



Climate Change and the Weightier Matters

John Cook

Date: 3 August 2012

Meeting the
challenge of change

gciQ
Global Change Institute

 **THE UNIVERSITY
OF QUEENSLAND**
AUSTRALIA

As for Science versus Religion, I'm issuing a restraining order. Religion must stay 500 yards from Science at all times.





Skeptical Science

Getting skeptical about global warming skepticism

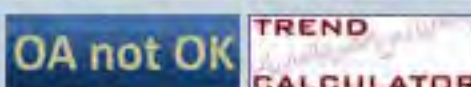


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MOST USED Climate Myths

and what the science really says...

- 1 Climate's changed before
- 2 It's the sun
- 3 It's not bad
- 4 There is no consensus
- 5 It's cooling
- 6 Models are unreliable
- 7 Temp record is unreliable
- 8 Animals and plants can adapt

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		Global warming will cause mass extinctions of	

Winner of the 2011

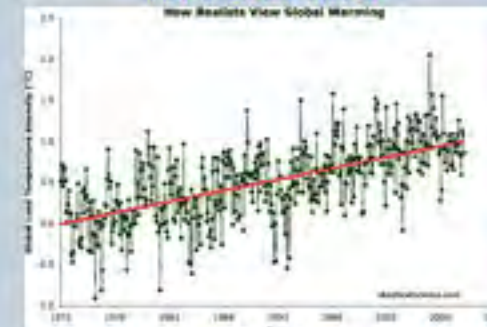


Australian museum

Eureka Prize
Advancement of
climate change
knowledge

THE ESCALATOR

How Realists View Global Warming



(free to republish)

