

Global Warming & Climate Change Myths

Here is a summary of global warming and climate change myths, sorted by recent popularity vs what science says. Click the response for a more detailed response. You can also view them [sorted by taxonomy](#), [by popularity](#), in a [print-friendly version](#), with [short URLs](#) or with [fixed numbers you can use for permanent references](#).

	Climate Myth	vs	What the Science Says
1	"Climate's changed before"		Climate reacts to whatever forces it to change at the time; humans are now the dominant forcing.
2	"It's the sun"		In the last 35 years of global warming, sun and climate have been going in opposite directions
3	"It's not bad"		Negative impacts of global warming on agriculture, health & environment far outweigh any positives.
4	"There is no consensus"		97% of climate experts agree humans are causing global warming.
5	"It's cooling"		The last decade 2000-2009 was the hottest on record.
6	"Models are unreliable"		Models successfully reproduce temperatures since 1900 globally, by land, in the air and the ocean.
7	"Temp record is unreliable"		The warming trend is the same in rural and urban areas, measured by thermometers and satellites.
8	"Animals and plants can adapt"		Global warming will cause mass extinctions of species that cannot adapt on short time scales.
9	"It hasn't warmed since 1998"		For global records, 2010 is the hottest year on record, tied with 2005.
10	"CO2 lags temperature"		CO2 didn't initiate warming from past ice ages but it did amplify the warming.
11	"Antarctica is gaining ice"		Satellites measure Antarctica losing land ice at an accelerating rate.
12	"Ice age predicted in the 70s"		The vast majority of climate papers in the 1970s predicted warming.
13	"Climate sensitivity is low"		Net positive feedback is confirmed by many different lines of evidence.

14	"We're heading into an ice age"	Worry about global warming impacts in the next 100 years, not an ice age in over 10,000 years.
15	"Ocean acidification isn't serious"	Ocean acidification threatens entire marine food chains.
16	"Hockey stick is broken"	Recent studies agree that recent global temperatures are unprecedented in the last 1000 years.
17	"Climategate CRU emails suggest conspiracy"	A number of investigations have cleared scientists of any wrongdoing in the media-hyped email incident.
18	"Hurricanes aren't linked to global warming"	There is increasing evidence that hurricanes are getting stronger due to global warming.
19	"Glaciers are growing"	Most glaciers are retreating, posing a serious problem for millions who rely on glaciers for water.
20	"Al Gore got it wrong"	Al Gore book is quite accurate, and far more accurate than contrarian books.
21	"It's cosmic rays"	Cosmic rays show no trend over the last 30 years & have had little impact on recent global warming.
22	"1934 - hottest year on record"	1934 was one of the hottest years in the US, not globally.
23	"It's freaking cold!"	A local cold day has nothing to do with the long-term trend of increasing global temperatures.
24	"Extreme weather isn't caused by global warming"	Extreme weather events are being made more frequent and worse by global warming.
25	"Sea level rise is exaggerated"	A variety of different measurements find steadily rising sea levels over the past century.
26	"It's Urban Heat Island effect"	Urban and rural regions show the same warming trend.
27	"Mars is warming"	Mars is not warming globally.
28	"Medieval Warm Period was warmer"	Globally averaged temperature now is higher than global temperature in medieval times.
29	"Arctic icemelt is a natural cycle"	Thick arctic sea ice is undergoing a rapid retreat.
30	"Increasing CO2 has little to no effect"	The strong CO2 effect has been observed by many different measurements.

