

The Himalaya mountains contain not only one of the largest concentrations of ice outside the polar regions, but contribute to the hydrological requirements of large populations spread over seven nations. The exceptionally high elevations of this low-latitude cryosphere presents a natural laboratory and archives to study climate–tectonics interactions as well as regional v. global climate influences. The existing base-level data on the Himalayan cryosphere are highly variable. Several climate fluctuations occurred during the late Quaternary (MIS1–MIS5, especially the last c. 100 ka), which led to the evolution of the Himalayan landscape. Detailed studies of these archives, along with those of the present cryosphere and related hydrosphere, are essential for understanding the controls on present and future hydrology of the glacial-fed mountain rivers.

This volume, a follow-up of the XII International Symposium on Antarctic Earth Science, Goa (A SCAR symposium), provides new data from locales spread over the entire Himalaya region and from Tibet. It provides a glimpse of the late Quaternary cryosphere, as well as a discussion in the last section on sustainability in the context of geohazard mitigations as well as the hydrological budget.