THE DEBUNKING HANDBOOK



5 Key Facts About Climate Change

It's warming



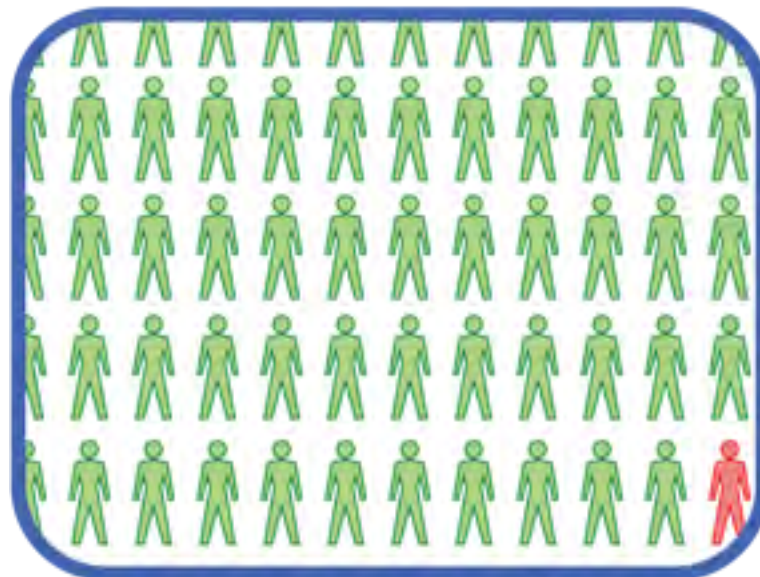
We're causing it



Impacts are serious



Scientists agree



We can fix it



Thousands of natural thermometers find warming



Glaciers



Humidity



Snow Cover



Temperature Over Oceans



Temperature Over Land



Sea Level



Tree-lines shifting poleward and upward



Spring coming earlier



Species breeding earlier



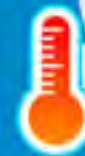
Species migrating poleward and upward



Ocean Warming



Permafrost retreating poleward

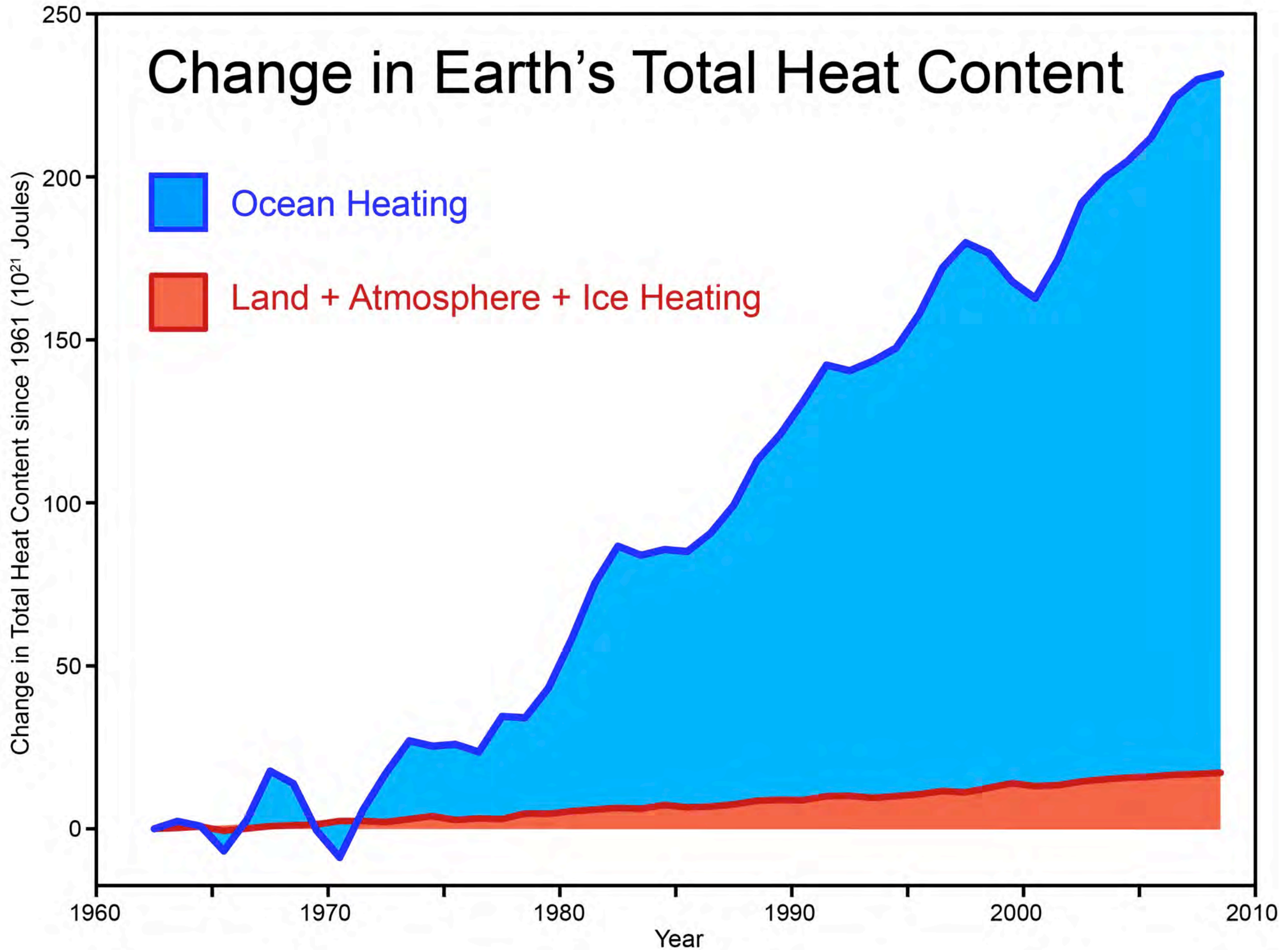


Ice Sheets



Sea Ice

Change in Earth's Total Heat Content



Thousands of natural thermometers find warming



Glaciers



Humidity



Snow Cover



Temperature Over Land



Temperature Over Oceans



Sea Level



Tree-lines shifting poleward and upward



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Sea Ice

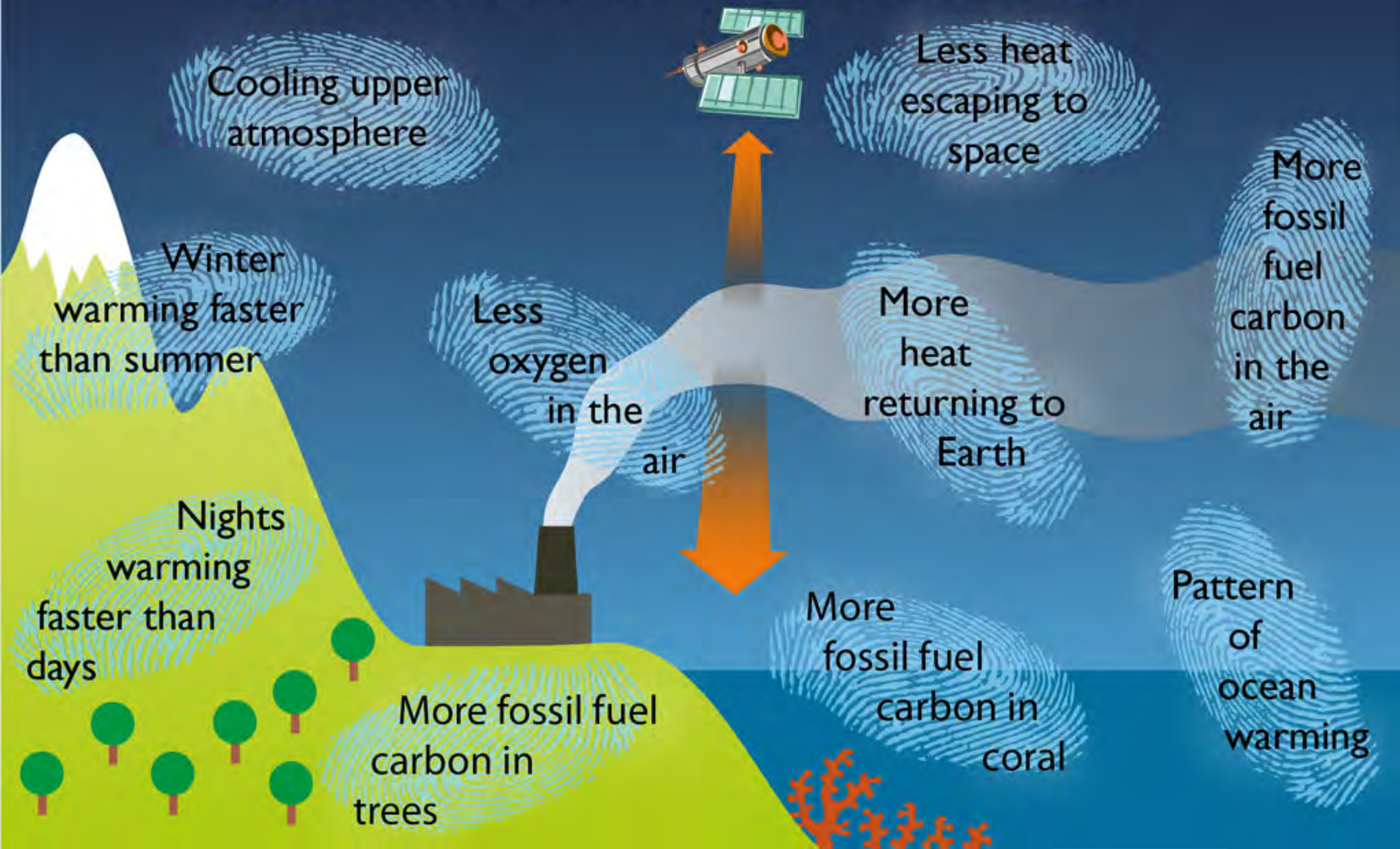


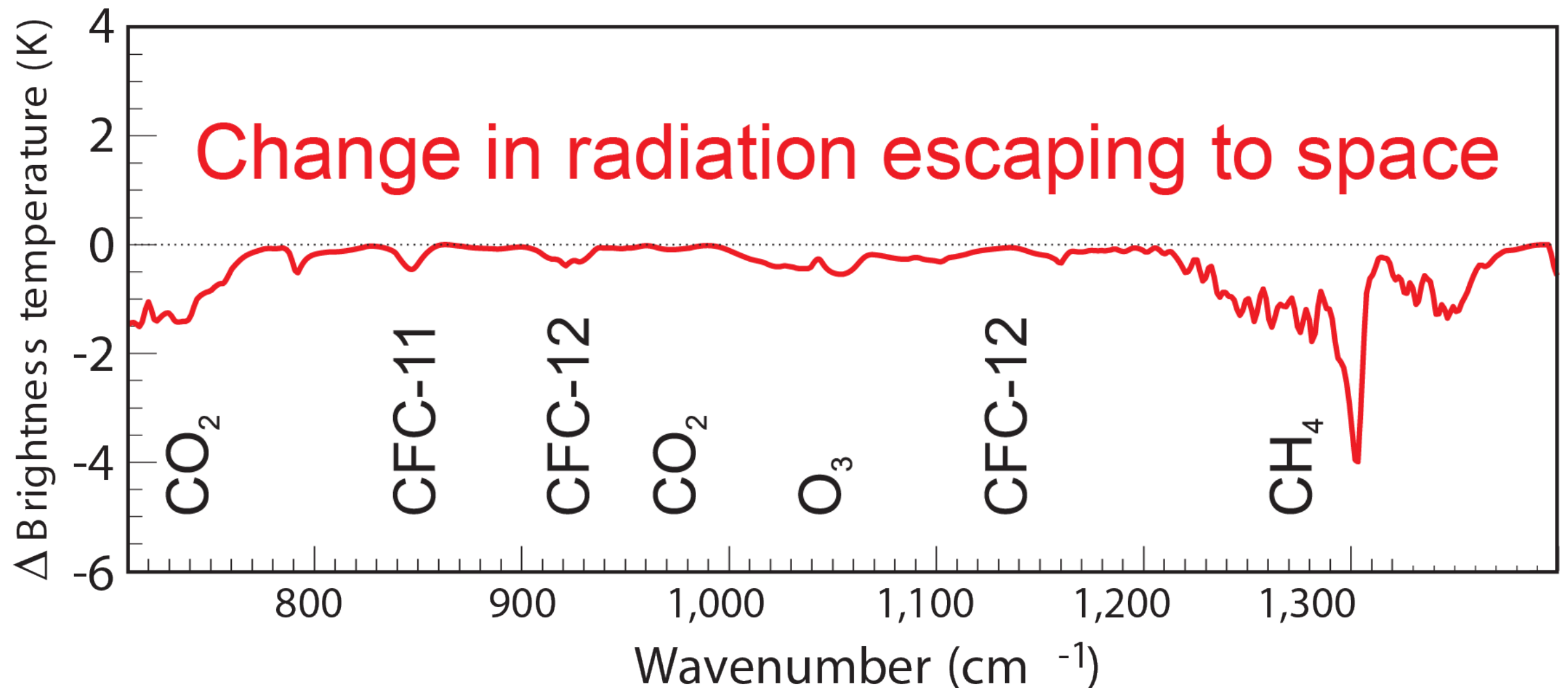
Ocean Warming



Permafrost retreating poleward

Human fingerprints are all over our climate

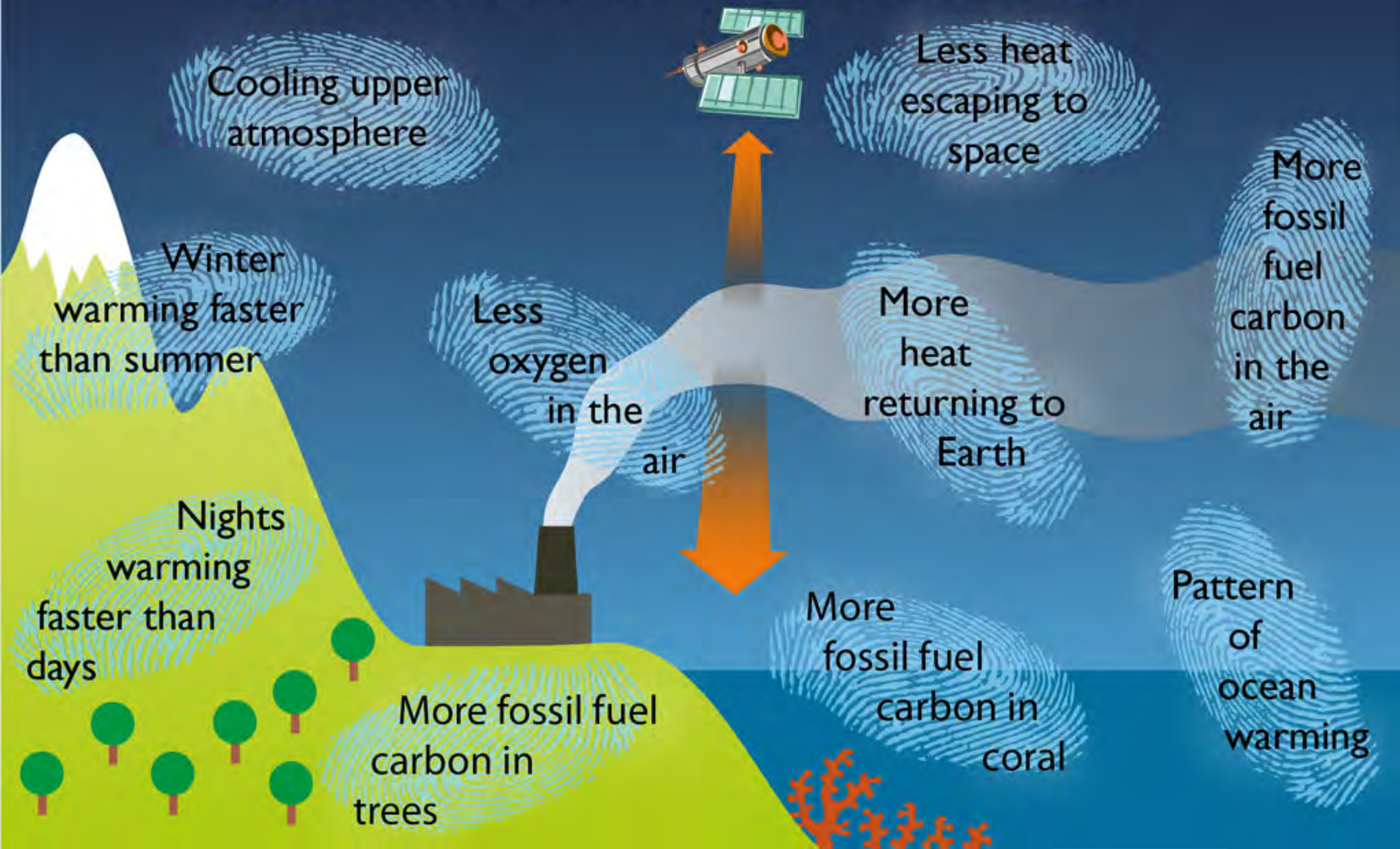


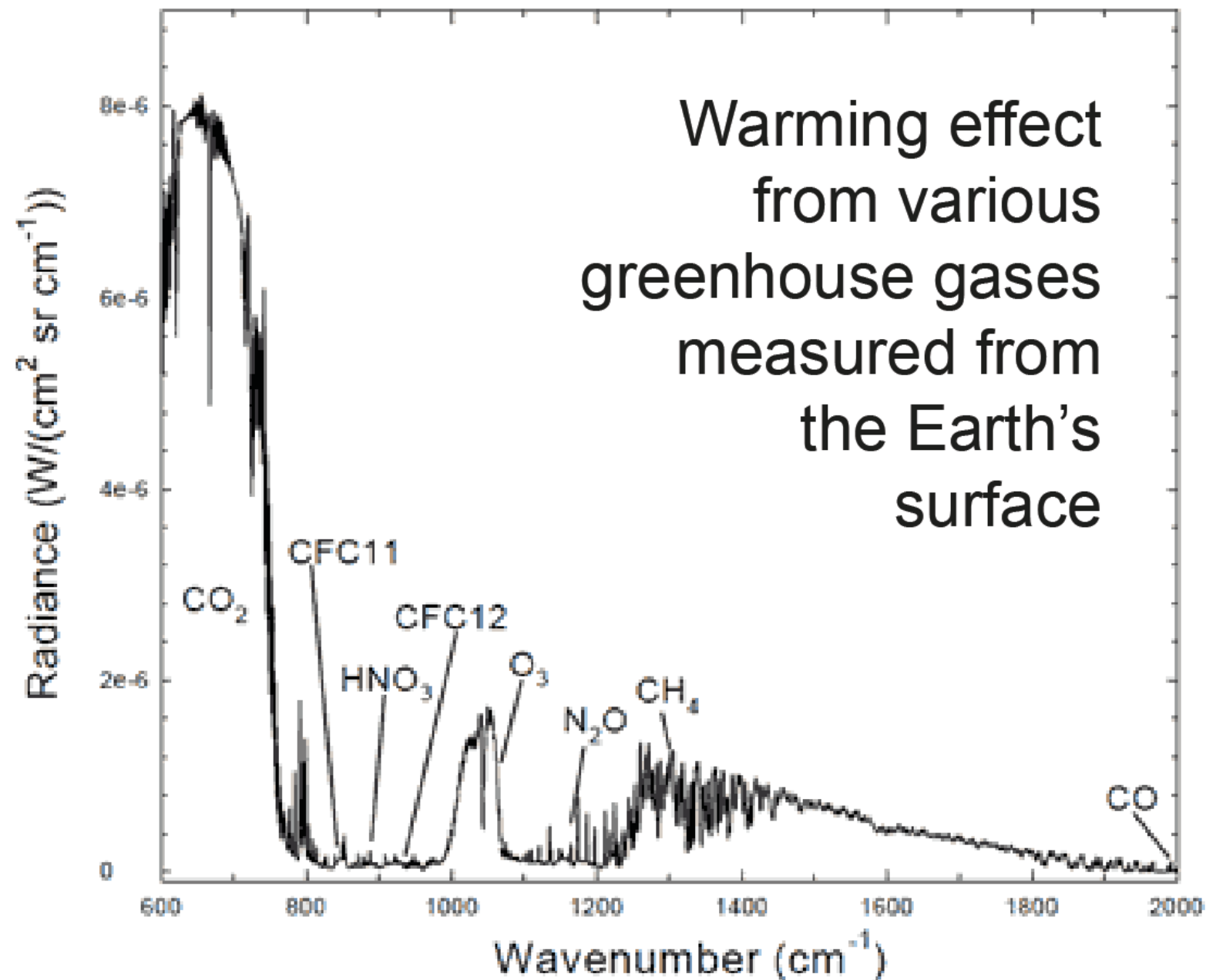


“...direct experimental evidence for a significant increase in the Earth’s greenhouse effect.”

HARRIES ET AL 2001

Human fingerprints are all over our climate





“This experimental data should effectively end the argument by skeptics that no experimental evidence exists for the connection between greenhouse gas increases in the atmosphere and global warming.”