31	"Oceans are cooling"	The most recent ocean measurements show consistent warming.
32	"It's a 1500 year cycle"	Ancient natural cycles are irrelevant for attributing recent global warming to humans.
33	"Human CO2 is a tiny % of CO2 emissions"	The natural cycle adds and removes CO2 to keep a balance; humans add extra CO2 without removing any.
34	"Water vapor is the most powerful greenhouse gas"	Rising CO2 increases atmospheric water vapor, which makes global warming much worse.
35	"IPCC is alarmist"	The IPCC summarizes the recent research by leading scientific experts.
36	"Polar bear numbers are increasing"	Polar bears are in danger of extinction as well as many other species.
37	"It's not happening"	There are many lines of evidence indicating global warming is unequivocal.
38	"CO2 limits will harm the economy"	The benefits of a price on carbon outweigh the costs several times over.
39	"Greenland was green"	Other parts of the earth got colder when Greenland got warmer.
40	"Greenland is gaining ice"	Greenland on the whole is losing ice, as confirmed by satellite measurement.
41	"CO2 is not a pollutant"	Through its impacts on the climate, CO2 presents a danger to public health and welfare, and thus qualifies as an air pollutant
42	"Other planets are warming"	Mars and Jupiter are not warming, and anyway the sun has recently been cooling slightly.
43	"There's no empirical evidence"	There are multiple lines of direct observations that humans are causing global warming.
44	"Arctic sea ice has recovered"	Thick arctic sea ice is in rapid retreat.
45	"CO2 is plant food"	The effects of enhanced CO2 on terrestrial plants are variable and complex and dependent on numerous factors
46	"We're coming out of the Little Ice Age"	Scientists have determined that the factors which caused the Little Ice Age cooling are not currently causing global warming
47	"There's no	There is long-term correlation between CO2 and global

	correlation between CO2 and temperature"	temperature; other effects are short-term.
48	"It cooled mid-century"	Mid-century cooling involved aerosols and is irrelevant for recent global warming.
49	"CO2 was higher in the past"	When CO2 was higher in the past, the sun was cooler.
50	"Satellites show no warming in the troposphere"	The most recent satellite data show that the earth as a whole is warming.
51	"It warmed before 1940 when CO2 was low"	Early 20th century warming is due to several causes, including rising CO2.
52	"It's aerosols"	Aerosols have been masking global warming, which would be worse otherwise.
53	"Global warming stopped in 1998, 1995, 2002, 2007, 2010, ????"	Global temperature is still rising and 2010 was the hottest recorded.
54	"It's El Niño"	El Nino has no trend and so is not responsible for the trend of global warming.
55	"There's no tropospheric hot spot"	We see a clear "short-term hot spot" - there's various evidence for a "long-term hot spot".
56	"Mt. Kilimanjaro's ice loss is due to land use"	Most glaciers are in rapid retreat worldwide, notwithstanding a few complicated cases.
57	"It's Pacific Decadal Oscillation"	The PDO shows no trend, and therefore the PDO is not responsible for the trend of global warming.
58	"It's a natural cycle"	No known natural forcing fits the fingerprints of observed warming except anthropogenic greenhouse gases.
59	"It's not us"	Multiple sets of independent observations find a human fingerprint on climate change.
60	"2009-2010 winter saw record cold spells"	A cold day in Chicago in winter has nothing to do with the trend of global warming.
61	"Scientists can't even predict weather"	Weather and climate are different; climate predictions do not need weather detail.
62	"IPCC were wrong about Himalayan	Glaciers are in rapid retreat worldwide, despite 1 error in 1 paragraph in a 1000 page IPCC report.

glaciers"

63	"2nd law of thermodynamics contradicts greenhouse theory"	The 2nd law of thermodynamics is consistent with the greenhouse effect which is directly observed.
64	"CO2 limits will hurt the poor"	Those who contribute the least greenhouse gases will be most impacted by climate change.
65	"Greenhouse effect has been falsified"	The greenhouse effect is standard physics and confirmed by observations.
66	"Sea level rise predictions are exaggerated"	Sea level rise is now increasing faster than predicted due to unexpectedly rapid ice melting.
67	"Clouds provide negative feedback"	Evidence is building that net cloud feedback is likely positive and unlikely to be strongly negative.
68	"It's the ocean"	The oceans are warming and moreover are becoming more acidic, threatening the food chain.
69	"The science isn't settled"	That human CO2 is causing global warming is known with high certainty & confirmed by observations.
70	"IPCC were wrong about Amazon rainforests"	The IPCC statement on Amazon rainforests was correct, and was incorrectly reported in some media.
71	"Corals are resilient to bleaching"	Globally about 1% of coral is dying out each year.
72	"Volcanoes emit more CO2 than humans"	Humans emit 100 times more CO2 than volcanoes.
73	"CO2 effect is saturated"	Direct measurements find that rising CO2 is trapping more heat.
74	"Greenland ice sheet won't collapse"	When Greenland was 3 to 5 degrees C warmer than today, a large portion of the Ice Sheet melted.
75	"It's methane"	Methane plays a minor role in global warming but could get much worse if permafrost starts to melt.
76	"CO2 is just a trace gas"	Many substances are dangerous even in trace amounts; what really matters is the total amount of CO2 in the atmosphere.
77	"CO2 has a short residence time"	Excess CO2 from human emissions has a long residence time of over 100 years
78	"Humidity is falling"	Multiple lines of independent evidence indicate humidity

is rising and provides positive feedback.

