

A CRITIQUE OF "AN INCONVENIENT TRUTH" AND "THE GREAT GLOBAL WARMING SWINDLE"

The Background:

"The Great Global Warming Swindle, 2007 " and "An Inconvenient Truth, 2006" are two documentary movies that put forward two extreme arguments on the scientific consensus about the reality and causes of climate change or global warming.

An Inconvenient Truth is a lecture/documentary film that covers environmentalist and ex-Vice President of the US, Al Gore's presentation about the immediate and devastating threat of Global Warming. Al Gore puts on a diverse and enough simplified picture of the projections and research backing the threat of global warming. The film had such a reception that it was made part of the school curriculum in many countries like the UK. At first, the movie seems like a scientifically sound collage of facts and information, but as we may see, many of these implications are based on poor scientific grounds and many are "over-alarmist" and "deceiving".

The Great Global Warming Swindle is, on the other hand, a documentary-cum testimony of a bunch of professors and intellectuals on the field of climate, against the popular theory of human induced global warming and its causes. It straight away makes the narrative go up-side-down as it emphasizes the alarm of catastrophic human-induced climate change is nothing but a fantasy based on weak scientific evidence. The movie and the cast received a lot of backlash from mainstream media and scientific panels, but interestingly, a major theme of the movie was exactly the intolerance of popular discourse about voices challenging man-made climate change.

This critique aims to walk the line between these two narratives, judging on each of their arguments when they contradict and evaluating their theories about reality. The critique tries to explain claims made in both the movies over various aspects of the climate change debate, and then tries to pronounce a judgment based on evaluation done by the writer from other sources and even the references cited by the two sides. Thereafter, the theories put forward by the two sides are evaluated on their merit and reception in the scientific consensus and the writer's knowledge. All sources and references are mentioned in the bibliography, and every possible attempt has been made to fact check the references.

The Critique:

Increase in Global Temperatures:

Al Gore:

Al Gore's presentation starts with a graph showing an average increase in the global temperature since the 1970s. Later, he shows another graph of temperature measurement since civil war (figure 1).