Impacts of Global Warming

More Heat Waves

Stronger Cyclones

Threatened Water Supply

Sea Level Inundation

Intensified Drought

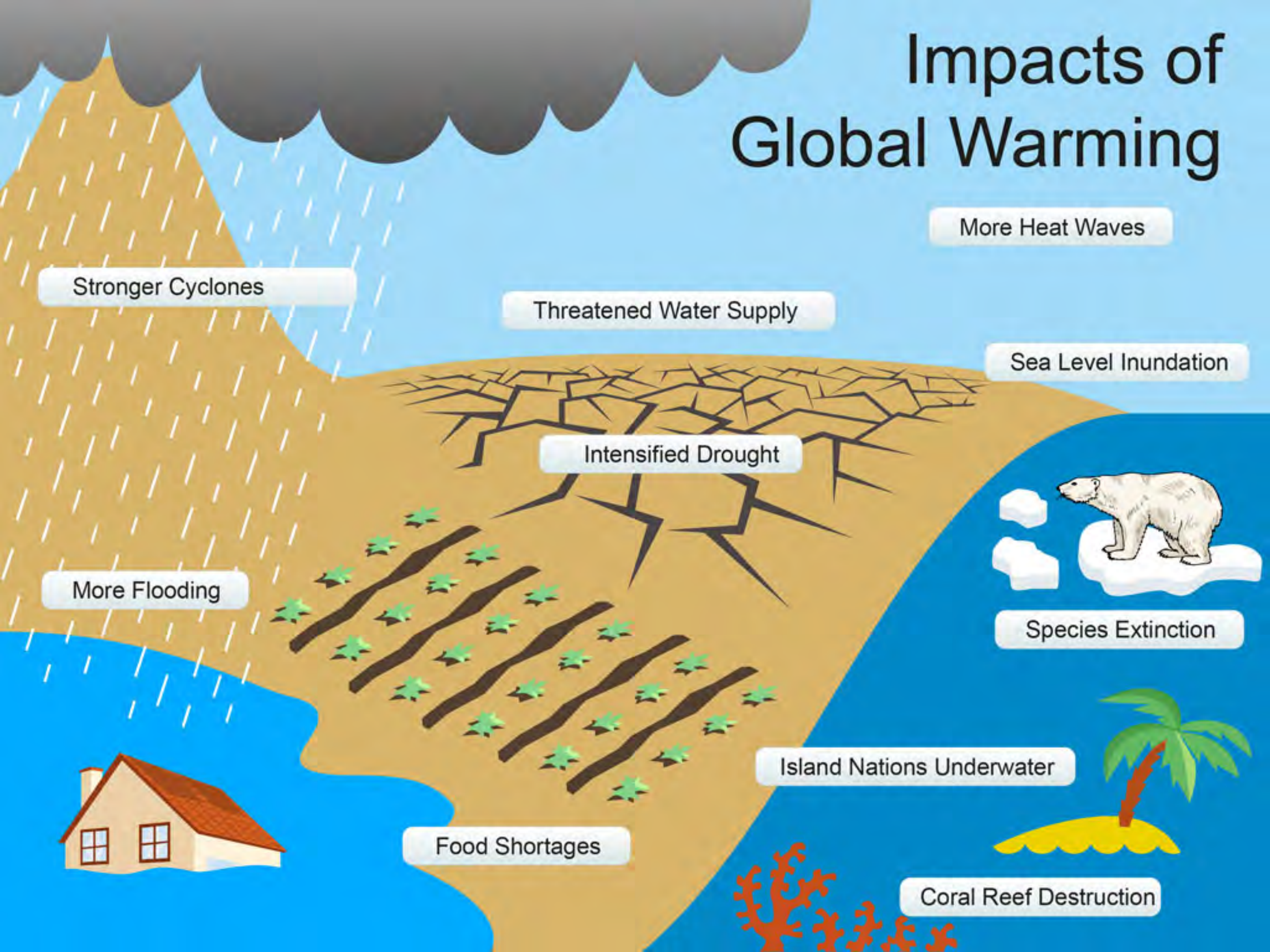
More Flooding

Species Extinction

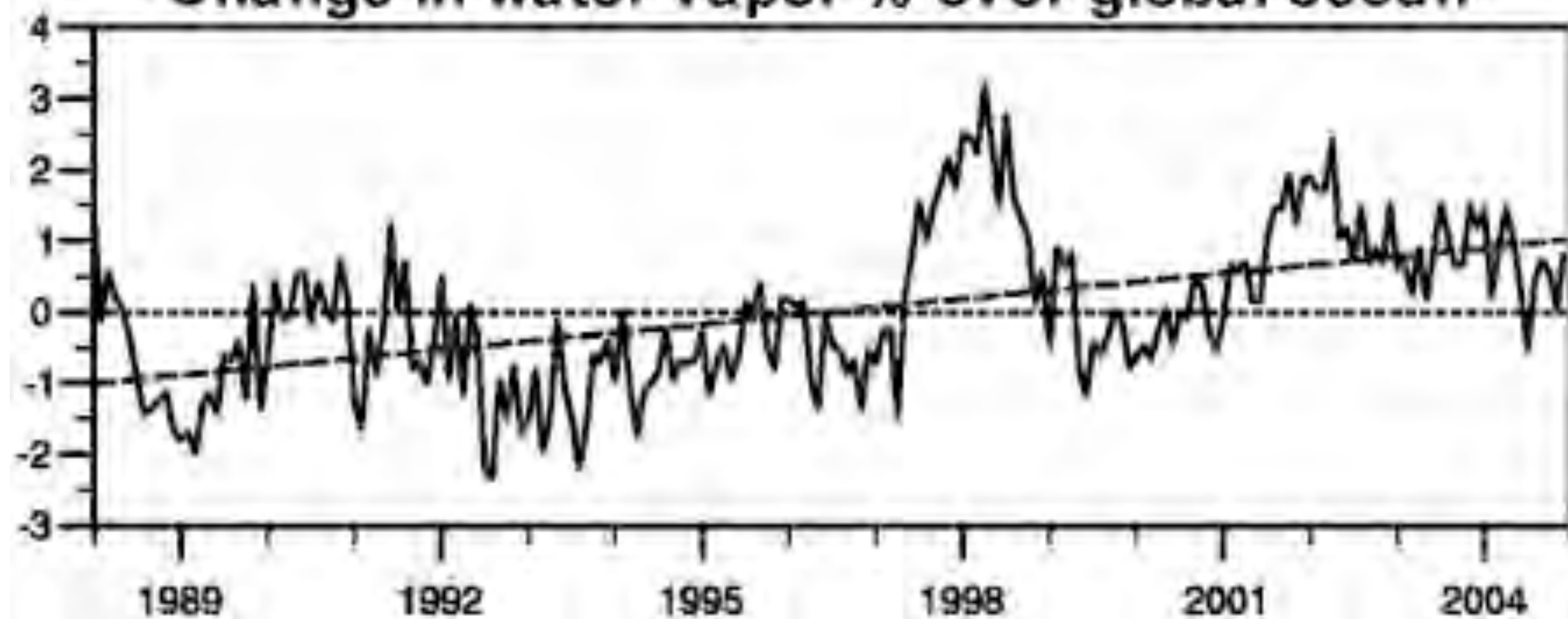
Island Nations Underwater

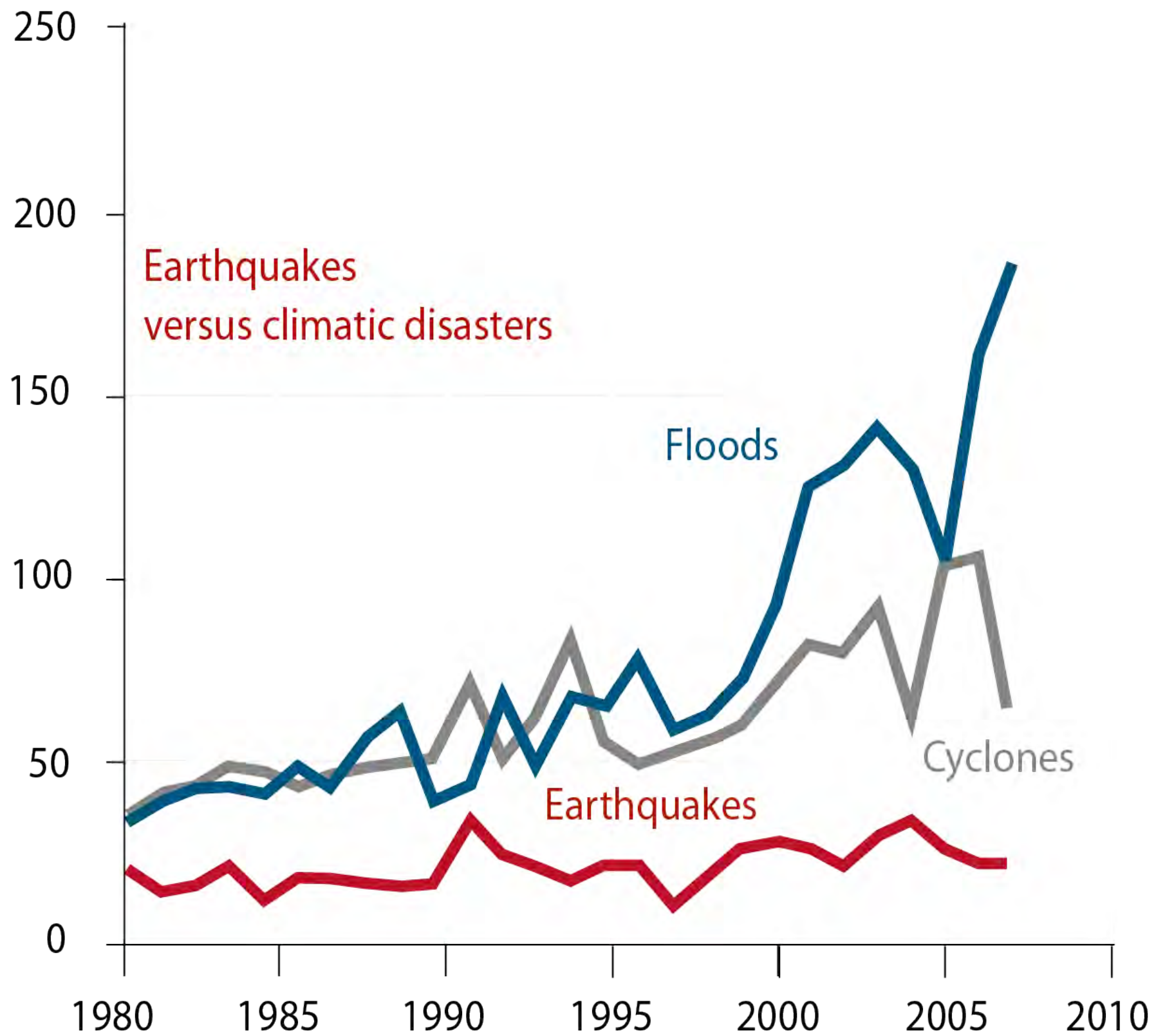
Food Shortages

Coral Reef Destruction

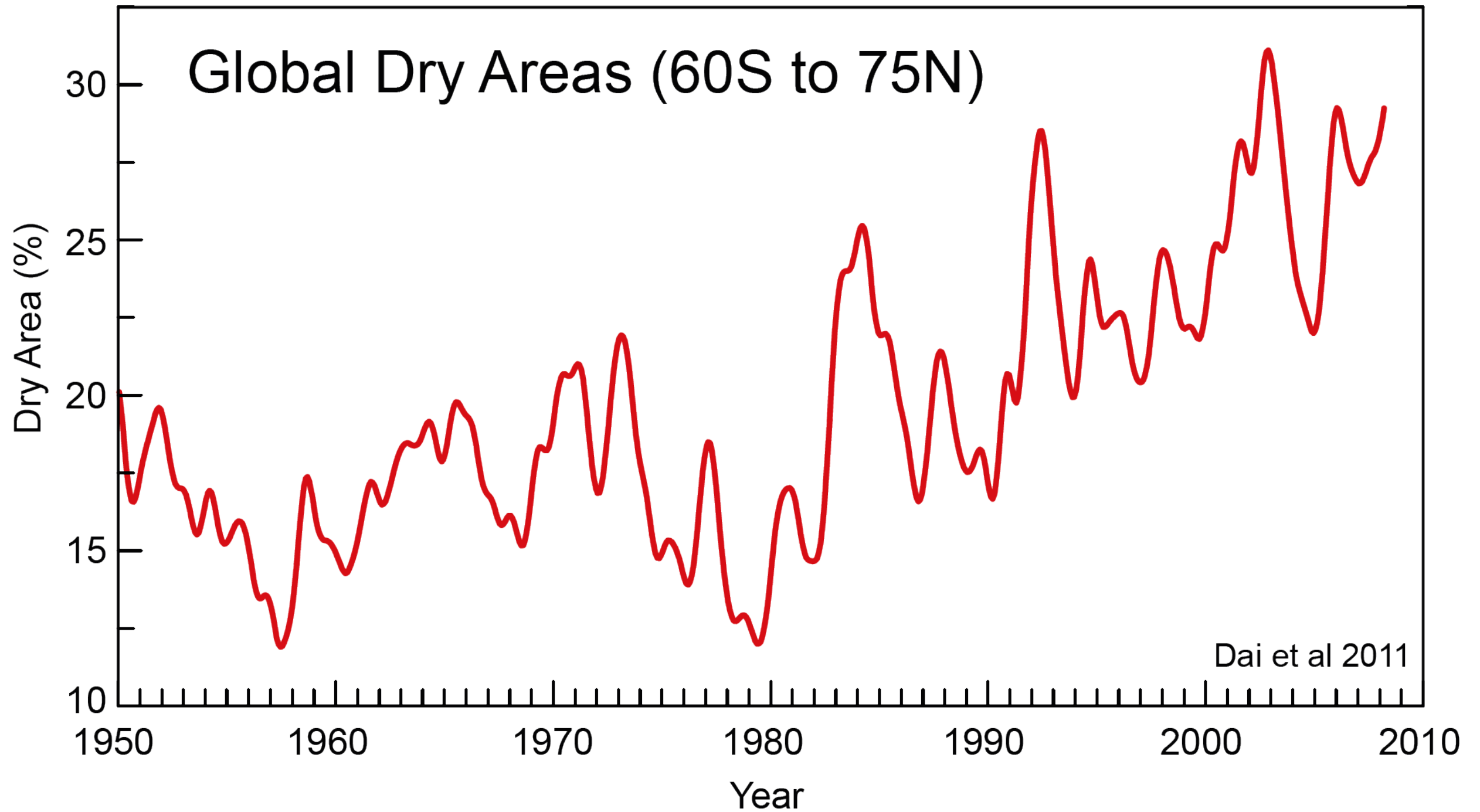


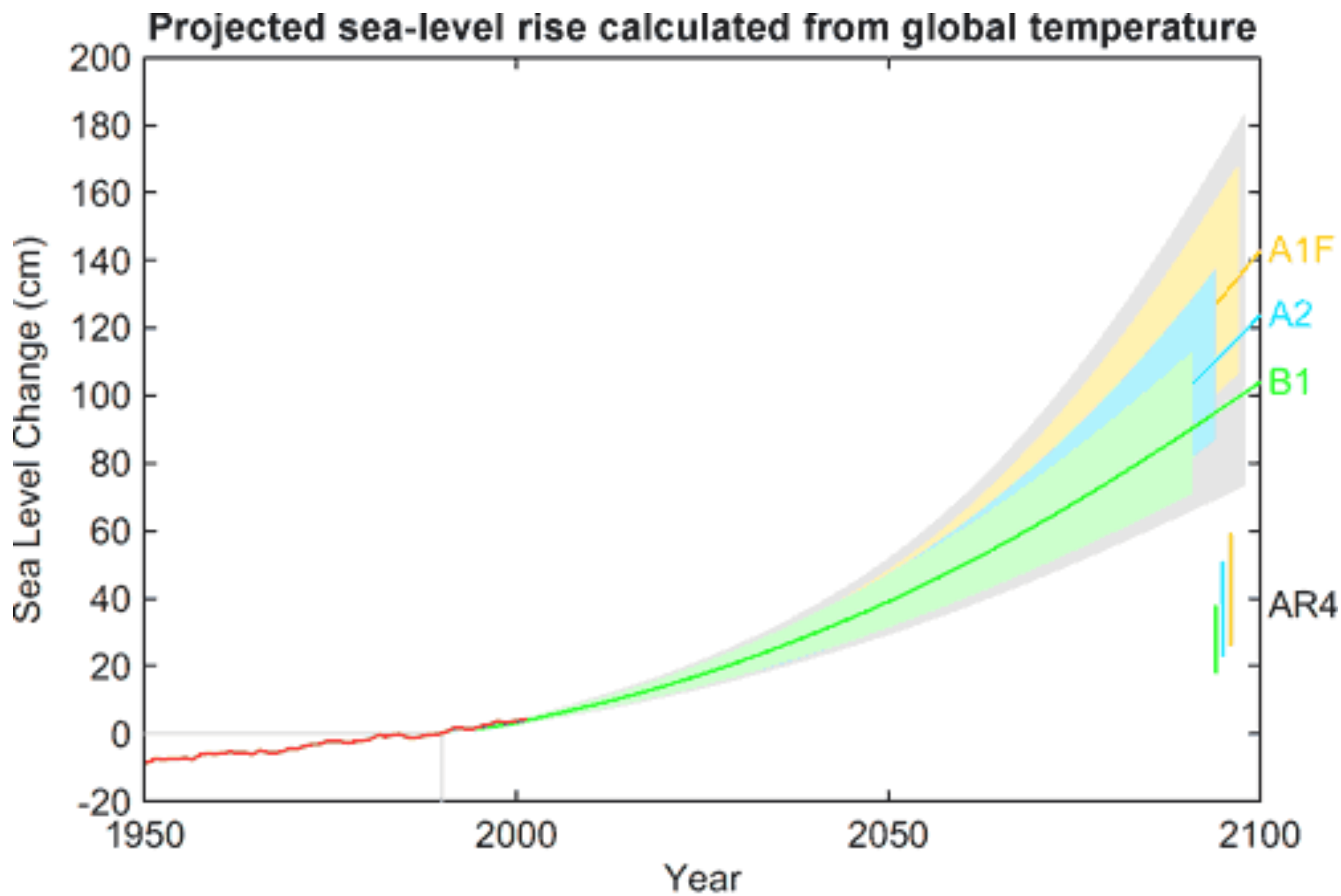
Change in water vapor % over global ocean





Source: CRED Annual Disaster Statistical Review 2006, 2007.

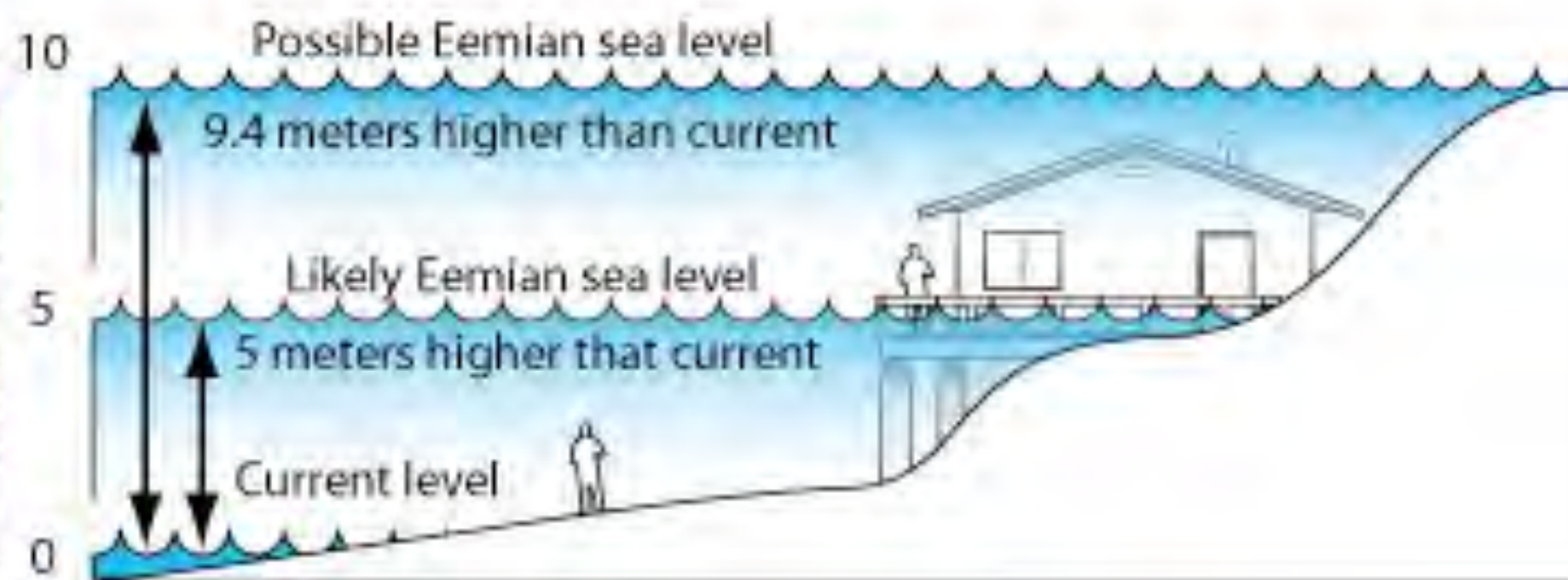
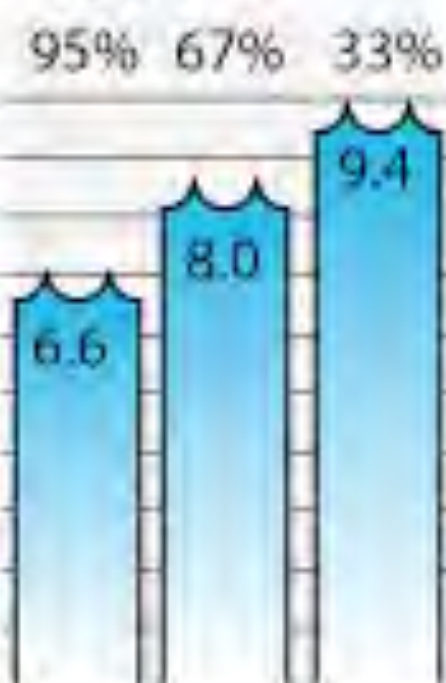




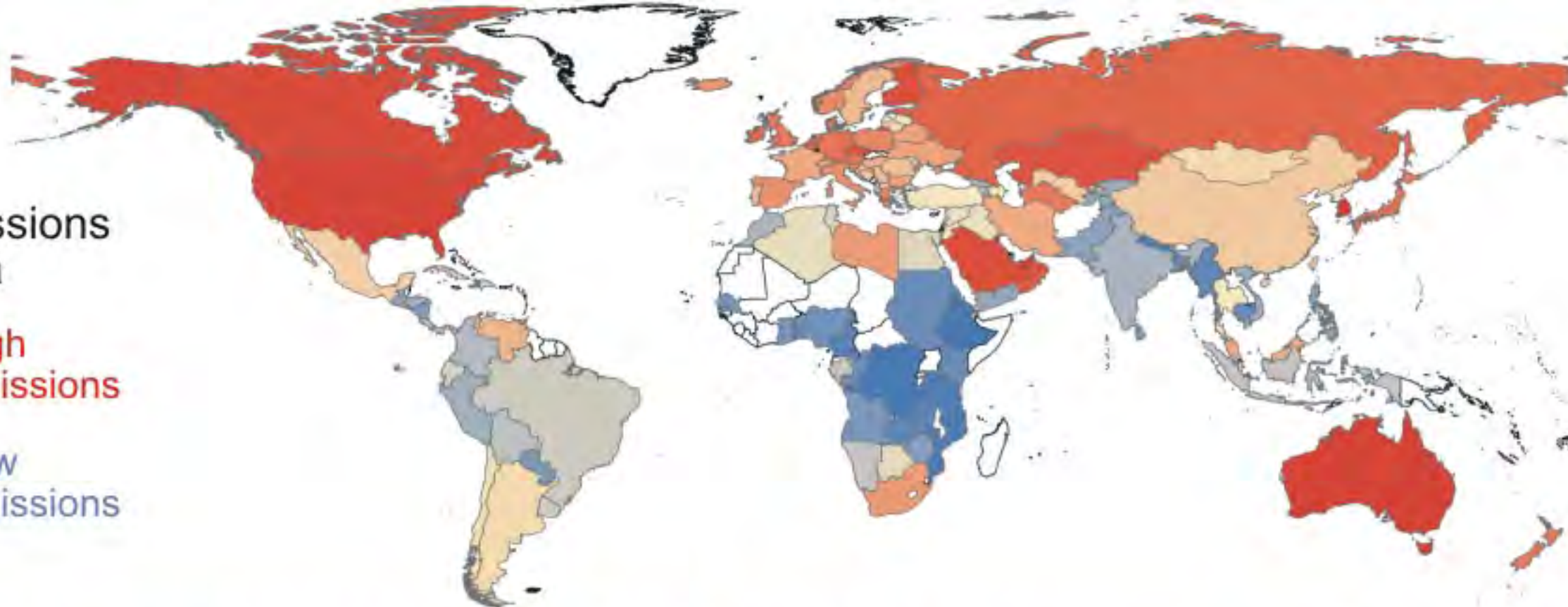
Sea level estimates:

Kopp et al.

