



This is the print version of the [Skeptical Science](http://sks.to/glacier) article '[Glaciers are growing](http://sks.to/glacier)', which can be found at <http://sks.to/glacier>.

# Are glaciers growing or retreating?

## What The Science Says:

Most glaciers are retreating, posing a serious problem for millions who rely on glaciers for water.

## Climate Myth: Glaciers are growing

"[R]eports are coming in from all over the world: for the first time in over 250 years, glaciers in Alaska, Canada, New Zealand, Greenland, and now Norway are growing." ([JamulBlog](#))

Although Glaciologists measure year-to-year changes in glacier activity, it is the long term changes which provide the basis for statements such as "Global Glacier Recession Continues". Some Skeptics confuse these issues by [cherry picking individual glaciers or by ignoring long term trends](#). Diversions such as these do not address the most important question of what is the real state of glaciers globally?

The answer is not only clear but it is definitive and based on the scientific literature. Globally glaciers are losing ice at an extensive rate (Figure 1). There are still situations in which glaciers gain or lose ice more than typical for one region or another but the long term trends are all the same, and about 90% of glaciers are shrinking worldwide (Figure 2).

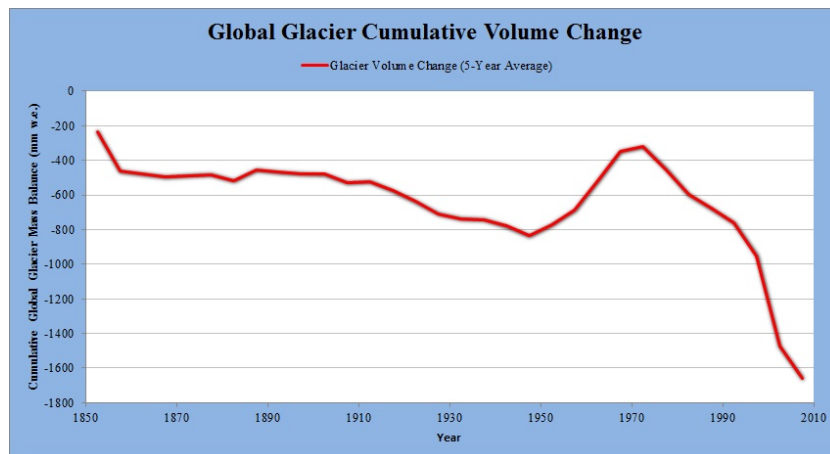
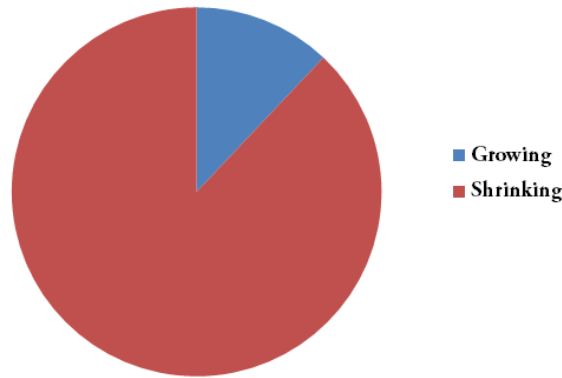


Figure 1: Long-term changes in glacier volume adapted from [Cogley 2009](#).

### Proportions of growing and shrinking glaciers in 2009



Source: World Glacier Monitoring Service - Glacier Mass Balance Bulletin 08/09, released 14/12/2011

*Figure 2: Percentage of shrinking and growing glaciers in 2008–2009, from the [2011 WGMS report](#)*

It is also very important to understand that glacier changes are not only dictated by air temperature changes but also by precipitation. Therefore, there are scenarios in which warming can lead to increases in precipitation (and thus glacier ice accumulation) such as displayed in part of southwestern Norway during the 1990s ([Nesje et al 2008](#)).

The bottom line is that glacier variations can be dependent on localized conditions but that these variations are superimposed on a clear and evident long term global reduction in glacier volume which has accelerated rapidly since the 1970s.

Basic rebuttal written by dana1981

---

#### Update July 2015:

Here is a related lecture-video from [Denial101x - Making Sense of Climate Science Denial](#)

[see video at [this link](#).]



The Skeptical Science website by [Skeptical Science](#) is licensed under a [Creative Commons Attribution 3.0 Unported License](#).

 **SkepticalScience.com**



Skeptical Science explains the science of global warming and examines climate misinformation through the lens of peer-reviewed research. The website won the Australian Museum 2011 Eureka Prize for the Advancement of Climate Change Knowledge. Members of the Skeptical Science team have authored peer-reviewed papers, a [college textbook on climate change](#) and the book [Climate Change Denial: Heads in the Sand](#). Skeptical Science content has been used in university courses, textbooks, government reports on climate change, television documentaries and numerous books.



The [Skeptical Science](#) website by Skeptical Science is licensed under a Creative Commons [Attribution 3.0 Unported License](#).