This is the print version of the Skeptical Science article 'Al Gore got it wrong', which can be found at http://sks.to/gore.

Is Al Gore's An Inconvenient Truth accurate?

What The Science Says:
While there are minor errors in An Inconvenient Truth, the main truths presented - evidence to show mankind is causing global warming and its various impacts is consistent with peer reviewed science.

Climate Myth: Al Gore got it wrong
"Al Gore's Oscar-winning documentary on global warming, An Inconvenient Truth, was [...] criticised by a high court judge who highlighted what he said were "nine scientific errors" in the film.

Mr Justice Barton yesterday said that while the film was "broadly accurate" in its presentation of climate change, he identified nine significant errors in the film, some of which, he said, had arisen in "the context of alarmism and exaggeration" to support the former US vice-president's views on climate change." (The Guardian)

It's worth pointing out that Al Gore is a politician, not a climate scientist. Debunking Gore does not disprove anthropogenic global warming. Nevertheless, it is instructive to look at the purported errors in An Inconvenient Truth as it reveals a lot about climate science and the approach of his critics.

What Al got right

Retreating Himalayan Glaciers

Contrary to James Taylor's article, the American Meteorological Society's Journal of Climate never said growing glaciers are "confounding global warming alarmists" - that's a quote from the Heartland Institute website written by... James Taylor. He's actually quoting himself and attributing it to the AMS! To put the Himalayas in context, the original AMS study is not refuting global warming but observing anomalous behaviour in a particular region, the Karakoram mountains. This region has shown short term glacier growth in contrast to the long term, widespread glacier retreat throughout the rest of the Himalayas due to feedback processes associated with monsoon season. Overall, Himalayan glaciers are retreating - satellite measurements have observed "an overall deglaciation of 21%" from 1962 to 2007. In essence, the Karakoram glaciers are the exception that proves the rule.

Greenland gaining ice

Re Greenland, a big clue is the study's title: Recent Ice-Sheet Growth in the Interior of Greenland. The study finds increasing ice mass in the interior due to heavier snowfall - an expected side-effect of global warming - and doesn't factor in all the melting that occurs at the edges of the ice sheet. Overall, Greenland is losing ice according to satellite measurements here, here and here.

Antartica cooling and gaining ice

Antarctic cooling is a uniquely regional phenomenon. The original study observed regional cooling in east Antarctica. The hole in the ozone layer above the Pole causes increased circular winds around the continent preventing warmer air from reaching eastern Antarctica and the Antarctic plateau. The flip side of this is the Antarctic Peninsula has "experienced some of the fastest warming on Earth, nearly 3°C over the last half-century". While East Antartica is gaining

ice, Antartica is overall losing ice. This is mostly due to melting in West Antarctica which recently had the largest melting observed by satellites in the last 30 years.

Hurricanes
The dispute isn't that global warming is causing more hurricanes but that it's increasing their severity and longevity.

What Al got wrong

Mount Kilimanjaro
Indeed deforestation seems to be causing Mount Kilimanjaro's shrinking glacier so Gore got this wrong. In his defence, the study by Philip Mote came out after Gore's film was made. But Mote puts it in perspective: "The fact that the loss of ice on Mount Kilimanjaro cannot be used as proof of global warming does not mean that the Earth is not warming. There is ample and conclusive evidence that Earth's average temperature has increased in the past 100 years, and the decline of mid- and high-latitude glaciers is a major piece of evidence."

Dr Thompson's thermometer
Al Gore refers to a graph of temperature, attributing it to Dr Thompson . The graph is actually a combination of Mann's hockey stick (Mann 1998) and CRU's surface measurements (Jones 1999). However, the essential point that temperatures are greater now than during the Medieval Warm Period is correct and confirmed by multiple proxy reconstructions. More on Dr Thompson's thermometer...

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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.

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