Probabilities
of sea level
exceeding
6.6, 8.0, and
9.4 meters

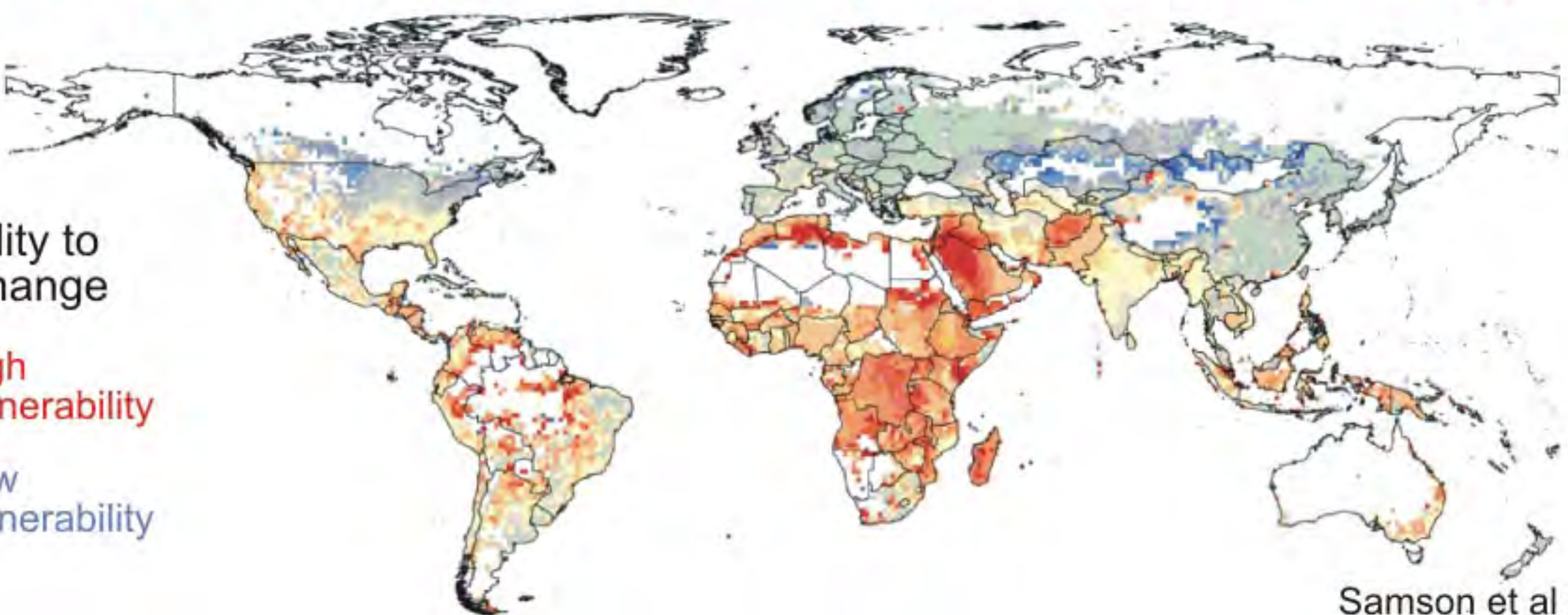


CO2 emissions
per capita



**Those who contribute the least greenhouse gases
will be most impacted by climate change**

Vulnerability to
climate change



5 Key Facts About Climate Change

It's warming



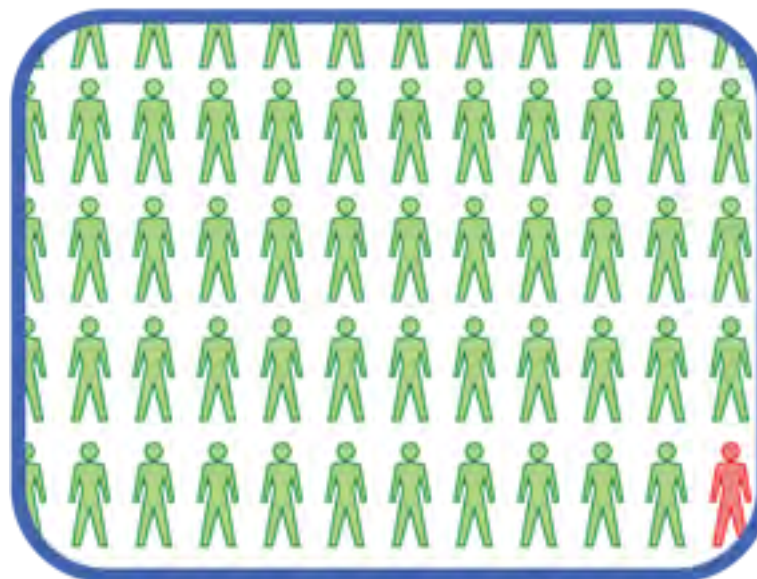
We're causing it



Impacts are serious



Scientists agree



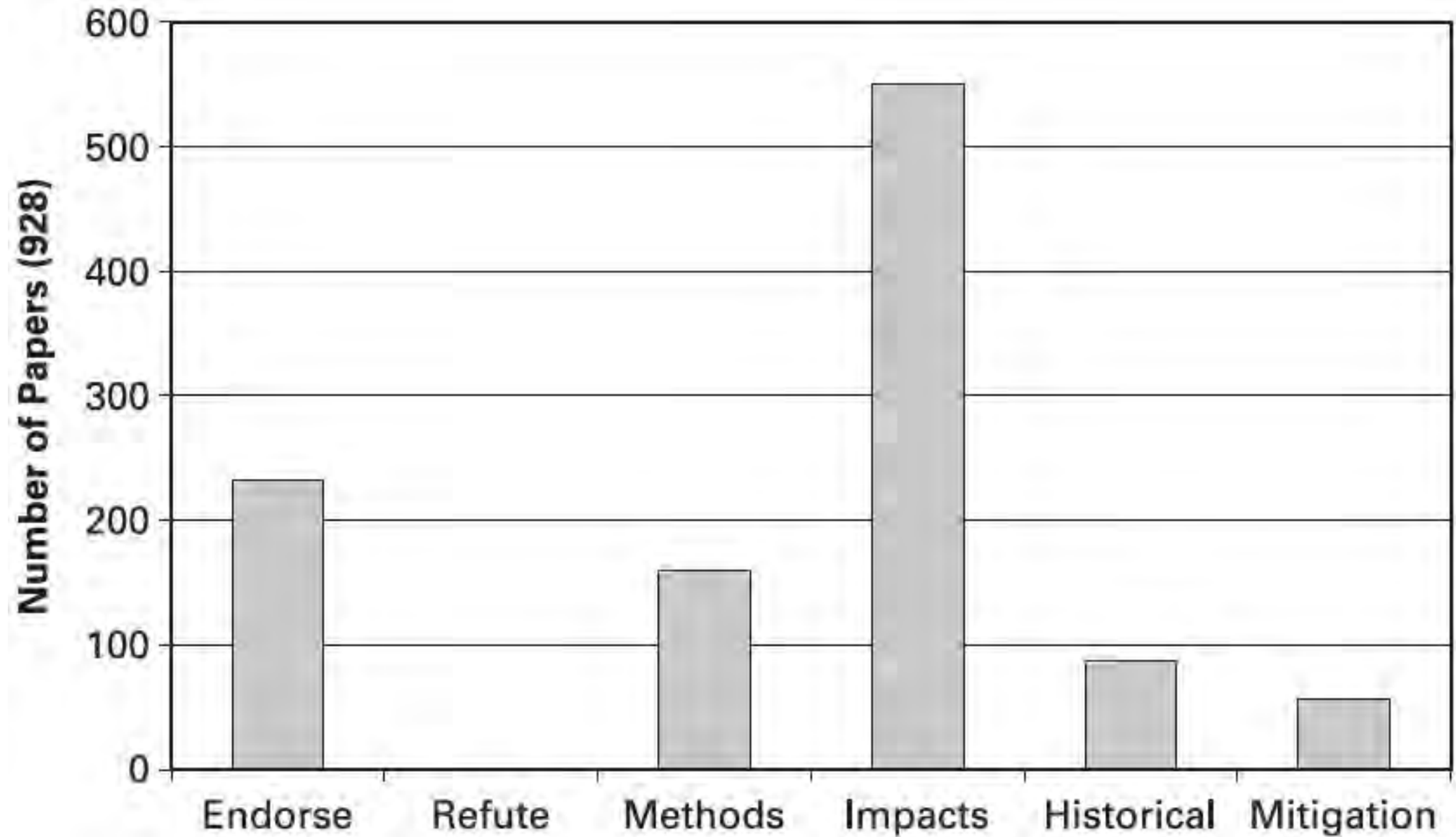
97 out of 100 climate experts agree humans are causing global warming



Academies of Science endorsing the consensus

- **Australia**
- **Brazil**
- **Belgium**
- **Cameroon**
- **Canada**
- **China**
- **France**
- **Germany**
- **Ghana**
- **India**
- **Indonesia**
- **Ireland**
- **Italy**
- **Japan**
- **Kenya**
- **Madagascar**
- **Malayasia**
- **Mexico**
- **New Zealand**
- **Nigeria**
- **Poland**
- **Russia**
- **Sénégal**
- **South Africa**
- **Sudan**
- **Sweden**
- **Tanzania**
- **Turkey**
- **Uganda**
- **United Kingdom**
- **USA**
- **Zambia**
- **Zimbabwe**

Consensus in the peer-reviewed literature



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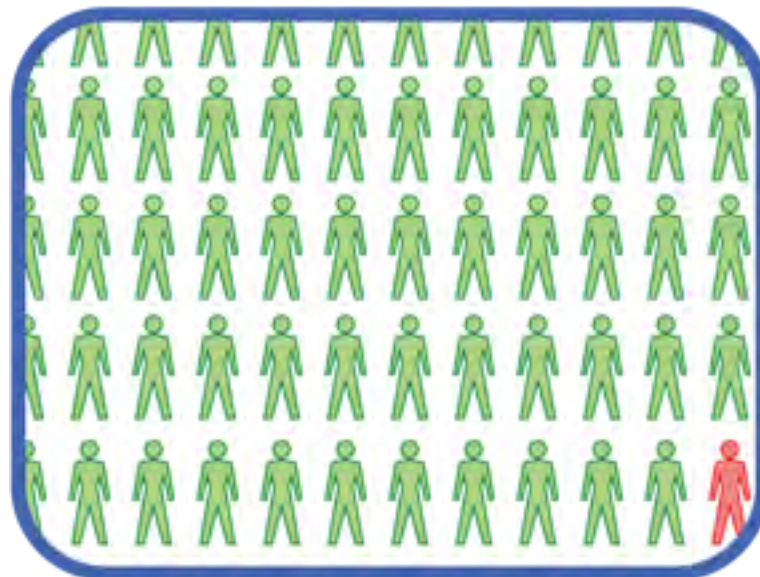
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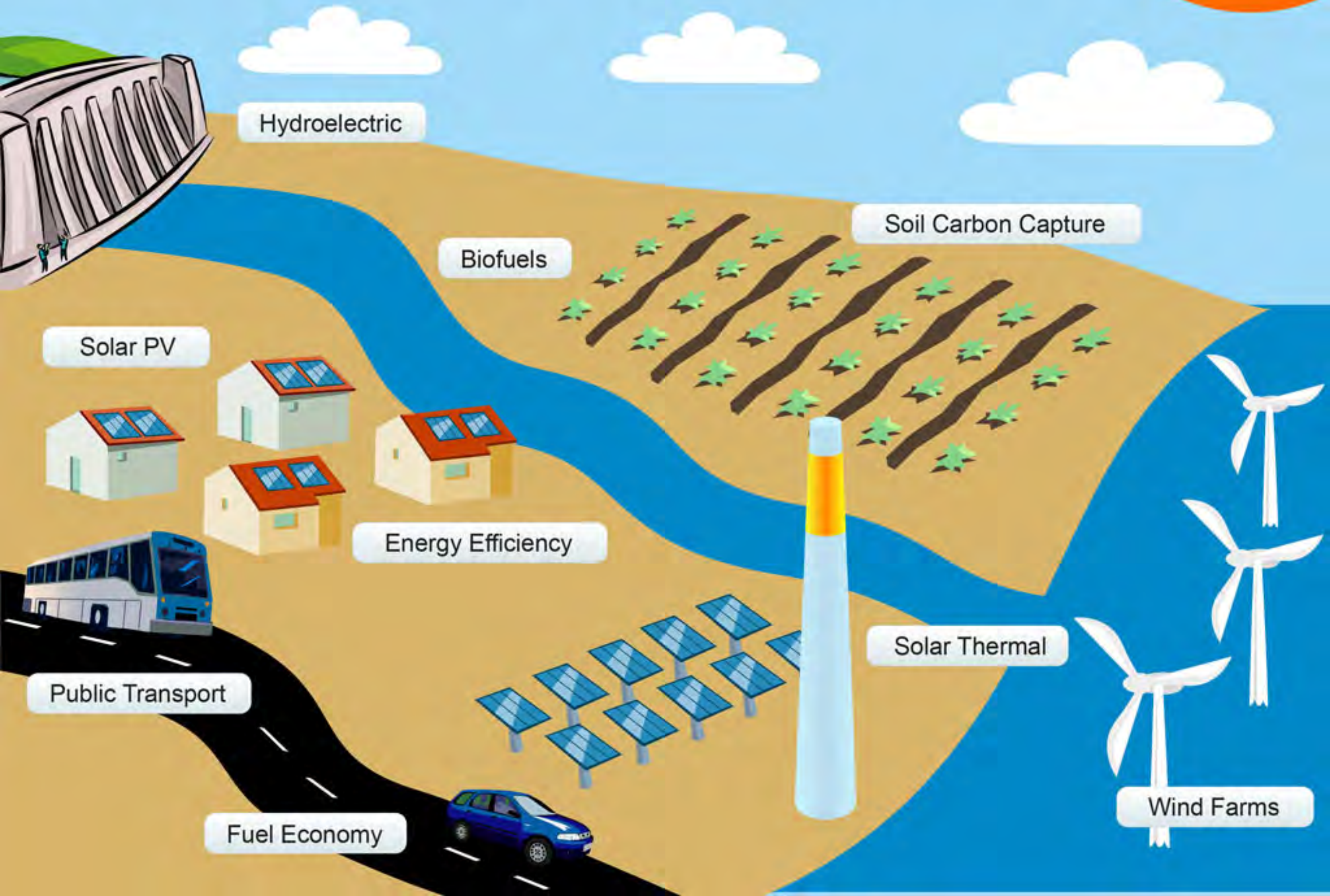
Scientists agree



We can fix it



Climate Solutions: we have the technology!