79	"Neptune is warming"	And the sun is cooling.
80	"CO2 measurements are suspect"	CO2 levels are measured by hundreds of stations across the globe, all reporting the same trend.
81	"Springs aren't advancing"	Hundreds of flowers across the UK are flowering earlier now than any time in 250 years.
82	"Jupiter is warming"	Jupiter is not warming, and anyway the sun is cooling.
83	"It's land use"	Land use plays a minor role in climate change, although carbon sequestration may help to mitigate.
84	"500 scientists refute the consensus"	Around 97% of climate experts agree that humans are causing global warming.
85	"Scientists tried to 'hide the decline' in global temperature"	The 'decline' refers to a decline in northern tree-rings, not global temperature, and is openly discussed in papers and the IPCC reports.
86	"CO2 is not increasing"	CO2 is increasing rapidly, and is reaching levels not seen on the earth for millions of years.
87	"Record snowfall disproves global warming"	Warming leads to increased evaporation and precipitation, which falls as increased snow in winter.
88	"Solar Cycle Length proves it's the sun"	The sun has not warmed since 1970 and so cannot be driving global warming.
89	"Pluto is warming"	And the sun has been recently cooling.
90	"CO2 is coming from the ocean"	The ocean is absorbing massive amounts of CO2, and is becoming more acidic as a result.
91	"Peer review process was corrupted"	An Independent Review concluded that CRU's actions were normal and didn't threaten the integrity of peer review.
92	"CO2 is not the only driver of climate"	Theory, models and direct measurement confirm CO2 is currently the main driver of climate change.
93	"IPCC overestimate temperature rise"	Monckton used the IPCC equation in an inappropriate manner.
94	"Arctic was warmer in 1940"	The actual data show high northern latitudes are warmer today than in 1940.

95	"They changed the name from global warming to climate change"	'Global warming' and 'climate change' mean different things and have both been used for decades.
96	"Southern sea ice is increasing"	Antarctic sea ice has grown in recent decades despite the Southern Ocean warming at the same time.
97	"CO2 limits will make little difference"	If every nation agrees to limit CO2 emissions, we can achieve significant cuts on a global scale.
98	"It's microsite influences"	Microsite influences on temperature changes are minimal; good and bad sites show the same trend.
99	"Sea level rise is decelerating"	Global sea level data shows that sea level rise has been increasing since 1880 while future sea level rise predictions are based on physics, not statistics.
100	"Renewable energy is too expensive"	When you account for all of the costs associated with burning coal and other fossil fuels, like air pollution and health effects, in reality they are significantly more expensive than most renewable energy sources.
101	"Phil Jones says no global warming since 1995"	Phil Jones was misquoted.
102	"Lindzen and Choi find low climate sensitivity"	Lindzen and Choi's paper is viewed as unacceptably flawed by other climate scientists.
103	"It's too hard"	Scientific studies have determined that current technology is sufficient to reduce greenhouse gas emissions enough to avoid dangerous climate change.
104	"Humans are too insignificant to affect global climate"	Humans are small but powerful, and human CO2 emissions are causing global warming.
105	"It's albedo"	Albedo change in the Arctic, due to receding ice, is increasing global warming.
106	"Tree-rings diverge from temperature after 1960"	This is a detail that is complex, local, and irrelevant to the observed global warming trend.
107	"Dropped stations introduce warming bias"	If the dropped stations had been kept, the temperature would actually be slightly higher.
108	"It's not urgent"	A large amount of warming is delayed, and if we don't act now we could pass tipping points.
109	"It's soot"	Soot stays in the atmosphere for days to weeks; carbon dioxide causes warming for centuries.

