

Going...Going...Gone? Earths' Disappearing Tropical Glaciers

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ABSTRACT

The reasons that tropical glaciers are one of the most sensitive barometers for climate change are reviewed. The rapid retreat of Earth's tropical glaciers is examined through a summary of existing literature. The significance of the melting is addressed.

The four tropical regions harboring glaciers are identified and described. The four areas, in order of quantity of surface area covered in glacial ice, are

- 1) South American Andes
- 2) North American (Mexican) volcanoes
- 3) Africa (3 mountain masses), and
- 4) Australia/Oceanic (Indonesia).

Historical observations from all four regions indicate that our planet's tropical glaciers, without exception, have been receding and are continuing to recede since the first written records are available from the mid to late 1800s. In some cases, the glacial decay rate is increasing to a catastrophic rate. "Then" and "now" photographs and summaries of other research are presented as evidence of the continuing retreat, and disappearance, in some cases.

Reasons for the meltdown are reviewed and discussed. All roads point to global warming as the main culprit, although decreased snowfall may also be a factor locally.

Potential socio-economic impacts at the local, regional, and global levels are discussed and the future of the world's tropical glaciers under current and greenhouse warming scenarios are considered.

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