SAY WHAT 🌎🌎🌎?

Effectively Communicating Climate Facts and Policy in the U.S.

July 24th 1PM ET

CLIMATE XCHANGE | www.Climate-XChange.org

Introduction

Kristen Soares

State Climate Policy
Network Manager

CLIMATE X CHANGE
[SCPN]

State Climate Policy Network

Network of **15,000+**

- ➔ State and local elected officials
- ➔ NGO advocates
- ➔ Researchers
- ➔ State agency staffers
- ➔ Organizers and activists
- ➔ Business leaders

... working on state climate policy

www.climate-xchange.org/network

CLIMATE XCHANGE [SCPN]

Pro Bono Policy Assistance

We specialize in state climate policy design and analysis.
Reach out to kristen@climate-xchange.org with your requests on:

- **Example states** and **model rules** for a given policy
- **Gap analysis** of your state's climate policy landscape
- **Connections** to other actors working on similar issues

Or, check out our **State Climate Policy Dashboard**, which tracks 65+ state-level climate policies and relevant resources across all 50 states.

CLIMATE X CHANGE [SCPN]

Say What? Effectively Communicating Climate Facts and Policy in the U.S.

Joshua Low
Partnerships Director
Yale Program on Climate Change Communication

Karen Florini
Senior Advisor
Climate Central

1. State Climate Opinions and Perspectives
2. Visualizing Climate Facts and Policy
3. Q&A

CLIMATE X CHANGE [SCPN]

Building Public and Political Will for Climate Action

Presentation for ClimateXChange, July 2024

Joshua Low, Partnerships Director

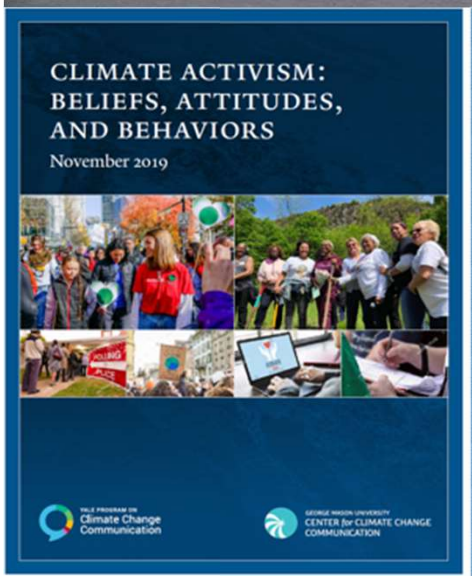
Yale Program on Climate Change Communication

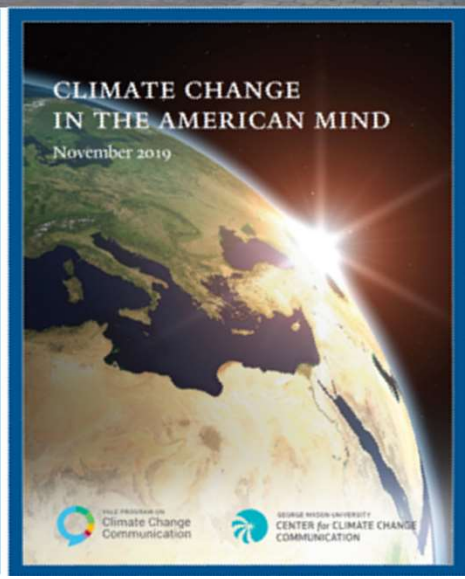
YALE PROGRAM ON
Climate Change Communication

WHO WE ARE & WHAT WE DO

- **Research**: Scientific studies on public beliefs, opinions, attitudes and behavior

- **Partnerships**: Help advocates, businesses, educators, and governments build public and political will for climate action





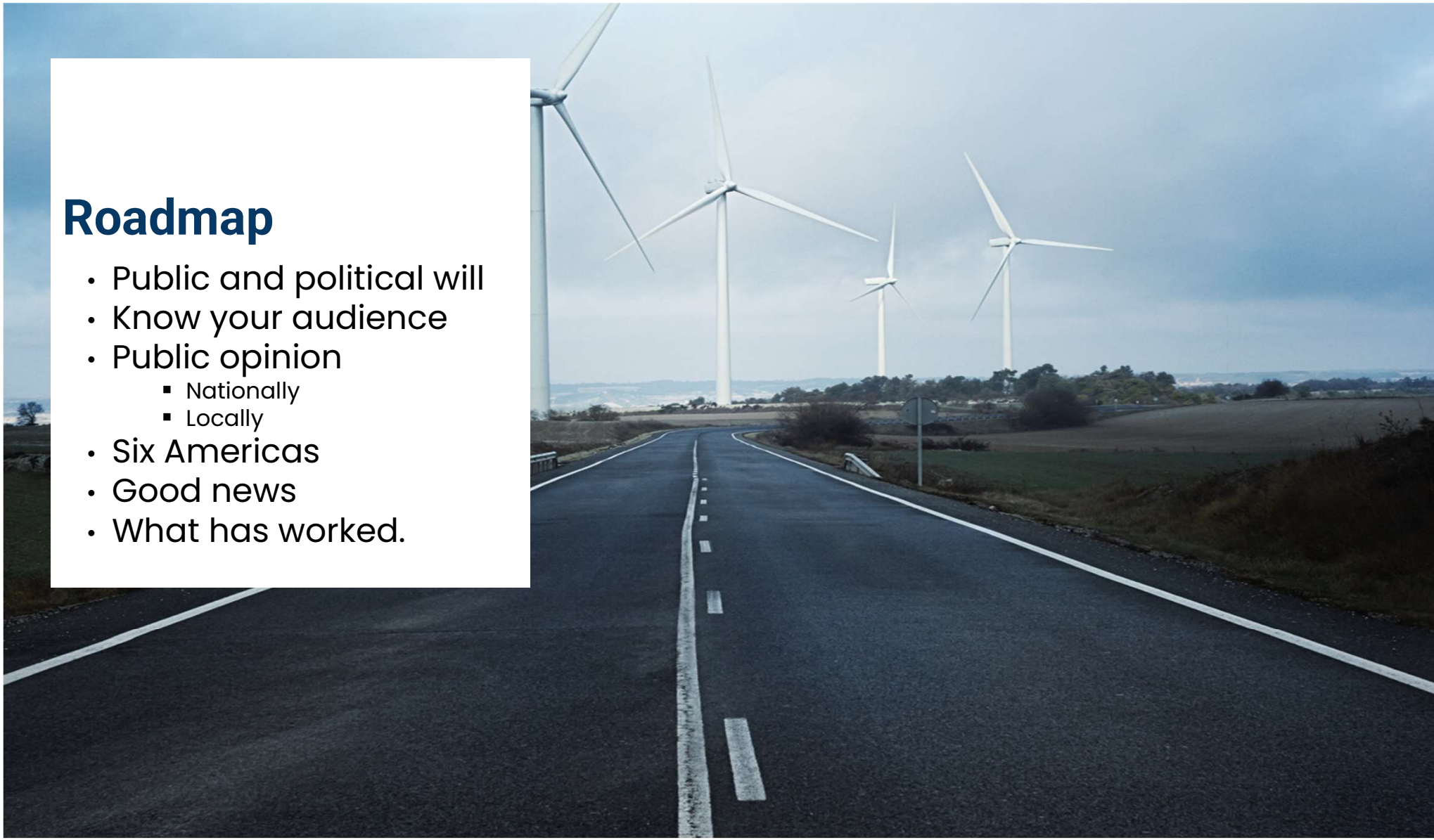
Yale SCHOOL OF THE ENVIRONMENT

STAFF & STUDENTS 2024

YALE PROGRAM ON Climate Change Communication

Roadmap

- Public and political will
- Know your audience
- Public opinion
  - Nationally
  - Locally
- Six Americas
- Good news
- What has worked.



Building Public and Political Will

1st Rule of Communications:

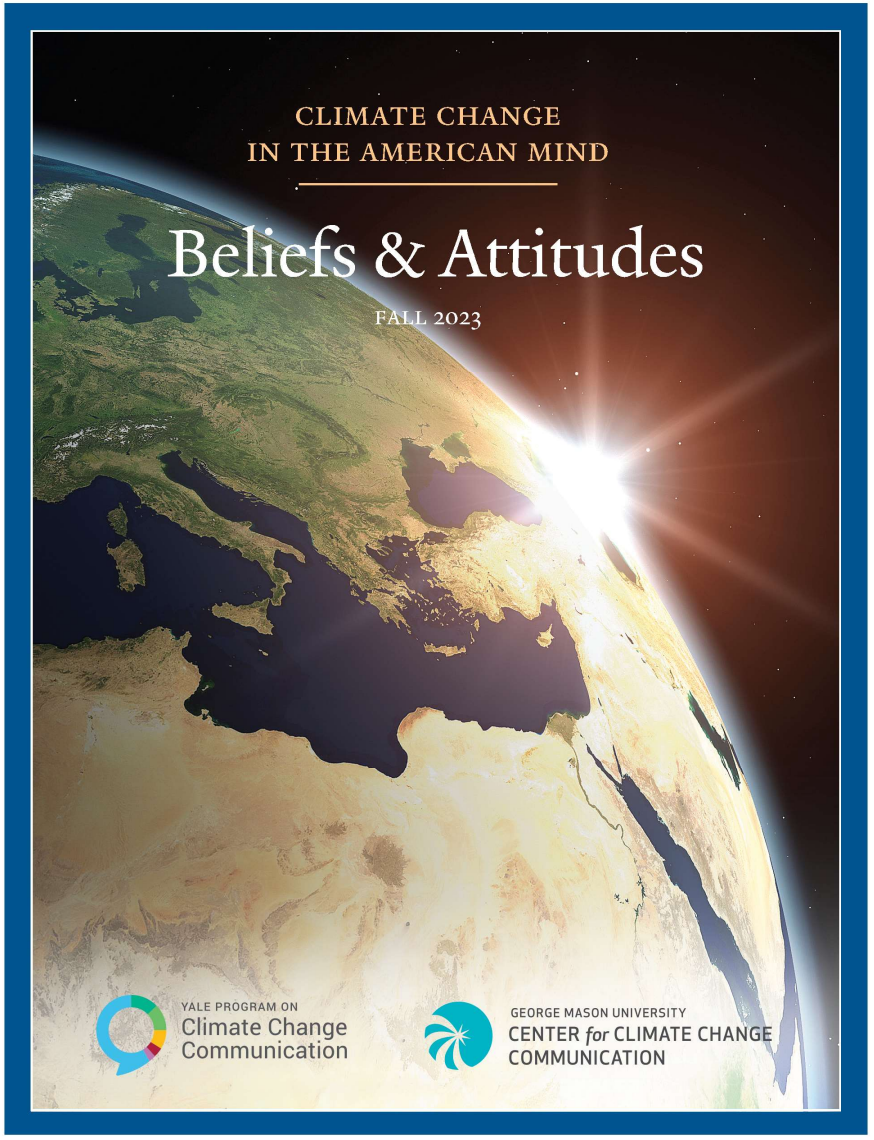
Know your audience.

Your audience will not, and may not need to, think about climate change the way you do

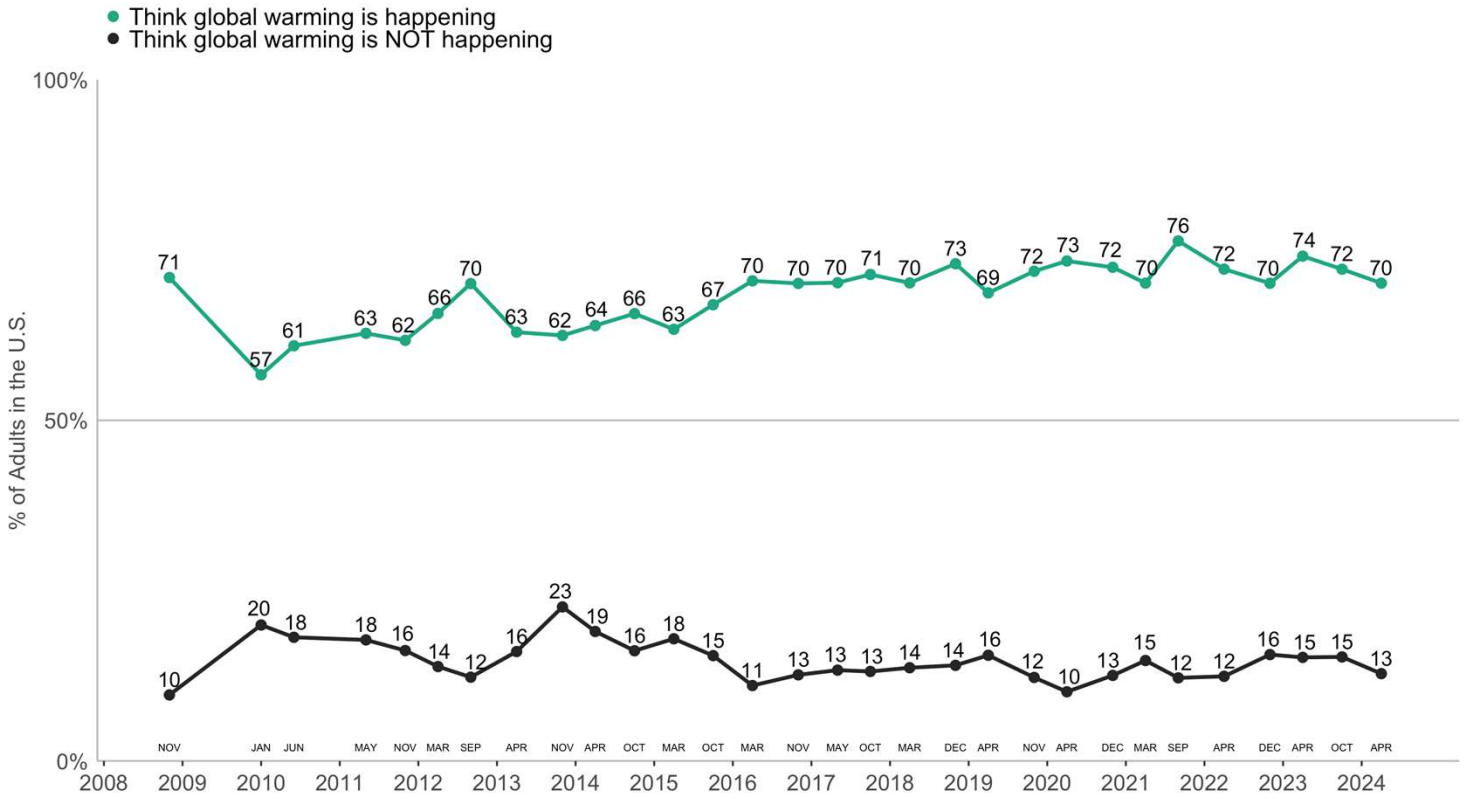
Photo: Becker1999 / Wikimedia

ways

Americans on Climate Change



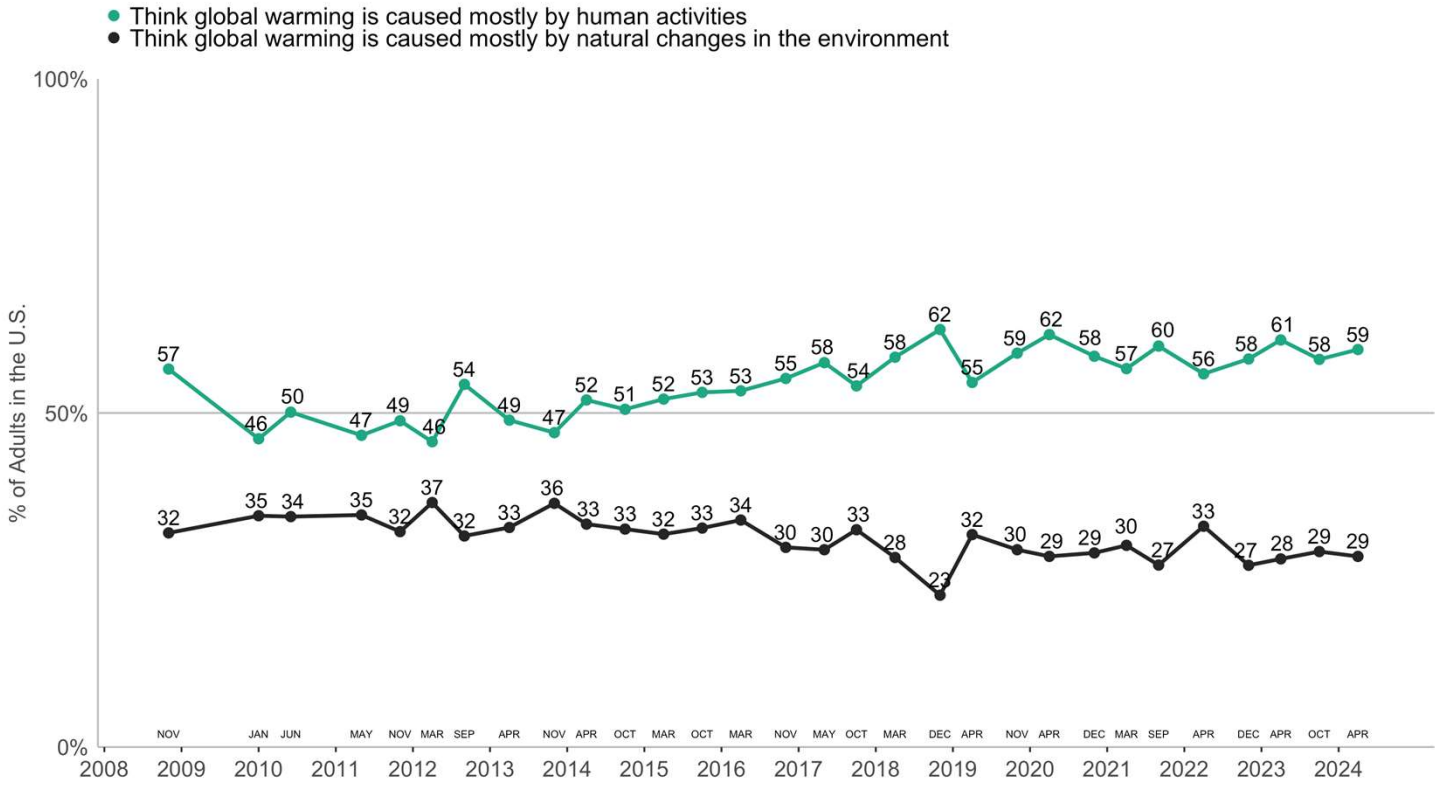
7 out of 10 think global warming is happening



Do you think global warming is happening?

Spring 2024

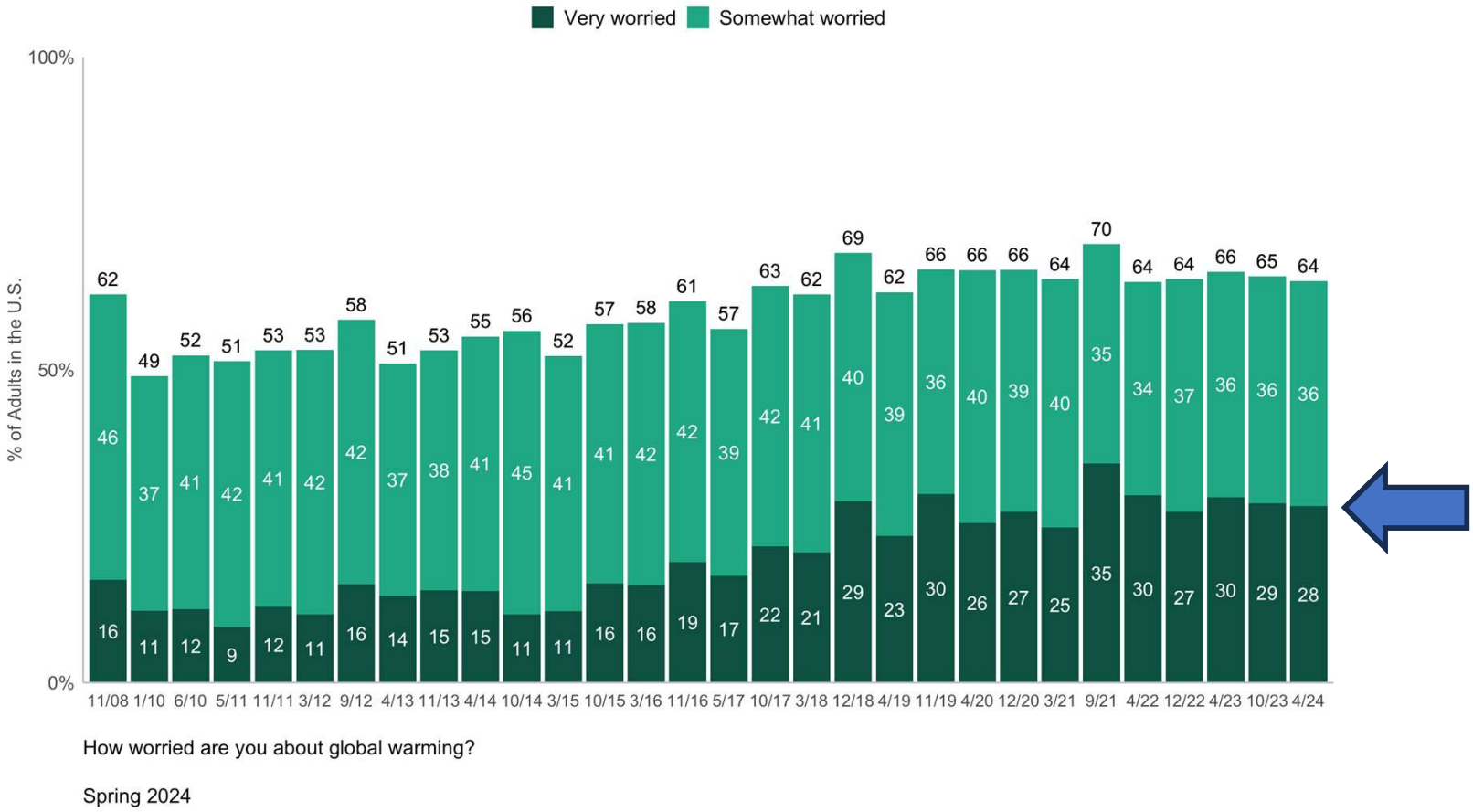
A majority of Americans think global warming is mostly human-caused



Assuming global warming is happening, do you think it is . . .