110	"Hansen's 1988 prediction was wrong"	Jim Hansen had several possible scenarios; his mid-level scenario B was right.
111	"Roy Spencer finds negative feedback"	Spencer's model is too simple, excluding important factors like ocean dynamics and treats cloud feedbacks as forcings.
112	"It's global brightening"	This is a complex aerosol effect with unclear temperature significance.
113	"It's a climate regime shift"	There is no evidence that climate has chaotic "regimes" on a long-term basis.
114	"Arctic sea ice loss is matched by Antarctic sea ice gain"	Arctic sea ice loss is three times greater than Antarctic sea ice gain.
115	"Earth hasn't warmed as much as expected"	This argument ignores the cooling effect of aerosols and the planet's thermal inertia.
116	"Solar cycles cause global warming"	Over recent decades, the sun has been slightly cooling & is irrelevant to recent global warming.
117	"Less than half of published scientists endorse global warming"	Around 97% of climate experts agree that humans are causing global warming.
118	"Ice isn't melting"	Arctic sea ice has shrunk by an area equal to Western Australia, and summer or multi-year sea ice might be all gone within a decade.
119	"Over 31,000 scientists signed the OISM Petition Project"	The 'OISM petition' was signed by only a few climatologists.
120	"IPCC 'disappeared' the Medieval Warm Period"	The IPCC simply updated their temperature history graphs to show the best data available at the time.
121	"Climate is chaotic and cannot be predicted"	Weather is chaotic but climate is driven by Earth's energy imbalance, which is more predictable.
122	"It's ozone"	Ozone has only a small effect.
123	"Sea level is not rising"	The claim sea level isn't rising is based on blatantly doctored graphs contradicted by observations.
124	"Freedom of	An independent inquiry found CRU is a small research

	Information (FOI) requests were ignored"	unit with limited resources and their rigour and honesty are not in doubt.
125	"Tuvalu sea level isn't rising"	Tuvalu sea level is rising 3 times larger than the global average.
126	"The IPCC consensus is phoney"	113 nations signed onto the 2007 IPCC report, which is simply a summary of the current body of climate science evidence
127	"Climate 'Skeptics' are like Galileo"	Modern scientists, not anti-science skeptics, follow in Galileo's footsteps.
128	"Trenberth can't account for the lack of warming"	Trenberth is talking about the details of energy flow, not whether global warming is happening.
129	"Renewables can't provide baseload power"	A number of renewable sources already do provide baseload power, and we don't need renewables to provide a large percentage of baseload power immediately.
130	"Ice Sheet losses are overestimated"	A number of independent measurements find extensive ice loss from Antarctica and Greenland.
131	"Naomi Oreskes' study on consensus was flawed"	Benny Peiser, the Oreskes critic, retracted his criticism.
132	"Melting ice isn't warming the Arctic"	Melting ice leads to more sunlight being absorbed by water, thus heating the Arctic.
133	"Breathing contributes to CO2 buildup"	By breathing out, we are simply returning to the air the same CO2 that was there to begin with.
134	"CRU tampered with temperature data"	An independent inquiry went back to primary data sources and were able to replicate CRU's results.
135	"A drop in volcanic activity caused warming"	Volcanoes have had no warming effect in recent global warming - if anything, a cooling effect.
136	"Satellite error inflated Great Lakes temperatures"	Temperature errors in the Great Lakes region are not used in any global temperature records.
137	"Soares finds lack of correlation between CO2 and temperature"	Soares looks at short-term trends which are swamped by natural variations while ignoring the long-term correlation.
138	"Murry Salby finds CO2 rise is natural"	Multiple lines of evidence make it very clear that the rise in atmospheric CO2 is due to human emissions.

