negotiators on the sidelines of UN climate talks which is ongoing in South African city Durban.

According to the press release issued by ICIMOD, findings of a three-year Sweden-funded research project led by ICIMOD was able to tally the number of glaciers in the HKH region-more than 54,000-and measure the area covered, 60,000 km.

In the Everest area, the data show a marked acceleration in the loss of glacial mass between 2002 and 2005. Glaciers appear to be shrinking in both the central and eastern Himalayas. Country-specific studies have found that depletion of glacial area over the past 30 years was 21 percent in Nepal.

Of these 54,000 glaciers, however, only ten have been studied regularly to determine the net loss or gain of ice and snow (called the mass balance). That handful of studies shows a loss of mass balance, with the rate of loss roughly doubling between 1980 and 2000 and 1996 and 2005. In the Everest area, the data show a marked acceleration in the loss of glacial mass between 2002 and 2005. Glaciers appear to be shrinking in both the central and eastern Himalayas.

The HKH, home to 30 percent of the world's glaciers and this region's glaciers and snow breathe life into the regional monsoon system and feed the headwaters of 10 major river systems that stretch across eight Asian countries-Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan.

The HKH region is one of the world's hotspots for global warming. The rise in temperature has been greater at higher altitudes and more pronounced during the cooler months than in the warmer months. This imbalance narrows the seasonal variation in temperature, potentially favoring some plant species over others and already having impacts on agriculture. Warming across the region is greater than the global average of 0.74°C over the past 100 years. However, this change is not evenly distributed. It is most pronounced in higher altitude areas like the central Himalayas and the Tibetan Plateau. In Lhasa, for example, temperatures increased by 1.35°C between 1950 and 1980.

Meanwhile, other two reports released at the same programme also cite problems of climate change, snow and glacier melt in Asia's mountainous Hindu Kush-Himalayan (HKH) region-site of Mount Everest and many of the world's tallest peaks-highlight the region's extreme vulnerability to climate change, as rising temperatures disturb the balance of snow, ice and water, threatening millions of mountain people and 1.3 billion people living downstream in Asia's major river basins.

“These reports provide a new baseline and location-specific information for understanding climate change in one of the most vulnerable ecosystems in the world,” said Dr Rajendra Pachauri, Chair of the Intergovernmental Panel on Climate Change (IPCC). “They substantially deepen our understanding of this region - and of all mountain systems - while also pointing to the knowledge gaps yet to be filled and actions that must be taken to deal with the challenge of climate change globally and to minimise the risks from impacts locally.”

The three reports published by ICIMOD provide the most up-to-date compilation of information on the current status of climate change in the HKH region and the first authoritative data on the number and extent of glaciers and the patterns of snowfall in the world’s most mountainous region.

The region offers livelihoods to the 210 million people living there and indirectly provides goods and services to the 1.3 billion people living in river basins downstream who benefit from food and energy. Rich in biodiversity, the region is home to some 25,000 plant and animal species, and contains a larger diversity of forest types than the Amazon. Yet despite an abundance of natural resources in the region, poverty is rife. HKH countries account for 15 percent of the world’s total migration.

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