Spring 2024

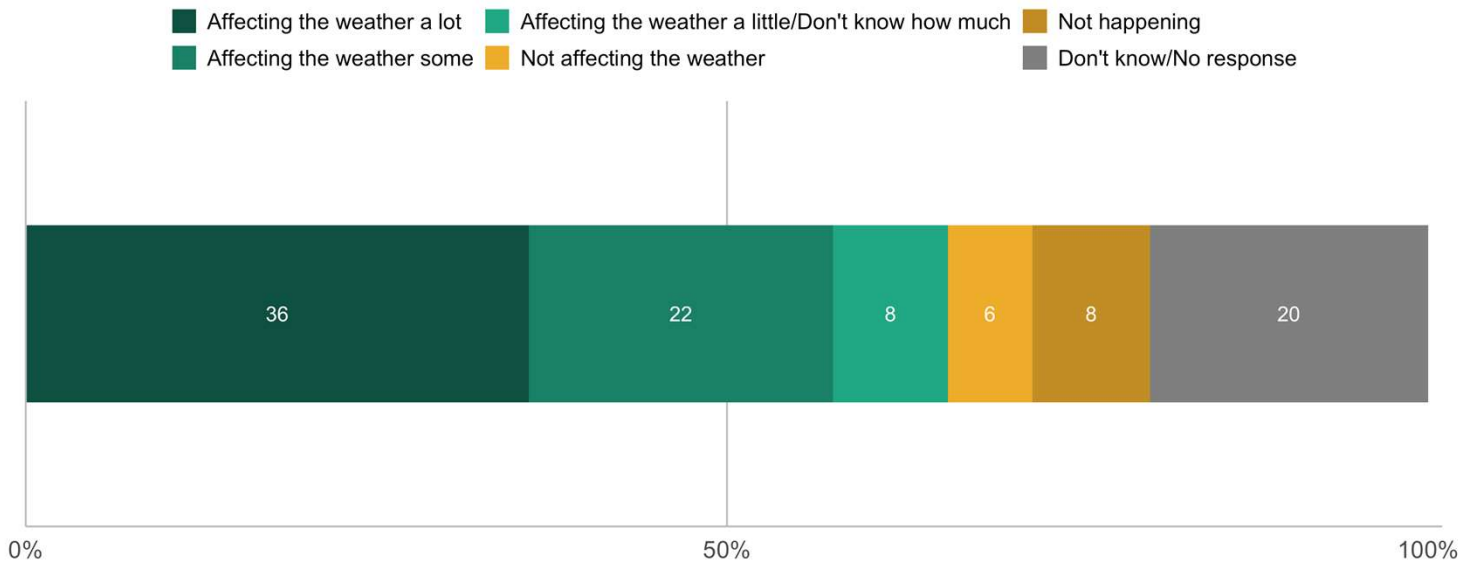
A majority of Americans are worried about global warming



How worried are you about global warming?

Spring 2024

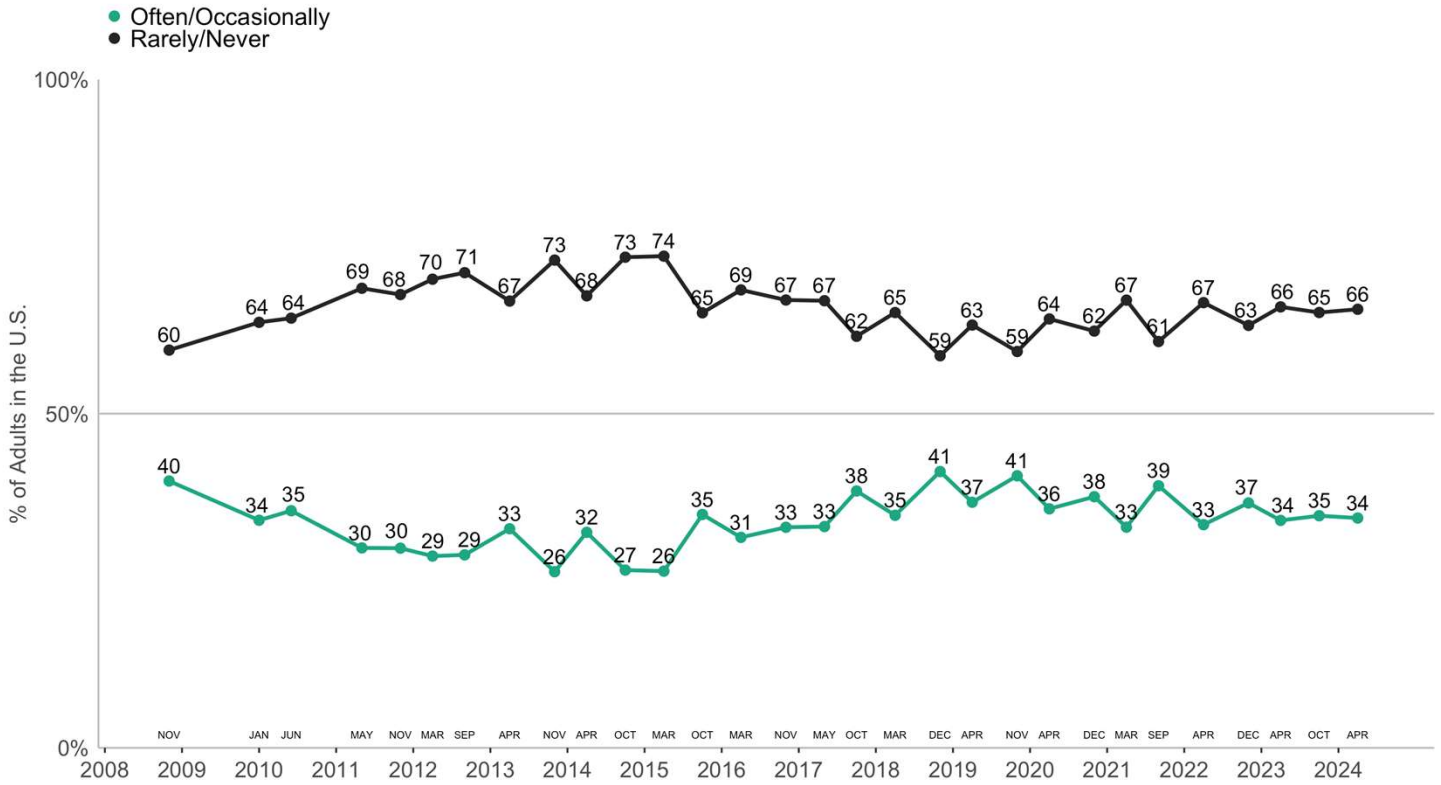
Two thirds of Americans think global warming is affecting weather in the United States.



Which statement best reflects your view? (a) Global warming is affecting weather in the United States; (b) Global warming is not affecting weather in the United States; (c) Global warming isn't happening; (d) dont know; (e) Prefer not to answer. [If (a) selected] How much do you think global warming is affecting weather in the United States?

Spring 2024

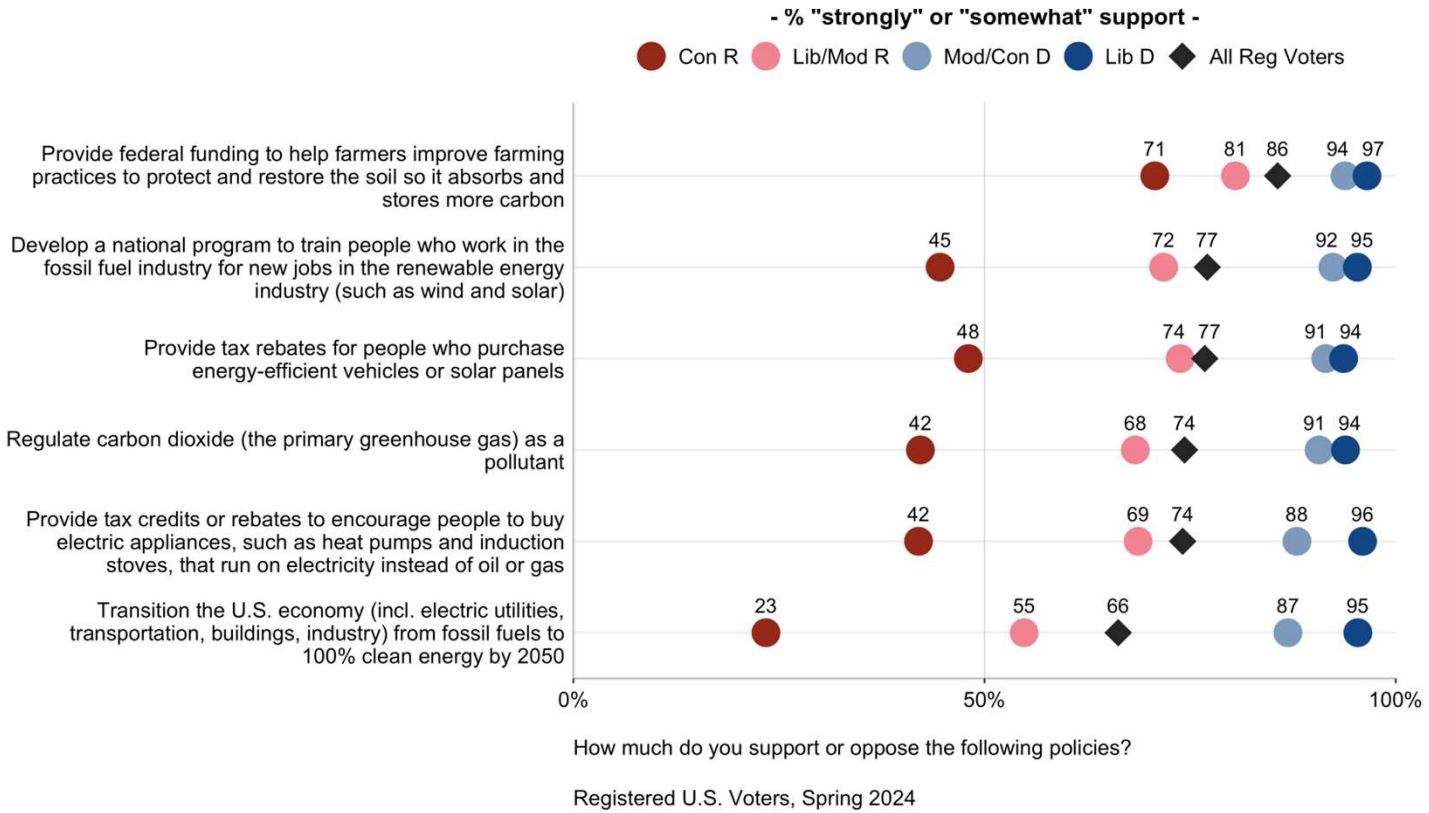
Most Americans “rarely” or “never” discuss global warming with family and friends



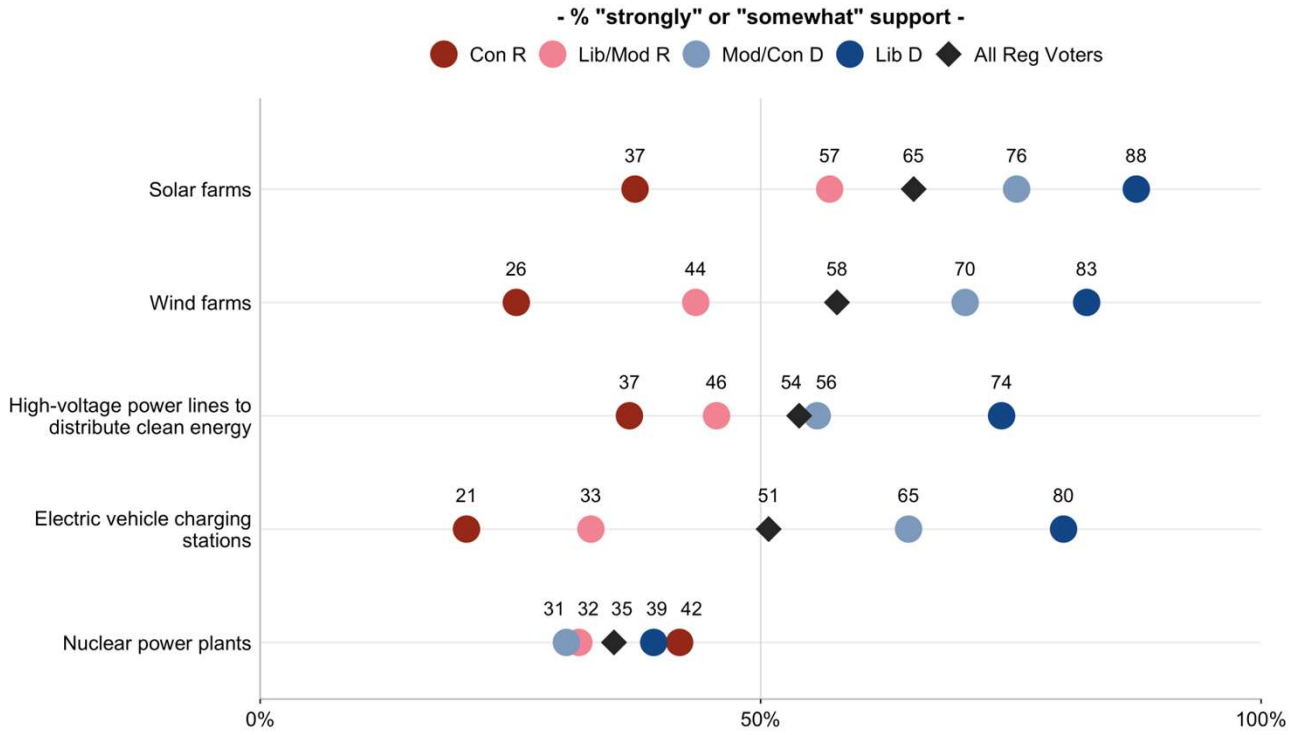
How often do you discuss global warming with your family and friends?

Spring 2024

Most registered voters support many climate-friendly energy policies.



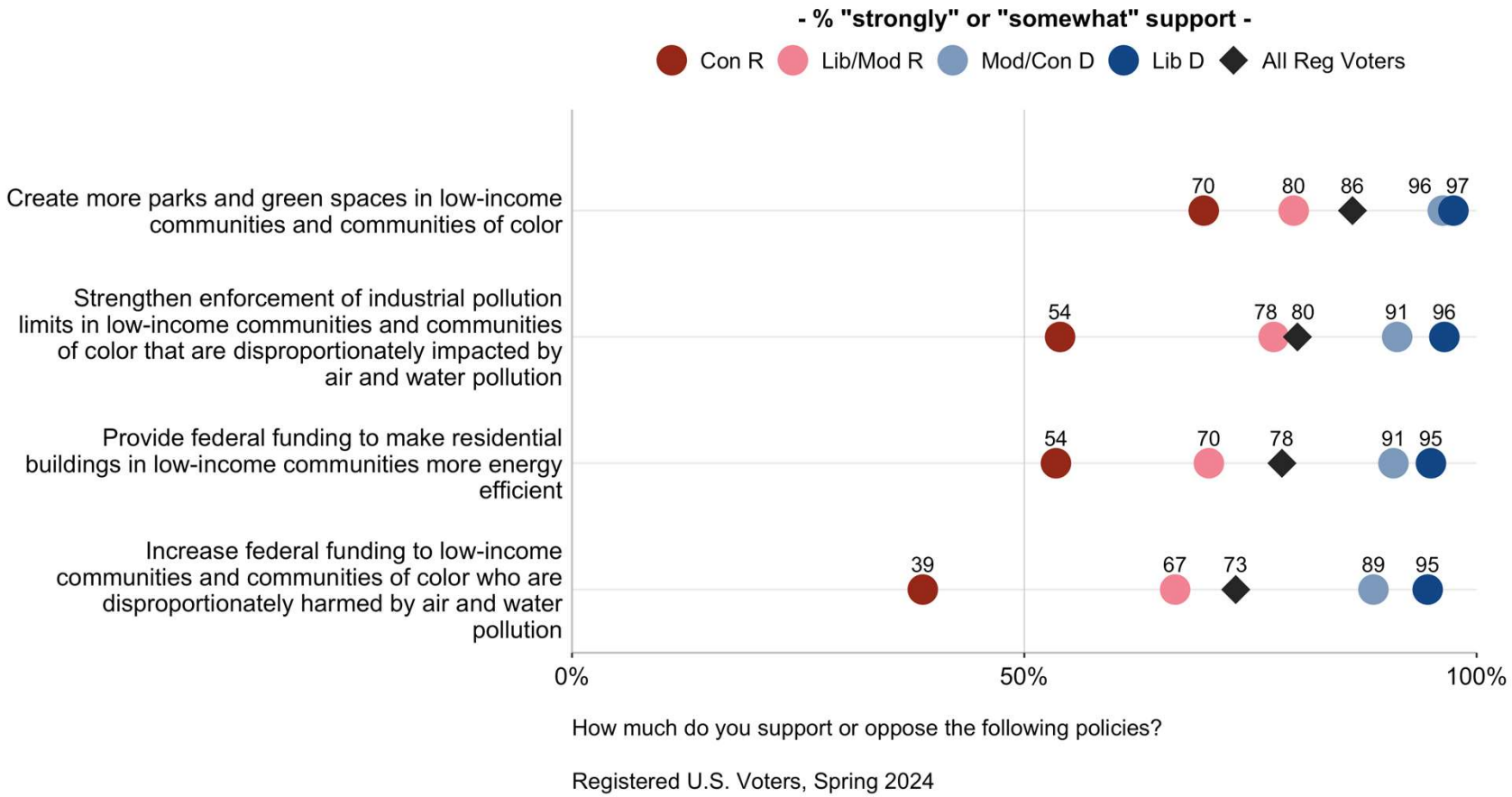
A majority of registered voters support building climate-friendly energy production and distribution infrastructure in their local area.



How much do you support or oppose building the following in your local area?

Registered U.S. Voters, Spring 2024

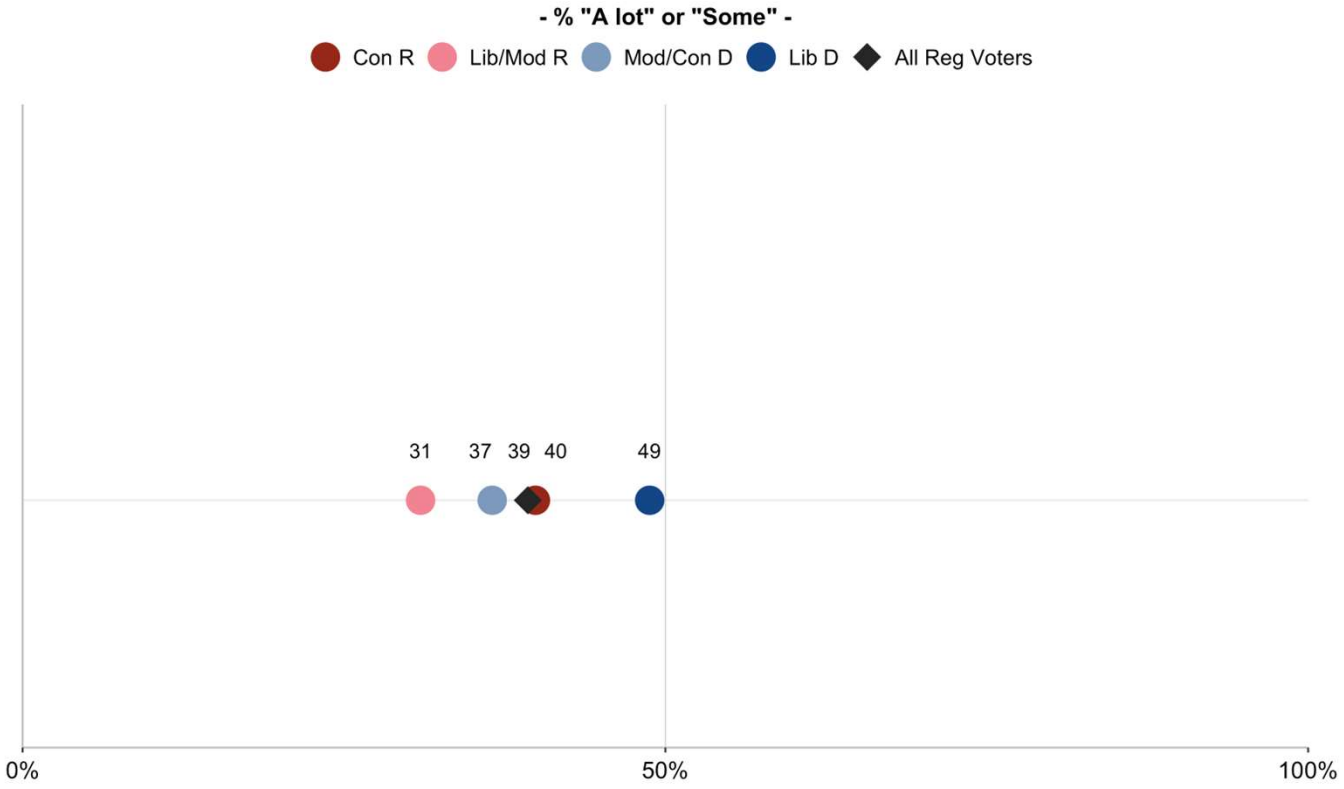
Climate justice policies have bipartisan support



How much do you support or oppose the following policies?

