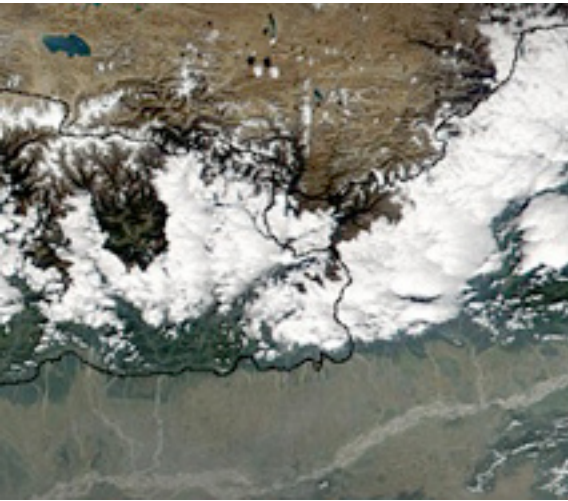




Fate of Mountain Glaciers in the Anthropocene

Working Group



Mountain glaciers in Europe, North America, South America, Africa, and the largest of them all in the Himalayan-Tibetan region are retreating, some at alarming rates. The hypothesized causal factors include global warming, atmospheric brown clouds, land surface modification, recovery from the mini ice-age, and large scale drying of the air among other factors. Some glaciers are expected to disappear during this century and others are predicted to experience significant loss of spatial cover and mass. The downstream consequences include glacial lake outburst floods, disrupted availability of water for agriculture and human consumption, changes to mountain ecosystems, increased frequency of forest fires, loss of habitat, and other potential catastrophes. A holistic study covering the physical science, social science, and the human dimension sides of the problem has not been attempted thus far. It is our hope that this first of its kind workshop organized by the Pontifical Academy of sciences will lay the foundation for studying and monitoring this potential disaster that will impact the entire planet. The workshop will also explore avenues available for mitigating and adapting to this potential tragedy.

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