The parable of the sheep and goats



Matthew 25:31-46

The Weightier Matters

*“Woe to you, scribes and Pharisees, hypocrites!
For you pay tithe of mint and anise and cummin,
and have neglected the weightier matters of the
law: justice and mercy and faith. These you ought
to have done, without leaving the others undone.”*

Matthew 23:23

Amos 5

“You trample the poor, stealing their grain through taxes and unfair rent... You oppress good people by taking bribes and deprive the poor of justice in the courts.”

Amos 5:11,12

“I hate all your show and pretense—the hypocrisy of your religious festivals and solemn assemblies... Away with your noisy hymns of praise! I will not listen to the music of your harps.”

Amos 5:21-23

Poor nations and poor individuals have fewer resources available to cope with major challenges and threats. The consequences of global warming will therefore hit the poor the hardest, in part because those areas likely to be significantly affected first are in the poorest regions of the world.

Christians must care about climate change because we are called to love our neighbors, to do unto others as we would have them do unto us, and to protect and care for the least of these as though each was Jesus Christ himself.



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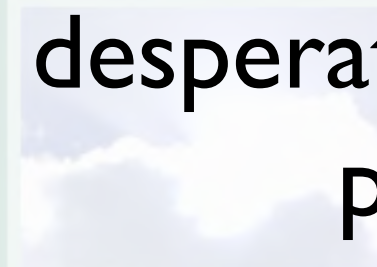
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August 2, 2012

Key Documents

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- Renewed Call to Stewardship
- Cornwall Alliance Statement on the EPA's New CO2 Emissions Regulations

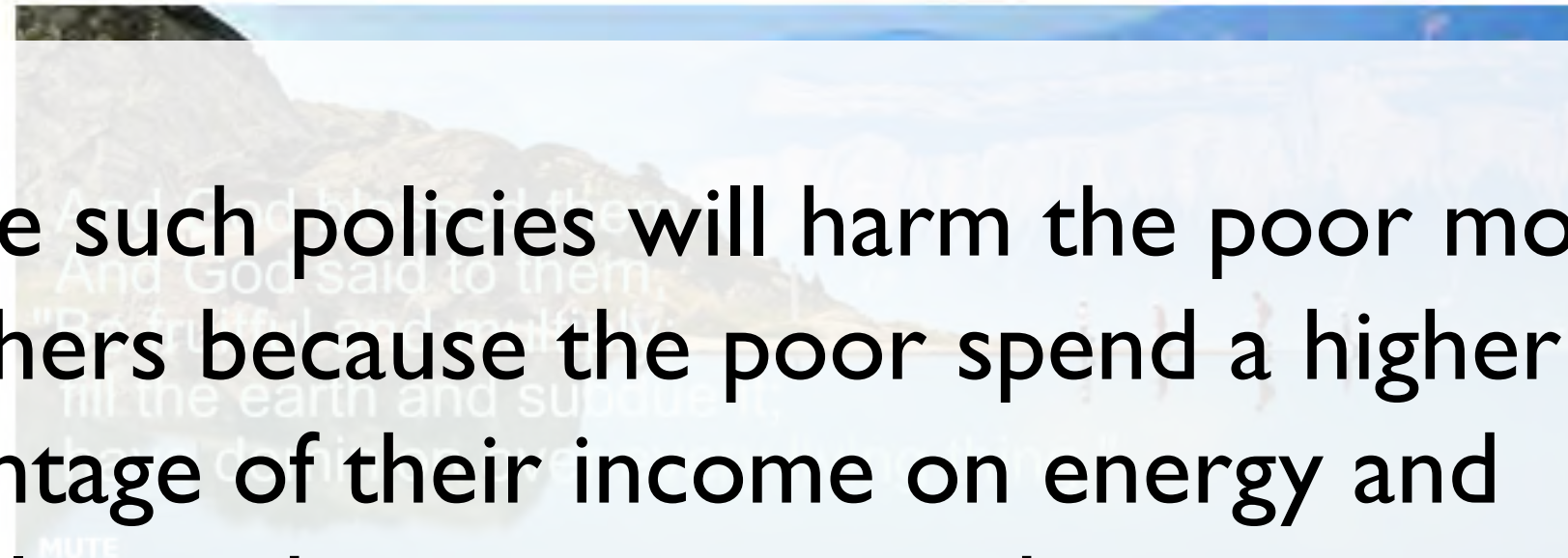


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The Cornwall Alliance is a coalition of clergy, theologians, religious leaders, scientists, academics, and policy experts committed to bringing a balanced Biblical view of stewardship to the critical issue of environment and development. The Cornwall Alliance is seeking to promote those principles in the discussion of various public policy issues including population and poverty, food, energy, water, endangered species, habitat, and other related topics.

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Cornwall Alliance Counters Effort to Portray CO2 Emissions Regulations as "Pro-Life"

(June 26, 2012, Washington, D.C.)—More than 100 leading evangelical scientists, economists, theologians, and pastors endorsed a formal comment sent Monday by The Cornwall Alliance for



Focus on the Family Citizen Magazine Reports Fruitful Use of Resisting the Green Dragon in Churches

"Many Christian leaders currently using the [Cornwall Alliance's





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- Cornwall Alliance Agenda

- ...we conclude that
- human activity has negligible influence on global temperature,
 - the influence is not dangerous

MUTE

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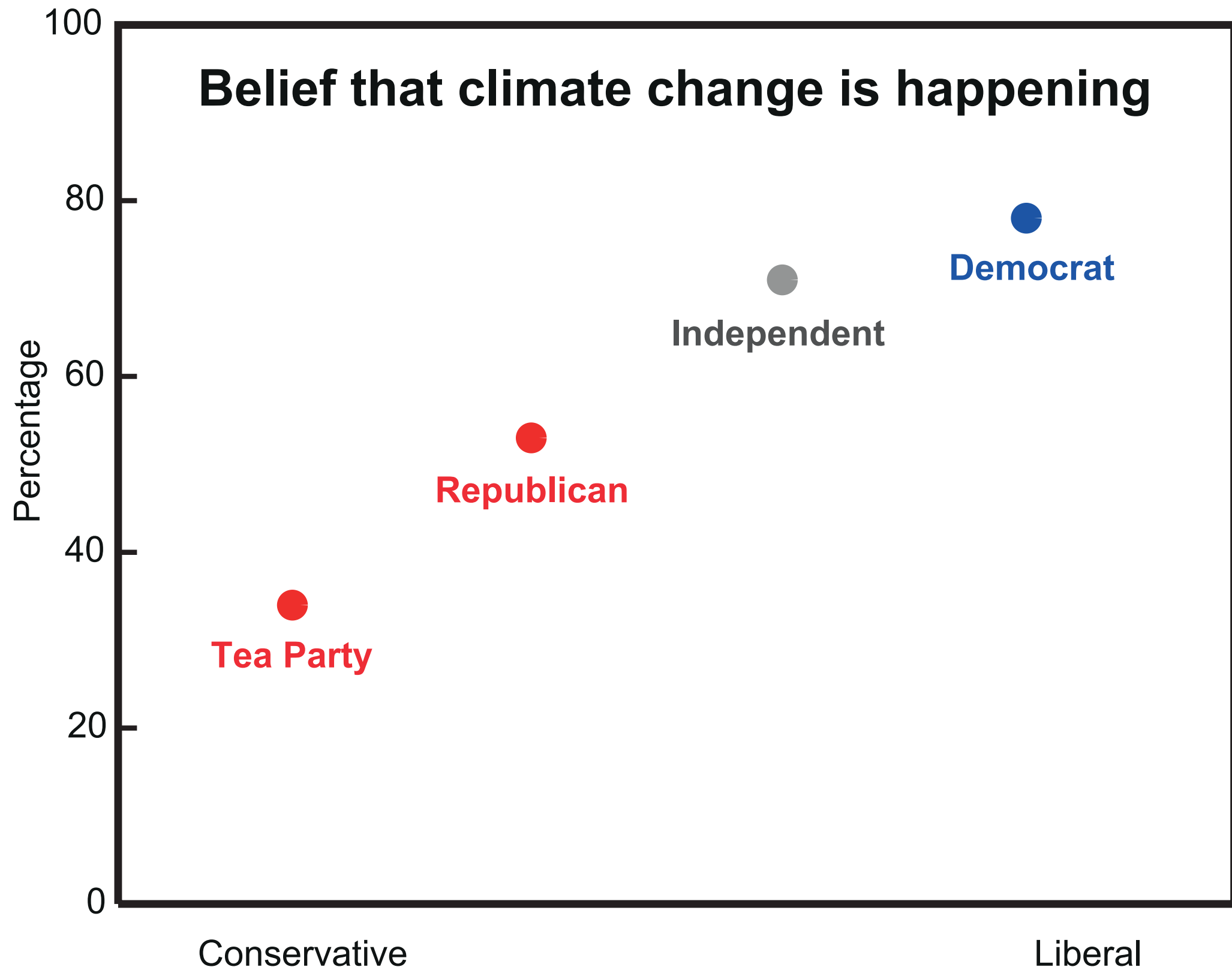
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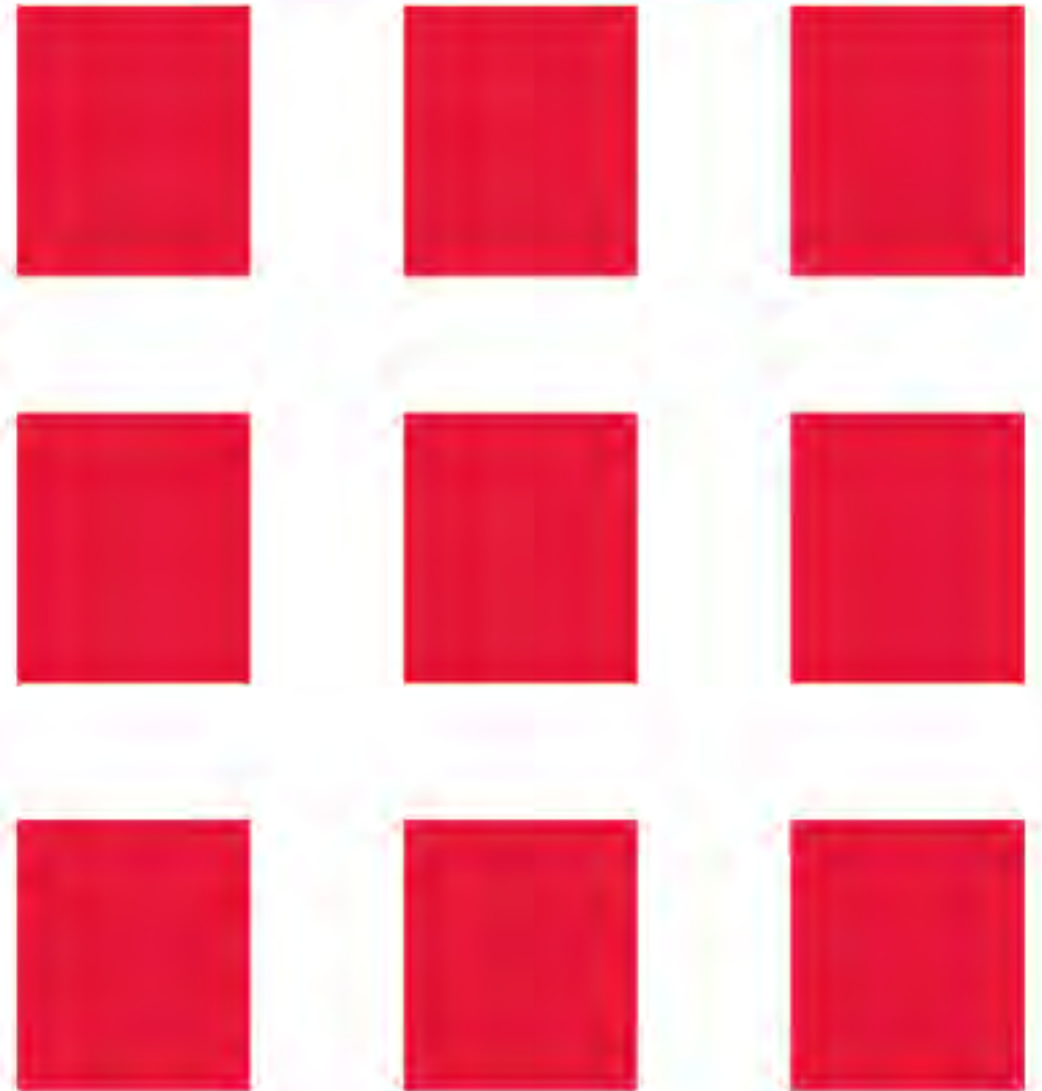