Registered U.S. Voters, Spring 2024

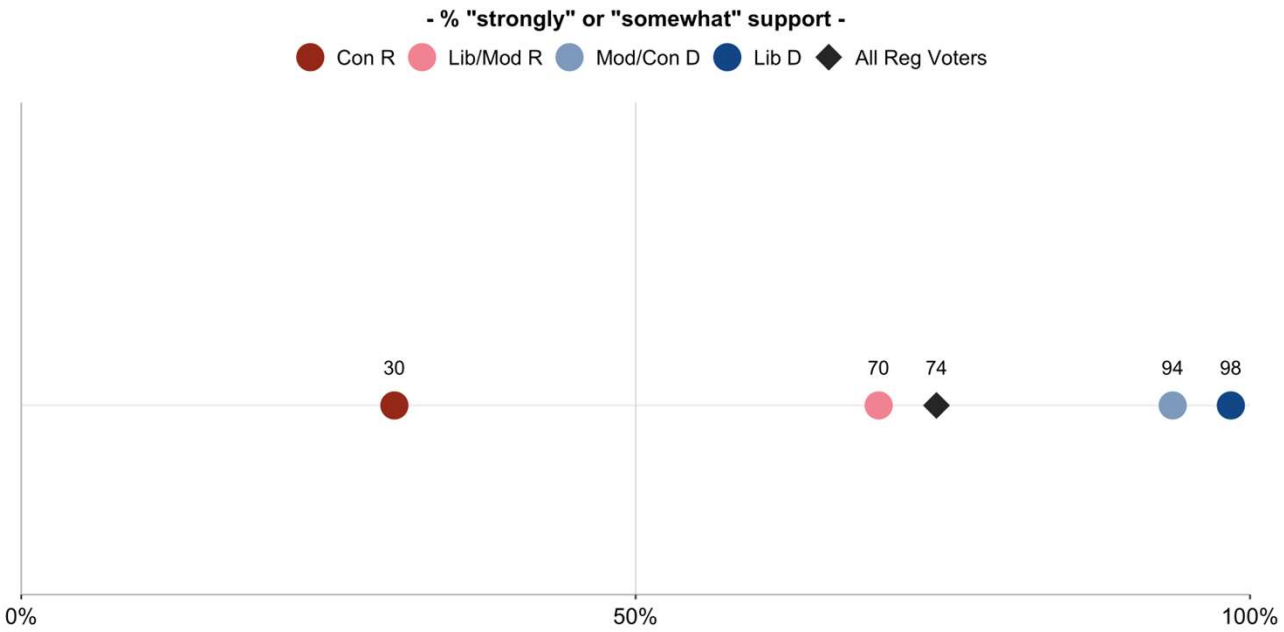
Most registered voters have not heard much about the Inflation Reduction Act (IRA)



How much, if anything, have you heard or read about the federal law called the “Inflation Reduction Act of 2022” (also known as the “IRA”), a bill that was passed by the U.S. Congress and signed by president Biden? Have you heard…

Registered U.S. Voters, Spring 2024

A majority of registered voters support the Inflation Reduction Act (IRA) after learning about it

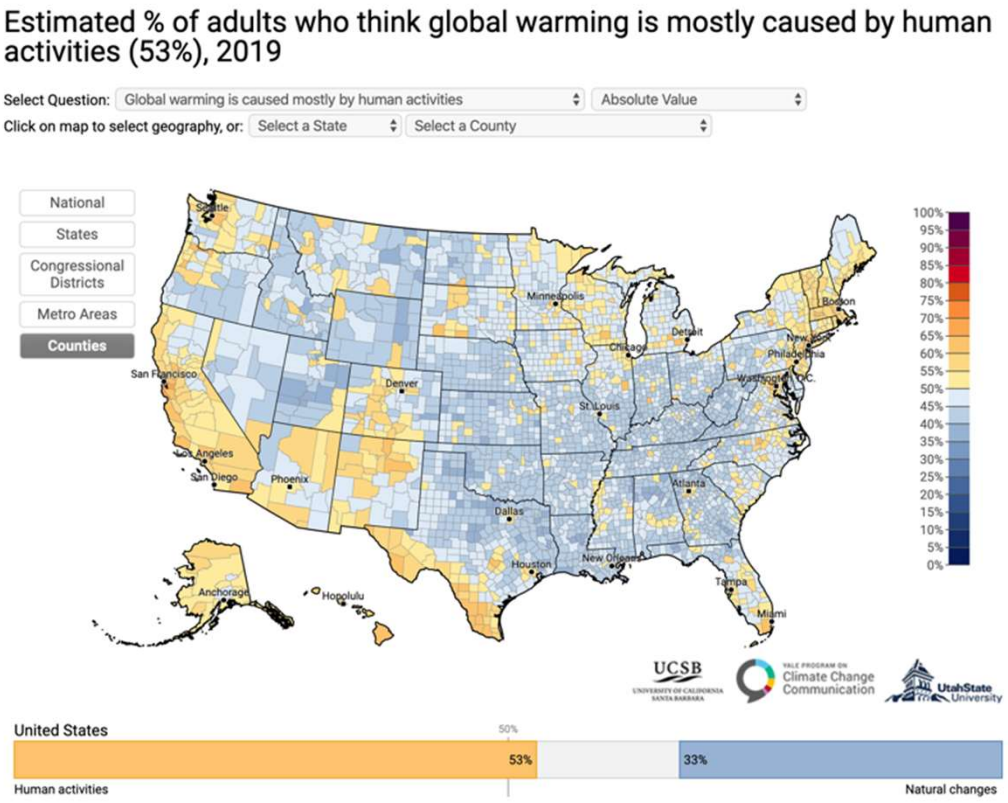


The Inflation Reduction Act of 2022 (IRA) aims to curb inflation by reducing the federal deficit, lowering prescription drug prices and the cost of health insurance, modernizing the Internal Revenue Service, and investing in U.S. clean energy production. The law authorizes $391 billion for developing clean energy and addressing global warming, including tax incentives and rebates to help consumers and businesses buy energy-efficient appliances, solar panels, electric vehicles, etc. The IRA also includes support for clean energy jobs and investments in communities that are most harmed by air and water pollution. It is the largest investment the U.S. government has ever made to reduce global warming, and is projected to help the U.S. reduce its carbon pollution 40% by 2030. The law will be paid for by closing tax loopholes. How much do you support or oppose this law?

Registered U.S. Voters, Spring 2024

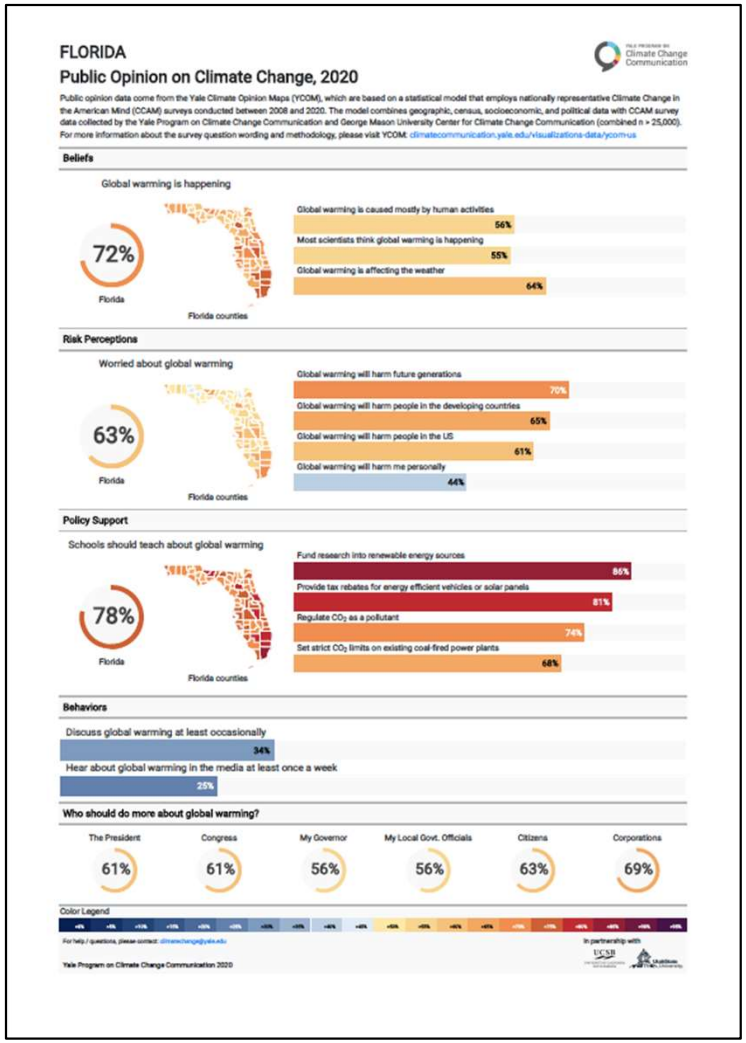
Climate Opinion Locally

Yale Climate Opinion Maps



Yale Climate Opinion Factsheets

https://climatecommunication.yale.edu/visualizations-data/factsheets/



FLORIDA

Public Opinion on Climate Change, 2020

Climate Change Communication

Public opinion data come from the Yale Climate Opinion Maps (YCOM), which are based on a statistical model that employs nationally representative Climate Change in the American Mind (CCAM) surveys conducted between 2008 and 2020. The model combines geographic, census, socioeconomic, and political data with CCAM survey data collected by the Yale Program on Climate Change Communication and George Mason University Center for Climate Change Communication (combined n > 25,000). For more information about the survey question wording and methodology, please visit YCOM: climatecommunication.yale.edu/visualizations-data/ycom-us

Beliefs

Global warming is happening

72%

Florida

Florida counties

Global warming is caused mostly by human activities 56%

Most scientists think global warming is happening 55%

Global warming is affecting the weather 64%

Risk Perceptions

Worried about global warming

63%

Florida

Florida counties

Global warming will harm future generations 70%

Global warming will harm people in the developing countries 65%

Global warming will harm people in the US 61%

Global warming will harm me personally 44%

Policy Support

Schools should teach about global warming

78%

Florida

Florida counties

Fund research into renewable energy sources 86%

Provide tax rebates for energy efficient vehicles or solar panels 81%

Regulate CO_2 as a pollutant 74%

Set strict CO_2 limits on existing coal-fired power plants 68%

Behaviors

Discuss global warming at least occasionally 34%

Hear about global warming in the media at least once a week 25%

Who should do more about global warming?

The President	Congress	My Governor	My Local Govt. Officials	Citizens	Corporations
61%	61%	56%	56%	63%	69%

Color Legend

For help / questions, please contact: climatechange@yale.edu

In partnership with

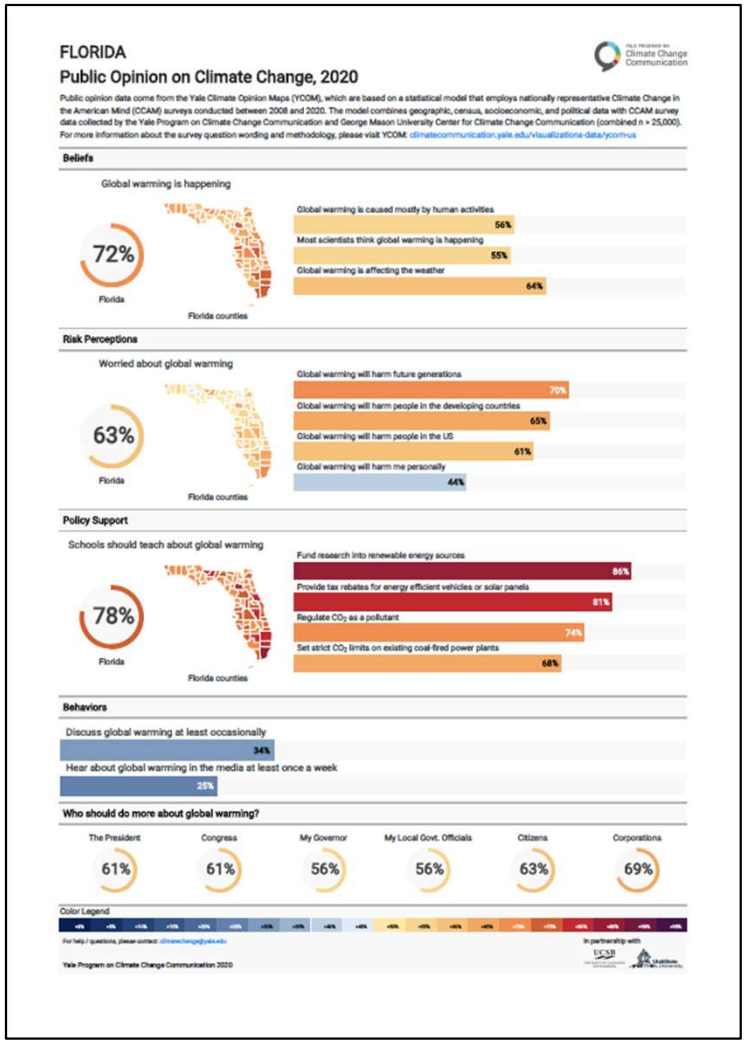
Yale Program on Climate Change Communication 2020

Yale Climate Opinion Factsheets

What is surprising you?

How will you change your communications approach?

https://climatecommunication.yale.edu/visualizations-data/factsheets/



Six Americas

Global Warming's "Six Americas"

Alarmed Concerned Cautious Disengaged Doubtful Dismissive

Fall 2023
N = 1,033

Highest Belief in Global Warming
Most Concerned
Most Motivated

Lowest Belief in Global Warming
Least Concerned
Least Motivated

Illustration by Michael Sloan

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Global Warming's "Six Americas"

Fall 2023
N = 1,033

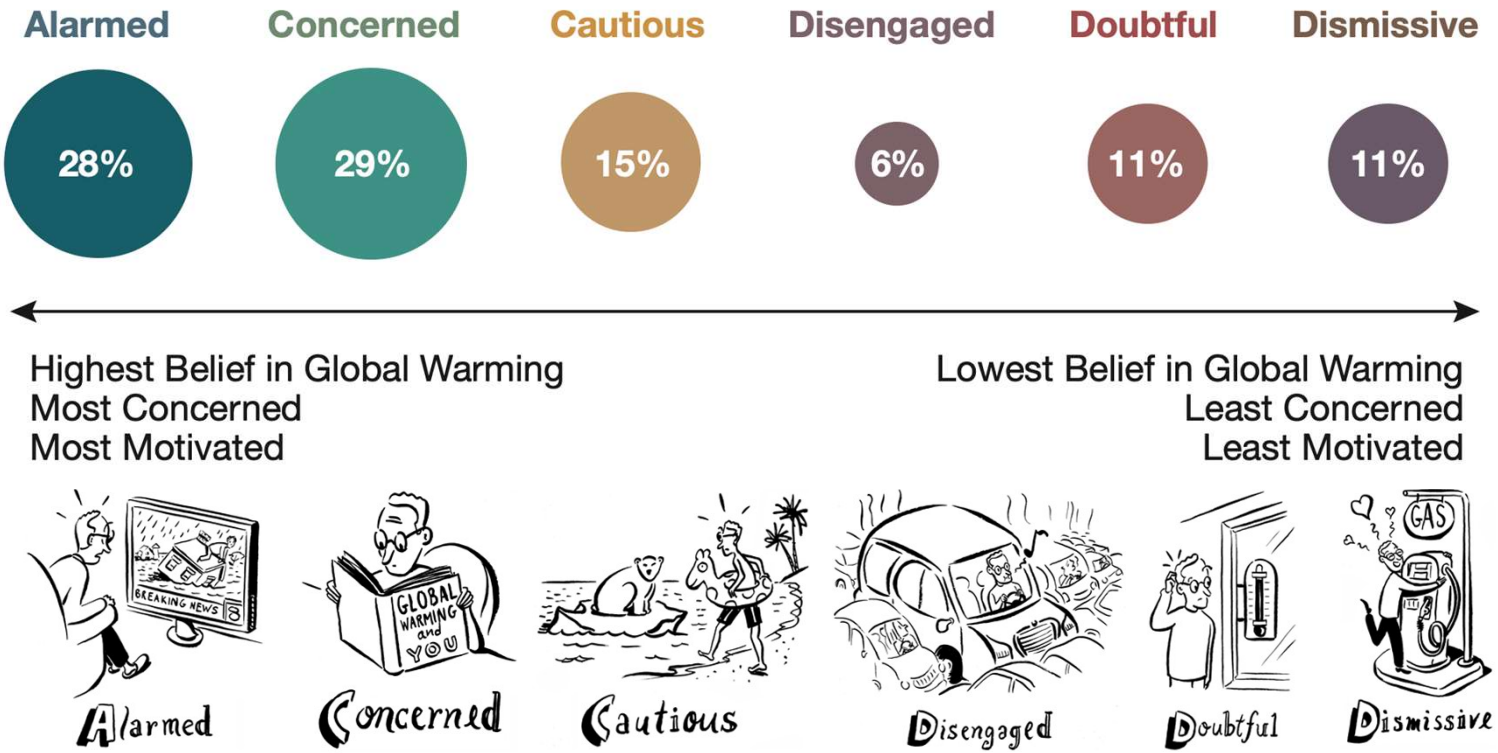

Illustration by Michael Sloan

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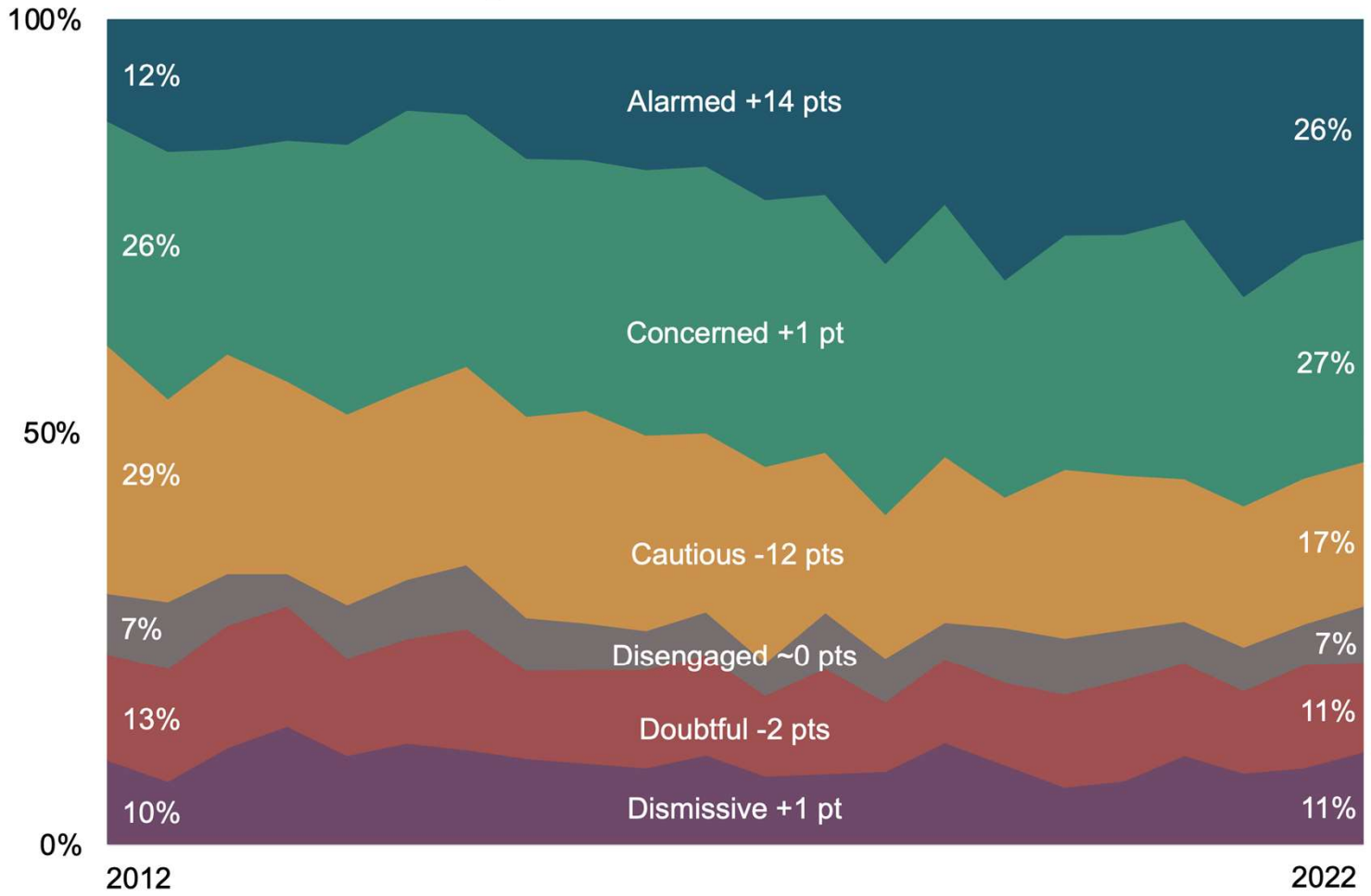
Global Warming's Six Americas Over the Last Decade