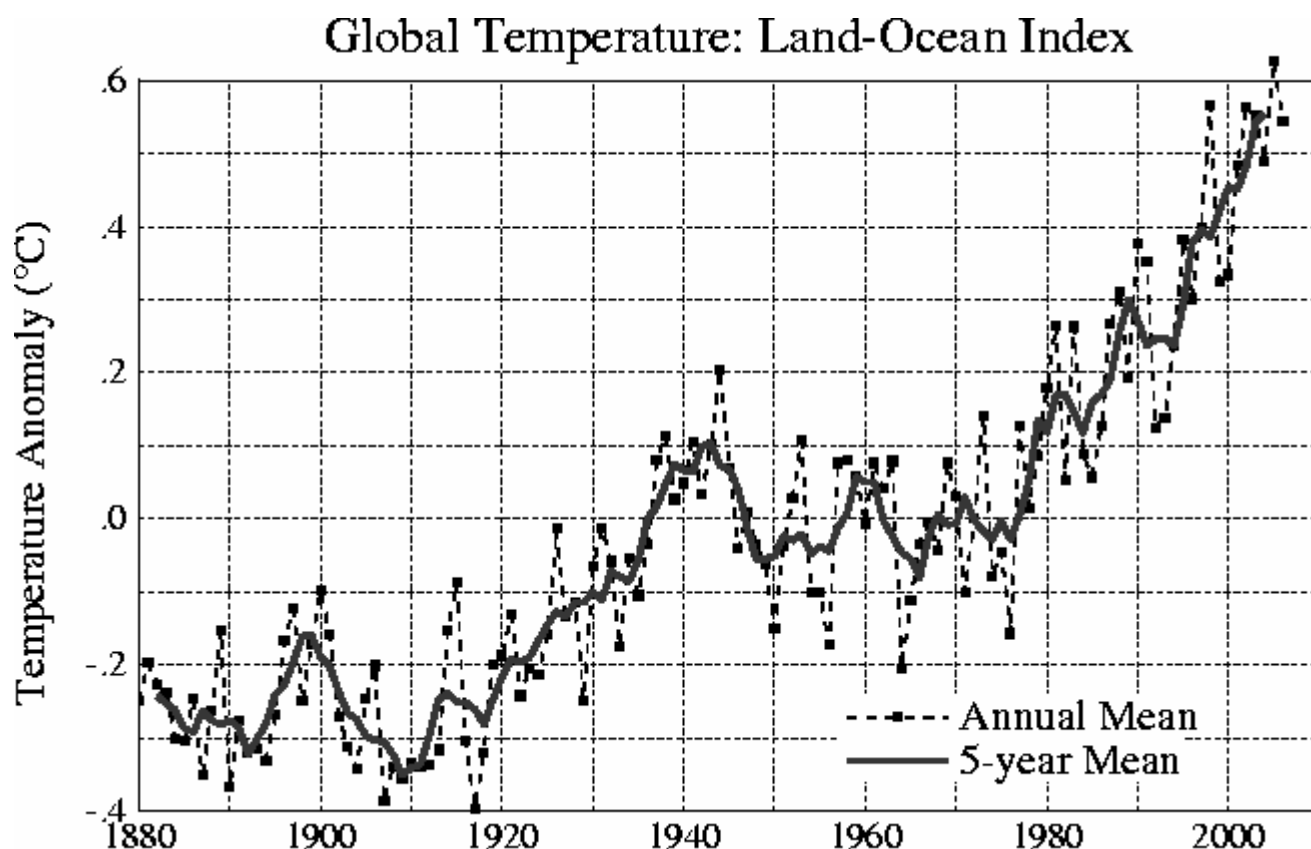


Figure 1.

He then states that the hottest 10 hottest years ever "recorded" have occurred in the last 14 years. He speaks of the deadly heat waves which swept Europe, south east asia and africa. He shows a graph which shows abnormal increase in the temperature of the ocean. To cite effects of this ocean warming, he lists the increase in the number of hurricanes, floods and typhoons, which were the highest in recent decades. His argument climaxes with the case of Katrina, which he said went from category 1 to devastating level, because it passes over the ocean allegedly warmed up by global warming. All these statements, he argues, are solid evidence of increase in global temperatures, and effect in making weather adverse.

The GGWS:

All the speakers in the GGWS movie do agree with Al Gore's statistics and theory that the global is warming up and average ocean temperatures are rising. There is however a contradiction that the

present level of temperatures are in no way abnormally greater than the highest temperatures in the present ecosystem has achieved historically.

Assessment:

There is an agreement that the temperature's are rising, but the both sides fail to provide any support to their argument over whether these recent years are the hottest ever or contradiction.

However, there are quite many errors in Al Gore's presentation. Scientific evidence on the reason that Katrina got violent by human induced Global Warming is thin. Infact, the biggest cyclone in recorded history was in Bangladesh in 1970s (one which led to George Harrison and Ravishankar's "Concert for Bangladesh" for aids). And the ocean temperatures didn't start to rise by that year.

CO₂ vs Sun : Who is behind the global warming:

Al Gore:

One of the main themes of Al Gore's presentation is: Humans activities are the driving force of Global Warming and it is at unforeseen levels and catastrophic. The human activities he mainly focuses on are greenhouse gases and at the heart of it is CO₂. Al Gore puts up a graph (figure 2), which shows the plot constructed by measurement of Global annual average temperature and CO₂ levels over a span of 650,000 years.