Confirmation Bias

Confirming Evidence

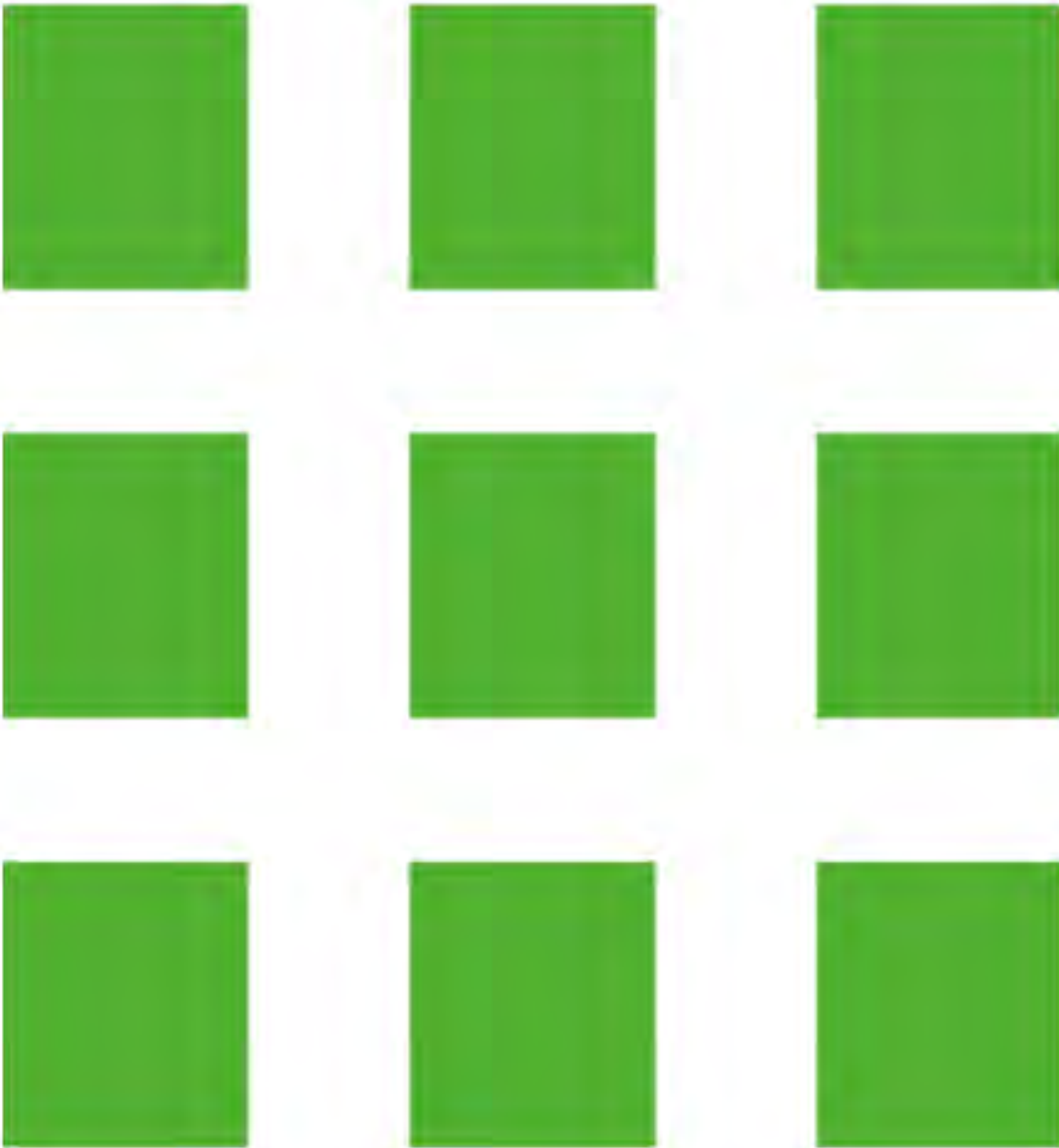


Conflicting Evidence



Confirmation Bias

Confirming Evidence



Contrasting Evidence





5 Techniques of Science Denial

1. Fake Experts
2. Cherry Picking
3. Logical fallacies
4. Impossible Expectations
5. Conspiracy Theories





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Consensus



Consensus



Fake Experts

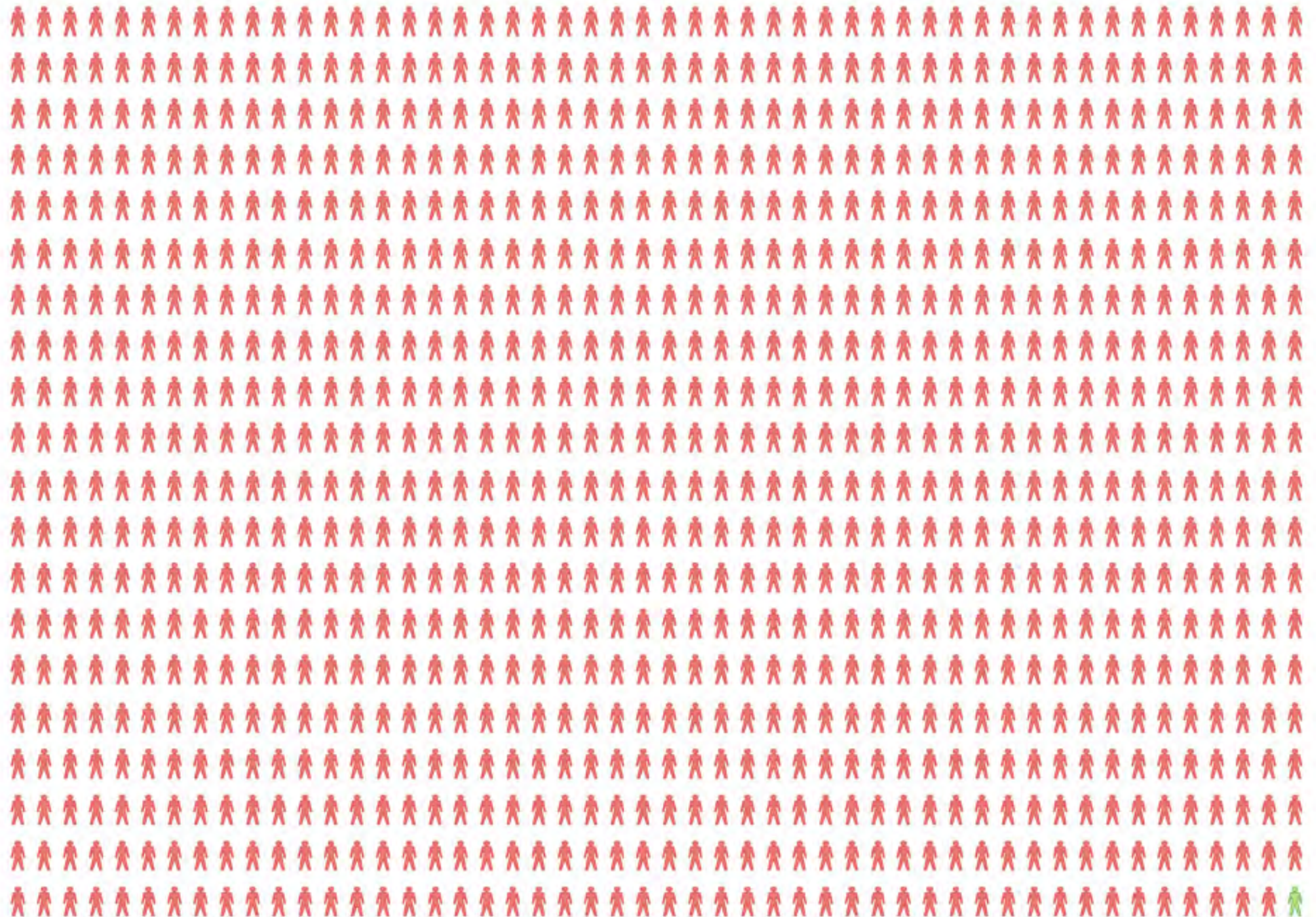


Fake Experts

“[Global warming alarmism] falsely claims overwhelming scientific consensus in favor of the hypothesis of dangerous manmade warming (ignoring tens of thousands of scientists who disagree) and then falsely claims that such consensus proves the hypothesis and justifies policies to fight it.”

Cornwall Alliance

99.9% of the OISM signatories are not climate scientists



Fake Experts

A technique perfected
by the tobacco industry
in the 1970s

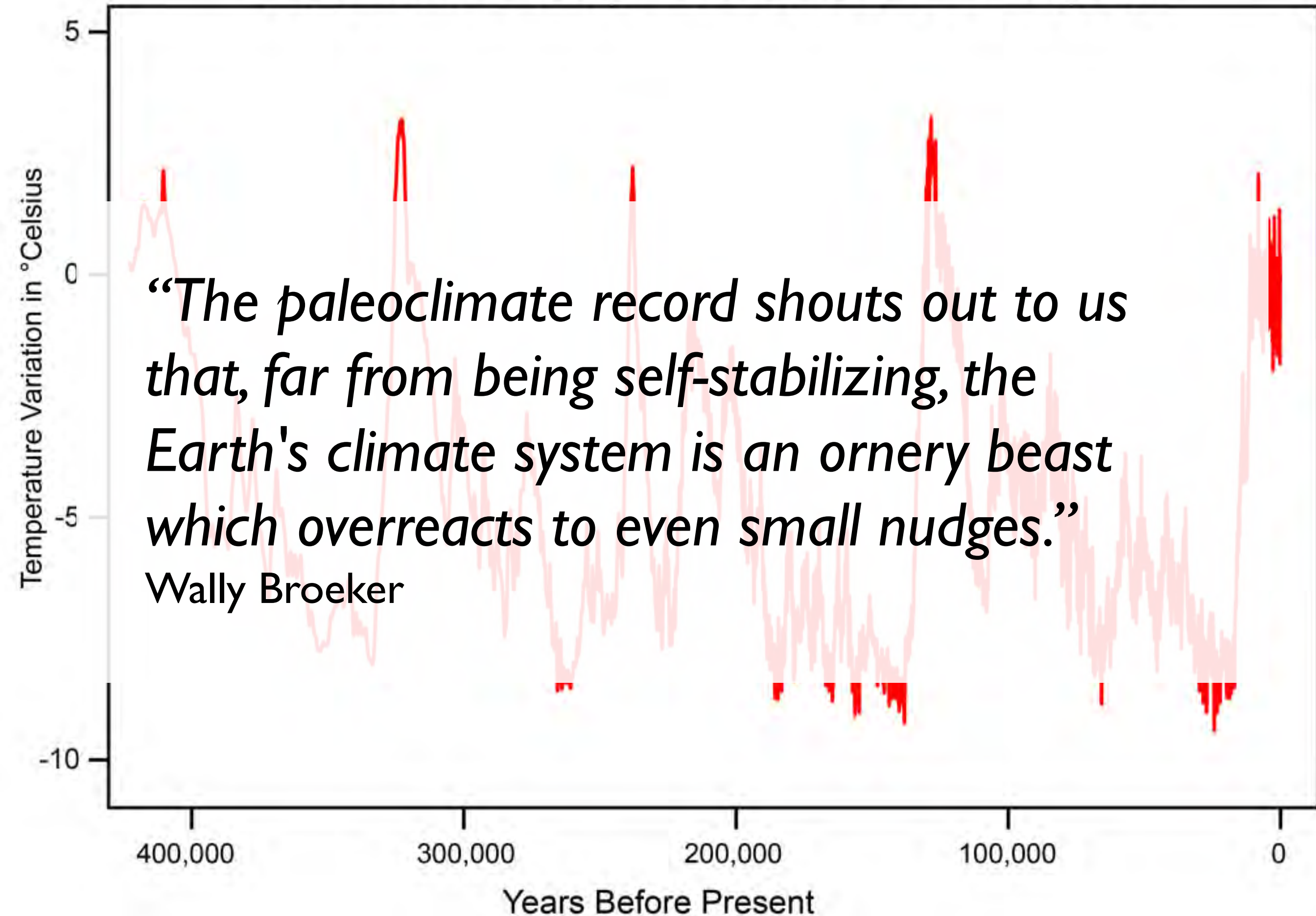


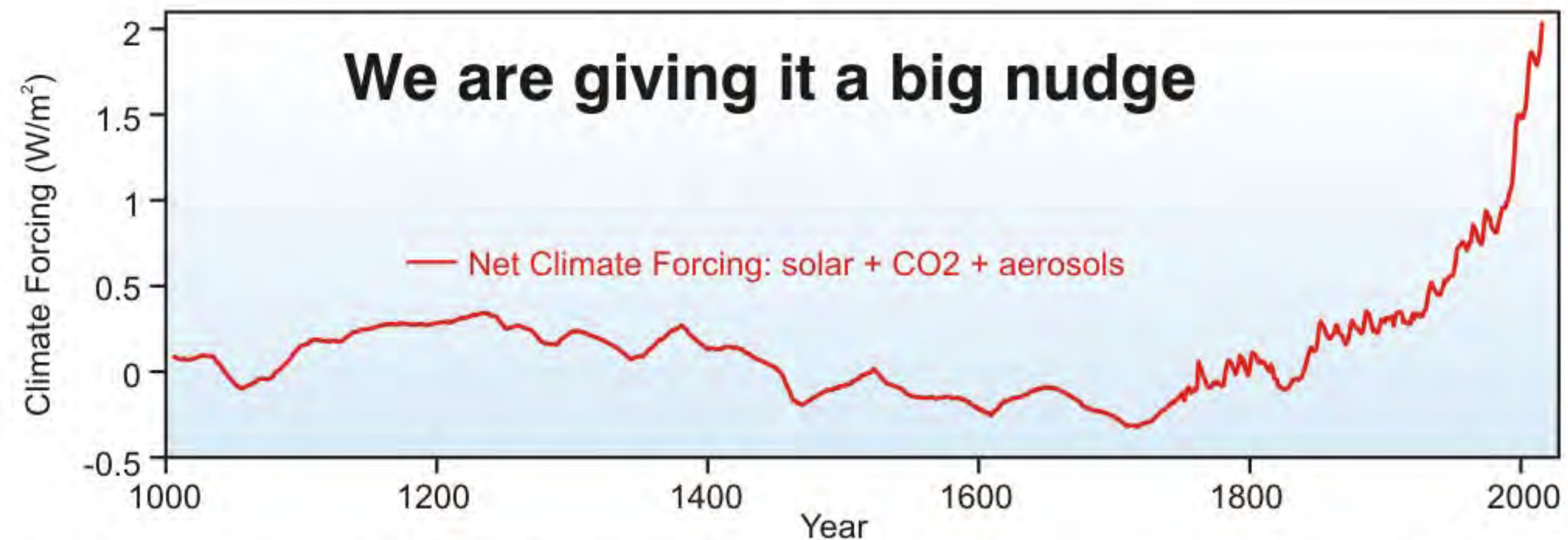
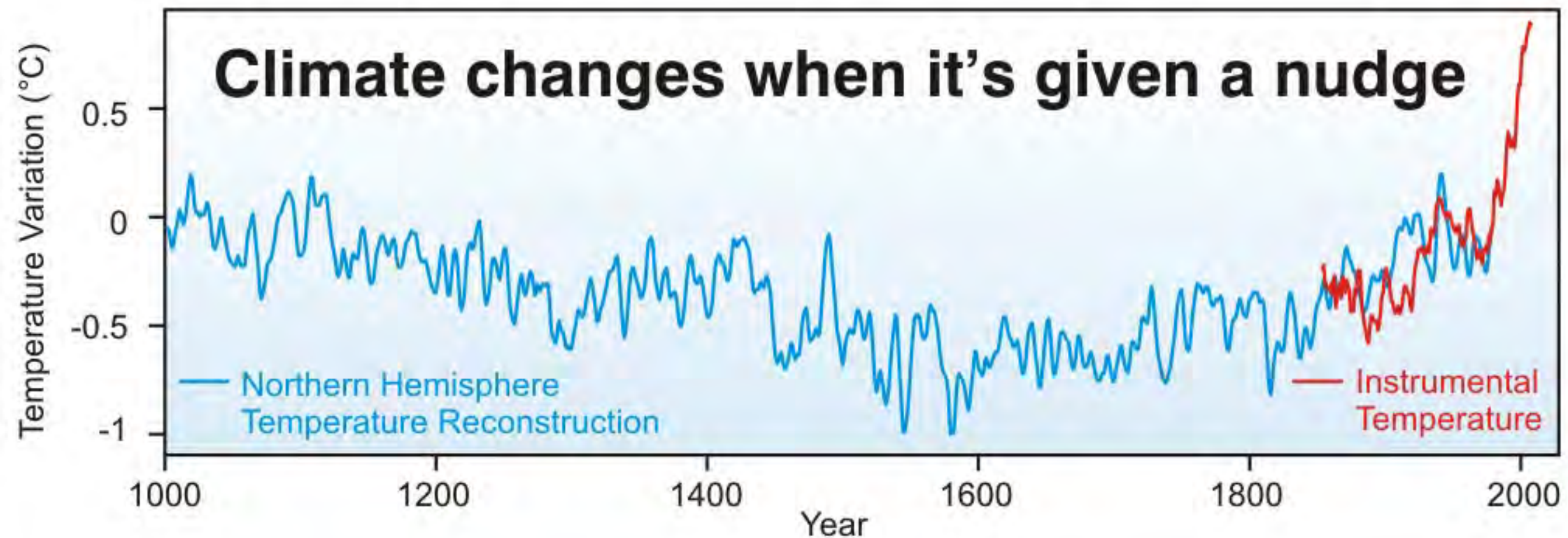
Misrepresentations & Logical Fallacies

Non Sequitor: “it does not follow”

“Recent global warming is one of many natural cycles of warming and cooling in geologic history.”