Data from 22 national surveys (n = 25,393)
April 2012 – December 2022

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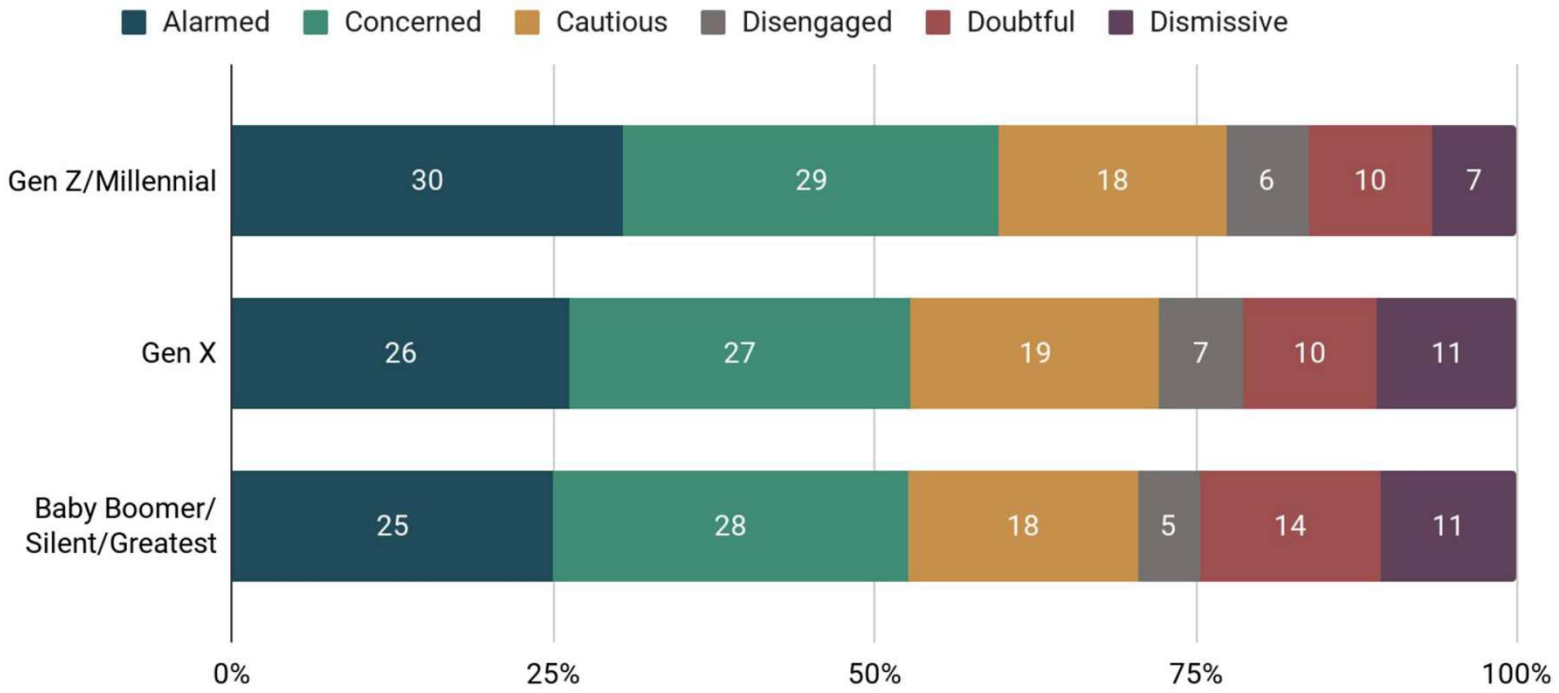
COMMUNICATION

Gen Z and Millennials are more likely to be Alarmed or Concerned about global warming and are less likely to be Doubtful or Dismissive than are older generations

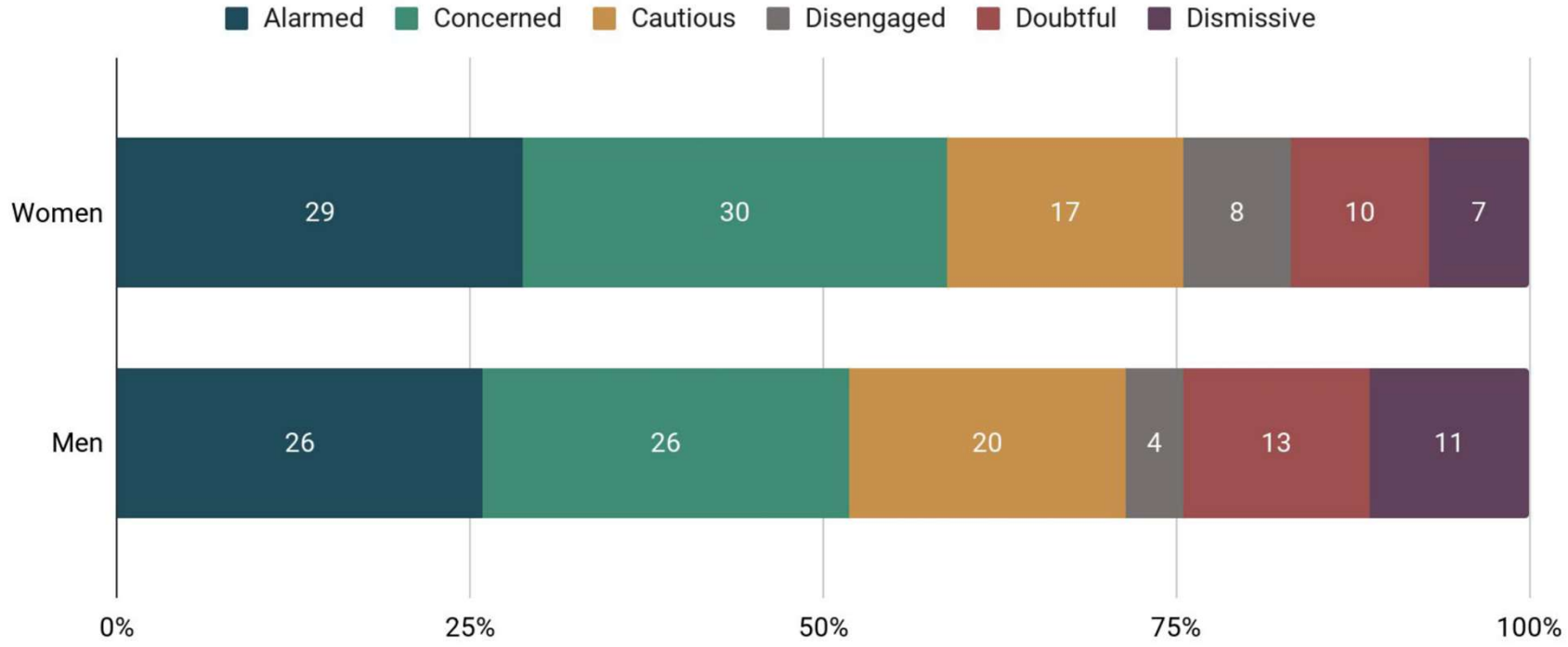


Global Warming's Six Americas

April 2020, December 2020, March 2021, September 2021, April 2022, December 2022. Base: 6,211 U.S. adults (Gen Z/Millennial *n* = 1,707; Gen X *n* = 1,567; Baby Boomer/Silent/Greatest *n* = 2,937)

Source: Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication

Women are more likely to be Alarmed or Concerned about global warming and are less likely to be Doubtful or Dismissive than are men



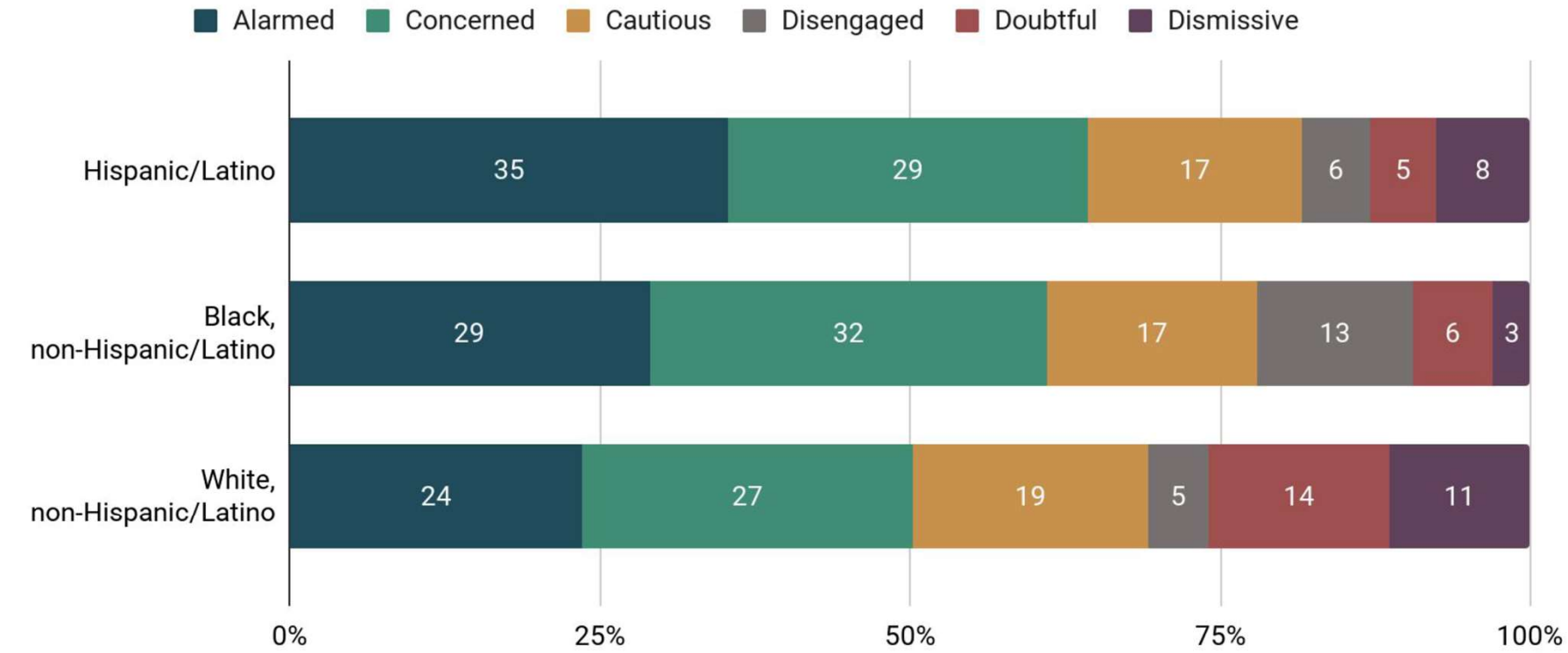
Global Warming's Six Americas

April 2020, December 2020, March 2021, September 2021, April 2022, December 2022. Base: 6,211 U.S. adults (Women *n* = 3,145; Men *n* = 3,066)

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

Majorities of Hispanic/Latino and Black adults are Alarmed or Concerned about global warming

Hispanic/Latino and Black adults are more likely than White adults to be Alarmed



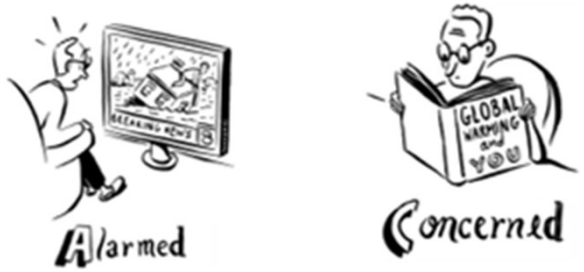
Global Warming's Six Americas

April 2020, December 2020, March 2021, September 2021, April 2022, December 2022. Base: 5,764 U.S. adults (Hispanic/Latino *n* = 706; Black, non-Hispanic/Latino *n* = 572; White, non-Hispanic/Latino *n* = 4,486)

Source: Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication

How do we build public and political will for climate action?

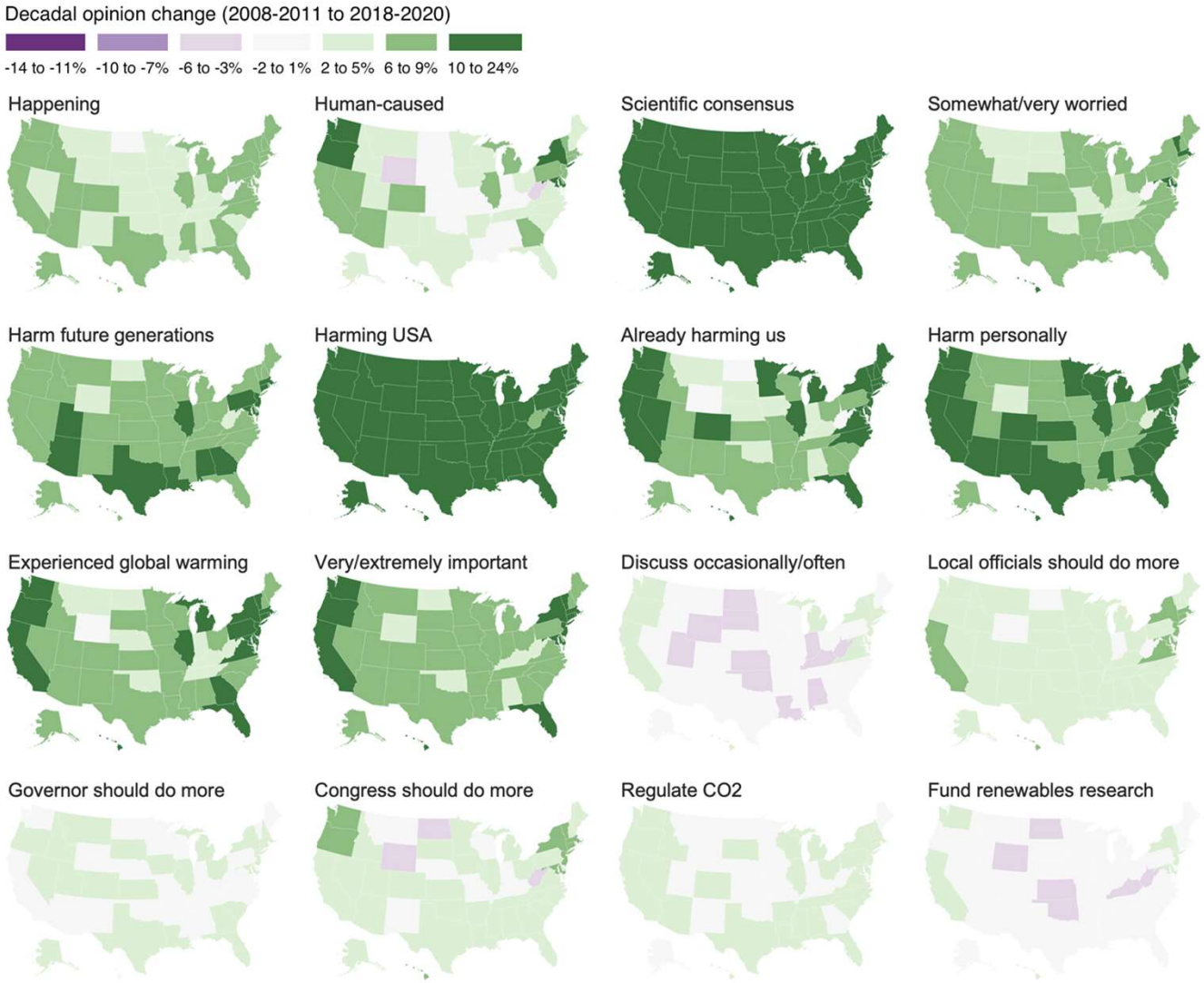
Organize For Power



Educate and Persuade For Silent Permission

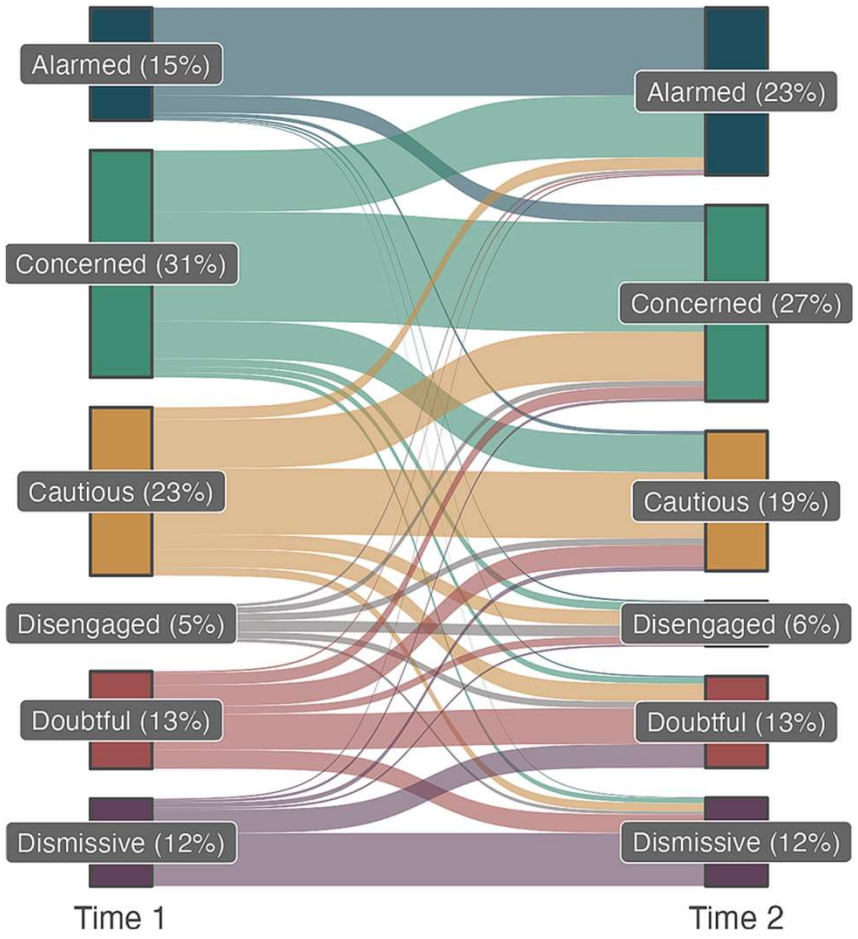
Good news!

Americans are clearly becoming more certain and more worried about the risks, but support for national policy is increasing slowly.


Decadal opinion change (2008-2011 to 2018-2020)
-14 to -11%
-10 to -7%
-6 to -3%
-2 to 1%
2 to 5%
6 to 9%
10 to 24%
Happening
Human-caused
Scientific consensus
Somewhat/very worried
Harm future generations
Harming USA
Already harming us
Harm personally
Experienced global warming
Very/extremely important
Discuss occasionally/often
Local officials should do more
Governor should do more
Congress should do more
Regulate CO2
Fund renewables research

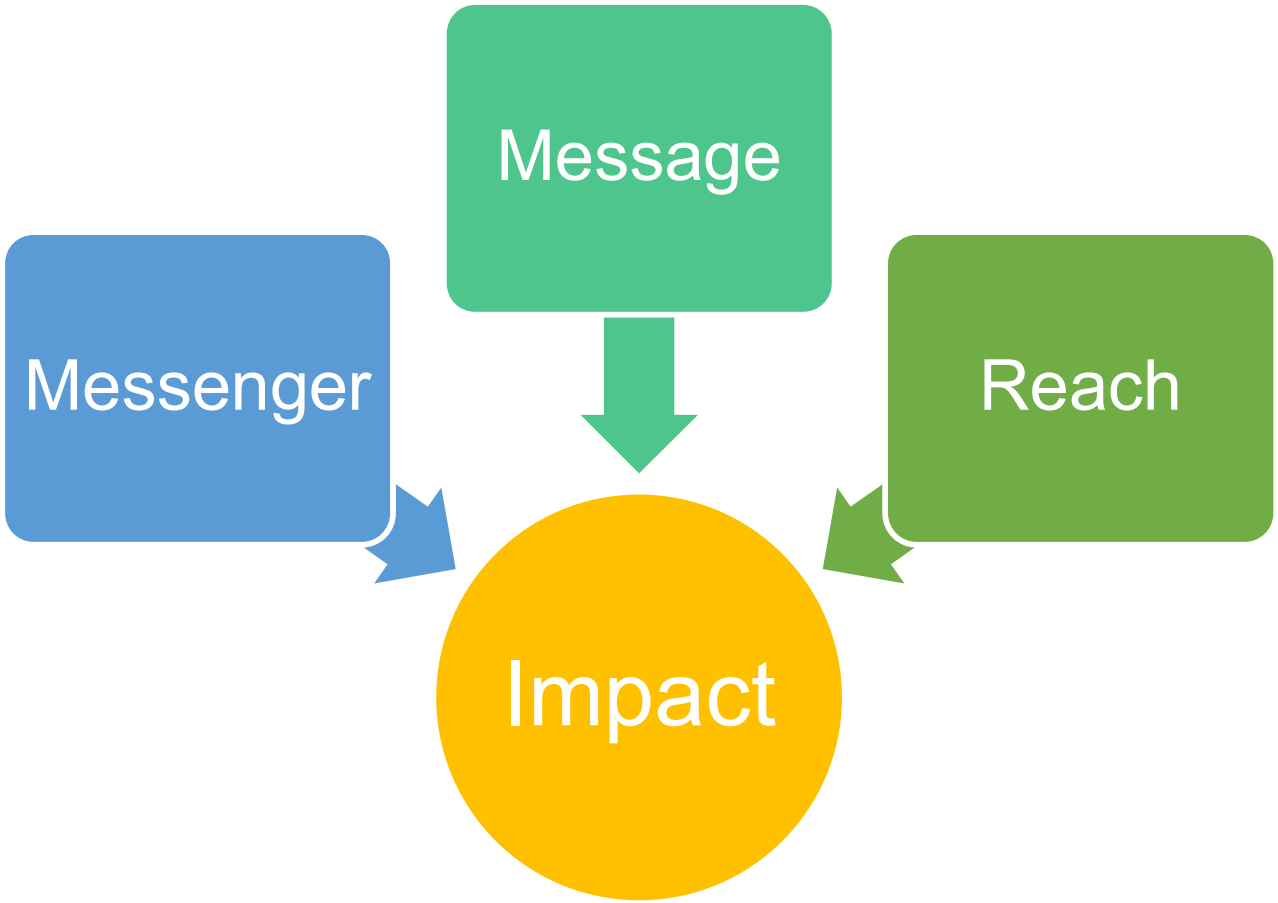
Americans moving in the 6 Americas segmentation.