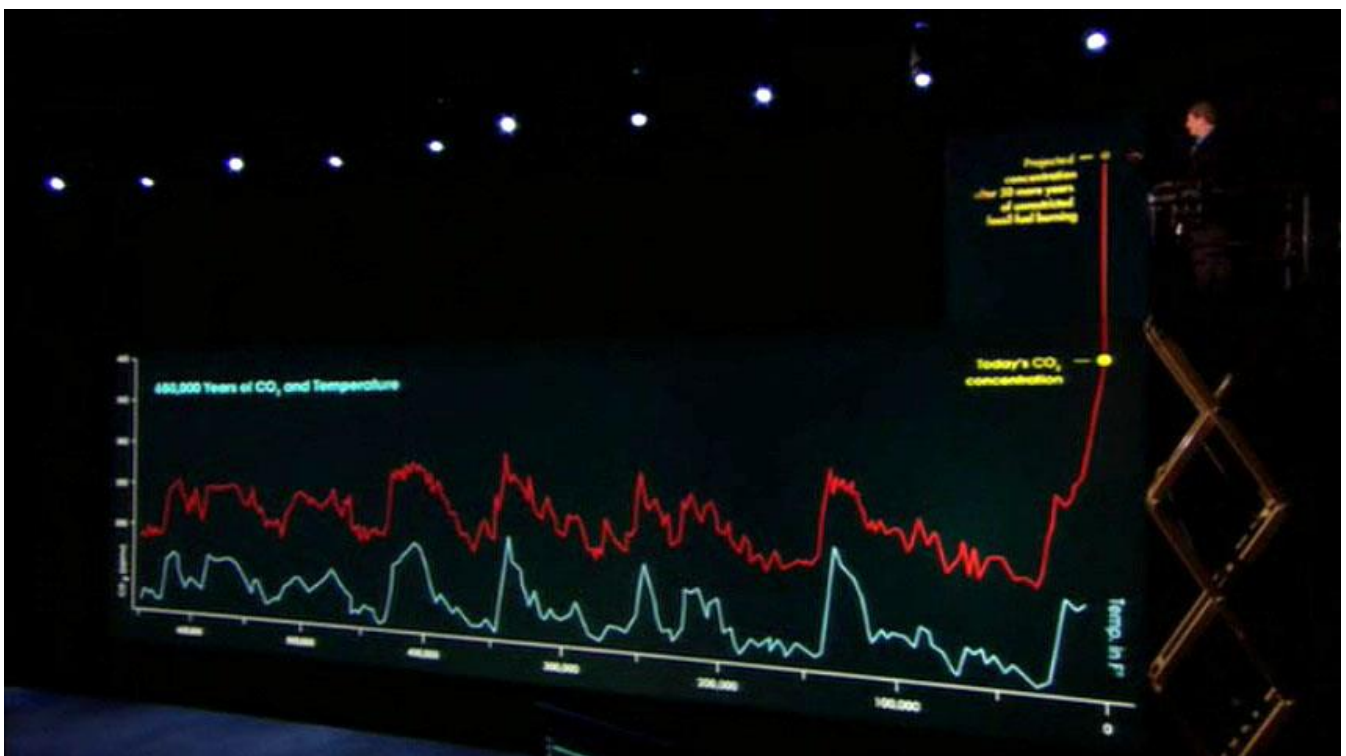


Figure 2

Here , he shows that CO₂ and temperature levels coincide exactly in their gradients and thus, it can be concluded that historically, CO₂ has had the capacity to steer global temperatures. He then shows how

the level of CO₂ in recent decades has shot up exponentially. He even states that there are no contradictions from any scientist to this theory of human induced global warming.