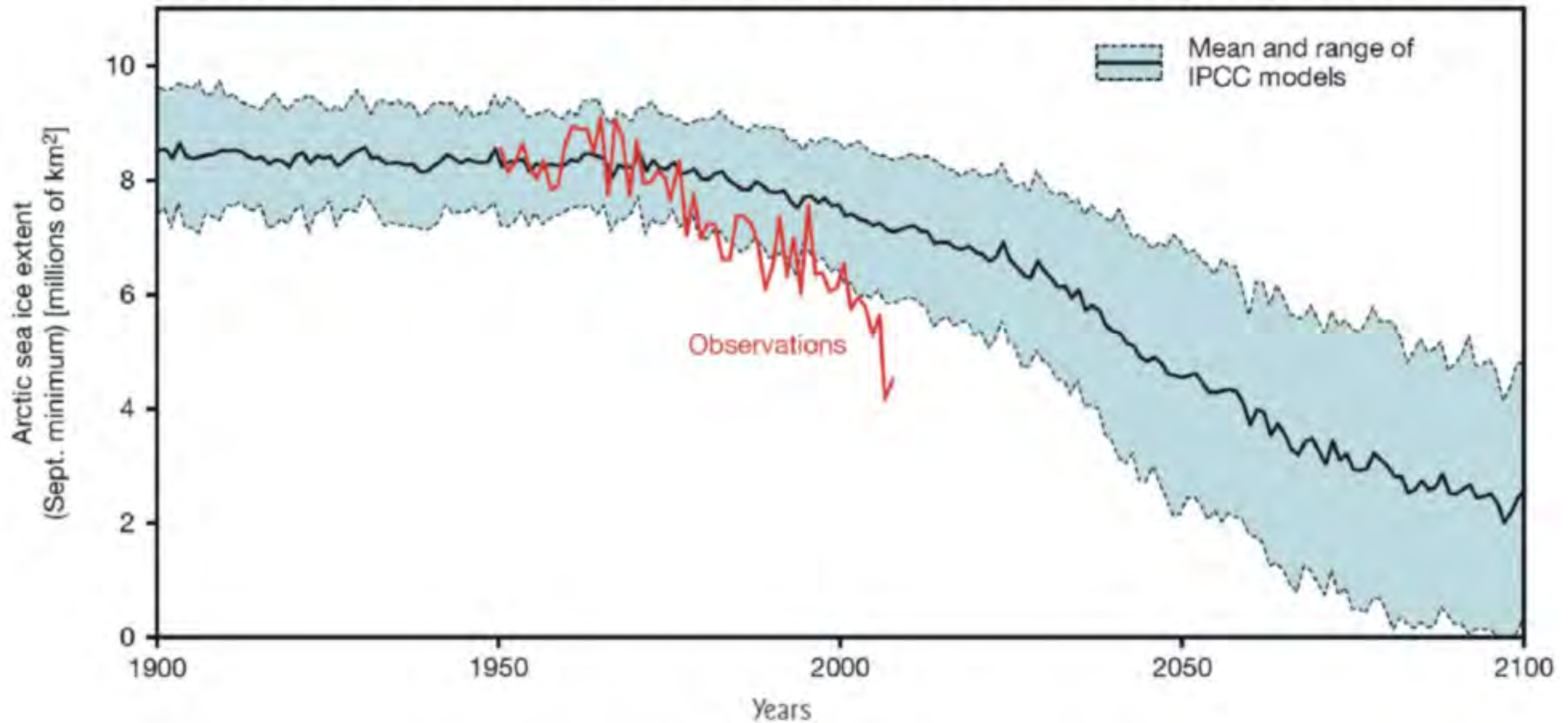
Temperature Change over the last 450,000 years





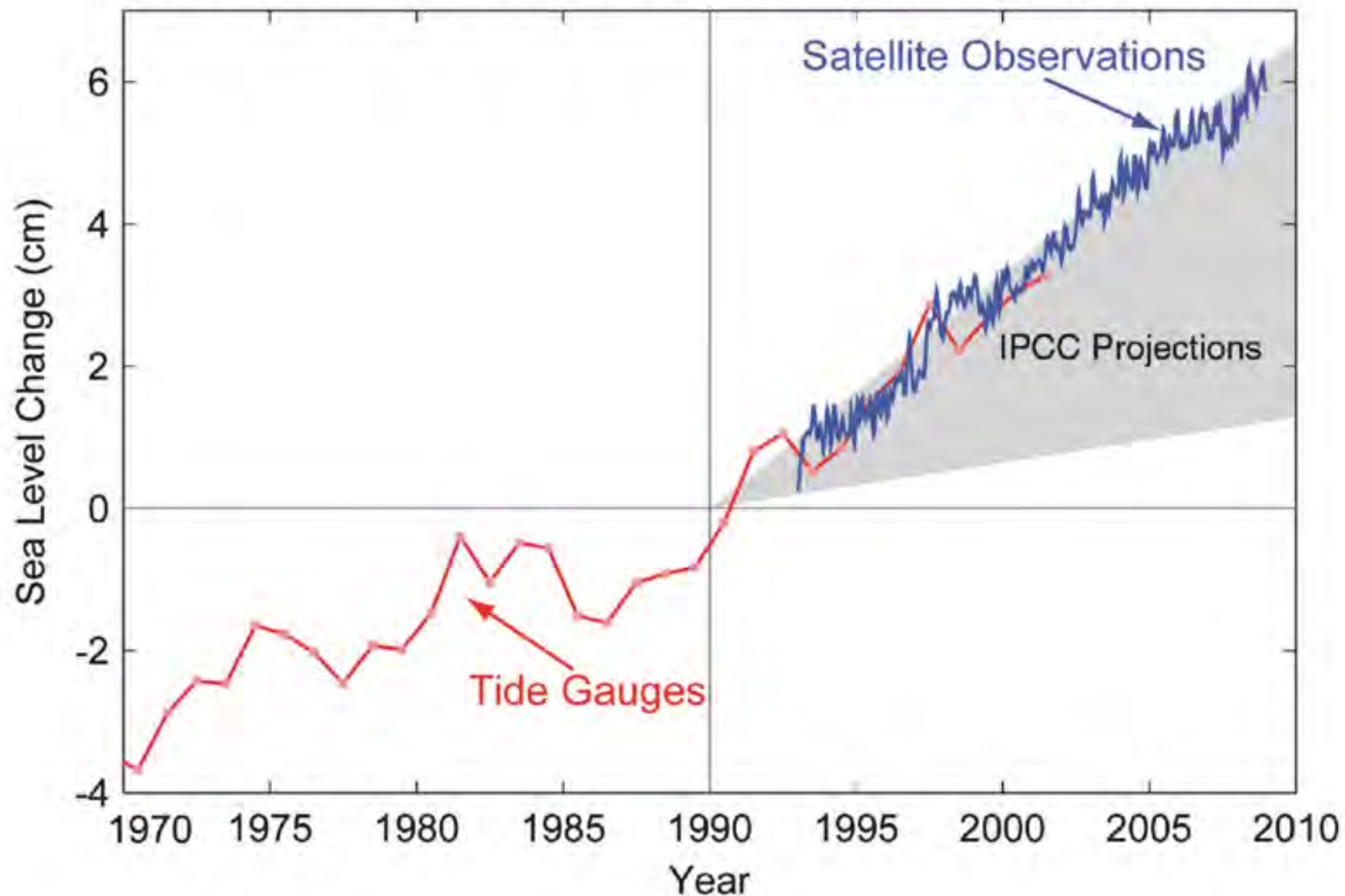
Impossible Expectations

Observed Arctic sea ice extent vs IPCC projections



In a climate system with net positive feedback, climate response is likely to be greater than expected

Observed sea level rise vs IPCC projections



Impossible Expectations

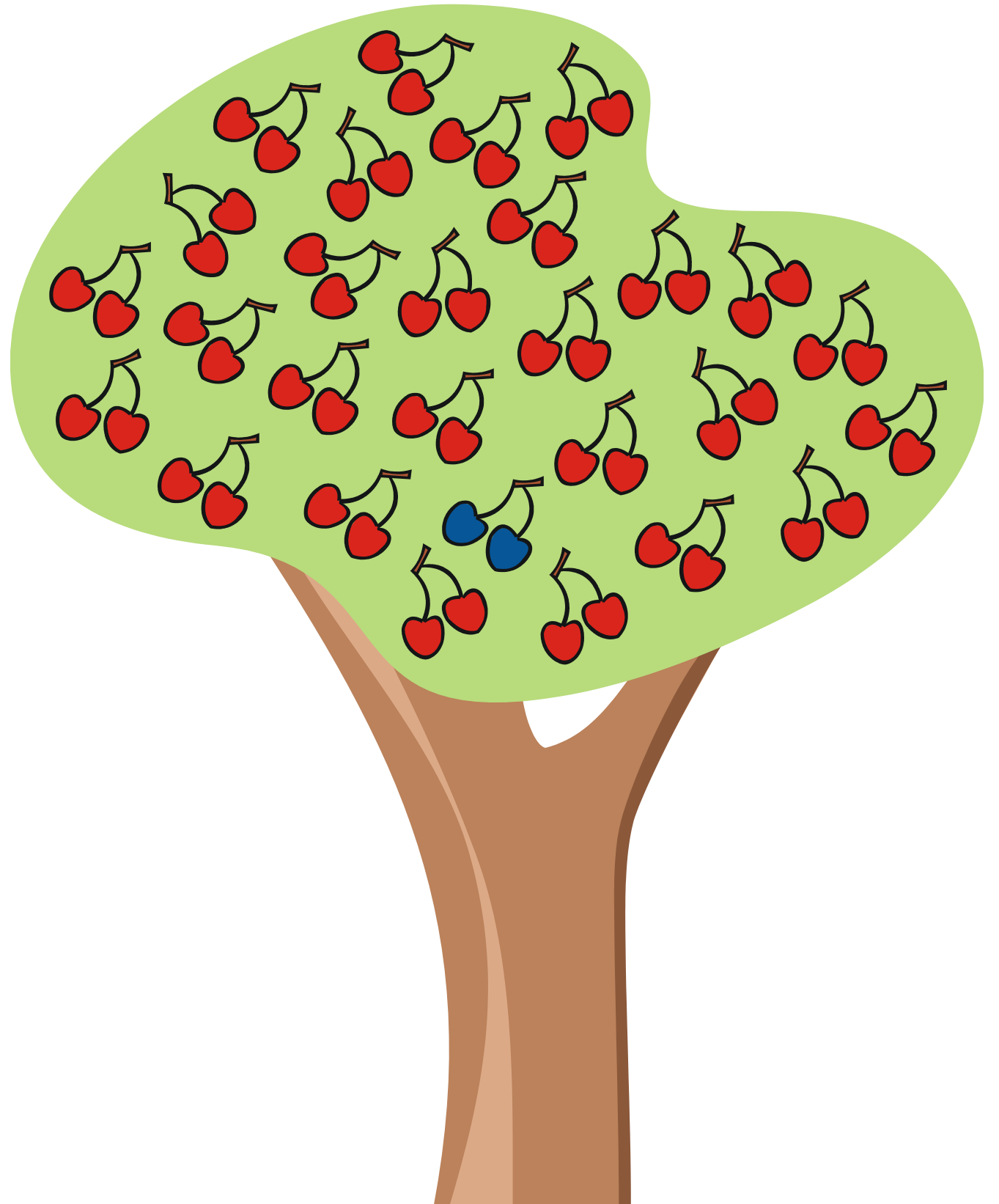
“Predicting the future of the climate system is so complex a task that it might never be achieved. While it may be possible to adjust or fit a model to mimic past climatic conditions, this does not guarantee that the processes causing climate change are accurately portrayed.”

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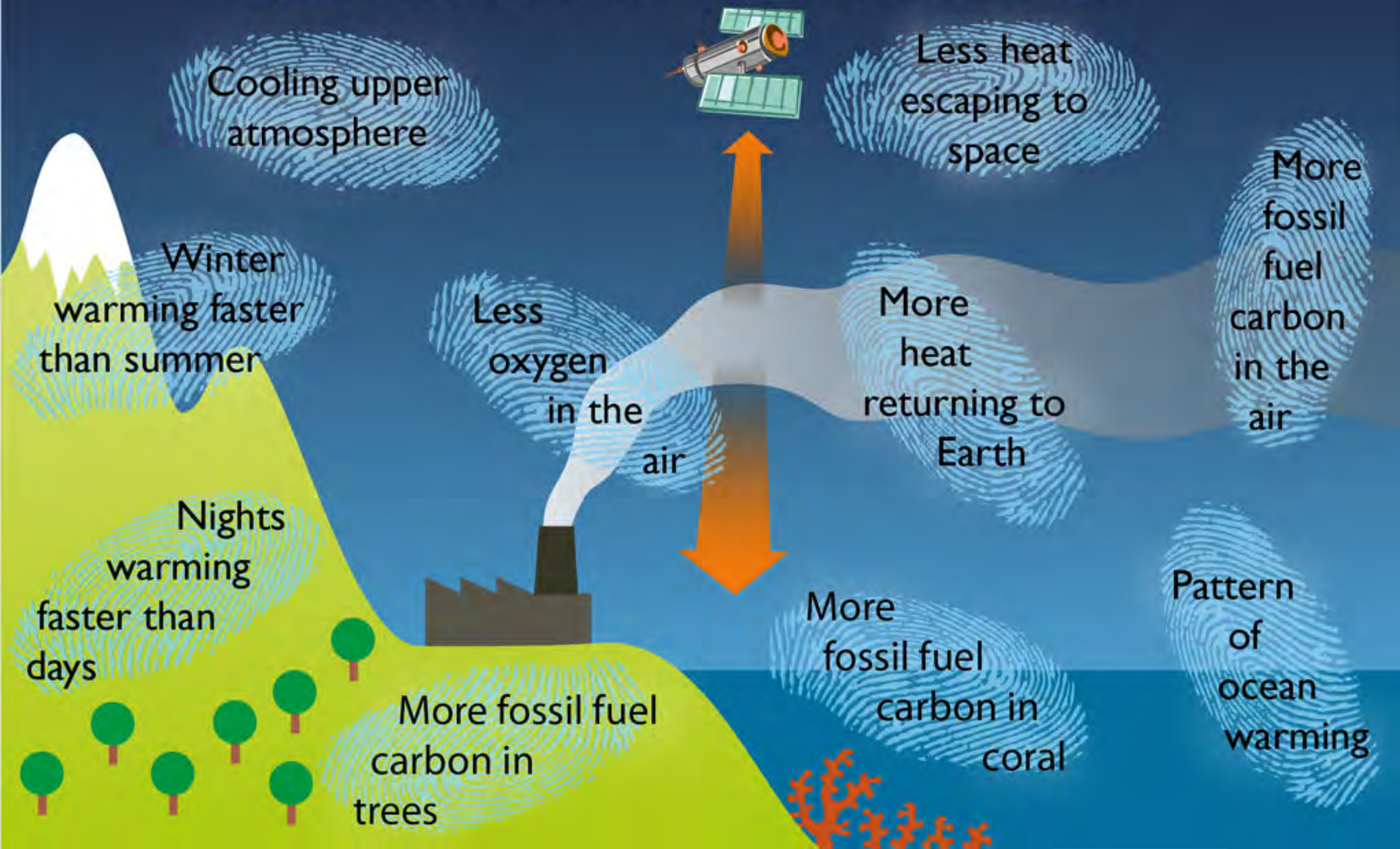
Cherry Picking

“There is no convincing scientific evidence that human contribution to greenhouse gases is causing dangerous global warming.”