- Moving from Cautious→ Concerned.
- Moving from Concerned → Alarmed



What works: Actionable insights from YPCCC and our partners

Your audience will not, and may not need to, think about climate change the way you do



Highlight: Persuasion through trusted messengers
New Climate Voices







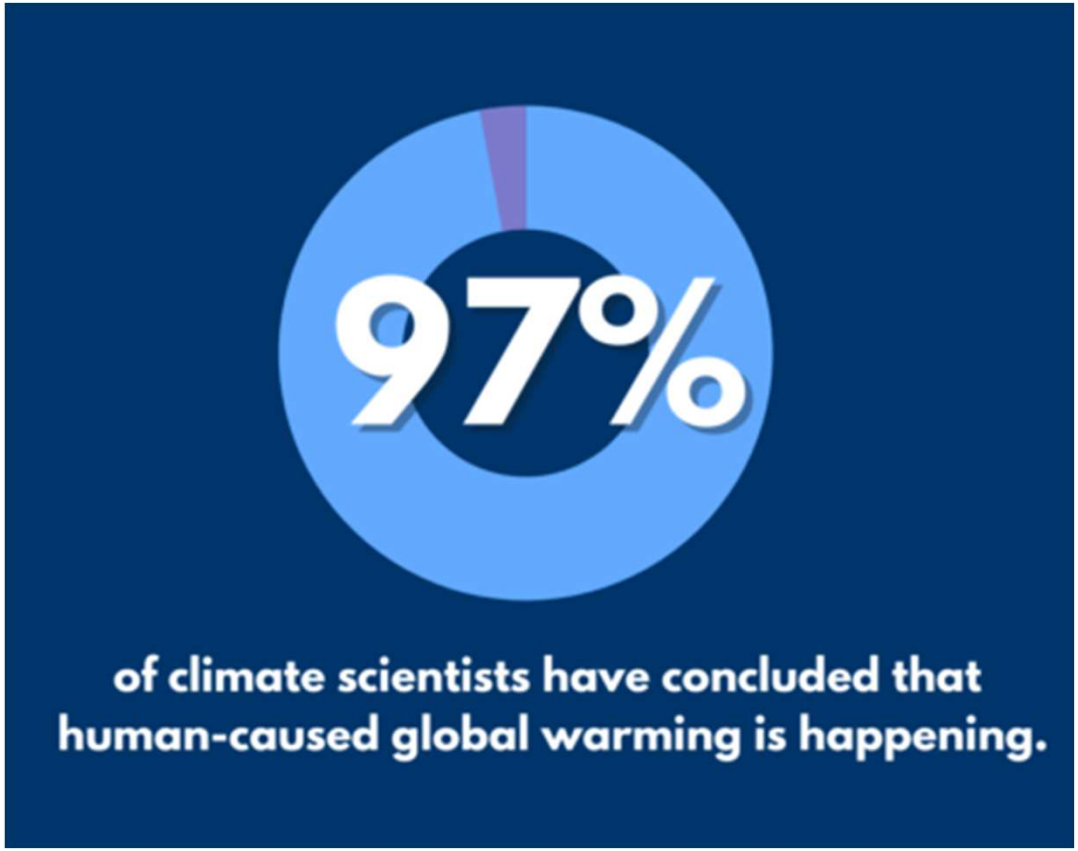




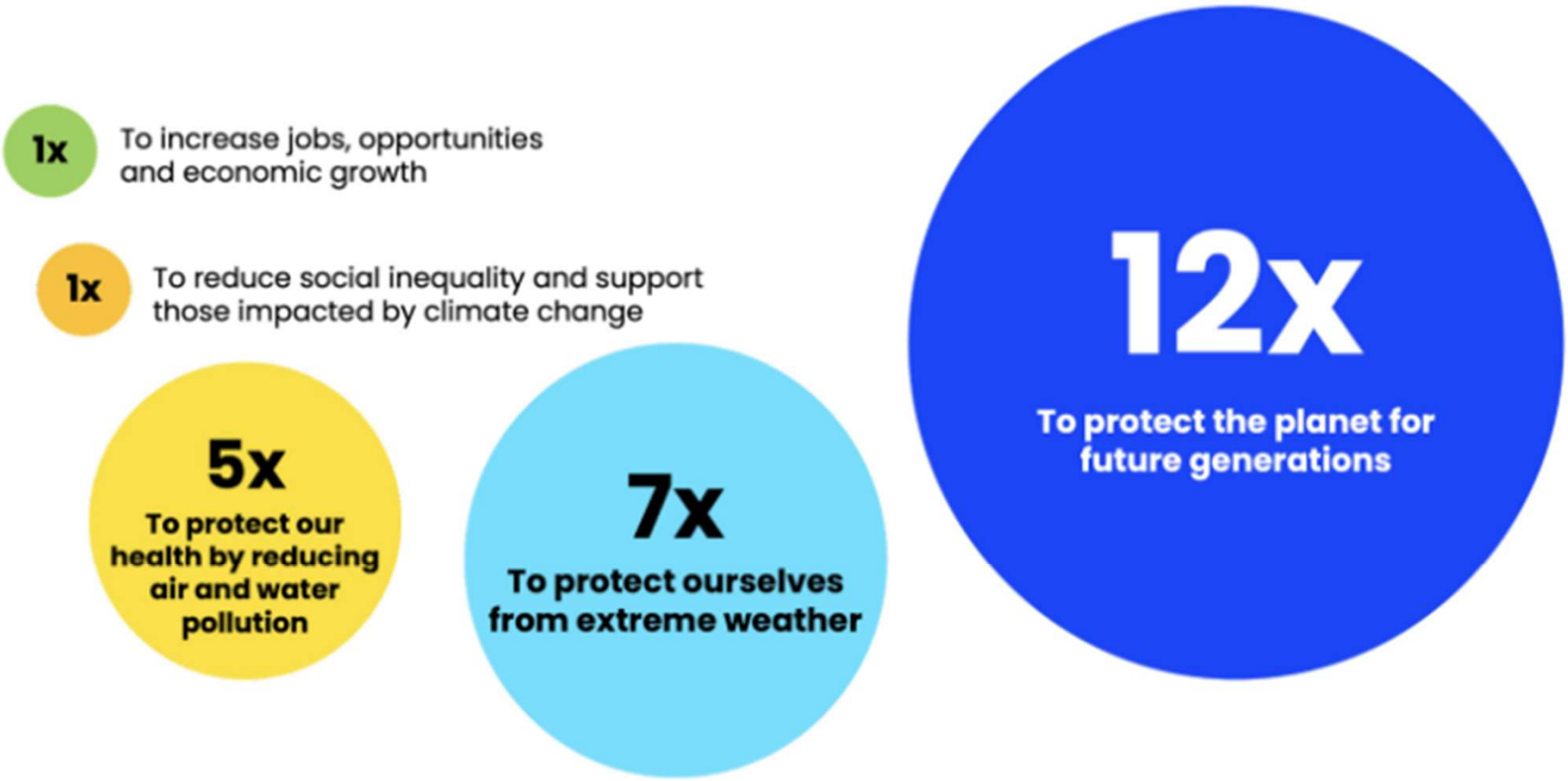

A simple message, repeated often: Five Facts, Ten Words

1. Scientists Agree…
2. It’s real.
3. It’s us.
4. It’s bad.
5. …there’s hope.

Scientific Consensus Message

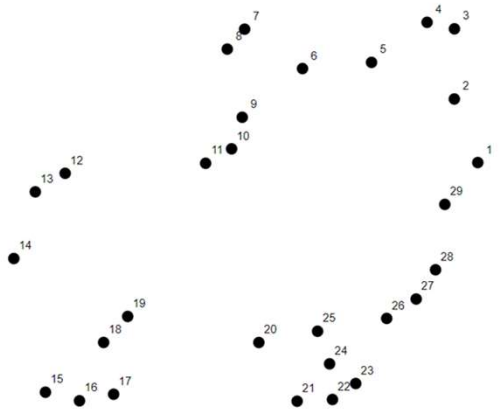


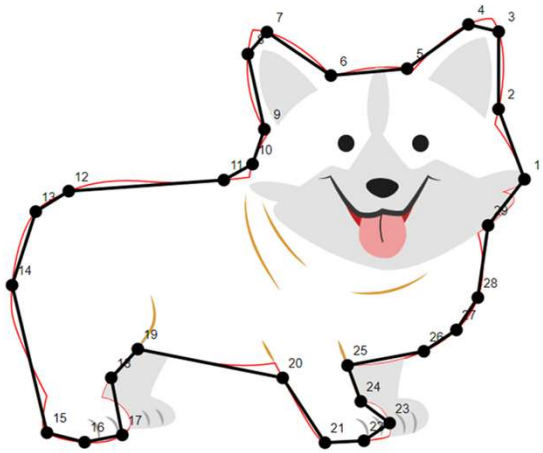
Relative size of perceived benefits across countries



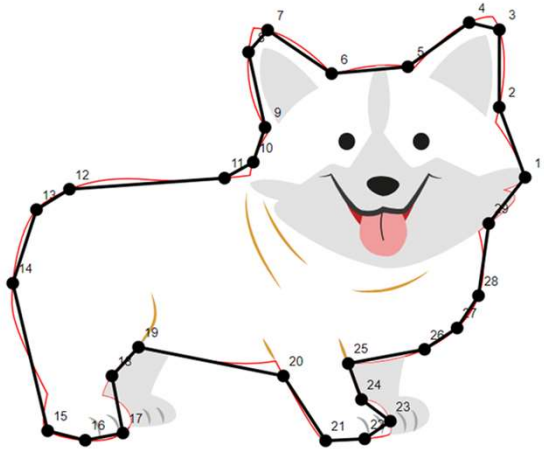
Source: Potential Energy, Later is Too Late, November 2023

Connect the Dots (and tell a story)

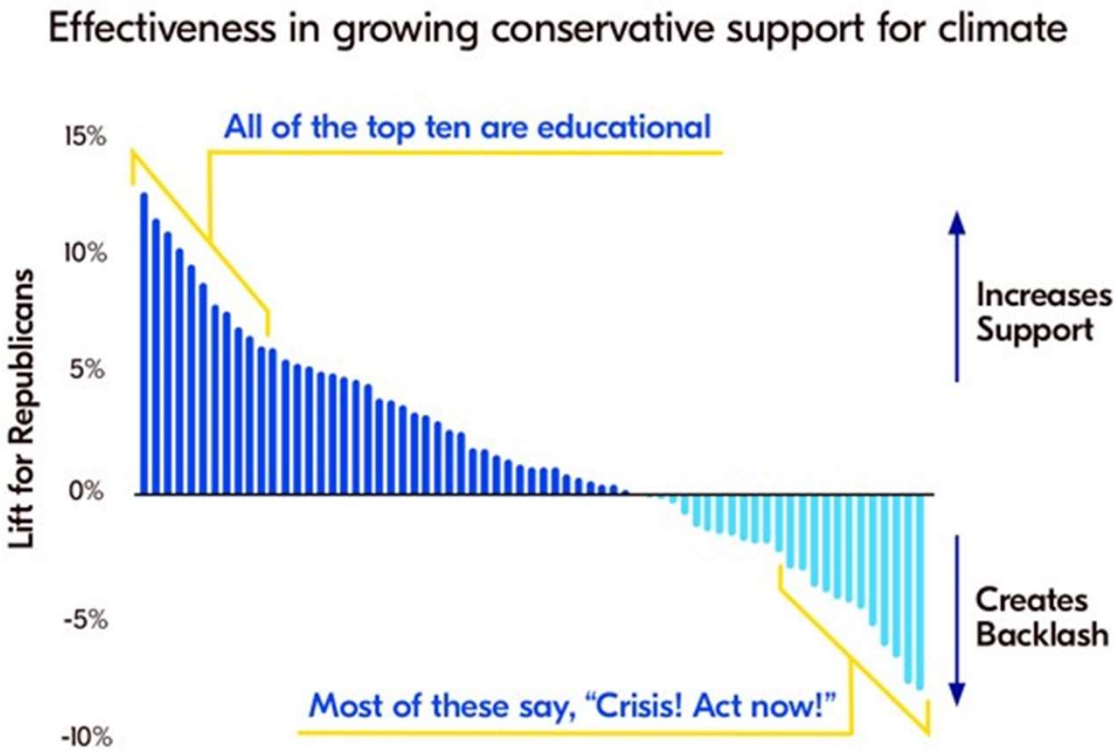




This is my dog. His name is Bruno, and he likes treats.



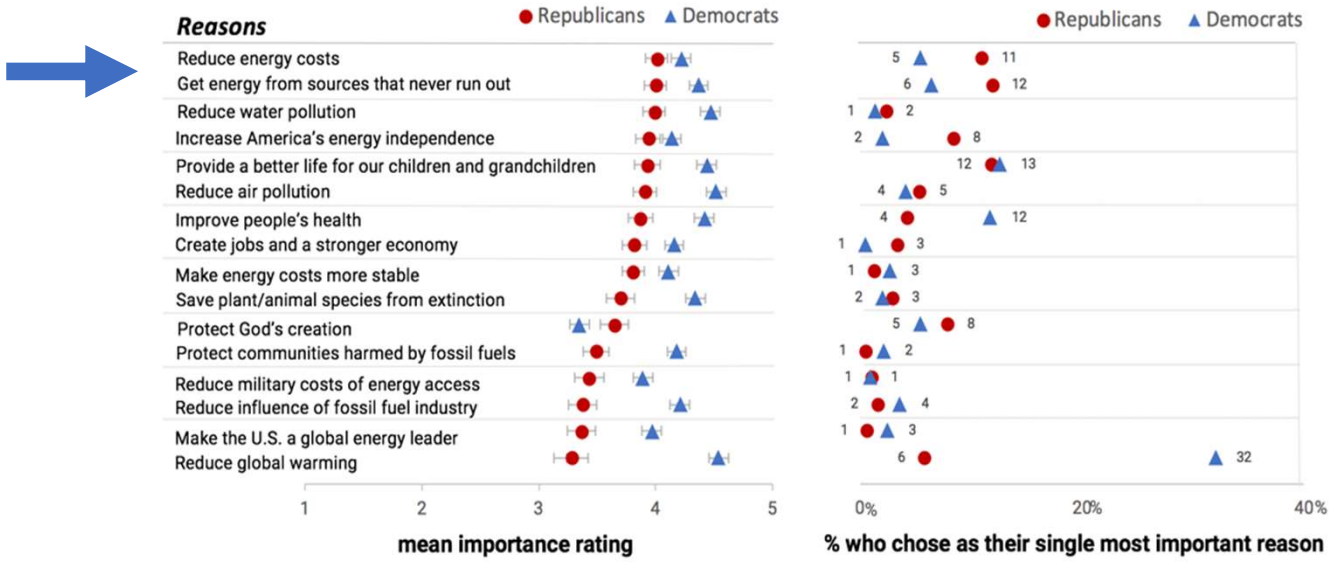
Messages that meet people where they are at



Source: Potential Energy Coalition, 12/22

Combining “cost savings” and environmental benefits tends to be a winning message in the US.

Which Reasons to Transition to Renewable Energy
Do Republicans and Democrats Think Are Most Important?



Base: Republican and Democratic registered voters (N = 822).
December, 2018.

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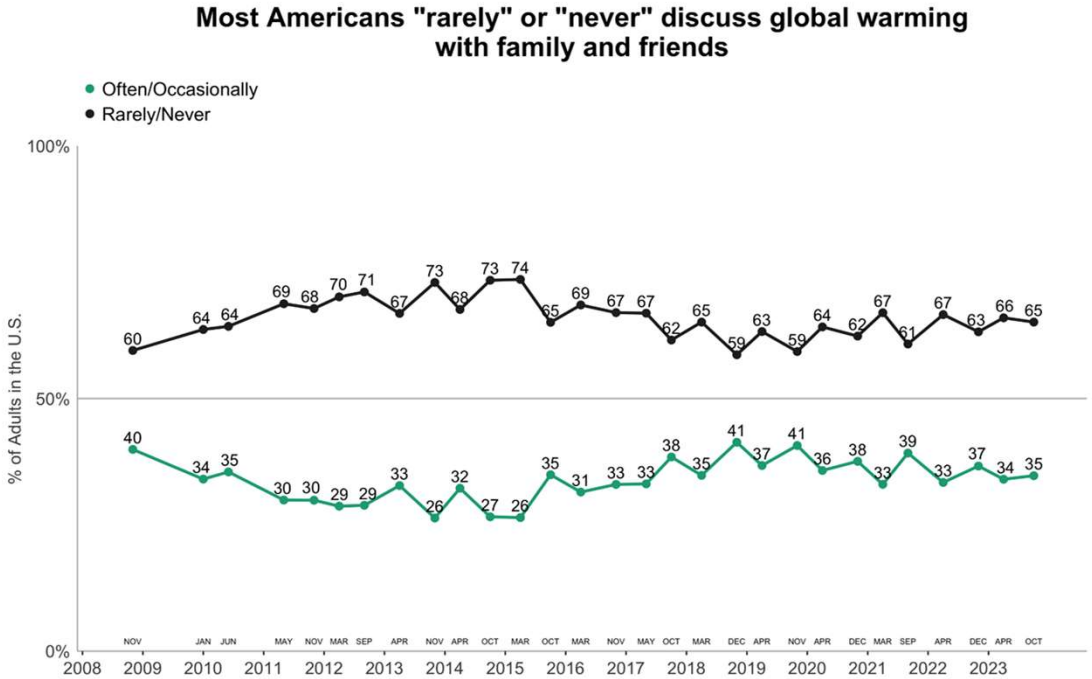
Break the Spiral Of Silence

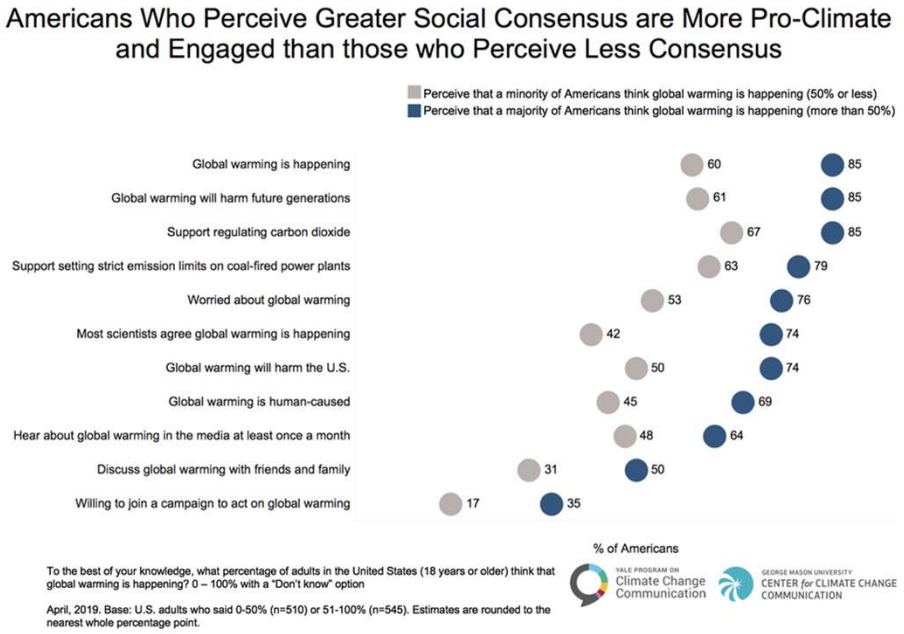


How often do you discuss global warming with your family and friends?

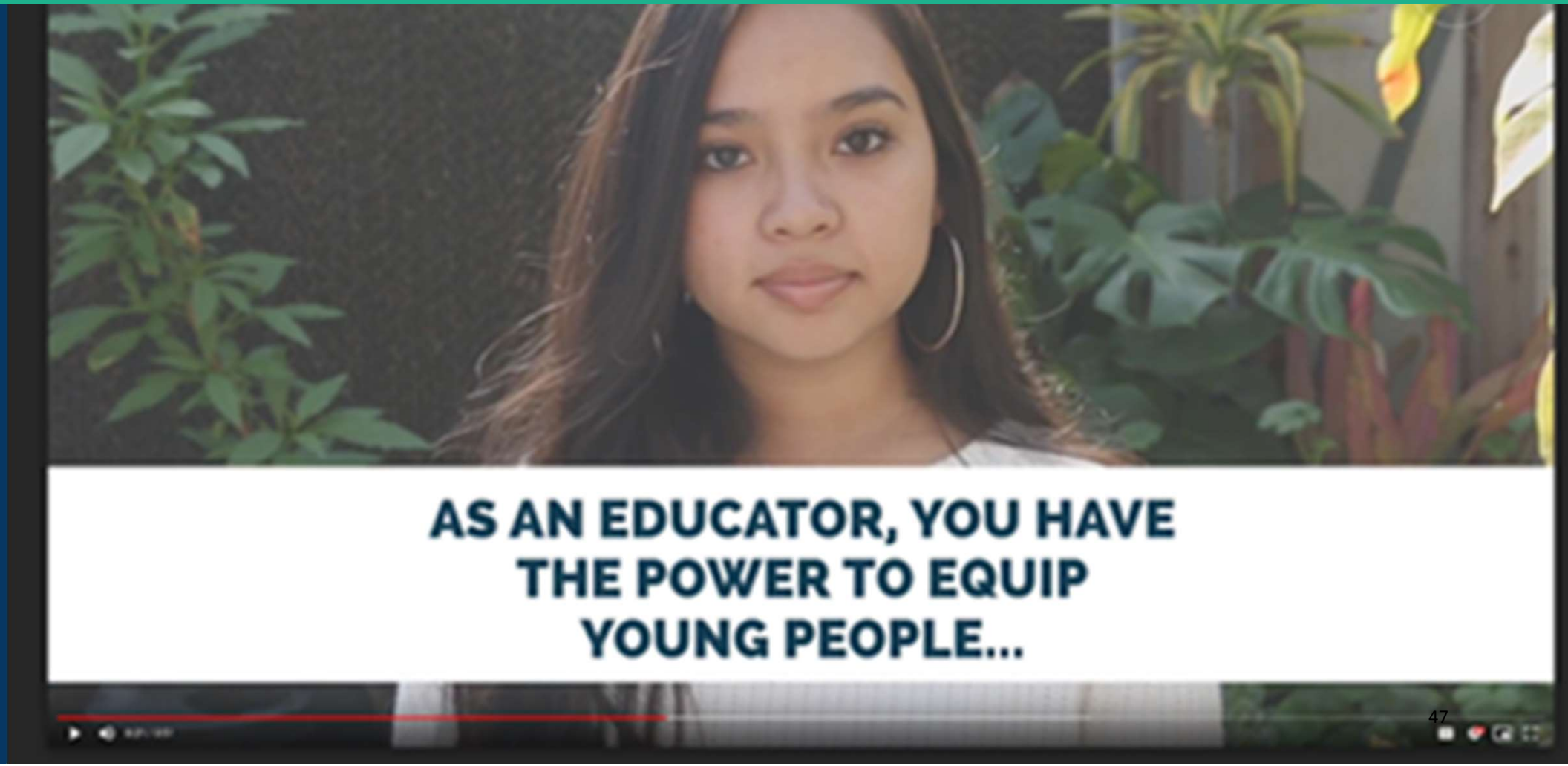
Fall 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

Power of Social Norms



Build A Sense of Efficacy and Hope



Rule: Tell Human Stories

Human stories outperform a series of facts.

