Need to worry about polar lakes

Polar lakes are important not only because of their unique geographical position, but also due to the persistent low temperatures, freeze-thaw cycles, seasonal and inter-annual variations in the lake cover changes. However, the presence of epi-shelf lakes and tidal fresh water lakes are restricted to the high latitude regions only. The focus of the recent scientific research suggest that the Polar Regions of the world, including that of the high latitudes and high altitudes of Himalaya, experience more rapid climate change than elsewhere in the world. This is certainly reflected in the Polar lakes located in these regions. These lakes begun to show striking impact in terms of gradual loss of perennial ice cover extent, increasing time duration of open water conditions, increment in lake water temperatures, increasing mixing and stronger water column stratification. In the Schirmacher Oasis of East Antarctica, many evidences show the complete drainage or drying up of lakes and lake basins as well as changing pattern in presence or absence of standing water. But in the high altitude regions such as the Himalayas face the increasing risk due to the threat of Glacial Lake outburst Flood (GLOF). Lakes being the downward integrator of all substance from the upper reaches can also serve as the monitoring laboratory for environmental parameters. All these suggest that we need to thrust our research on Polar Lakes in a more focused way.