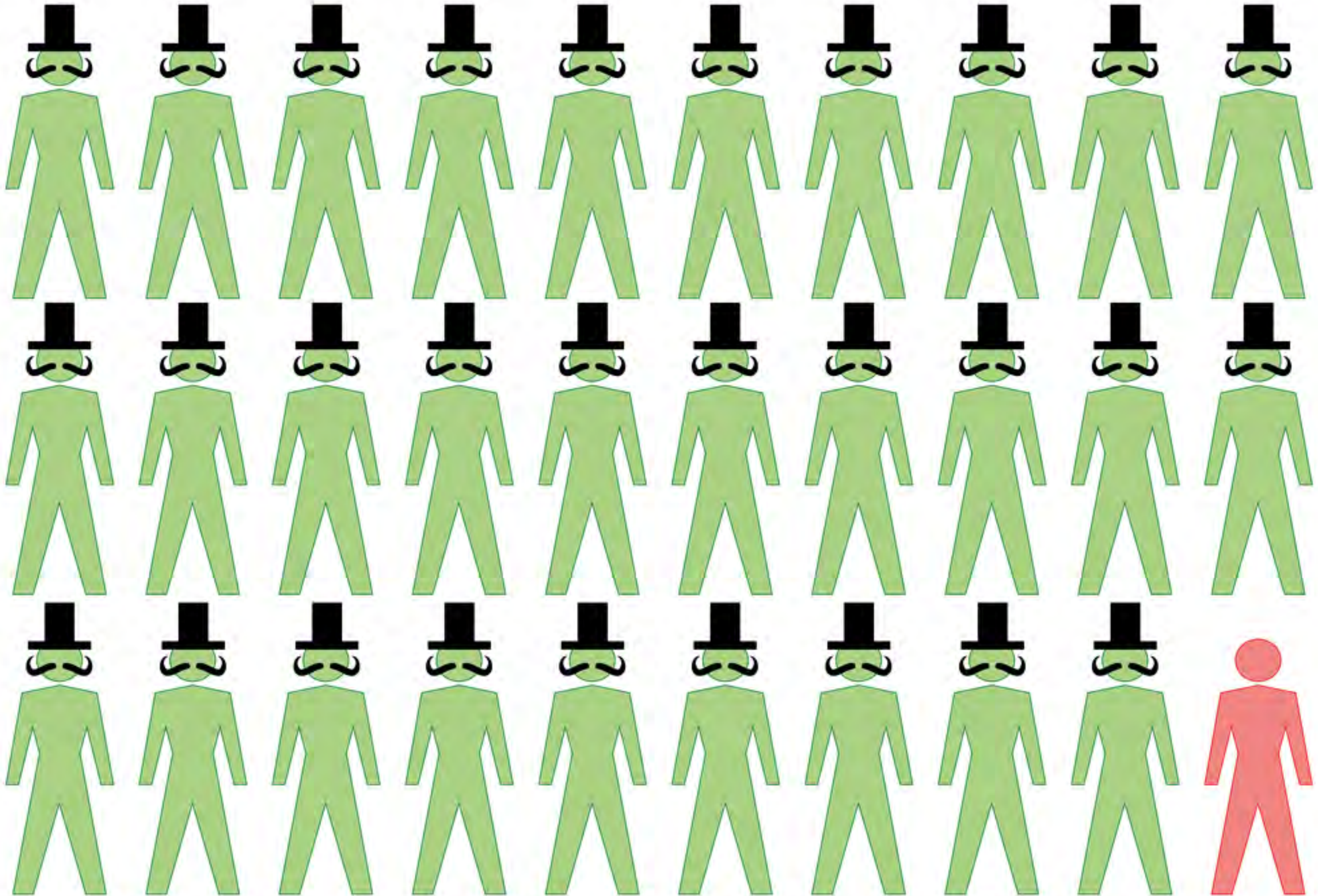
Cornwall Alliance



Human fingerprints are all over our climate



Conspiracy!



What are we going to do tonight, Brain?

the same thing we
do every night, Pinky....



...TRY AND TAKE OVER THE WORLD!

Conspiracy Theory

“If scientists are promised a career of financial support to find evidence of manmade climate change, they will do their best to find it.”

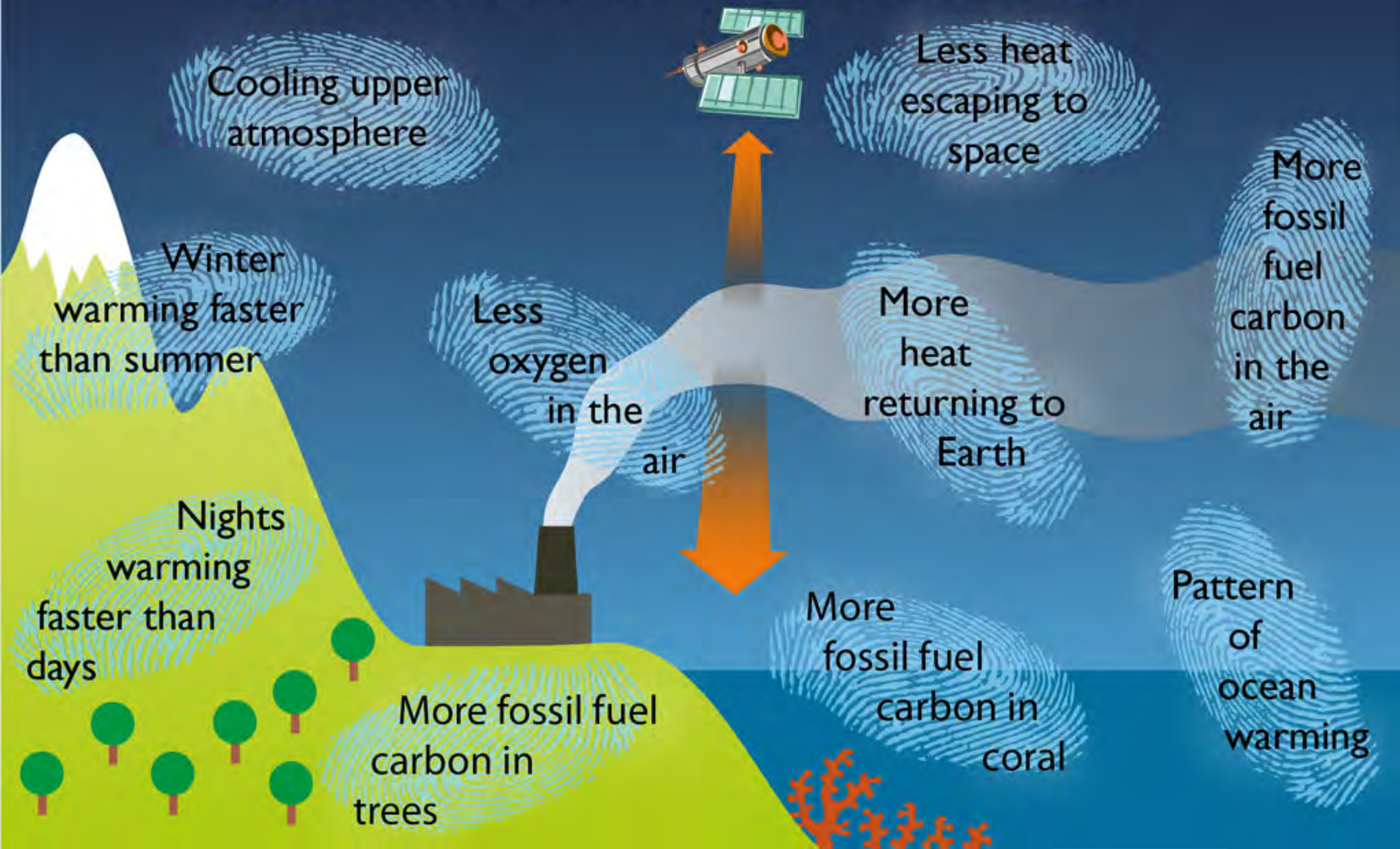
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Conspiracy Theory

Two distinctive traits of conspiracy theories:

1. Ascribe omnipotent power to the conspiracy

Human fingerprints are all over our climate



Climategate



9 independent enquiries have found no evidence of wrongdoing



"...no evidence of any deliberate scientific malpractice in any of the work of the Climatic Research Unit."

UNIVERSITY OF EAST ANGLIA IN CONSULTATION WITH THE ROYAL SOCIETY



"The scientists' rigour and honesty are not in doubt."

INDEPENDENT CLIMATE CHANGE EMAIL REVIEW



"There exists no credible evidence that Dr. Mann had or has ever engaged in, or participated in, directly or indirectly, any actions with an intent to suppress or to falsify data."

PENN STATE UNIVERSITY

Conspiracy Theory

Two distinctive traits of conspiracy theories:

1. Ascribe omnipotent power to the conspiracy
2. Evidence against the conspiracy is proof of the conspiracy



Roy Spencer

University of Alabama in Huntsville

“I view my job a little like a legislator, supported by the taxpayer, to protect the interests of the taxpayer and to minimize the role of government.”



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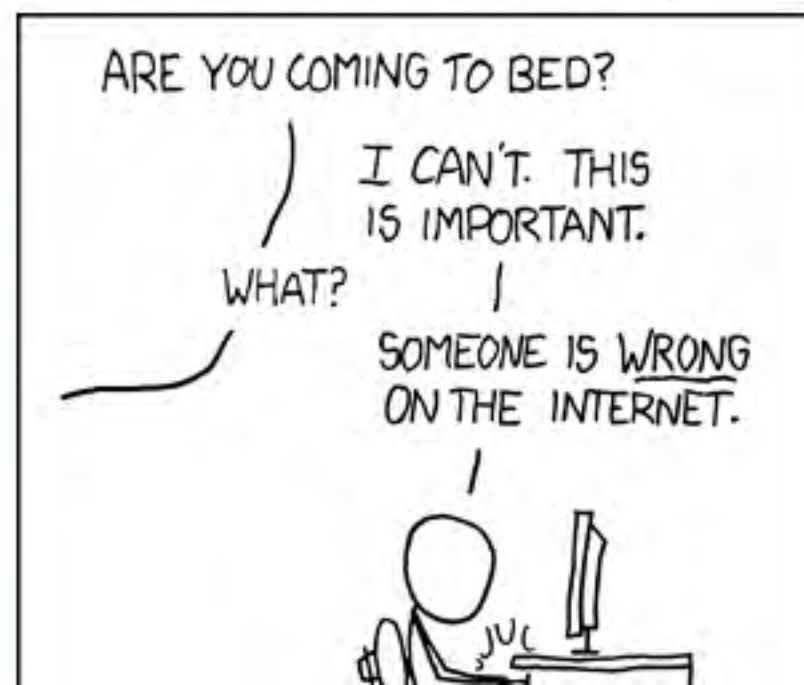
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Why I care about climate change

Posted on 3 August 2010 by John Cook

There was a recent comment posted on Skeptical Science that questioned my motives, accused me of being politically leftist and wondered where my funding came from. The comment broke several rules in our [Comments Policy](#) so was deleted. However, I emailed the commenter, and answered all his questions. Through subsequent discussion, I think we came to understand each other a little better. So while I always try to keep the discussion focussed on science, I'm going to make a brief exception here and share my own personal reasons why I spend so much time reading and writing about climate science. I will note in advance that my motives are personal ones - I'm sure many of you come at this from completely different directions. This is just for the sake of anyone wondering what drives Skeptical Science.

Let me first say what doesn't drive Skeptical Science. For starters, it's [not for this reason](#):



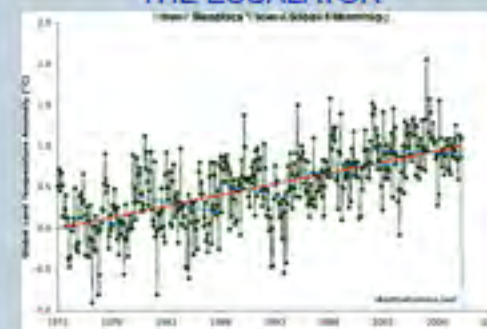
Winner of the 2011



Australian
museum

Eureka Prize
Advancement of
climate change
knowledge

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THE DEBUNKING HANDBOOK



ENVIRONMENT BLOG

THE WORLD'S LEADING GREEN JOURNALISTS
ON CLIMATE, ENERGY AND WILDLIFE

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Why would a solar physicist embrace
the no-fossil-fuel energy?

John Cook, who runs [skepticalscience.com](#), says his faith drives
him. But why?

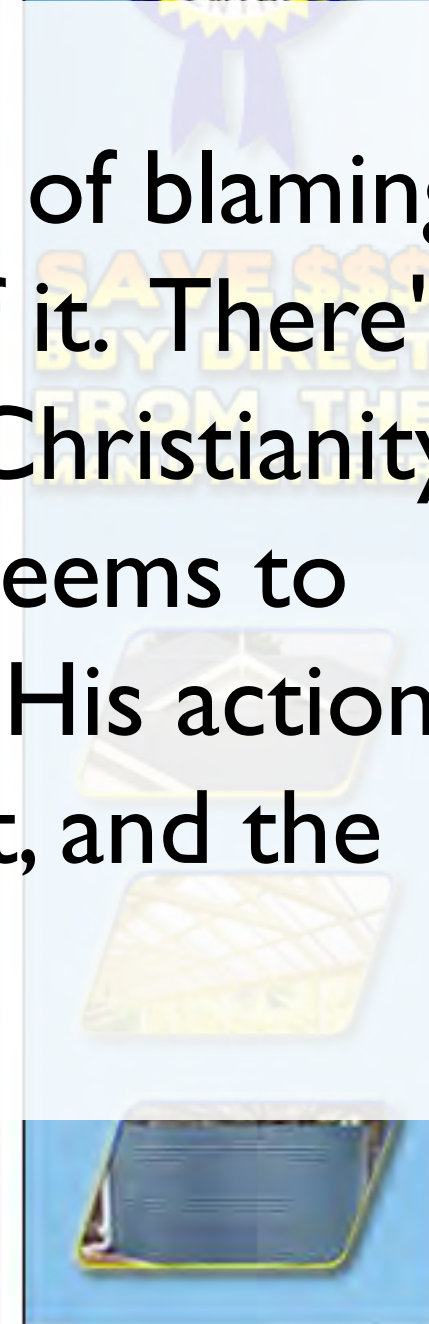
• [Skeptical Science](#) suggests how the climate change
app came about

We humans have an alarming habit of blaming the idea for our poor execution of it. There's nothing wrong with the tenets of Christianity. Cook demonstrates this: his faith seems to work the way faith is supposed to. His actions speak of considerable commitment, and the work continues unabated.

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Posted by
Graham Wayne
Wednesday 25 August
2010 11.45 BST
[guardian.co.uk](#)

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Conclusion

Climate change is an opportunity for the church to:

- Put our faith into action
- Be part of the solution, not part of the problem
- Guide our communities to the core Christian values of justice and mercy





John Cook

Global Change Institute,
University of Queensland

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- ▶ Email: john@skepticalscience.com
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