Photo Credit: Wild Center

Rules of Communication

- Know your audience!
- Know your goals.
- Measure and Test.
- Tell stories.
- Repeat. Repeat. Repeat!

Keep in touch.

climatecommunication.yale.edu

Joshua Low
joshua.low@yale.edu

Making it local, making it real:
Free communication tools from Climate Central

Karen Florini – Senior Advisor
kflorini@climatecentral.org

7.24.2024

CLIMATE CENTRAL

Making it local, making it real:
Free communication tools from Climate Central

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7.24.2024

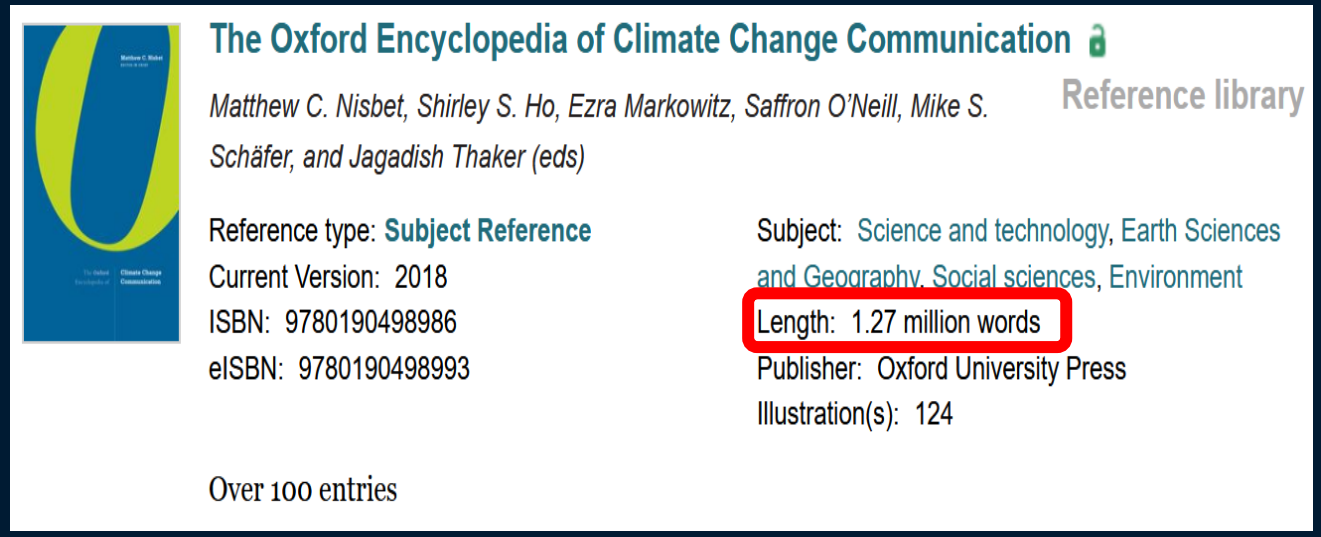
CLIMATE CENTRAL

Today's remarks

Will cover:

- Some key comms concepts
- Free tools & resources

Won't cover:



Key concept #1: Audience!

More key concepts

potentialenergycoalition.org

CLIMATE CENTRAL

potentialenergycoalition.org/wp-content/uploads/2024/01/Talk-Like-a-Human.pdf

CLIMATE CENTRAL

~~Plastics~~

- Make it local
- Tie climate change to its consequences
- Talk about making energy 100% clean
- Avoid ‘wonkspeak’
- Avoid partisanship

CLIMATE CENTRAL

P( )TENTIAL ENERGY

‘Can you say “climate change” to a conservative?’

“The term itself does not inherently or instantly cause backlash. It’s not whether you say it, but how you say it”

Sources of Backlash

Instead

P( )TENTIAL ENERGY

‘Can you say “climate change” to a conservative?’

“The term itself does not inherently or instantly cause backlash. It’s not whether you say it, but how you say it”

Sources of Backlash

1. The Idea of bans

Instead

1. Accessible new technologies

‘Can you say “climate change” to a conservative?’

“The term itself does not inherently or instantly cause backlash. It’s not whether you say it, but how you say it”

Sources of Backlash

1. The Idea of Bans
2. Perception of government overreach

Instead

1. Accessible new technologies
2. Personal benefit for me, my family, and community

‘Can you say “climate change” to a conservative?’

“The term itself does not inherently or instantly cause backlash. It’s not whether you say it, but how you say it”

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2. Perception of government overreach
3. Crisis framing

Instead

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2. Personal benefit for me, my family, and community
3. Local, right-now consequences

‘Can you say “climate change” to a conservative?’

“The term itself does not inherently or instantly cause backlash. It’s not whether you say it, but how you say it”

Sources of Backlash

1. The Idea of Bans
2. Perception of government overreach
3. Crisis framing
4. Judgmental messengers or messages

Instead

1. Accessible new technologies
2. Personal benefit for me, my family, and community
3. Local, right-now consequences
4. *Simply say, “it’s not political”*

Key tools & programs

- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

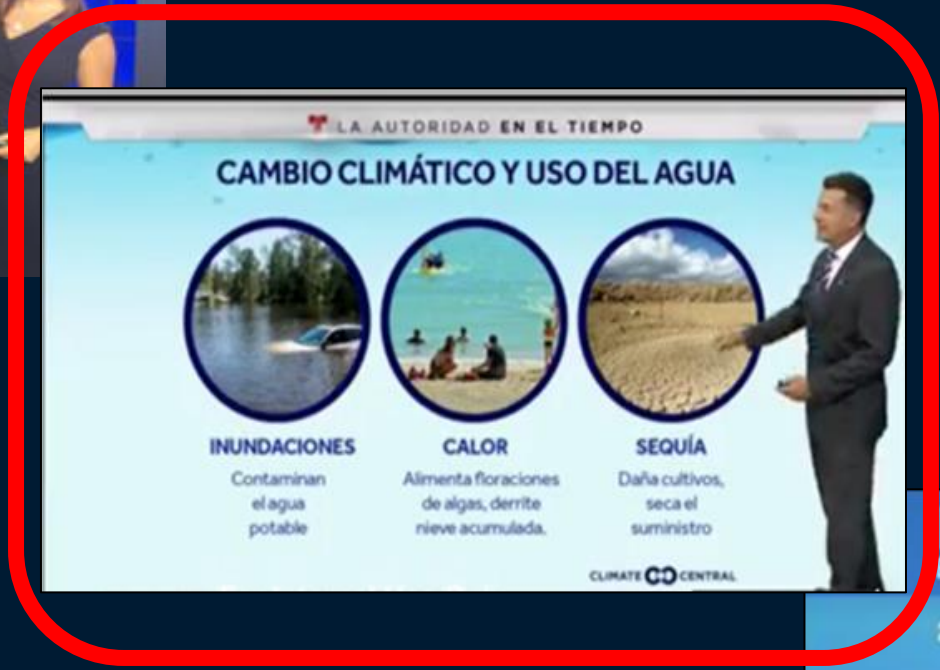
CLIMATE CENTRAL

About Climate Central

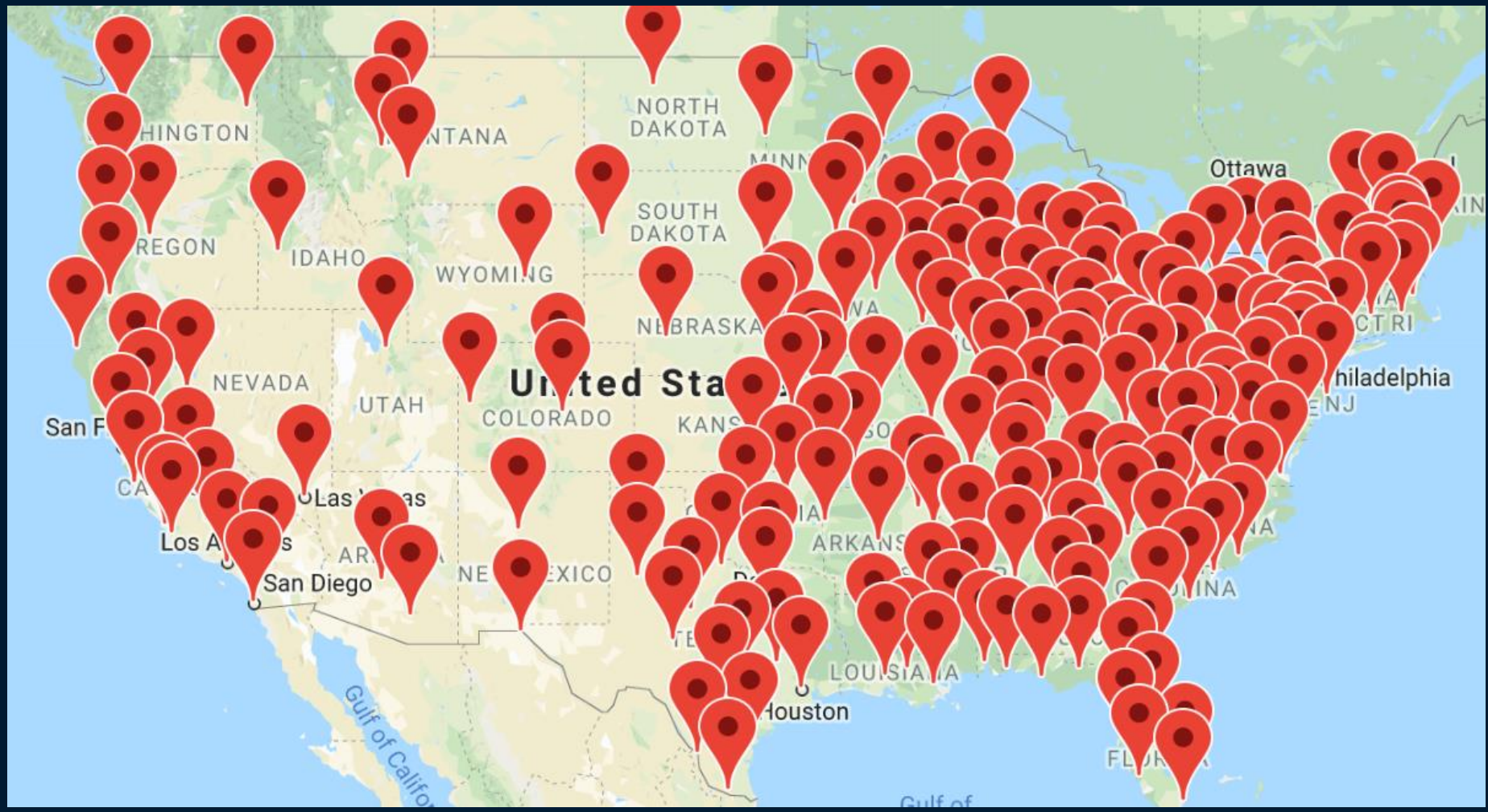
- Climate science research and communications NGO
- Non-advocacy & policy neutral
- Chiefly B2B
- Practitioners of climate science, journalism, comms
- Accurate, effective, ubiquitous climate communications
- Free, attribute via text or logo

CLIMATE CENTRAL

CLIMATE MATTERS



Climate Matters: ~1150 TV meteorologists (>90% of U.S. markets), 1550+ journalists

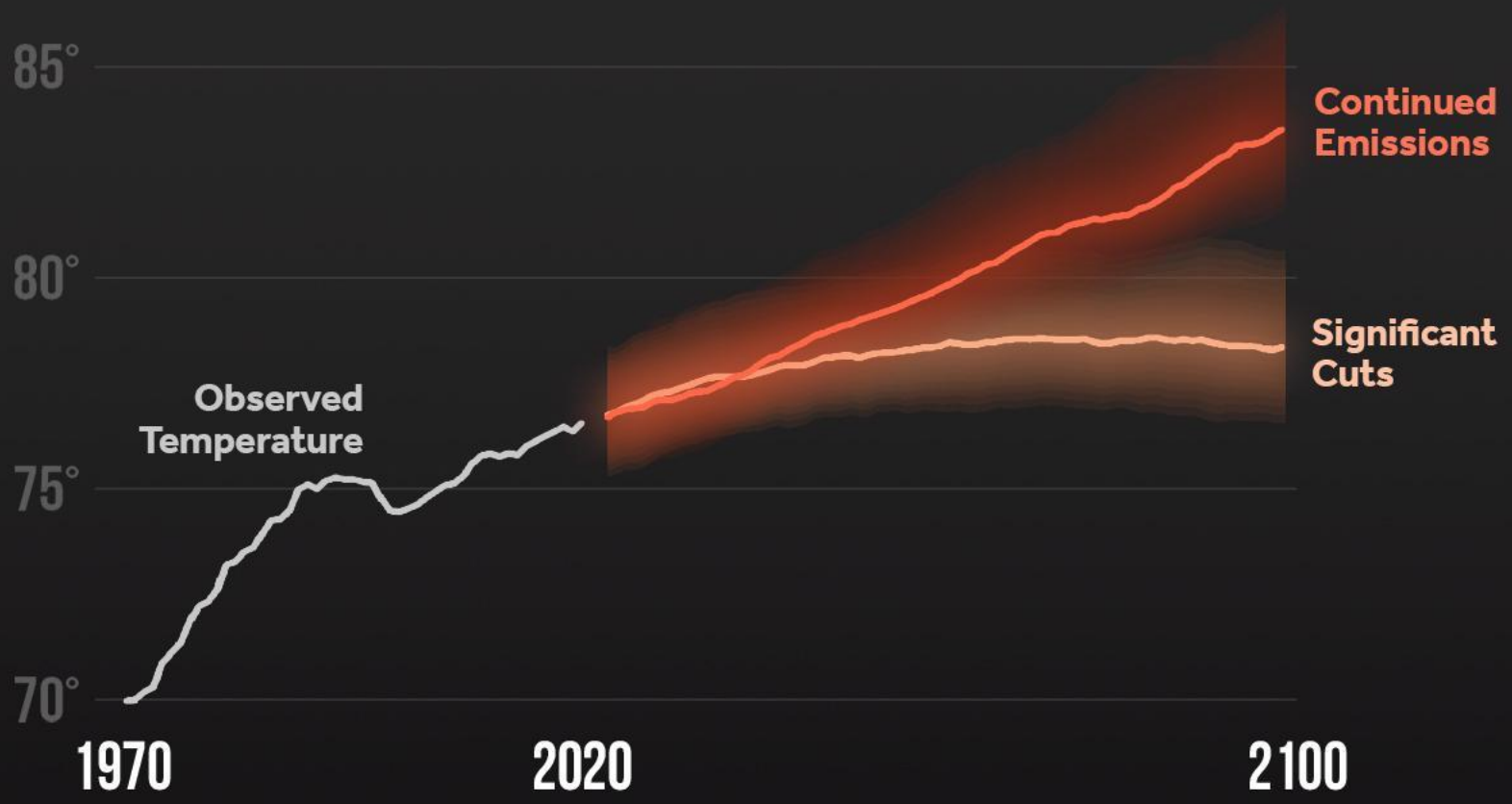


CLIMATE CENTRAL

CLIMATE CENTRAL

PHOENIX

FUTURE WARMING CHOICES



Projections of annual average temperature (°F) under significant emissions cuts (SSP1-2.6) or continued emissions (SSP3-7.0)
Source: CMIP6

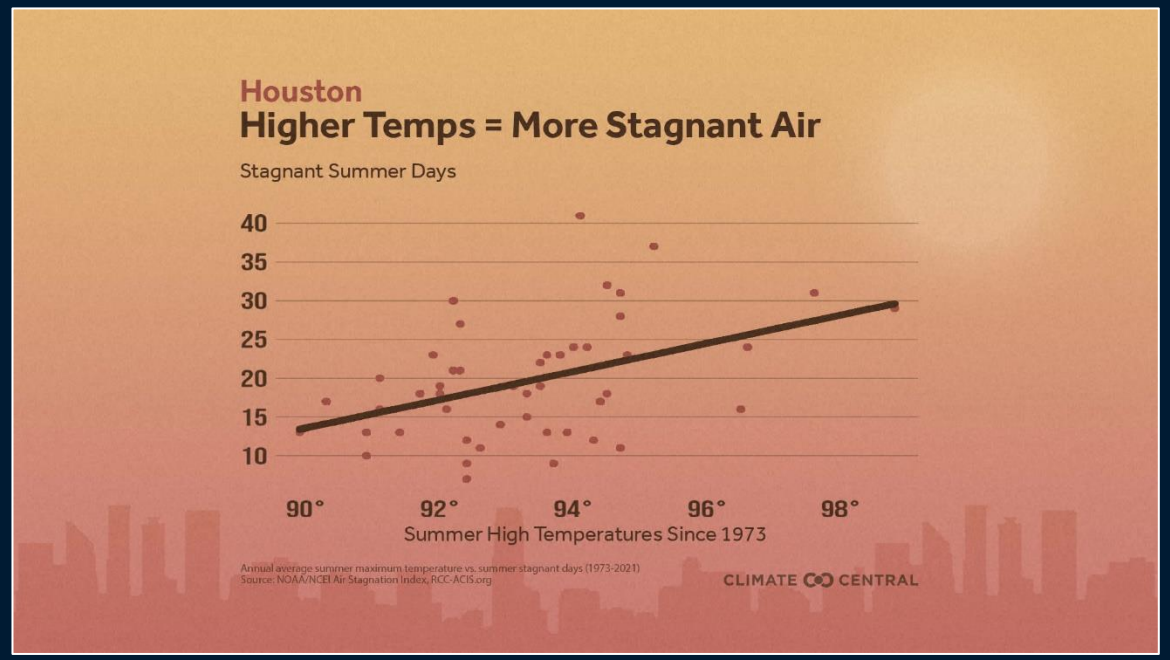
CLIMATE CENTRAL

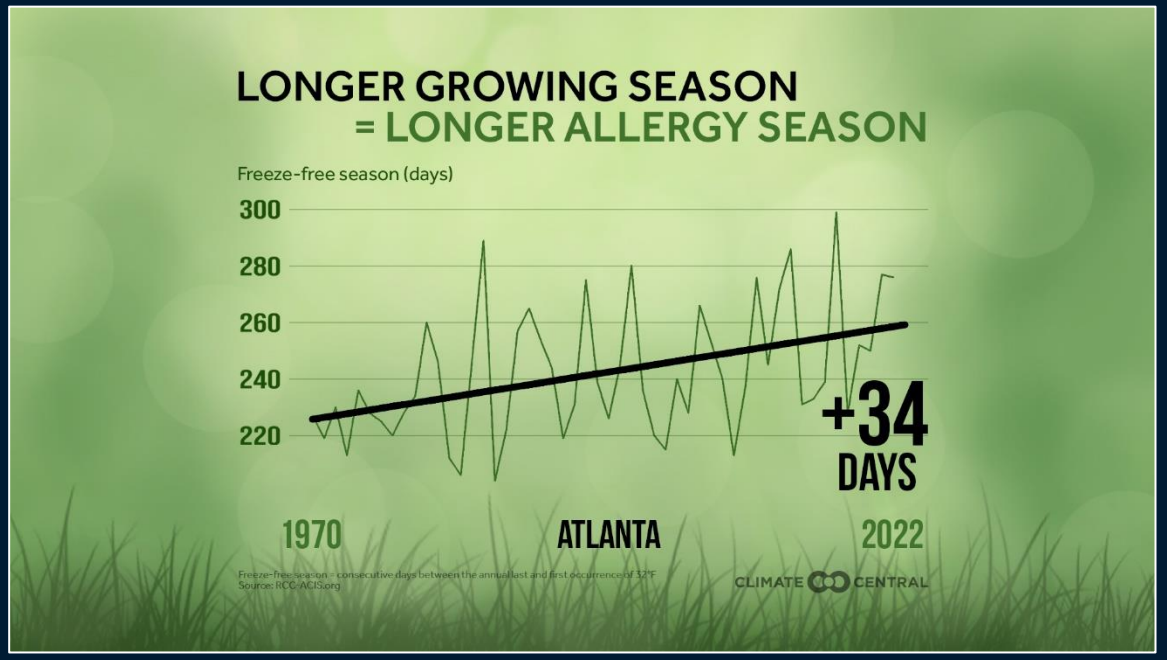
MORE INTENSE RAINFALL

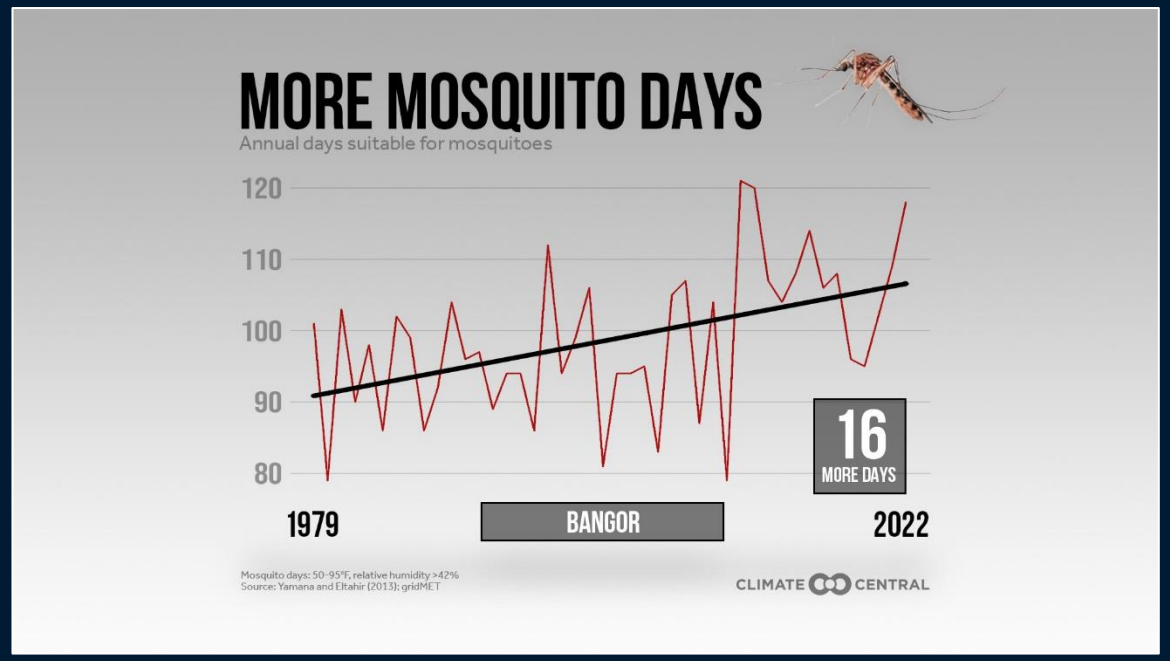
Annual average hourly rainfall (hundredths of inches)