139	"We're heading into cooling"	There is no scientific basis for claims that the planet will begin to cool in the near future.
140	"The sun is getting hotter"	The sun has just had the deepest solar minimum in 100 years.
141	"Water vapor in the stratosphere stopped global warming"	This possibility just means that future global warming could be even worse.
142	"It's waste heat"	Greenhouse warming is adding 100 times more heat to the climate than waste heat.
143	"CO2 emissions do not correlate with CO2 concentration"	That humans are causing the rise in atmospheric CO2 is confirmed by multiple isotopic analyses.
144	"It warmed just as fast in 1860-1880 and 1910-1940"	The warming trend over 1970 to 2001 is greater than warming from both 1860 to 1880 and 1910 to 1940.
145	"Record high snow cover was set in winter 2008/2009"	Winter snow cover in 2008/2009 was average while the long-term trend in spring, summer, and annual snow cover is rapid decline.
146	"Mauna Loa is a volcano"	The global trend is calculated from hundreds of CO2 measuring stations and confirmed by satellites.
147	"An exponential increase in CO2 will result in a linear increase in temperature"	CO2 levels are rising so fast that unless we decrease emissions, global warming will accelerate this century.
148	"Venus doesn't have a runaway greenhouse effect"	Venus very likely underwent a runaway or 'moist' greenhouse phase earlier in its history, and today is kept hot by a dense CO ₂ atmosphere.
149	"Antarctica is too cold to lose ice"	Glaciers are sliding faster into the ocean because ice shelves are thinning due to warming oceans.
150	"Skeptics were kept out of the IPCC?"	Official records, Editors and emails suggest CRU scientists acted in the spirit if not the letter of IPCC rules.
151	"Water levels correlate with sunspots"	This detail is irrelevant to the observation of global warming caused by humans.
152	"CO2 was higher in the late Ordovician"	The sun was much cooler during the Ordovician.
153	"Positive feedback means runaway"	Positive feedback won't lead to runaway warming; diminishing returns on feedback cycles limit the

	warming"	amplification.
154	"CO2 increase is natural, not human-caused"	Many lines of evidence, including simple accounting, demonstrate beyond a shadow of a doubt that the increase in atmospheric CO2 is due to human fossil fuel burning.
155	"It's CFCs"	CFCs contribute at a small level.
156	"Scientists retracted claim that sea levels are rising"	The Siddall 2009 paper was retracted because its predicted sea level rise was too low.
157	"Warming causes CO2 rise"	Recent warming is due to rising CO2.
158	"Coral atolls grow as sea levels rise"	Thousands of coral atolls have "drowned" when unable to grow fast enough to survive at sea level.
159	"It's internal variability"	Internal variability can only account for small amounts of warming and cooling over periods of decades, and scientific studies have consistently shown that it cannot account for the global warming over the past century.
160	"Greenland has only lost a tiny fraction of its ice mass"	Greenland's ice loss is accelerating & will add metres of sea level rise in upcoming centuries.
161	"DMI show cooling Arctic"	While summer maximums have showed little trend, the annual average Arctic temperature has risen sharply in recent decades.
162	"CO2 limits won't cool the planet"	CO2 limits won't cool the planet, but they can make the difference between continued accelerating global warming to catastrophic levels vs. slowing and eventually stopping the warming at hopefully safe levels
163	"Royal Society embraces skepticism"	The Royal Society still strongly state that human activity is the dominant cause of global warming.
164	"It's only a few degrees"	A few degrees of global warming has a huge impact on ice sheets, sea levels and other aspects of climate.
165	"Renewable energy investment kills jobs"	Investment in renewable energy creates more jobs than investment in fossil fuel energy.
166	"It's satellite microwave transmissions"	Satellite transmissions are extremely small and irrelevant.
167	"CO2 only causes 35% of global warming"	CO2 and corresponding water vapor feedback are the biggest cause of global warming.

168	"Sea level fell in 2010"	The temporary drop in sea level in 2010 was due to intense land flooding caused by a strong La Nina.
169	"We didn't have global warming during the Industrial Revolution"	CO2 emissions were much smaller 100 years ago.
170	"Hansen predicted the West Side Highway would be underwater"	Hansen was speculating on changes that might happen if CO2 doubled.
171	"Ljungqvist broke the hockey stick"	Ljungqvist's temperature reconstruction is very similar to other reconstructions by Moberg and Mann.
172	"Removing all CO2 would make little difference"	Removing CO2 would cause most water in the air to rain out and cancel most of the greenhouse effect.
173	"Postma disproved the greenhouse effect"	Postma's model contains many simple errors; in no way does Postma undermine the existence or necessity of the greenhouse effect.

Many thanks to Dr. Jan Dash, Director of the [UU-UNO's Climate Portal](#) for writing many of the [one line responses in 'What the Science Says'](#), with some edits by John Cook.