

Renewed Thrust on Himalayan Glaciology – A National Initiative

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Being the densely populated and third-largest cryosphere, after Arctic/Greenland and Antarctica, the Himalaya and Hindu Kush are perhaps the most critical regions on the globe where the global warming trends may have an adverse affect on 50-60% of the world population due to tipping of the fragile eco-balance, wide spread glacier retreat, seasonal variability, loss in biodiversity and eventual depletion in water resource.

In spite of the scientific observations / investigations by the designated government agencies and academic institutions of India, in the last fifty years, the Indian glaciers are still among the least understood in the world. The inadequacy of long-term scientific data poses severe constraint in drawing definitive relation between the observed recessions of Himalayan glaciers in the last couple of decades to the phenomena of global warming. Further, the interrelated and combined effects of a host of natural and anthropogenic factors affect the natural processes associated with Himalayan glaciers thus making it complex to forecast the future trends. There is a compelling need to carryout large scale scientific Investigations on all the facets of glaciology, in an integrated and interdisciplinary manner on a longer time span, to understand the underlying processes, and determine answers to the many concerns that confront the scientists, policy and decision makers and above all the community that is likely to bear the brunt of these developments. Scientific study of glaciers, therefore assumes foremost importance for the management of water resources, climate/weather prediction and understanding the ecological system and impact on the socio-economic system. This demands the institutionalisation of research in glaciology in the country.

This paper outlines the context and the initiatives that had been taken by the Indian government in evolving a road map for the institutionalisation of Glaciology in India through the establishment of a 'National Centre for Himalayan Glaciology' which would henceforth foster, promote and co-ordinate scientific research and observation on Himalayan glaciers, on a long time horizon in collaboration with the existing knowledge institutions.