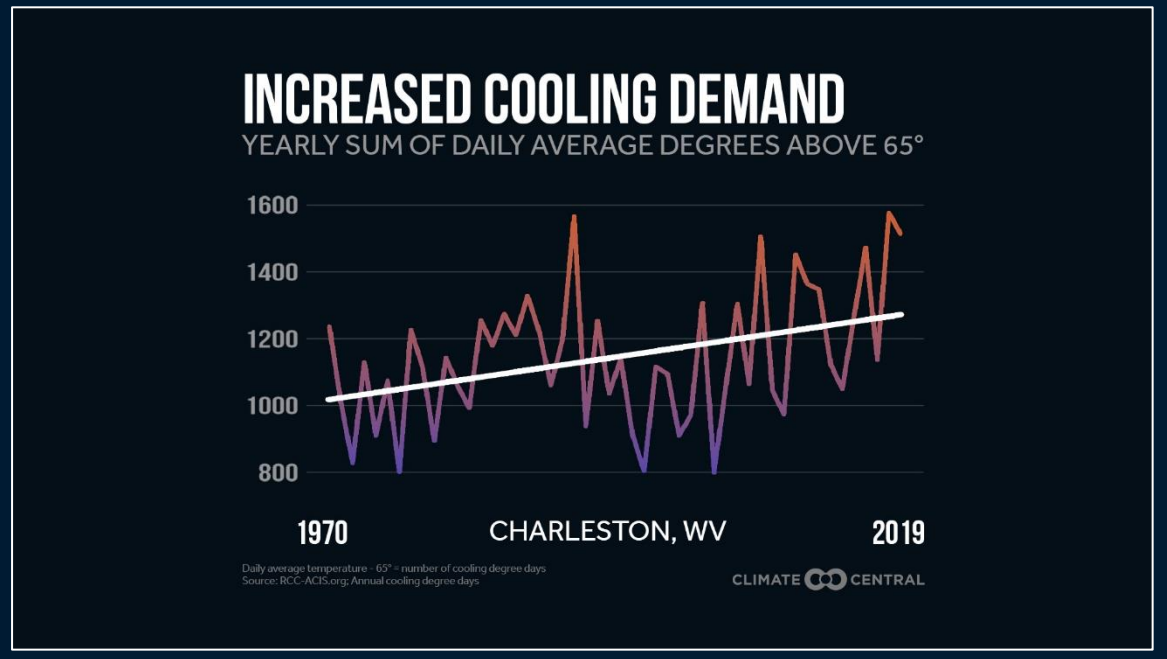
Average hourly rainfall is the total annual rainfall divided by the number of hours with rainfall.
Source: RCC-ACIS.org; NCEI Climate at a Glance

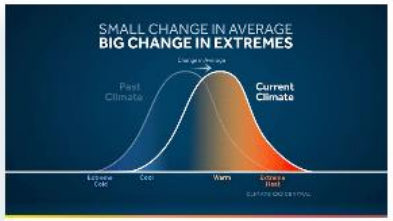
CLIMATE CENTRAL


Houston
Higher Temps = More Stagnant Air
Stagnant Summer Days
40
35
30
25
20
15
10
90°
92°
94°
96°
98°
Summer High Temperatures Since 1973
Annual average summer maximum temperature vs. summer stagnant days (1973-2021)
Source: NOAA/NCEI Air Stagnation Index, RCC-ACIS.org
CLIMATE CENTRAL


LONGER GROWING SEASON
= LONGER ALLERGY SEASON
Freeze-free season (days)
300
280
260
240
220
+34
DAYS
1970
ATLANTA
2022
Freeze-free season = consecutive days between the annual last and first occurrence of 32°F
Source: RCC-ACIS.org
CLIMATE CENTRAL

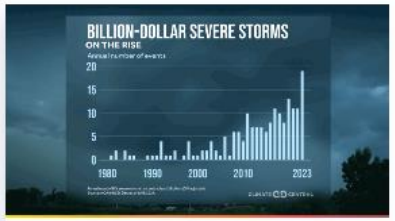

MORE MOSQUITO DAYS
Annual days suitable for mosquitoes
120
110
100
90
80
16
MORE DAYS
1979
BANGOR
2022
Mosquito days: 50-95°F, relative humidity >42%
Source: Yamana and Eltahir (2013); gridMET
CLIMATE CENTRAL


INCREASED COOLING DEMAND
YEARLY SUM OF DAILY AVERAGE DEGREES ABOVE 65°
1600
1400
1200
1000
800
1970
CHARLESTON, WV
2019
Daily average temperature - 65° = number of cooling degree days
Source: RCC-ACIS.org; Annual cooling degree days
CLIMATE CENTRAL



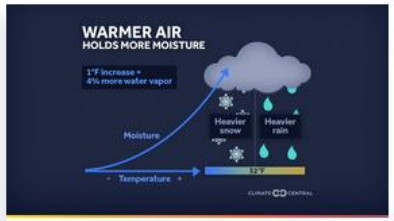
Extreme Weather Toolkit: Extreme Heat

More frequent and intense extreme heat — the deadliest weather-related hazard in the U.S. — is a direct result of a warming planet.



Extreme Weather Toolkit: Severe Weather

The relationship between severe storms and climate change is an active area of research.



Extreme Weather Toolkit: Snow & Ice

The timing, location, and amount of snowfall is shifting across the U.S.

Extreme Weather Toolkit: Drought

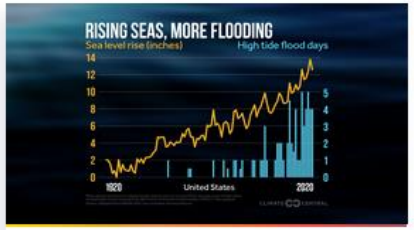
Rising global temperatures are altering the water cycle and increasing the risk of drought in parts of the U.S.

Extreme Weather Toolkit: Wildfire

More frequent hot, dry, windy conditions contribute to more wildfires that put people and ecosystems at risk.

Extreme Weather Toolkit: Tropical Cyclones

Warming oceans fuel stronger tropical cyclones that bring more heavy rainfall and higher storm surge when they make landfall.



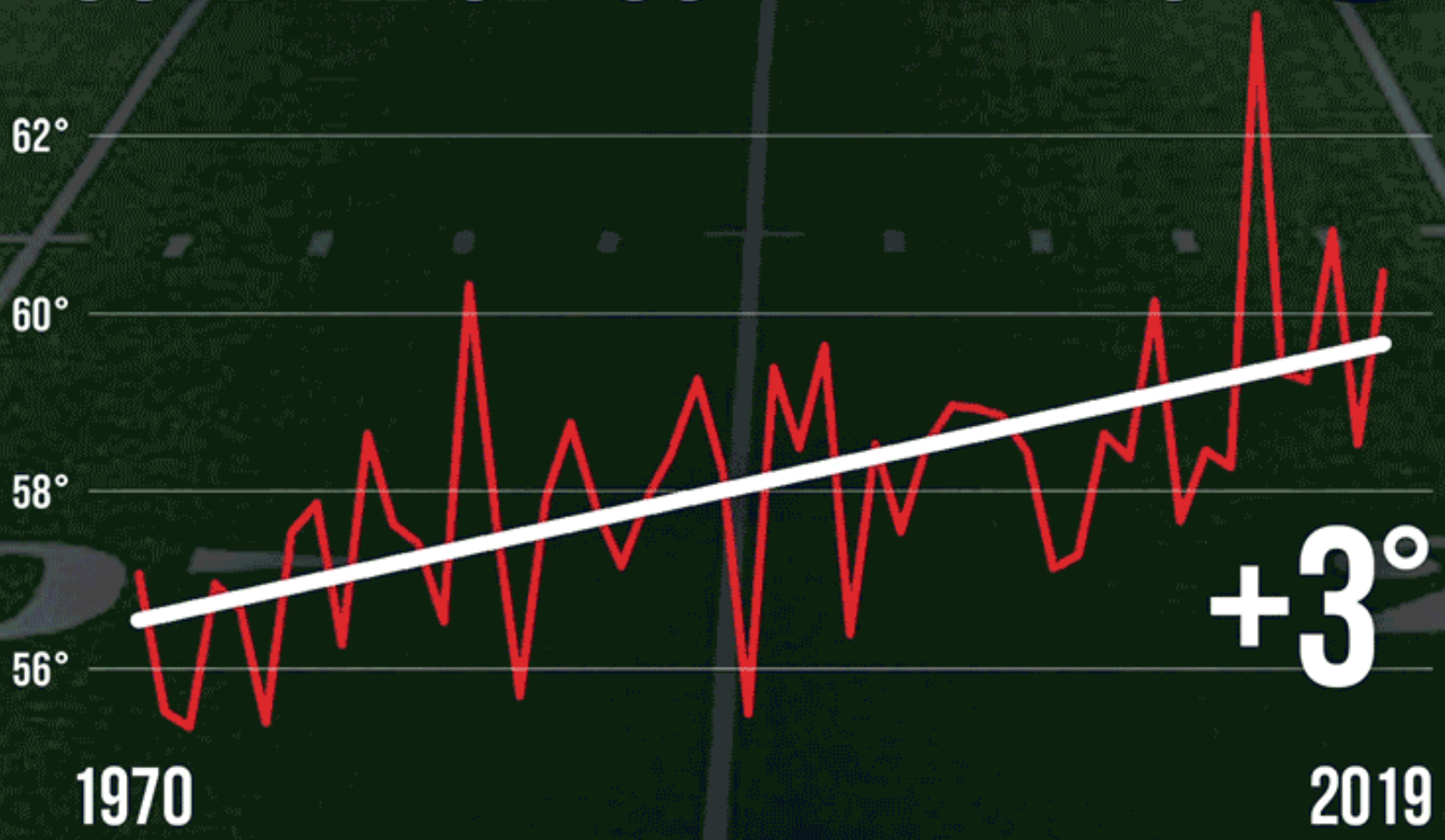
Extreme Weather Toolkit: Coastal Flooding

Coastal flooding is on the rise. Rising sea levels will continue to increase both tidal flooding and flooding from extreme weather events.

www.climatecentral.org/special-topics#extreme-weather-toolkits

SAN FRANCISCO

FOOTBALL SEASON WARMING



Average temperature Sept-Dec
Source: RCC-ACIS.org. Produced 1/29/2020

CLIMATE CENTRAL

Climate Matters • March 8, 2023

Allergy Season: Earlier, Longer, and Worse

KEY CONCEPTS

- Plants are leafing and blooming earlier, and the overall growing season is lasting longer across much of the U.S.
- Analysis of temperature data for 203 U.S. cities shows the freeze-free season lengthened by more than two weeks (15 days) on average since 1970.
- For millions of Americans that suffer from seasonal allergies to pollen and mold, climate change is bringing an earlier, longer, and overall worse allergy season.
- Climate Central's new report *Seasonal Allergies: Pollen and Mold* details more of the weather and climate trends that are worsening allergy season and the associated health risks.

Click the downloadable graphic: Longer Growing Season

Warming climate, longer pollen season, worse allergies

The first leaves and blooms of spring are arriving days to weeks early in parts of the U.S., according to the USA National Phenology Network (USA-NPN). Some areas in the East and South are seeing the earliest spring on record.

This is bad news for people with seasonal allergies—about one-quarter of adults (26%) and 19% of children in the U.S., according to the Centers for Disease Control and Prevention.

Earlier spring and longer periods of freeze-free days mean that plants have more time to flower and release allergy-inducing pollen. A recent study found that North American pollen seasons became longer (by 20 days on average) and more intense (21% increase in concentrations) from 1990 to 2018.

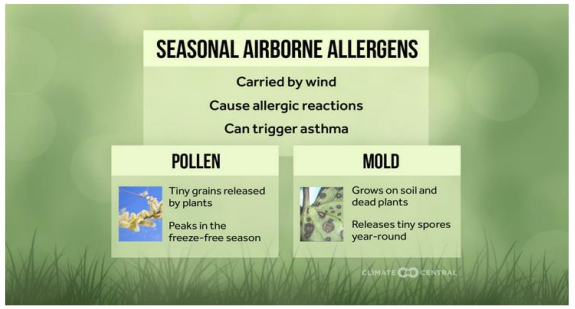
Seasonal allergies can already last from early spring through late fall. But warming temperatures and shifting seasonal patterns—both linked to climate change and greenhouse gas emissions—are expanding allergy season and its impacts on respiratory health.

Climate Central's new report, *Seasonal Allergies: Pollen and Mold*, details weather and climate trends that affect allergy season locally.

Longer growing season across the U.S.

To analyze how the growing season has changed in the U.S., Climate Central assessed temperature data for 203 cities since 1970.

- The freeze-free season lengthened across the country by more than two weeks (15 days) on average.
- 85% (172) of the cities saw their freeze-free seasons lengthen.
- In 31 cities, the season between the last and first freeze grew by at least a month.
- The growing season in Reno, Nev., increased by 99 days—among the biggest increases in the country.
- Since 1970, the freeze-free season lengthened the most in the West (27 days).
- The freeze-free season lengthened by more than two weeks in the Southeast (16 days), Northeast (15 days), and South (14 days).
- The Central region saw the freeze-free season lengthen by 13 days.



Click the downloadable graphic: Airborne Seasonal Allergens

More than pollen: mold spores cause seasonal allergies, too.

Plant pollen typically peaks in spring, summer, or fall, depending on the species and location. This video from researchers at the University of Michigan shows how pollen season blooms across the U.S.

In addition to pollen, some molds (fungi that grow on soil and dead plants) can be allergenic. Different kinds of molds may release tiny spores throughout the year, but tend to peak in late summer and fall.

For people who have both pollen and mold allergies, this can mean allergies that last for much of the year. Although outdoor mold isn't as well-studied as pollen, climate change is likely affecting how both allergens impact people with allergies and asthma.

Climate change is affecting allergy season in other ways.

Warming temperatures and more freeze-free days are key ways that climate change is affecting allergy season. But other connections between climate change and seasonal allergies are becoming clearer as research advances.

Climate Central's new report, *Seasonal Allergies: Pollen and Mold*, details weather and climate trends that affect allergy season locally—including how increased carbon dioxide in the atmosphere boosts pollen production, and why thunderstorms can increase the risk of asthma attacks.

CONTACT EXPERTS

Lewis Ziska, PhD
Associate Professor, Environmental Health Sciences
Mailer School of Public Health, Columbia University Irving Medical Center
Relevant expertise: connections between climate change, carbon dioxide, plant biology, and public health
Media contact: Stephanie Berger, sb2247@cumc.columbia.edu

Jesse Bell, PhD (he/him/his)
Claire M. Hubbard Professor of Water, Climate and Health
College of Public Health, University of Nebraska Medical Center
Relevant expertise: extreme weather, climate change, and health
Contact: jesse.bell@unmc.edu

Brooke Lappe, MPH
PhD candidate
Rollins School of Public Health, Emory University
Relevant expertise: climate change, air quality, pollen and health
Contact: brooke.lappe@emory.edu

FIND EXPERTS

Find a local allergist or immunologist listed through the American Academy of Allergy, Asthma and Immunology.

Submit a request to SciLine from the American Association for the Advancement of Science or to the Climate Data Concierge from Columbia University. These free services rapidly connect journalists to relevant scientific experts.

Browse maps of climate experts and services at regional NOAA, USDA, and Department of the Interior offices.

Explore databases such as 500 Women Scientists, BIPOC Climate and Energy Justice PhDs, and Diverse Sources to find and amplify diverse expert voices.

Reach out to your State Climate Office or the nearest Land-Grant University to connect with scientists, educators, and extension staff in your local area.

METHODOLOGY

The growing season is the difference between the last day below 32°F from January through July and the first day below 32°F from July through December. Years with growing seasons of less than two weeks were dropped from the analysis (e.g., beginning June 30, ending July 3). This condition only impacted a handful of years in Bend, Ore. and Butte, Mont. Forty-four stations that did not have a regular growing season and were on average frost-free for most of the year were excluded completely.

Allergy Season: Earlier, Longer, and Worse

KEY CONCEPTS

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Click the downloadable graphic: Longer Growing Season

