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August 2, 2012

An Inconvenient Half-Truth.

The movie 'An Inconvenient Truth' (Gore, Bender, Burns, Guggenheim, 2006) makes a lot of claims about global warming. The film is intended to both educate on the topic, and to alarm the audience with a simple message: Global Warming is here, and we're already in a crisis. To this end, the film attempts to present a fair bit of science to push its message. The science is, in most cases accurate, but the specifics are often manipulated or reported in an alarmist fashion. I strongly believe that the world is doing critical damage to its ecosystems, but to present evidence in a slanted or alarmist fashion does a disservice to all climate scientists and environmental activists.

In one of the early (and most memorable scenes), Gore shows a graph, extrapolated from the analysis of core ice that shows a relationship between carbon dioxide and temperature over the last 650,000 years. In the movie, he states: "So if you look at a thousand years worth of temperature and compare it to a thousand years of CO₂ you can see how closely they fit together. " He then goes on to imply that increased carbon dioxide levels caused previous warming, when in fact, many experts believe that the warming happened first because of changes in the Earth's orbit and tilt. ("Accuracy Of Science in Gore's movie: An Inconvenient Truth", Meier & Scambos, 2006). The warming goes on to cause increased CO₂ levels, which causes a positive feedback loop, raising other greenhouse gases into the atmosphere, causing temperature increases.

The fact is that our increasing amount of greenhouse gas emissions is already far beyond any naturally occurring levels ever seen in the past. The amount of CO₂ and other gases that are being released by our fossil fuel use is moving our ecosystems to an unknown Plimsoll Line, where the Earth will no longer be able to absorb the extra carbon dioxide and the resulting heat. This may not happen in our lifetimes, but because the exact amount that the Earth can handle is unknown, it becomes even more critical that we curb our unrestrained use of fossil fuels.

A second place where the movie presents relatively accurate science, but implies a much more serious timeframe is in reference to the melting ice in Greenland. In the movie, Gore talks about the amount of melting that has happened in Greenland, and goes on to say that if half the ice there melted, that sea levels would go up by 20 feet. While this is reasonably accurate, he goes on to show a slideshow and implies that this is a close possibility. While the fact that this much melt would raise ocean levels dramatically, it is widely agreed that this melt would take millennia, and by 2100, a rise of less than 59cm is expected (IPCC Fourth Assessment Report, United Nations Intergovernmental Panel on Climate Change, 2007). There is agreement that the ongoing melting, while not at critical proportions yet, is definitely trending towards a dangerous point - and as previously observed, we don't know where the tipping point for this is. As climate change accelerates, we may reach the point of no return at any time and be unable to undo the damage we have done.

The final place that I found the movie's facts to be wanting was in reference to the deaths of polar bears by drowning. The movie states "A new scientific study shows that for the first time they're finding polar bears that have actually drowned, swimming long distances up to 60 miles to find the ice." This is actually speculation, and there are other sources who speculate that the bears died due to a storm, or rough weather conditions. The use of polar bears in this context appears to be solely to draw sympathy, and is unnecessary. The number of species that has been lost, threatened or are at risk due to deforestation and climate change is huge, and needs no embellishment. Perhaps by including a 'cute' animal like a baby polar bear, the writers hoped to tug some emotion out of the audience. The variety of animals that are currently threatened and at risk, however, include such popular animals as the leatherback sea turtle, koala and clownfish. (Dell'Amore, C. National Geographic News, 2009). These could have been easily substituted, and with much more solid evidence and science to back it up.

While I found the movie compelling and interesting, I found myself constantly analyzing the facts and science in it, and spent many hours reading and researching the claims that the movie makes. While some of the science is presented in dubious manners, the underlying message comes across like a slap in the face, and there is a great deal of scientific evidence to back up the themes, even if they are not all presented accurately. The message that climate change is here and a real problem comes across loud and clear, but I feel that the needs of the climate change community would have been better served by a more 'honest' presentation of the facts. The underlying truth is

more than enough to frighten people, and hopefully have them realize that the window we have for reversing this change is rapidly closing.

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