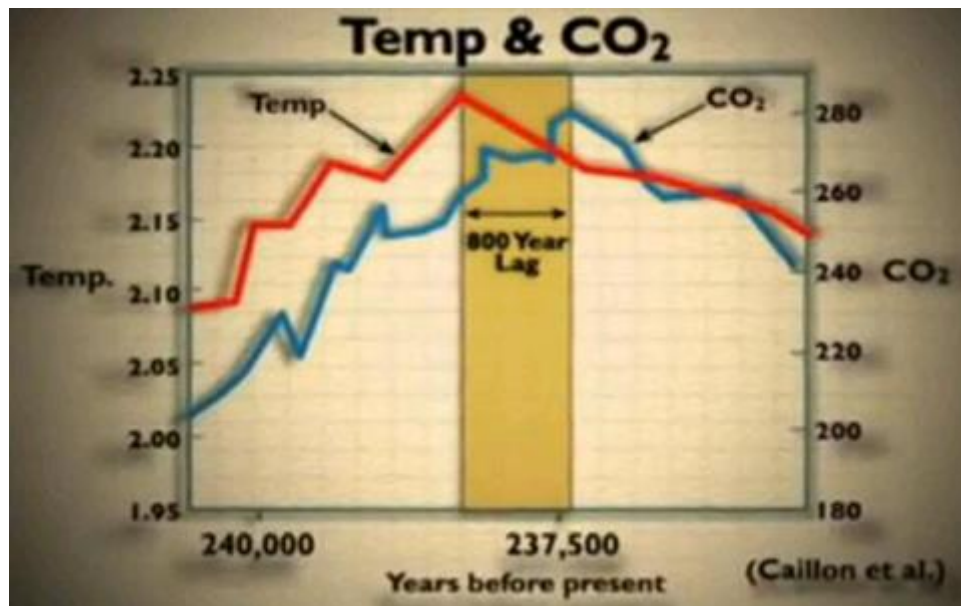
Later in the presentation, he states the main causes of this exponential rise in CO₂ are:

- Large population
- Scientific and technological power which has converted humans into a pseudo-natural phenomenon.

The GGWS:

Here comes the most crucial divergence in the entire story. The speakers in the GWSS state it straight up, CO₂ is not driving global warming. Their arguments are following:

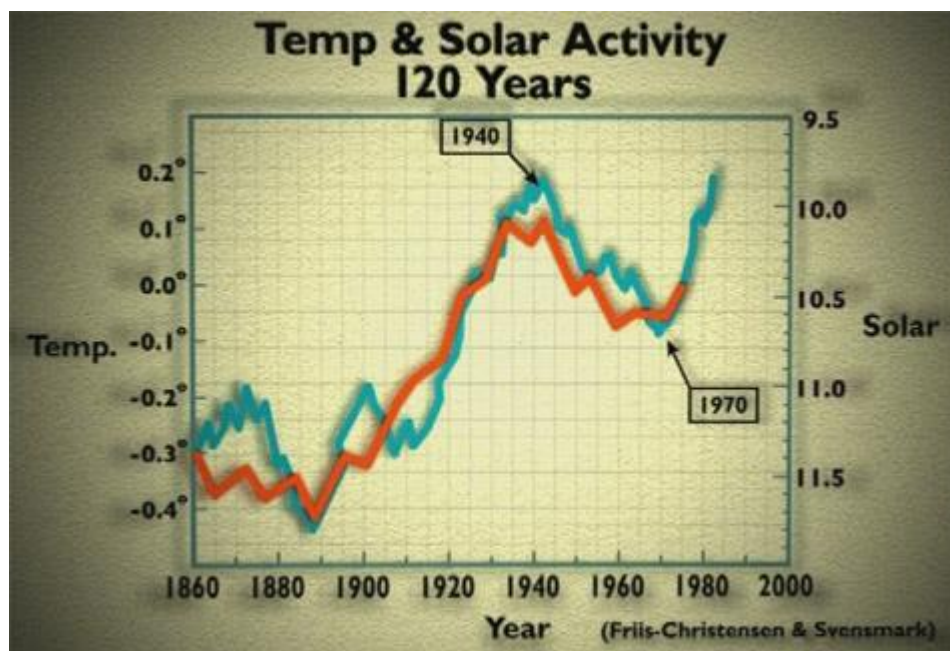
- The graph Al Gore shows is correct but the visible overlapping is deceiving. Zooming in to the



time scale on the graph, we find that there is approx 800-1000 year lag in the rise in temperatures and CO₂ levels. It seems that CO₂ levels are driven by global temperatures. It can be explained by the fact that, increase in ocean temperature decreases CO₂ solubility in it and releases it in large amounts.

