

**Sharma, A.K., Singh, S.K. and Kulkarni, A.V., 2008, Approach for Himalayan Glacier Inventory using remote sensing and GIS techniques, Proceedings of International Workshop on Snow, Ice, Glacier and Avalanche, IIB, Mumbai, pp 177-188.**

**Abstract:**

Globally, the glacier inventory data is generated and represented for individual glacier in a well-defined tabular format with 37 parameters as suggested by United Nations Temporary Technical Secretariat (UNESCO/TTS). The tabular glacier inventory data sheet is designed to give an insight to parameters like the glacier location, dimensions, elevation, azimuth, the glacier form, activity, etc. In the absence of actual map the visualization and comparison of the representative inventory parameter data is difficult. Sometimes it is impossible to compare, understand and eliminate the ambiguity in the statistical information generated while working in the same area. With remote sensing and Geographic Information System (GIS) technique and the advent of cost effective high speed computing infrastructure, the generation, storage and sharing of information in map form for better visualization of glacier inventory data is possible. Using multi-temporal IRS-P6 LISS III data, multi-thematic information on glacier/deglaciated valley and associated features like drainage, water bodies, transportation, settlement locations, etc. is prepared and integrated in GIS for generating the final glacier inventory map. The digital data base is designed to provide inputs compatible to the standard data sheet format of UNESCO /TTS. Sample Glacier inventory map, the database design and the data sheet being prepared under Himalayan Glacier Inventory at Space Applications Centre (ISRO), Ahmedabad are discussed.