

Writ in snow

Success in meeting the Paris Climate Pact's most ambitious target might not be enough, a recent study says, to prevent a serious meltdown in the Hindu Kush Himalayas. Released on Monday, the Kathmandu-based International Centre for Integrated Mountain Development's (ICIMOD) "Hindu Kush Himalaya Assessment" reveals that more than 35 per cent of the glaciers in the region could retreat by 2100, even if the global temperature rise is capped at 1.5° C. This could destabilise the hydrology of large parts of South Asia, China and Myanmar.

Regions in higher altitudes tend to warm faster than low-lying lands. So, a global temperature increase of 1.5°C could mean at least a 1.8°C temperature rise in the Hindu Kush Himalayas, the ICIMOD study warns. This will have a major bearing on the ice-fields, which are the largest repository of permafrost outside the polar regions. The region's snow is the source of 10 major river systems – including the Ganga, Indus, Brahmaputra and Mekong – in India, Pakistan, Afghanistan, Nepal, Bangladesh, Bhutan, China and Myanmar. Large-scale warming could drastically alter the river flows in these countries. The receding glaciers could cause a deluge in the rivers during the monsoon while the flows are likely to plummet during the dry seasons, with serious implications for irrigation, hydropower and ecosystem services.

Climate scientists have tried to link the Subcontinent's erratic monsoons over the past 10 years – days of intense rainfall combined with drought-like conditions – to global warming. They have, however, stopped short of identifying the

exact causes of these extreme weather events. The ICIMOD study offers clues that the receding glaciers might be the reason for the changing monsoon. "The number of intense precipitation days and intensity of extreme precipitation have increased overall in the last five decades. If these trends persist, the frequency and magnitude of water-induced hazards in the (Hindu Kush Himalaya) region will increase," it says. This is a significant conclusion given that developments in the Himalayas are known to have a spin-off on the monsoon in the Subcontinent. The ICIMOD researchers point out that more studies are required to firm up the links between extreme weather events in the higher reaches of the Subcontinent and the erratic weather in the plains. For this, they advocate more data sharing between the countries that share the Hindu Kush Himalayas. Even more salient is their message that political differences between these countries should not come in the way of joint efforts to build resilience of vulnerable communities and shore up the region's water security. Such cooperation must go alongside meeting the Paris Climate Change Pact's goals.

Source: xaam.in