- There has been 3x to 10x times the level of CO₂ historically than today.
- During the period of the Industrial boom from the 1940s to 1970s, global temperatures had fallen, as shown in figure 1. Had CO₂ been driving the temperatures, how can this anomaly be explained?
- The amount of CO₂ in atmosphere as percent is so low that any expectations of major phenomenon are logically really small. Role of water vapour is much greater in terms of both content and greenhouse effect.
- There is only 0.5C increase in temperature post industrialisation, which seems normal and periodic.
- Surface of earth is much warmer than the atmosphere at heights, contrary to the prediction by greenhouse gases, which should have caused warmer temperatures at height.
- Volcanoes and animals emit more CO₂ than human industries.

Now, the question was if not CO_2 , then who is causing the increase in temperatures. The panel puts forward the big ball, SUN. They argue that, increase in solar activity and its magnetic rays perfectly



matches with the data on global temperature. Also, the decrease in cosmic radiation received to temperature is perfectly inverse, further cementing the theory of solar radiation.

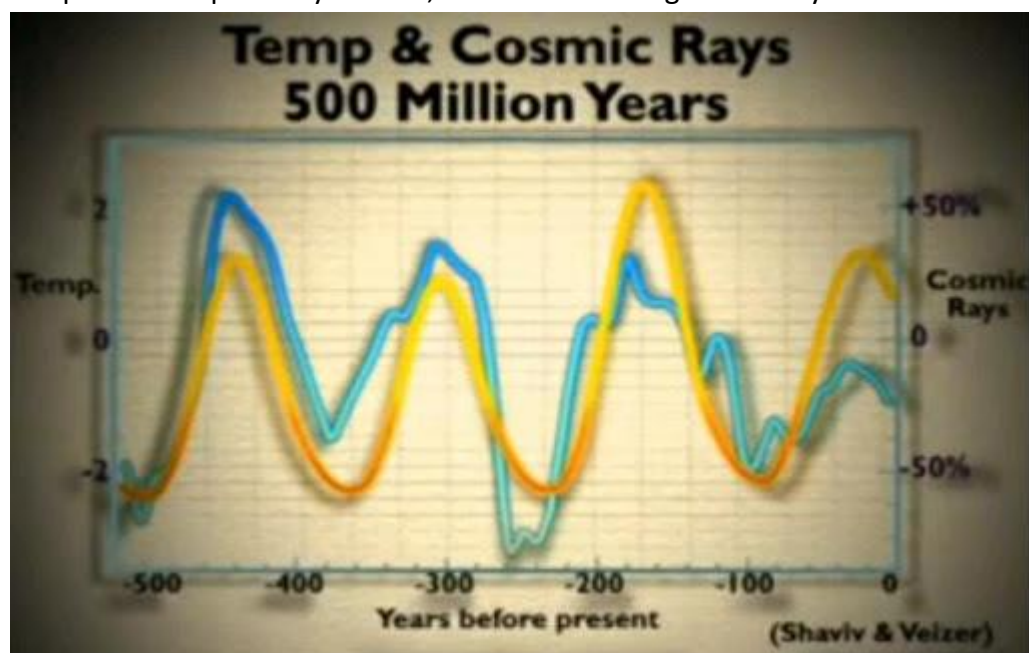
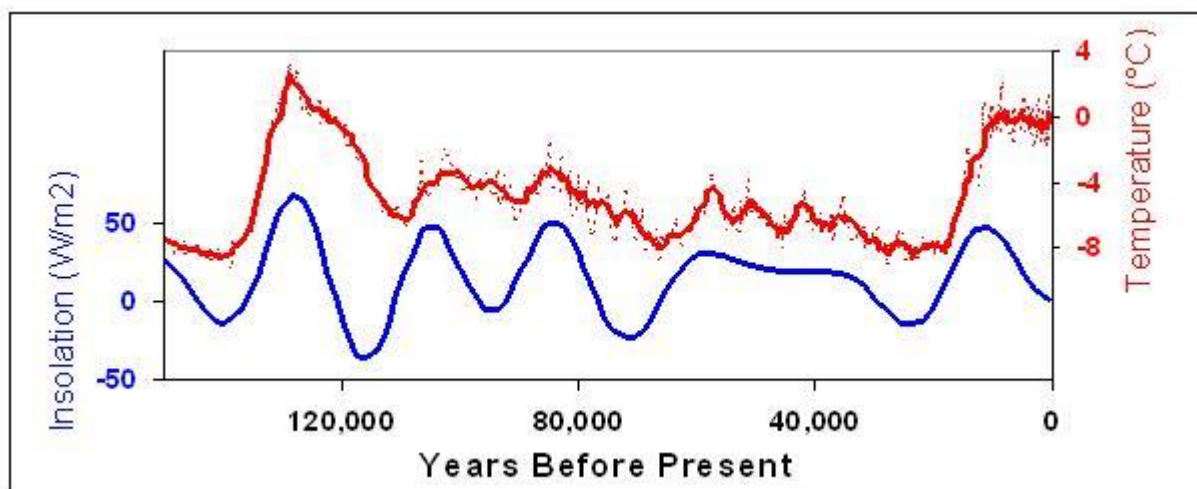


Figure 5.

Assessment:

The question on CO_2 has got one of the most interesting points and graphs in both of the movies. The graph Al Gore shows is from Vostok, Antarctica, and when zoomed in it, truly lags behind by 800 years. It seems that Al Gore and his friend were quite careless in claiming that the graph showed that CO_2 has

controlled the temperatures. In fact, the periodic increase and decrease in temperature can be explained by changes in glacial solar insolation change[1].



The claim from Al Gore that there is no skepticism in the scientific community is definitely wrong. We in fact, are currently writing critique of a bunch of experts denying human induced global warming!

However, Al Gore's misrepresentation diminishes in comparison to the mistakes people at the GGWS have made here. They have filmmakers have cleverly sandwiched mis-information or out-dated data in between correct arguments. Claims like there was 10x more CO₂ historically and volcanoes emit more CO₂ than humans are ridiculously wrong. Also, the logic that temperature should increase with height is not explained with proper theory.

The theory about the sun causing global warming is interesting, but is very loosely supported. In the Solar activity graph vs temperature, the y-axis for solar radiation in °C doesn't make sense. The graph attributed to Svensmark and Christensen was found out to be incorrect. One can see that the graph ends in the 1970s. Damon and Laut(2004) and others have shown later on with proper instruments that there is in fact no relationship between sun cycles and global temperature. The movie makers have in fact, slides in a conspiracy theorist "Piers Corbyn" as the weather scientist who forecasts climate via Sun. Apart from 1990, his record is really grey and unreliable. He recently claimed COVID-19 was a hoax, made by Bill Gates[2].

The plot of figure5, seems to be unreliable. There is no mention of the method via which cosmic radiation was calculated 400 years ago in the age of primitive technology.

However, the GGWS panel raises some really important questions. Listening to these queries one can see how Al Gore has greatly exaggerated and played with statistics. They busted Al Gore's claim of CO₂ controlling historical climate. Questions like why temperature fell in the Industrial boom till the 70s? How does CO₂ being 0.045% atmospheric cause such large changes in climate? How will you explain the anomaly in temperature with height? What about oceans and water vapour, who dominate over CO₂ other than humans?

Periodicity of Climate change:

Al Gore:

He gave the several examples as never before occurring events to solidify his claim of a ir-reversible climate change. The loss of ice caps on Mount KiliManjaro, disappearance of Lake Chad, coral reefs getting bleached, re-emergence of diseases etc. He highlighted two changes as the “canaries in the coal mine”:

- Arctic Ice sheet: Cracks in wharton ice sheet. Loss of permafrost.
- GreenLand: Loss of tundra from 225 days of ice in 1970 to 75 in 2000. Thinning of ice in the arctic. First report of drowned polar bears.

The GGWS:

The panel in GGWS was pressing on this claim : this is nothing but a periodic warming of the globe. They stated there was a little ice age after about 1400AD and a Medieval Warming period. Drastic changes in climate in a smaller time interval can be seen from the statements of a frozen Thames river, vineyard in London in recent pasts.

The panel busted the claim that mosquitoes and other viruses are climate controlled. A new class of journalism , Environment Journalism , is so keen on sensationalism, it would waive over-exaggerated results and projections and blame every other calamity on climate change.

Assessment:

The GGSW panel raises some really important points in this segment, although they fail to provide any solid evidence or computational argument against the computer projections , rather than vaguely claiming that simulations are greatly tweaked and adjusted with assumptions to get sensational results. They also fail to produce any simulations of their own in contrast.

The panel is however quite right on the criticism that Journalist’s over-blow scientific findings and we have found a great example in Al Gore’s claims[3]:

- There is no evidence that ice caps of Kili Manjaro are melting due to global warming.
- Lake Chad dried up due to overexploitation not climate change.
- Coral reefs are mostly getting destroyed due to fishing and acidification.
- Climate control on diseases like malaria , dengue is not scientifically supported and there has been rather epidemics of these diseases in really cold tundra regions.

Also , the GGSW panel almost counters the claims of Al Gore about retreating glaciers and ice in greenland, as it has been observed that there is a periodic retreat and advance in these glacier fronts. Also , claims of 20 feet increase in sea levels and evacuation of migrants from pacific islands are null threats and it has been projected that in the next hundred years, there will be about 40 cm rise in sea level.

Thus, Al Gore has failed to produce robust and consistent projections and evidence about the ir-reversible impacts of global warming. At the same time, there was no evidence for the contrary , i.e., climate change in this era is non- linear.

Summary:

When watched for the first time, the two movies are so well built and convincing to the uninformed mind, that they can either make you feel extremely anxious and threatened by the extreme projections, or engulf you in a blanket of comfort and outright rejection of any projected warnings. However, documentaries are just a glimpse of usually a certain perspective of a complex, self-convoluting and intertwined phenomenon, especially something like climate change.

Al Gore had a display of a really well thought on inspection in the urgency and gravity of Climate change. He also made some highly exaggerated and subjective claims like, the stopping of gulf stream if Greenland ice melts[4], or emotionally stimulating but deceiving claims like, polar bears are dying due to melting ice sheets which actually was due to a storm[5]. These factors bring down the authenticity of an otherwise amazing presentation of the Climate threat.

The Great Global Warming Swindle on other hand is a skeptic but hypothesis laden documentary. Most of the data are outdated and rejected by scientific consensus. The presence of certain conspiracy theorists and people with scientific areas little to do with meteorology brings down the authenticity of the movie. It raises some really great questions, which can strike at the thought of people blindly raging in the “wokeness” of climate movements and revolutions, who often leave no space for scientific skepticism. It fails to prove the hypotheses it presents now and then, but definitely raises some questions which every person interested in learning about global warming must have an answer to.

Bibliography:

1. [Southern Hemisphere and Deep-Sea Warming Led Deglacial Atmospheric CO2 Rise and Tropical Warming | Science \(sciencemag.org\)](#)
2. [Piers Corbyn - Wikipedia](#)
3. [Gore's climate film has scientific errors - judge | Environment | The Guardian](#)
4. [The Thermohaline Circulation Only Stops for Extreme, Unrealistic Models | Climate Sanity \(wordpress.com\)](#)
5. [Gore's assertion that polar bears will become extinct due to global warming is an alarmist exaggeration | Climate Sanity \(wordpress.com\)](#)