MARCH 2023

Seasonal allergies: pollen and mold

CLIMATE CENTRAL

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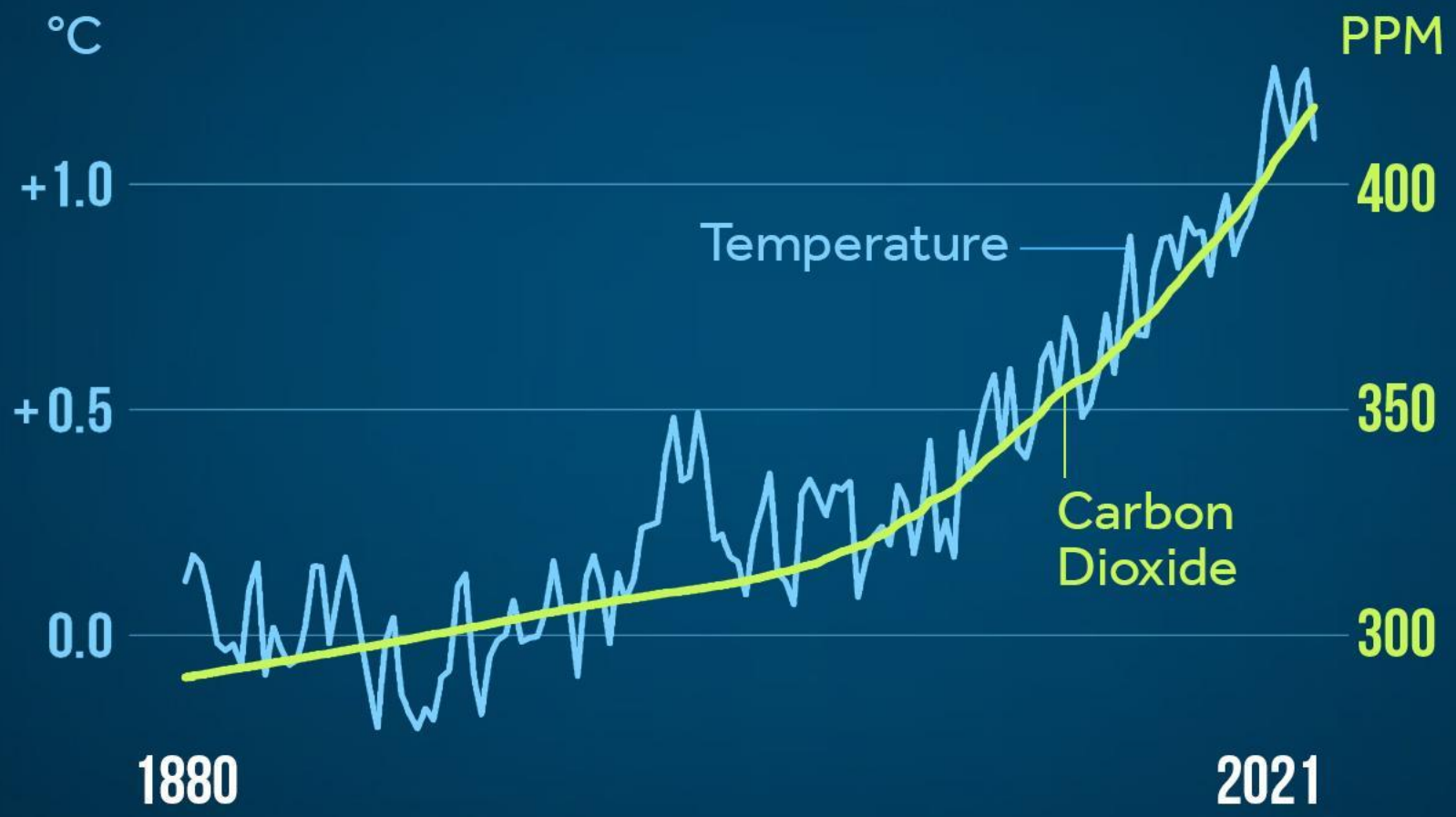
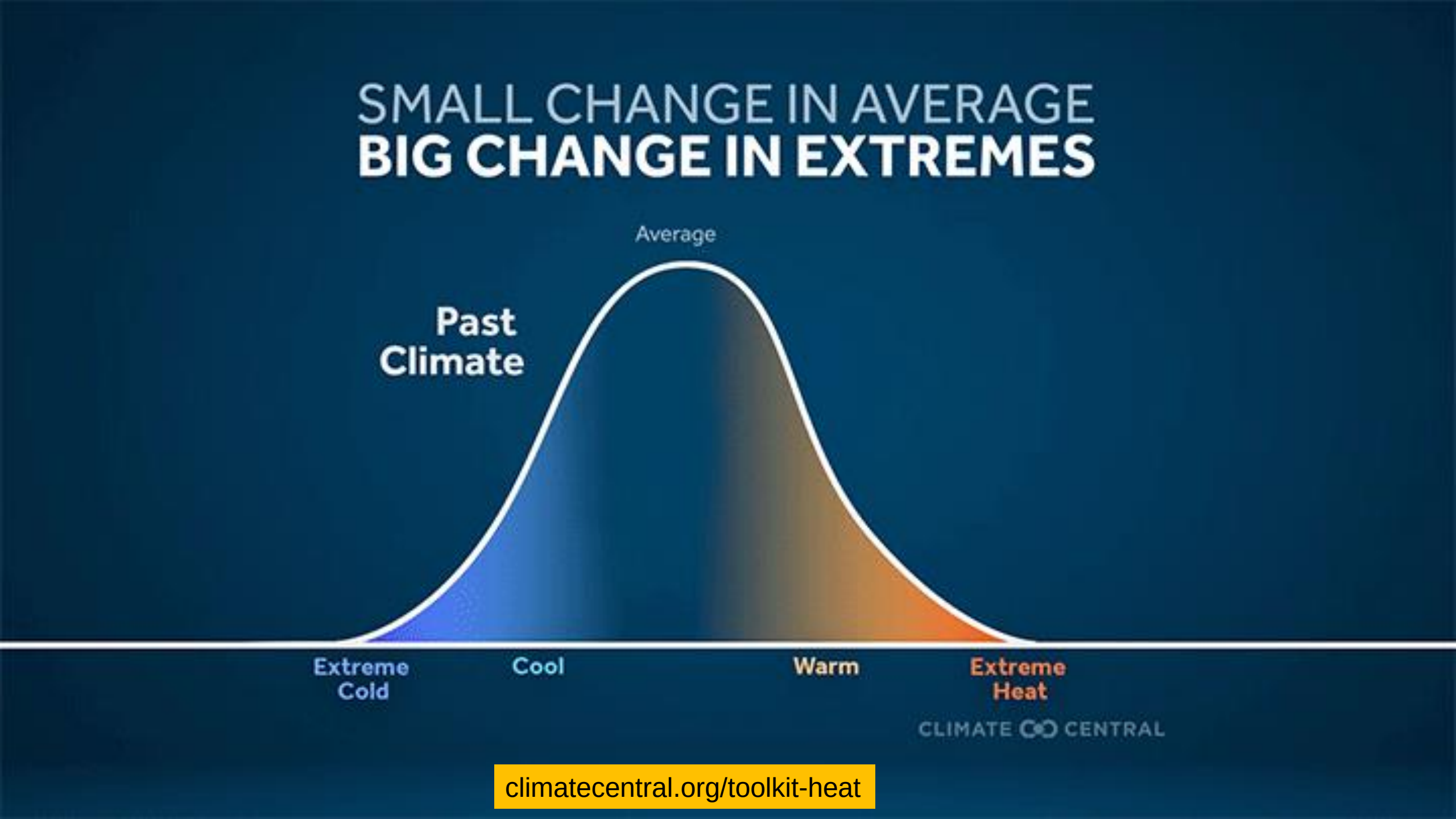
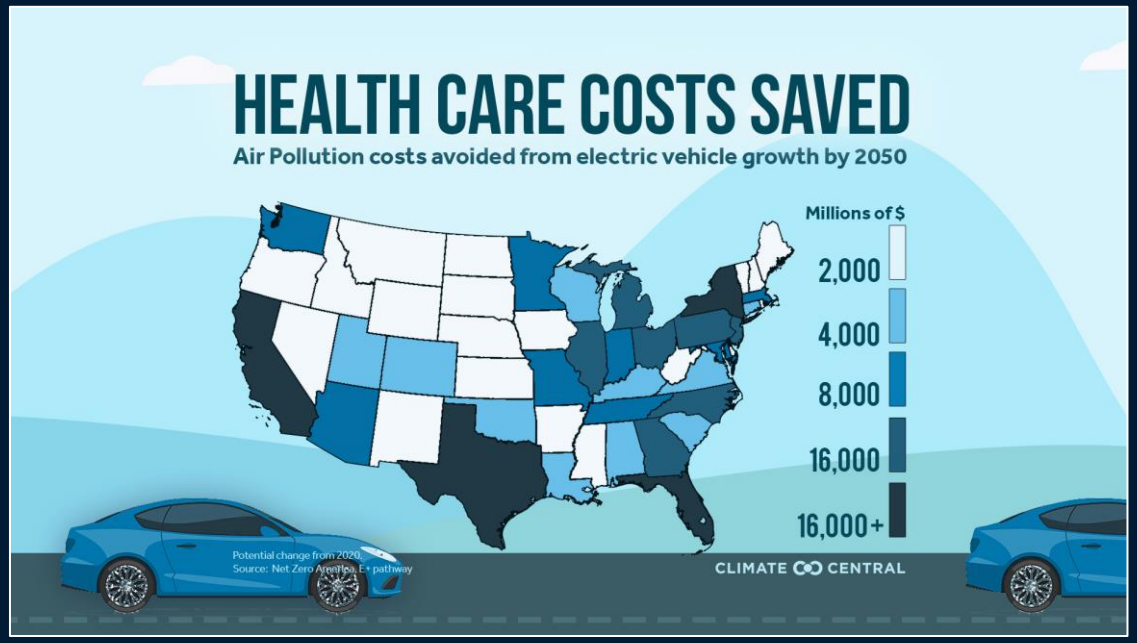
TEMPERATURE & CARBON DIOXIDE

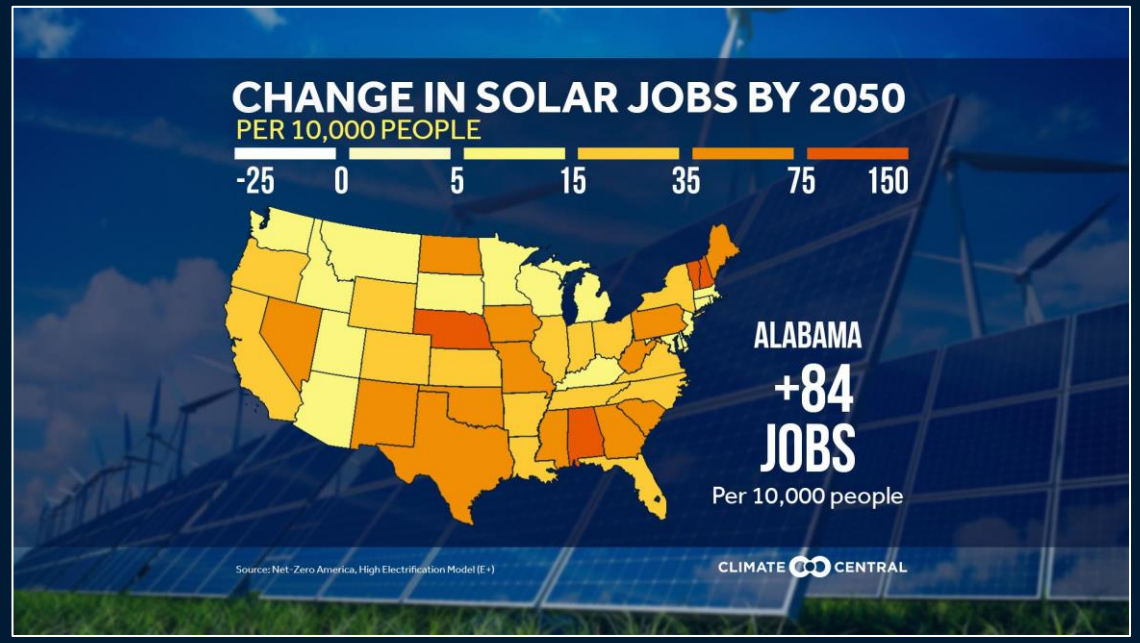


Global temperature anomalies averaged and adjusted to early industrial baseline (1881-1910)
Source: NASA GISS, NOAA NCEI, ESRL

CLIMATE CENTRAL


SMALL CHANGE IN AVERAGE
BIG CHANGE IN EXTREMES
Average
Past Climate
Extreme Cold
Cool
Warm
Extreme Heat
CLIMATE CENTRAL
climatecentral.org/toolkit-heat





NEW JERSEY

Climate Friendly Homes Can Save:

Utility costs:

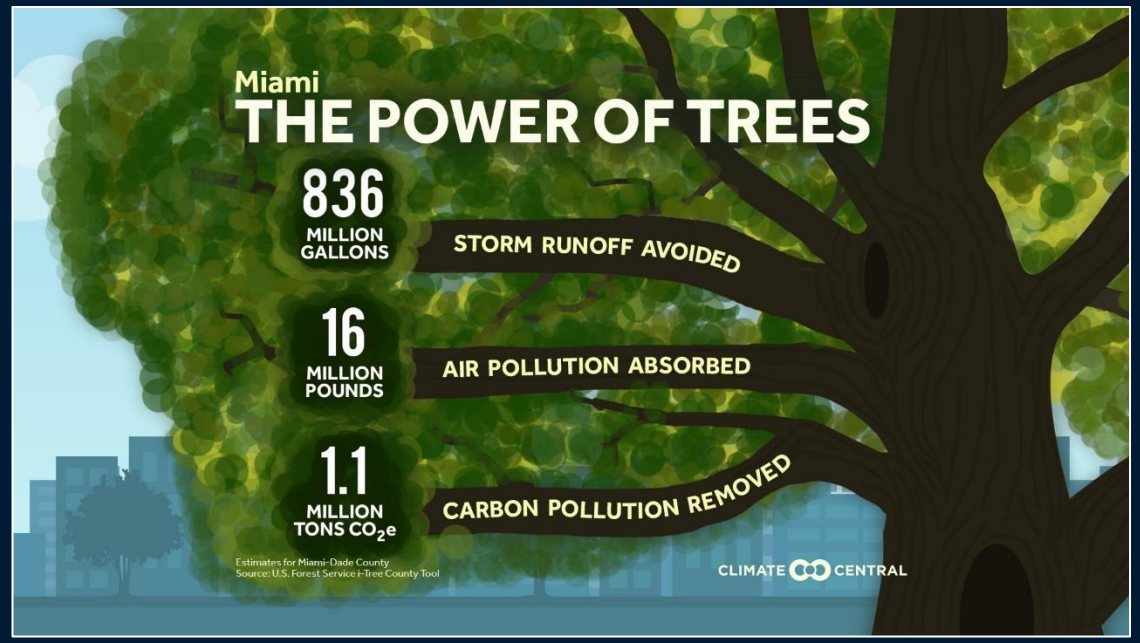
$721 per year

Emissions reductions:

3.2 tons of CO_2 equivalent per year

Savings per household
Source: Wilson et al. 2017

CLIMATE CENTRAL



CLIMATE CENTRAL

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Resources

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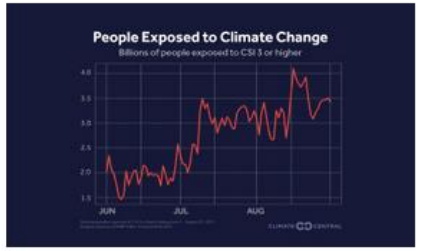
Filter by Keyword | Search for cities & states | Pick dates | Search for topics... | Type



Climate Matters • September 7, 2023

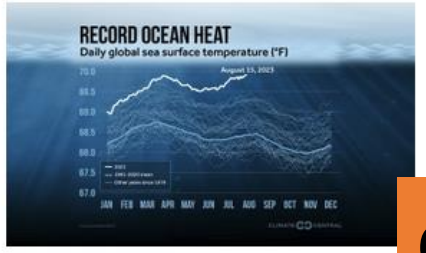
Carbon pollution boosted heat for billions during Earth's hottest summer

New global analysis shows that carbon pollution boosted June-August heat for billions of people in 2023. Countries that felt the strongest climate fingerprints have contributed the least carbon pollution.

Climate Matters • August 30, 2023

2023 Fall Package

Fall is here and in 232 U.S. locations the season is warmer than in 1970—by 2.4°F on average. With warming, risky heat, fire weather, and allergies extend into the fall.



Climate Matters • August 23, 2023

Record Ocean Heat Impacts: From Hurricanes to Corals

It's been a record-shattering summer for

Climate Matters • August 14, 2023

Summer Heat Pushes 2023 Temperatures Near Record

Numbers are in: 2023 global temperatures …uly were among the hottest on

climatecentral.org/resources

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See monthly highlights from Climate Central

Climate Matters
Weekly reporting resources for meteorologists, journalists, and other climate communicators

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Timely notifications about local climate impacts and events

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Get updates, media alerts, and climate reporting resources

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CLIMATE CENTRAL

Key tools & programs

- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

CLIMATE CENTRAL

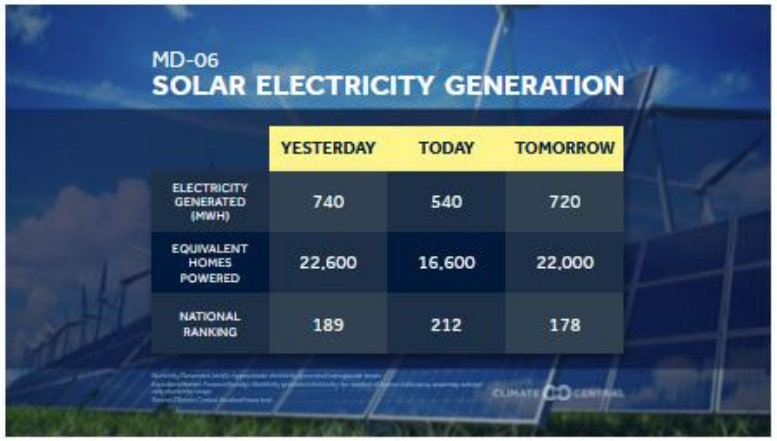
- State
- Media Market
- County
- Congressional District

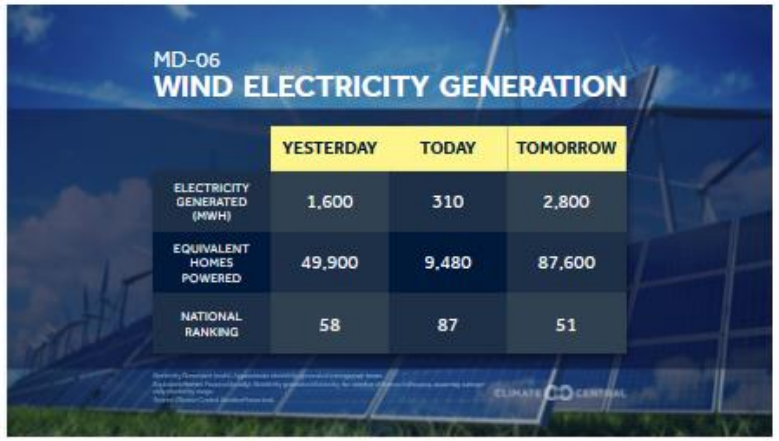
MARYLAND
SOLAR ELECTRICITY GENERATION

	YESTERDAY	TODAY	TOMORROW
ELECTRICITY GENERATED (MWH)	8,200	7,100	8,200
EQUIVALENT HOMES POWERED	253,000	220,000	252,000
HOME ENERGY SAVINGS	117%	101%	112%

Electricity Generated (mwh): Approximate electricity generated in megawatt-hours.
Equivalent H
average daily
Home Energ
array on its r
Source: Clim

weatherpower.climatecentral.org





Customize and download a production-ready forecast graphic:

Choose graphic

- (•) Wind
- ( ) Solar

Choose background

- (•) Wind/solar image
- ( ) Black
- ( ) Transparent

- [x] Include title

Choose language

- (•) English
- ( ) Spanish

Choose Days (columns)

(up to 3)

- [x] Yesterday
- [x] Today
- [x] Tomorrow
- [ ] Wednesday
- [ ] Thursday

Choose data (rows)

(up to 3 per graphic) What do these mean?

- [x] Electricity Generated (mwh)

Equivalencies:

- [ ] CO2 Avoided (tons)
- [ ] Equivalent % Homes Powered (locally)
- [x] Equivalent Number of Homes Powered (locally)
- [ ] Equivalent Number of Homes Powered (regionally; wind only)
- [ ] Car Miles
- [ ] Trees Planted
- [ ] Smartphones Charged

Other metrics:

- [ ] Home Energy Savings (solar only)
- [ ] Power Index (0-10 scale)
- [x] National Ranking (out of 436 congressional districts)
- [ ] State Ranking (out of 8 congressional districts)

Download Graphic |

CLIMATE CENTRAL

Key tools & programs

- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

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Climate Shift Index® Global Map

City

Type a city name

Date

‹ Today ›

Single date Multi-day average

Select type of map:

Climate Shift Index

› Advanced settings

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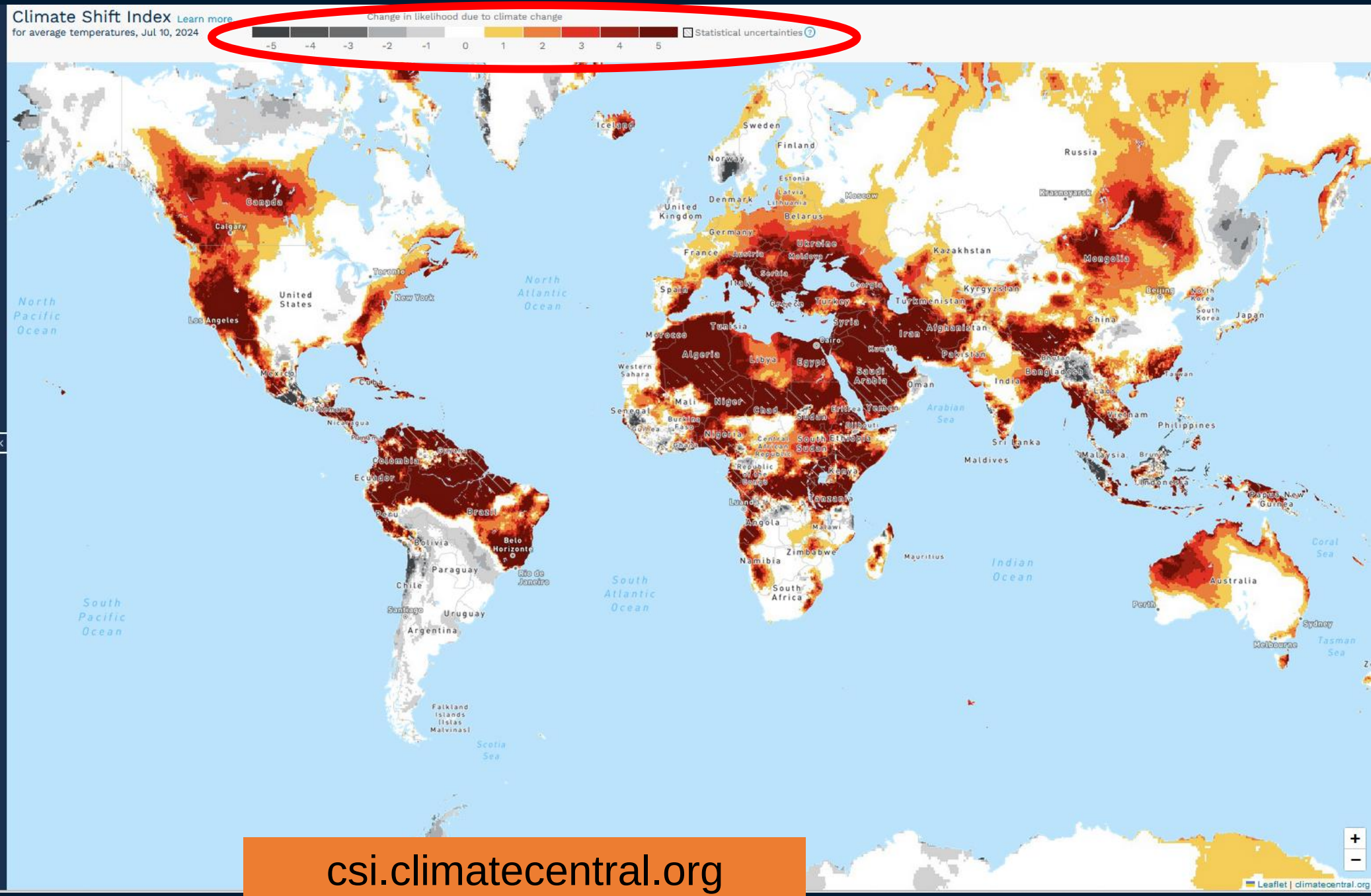
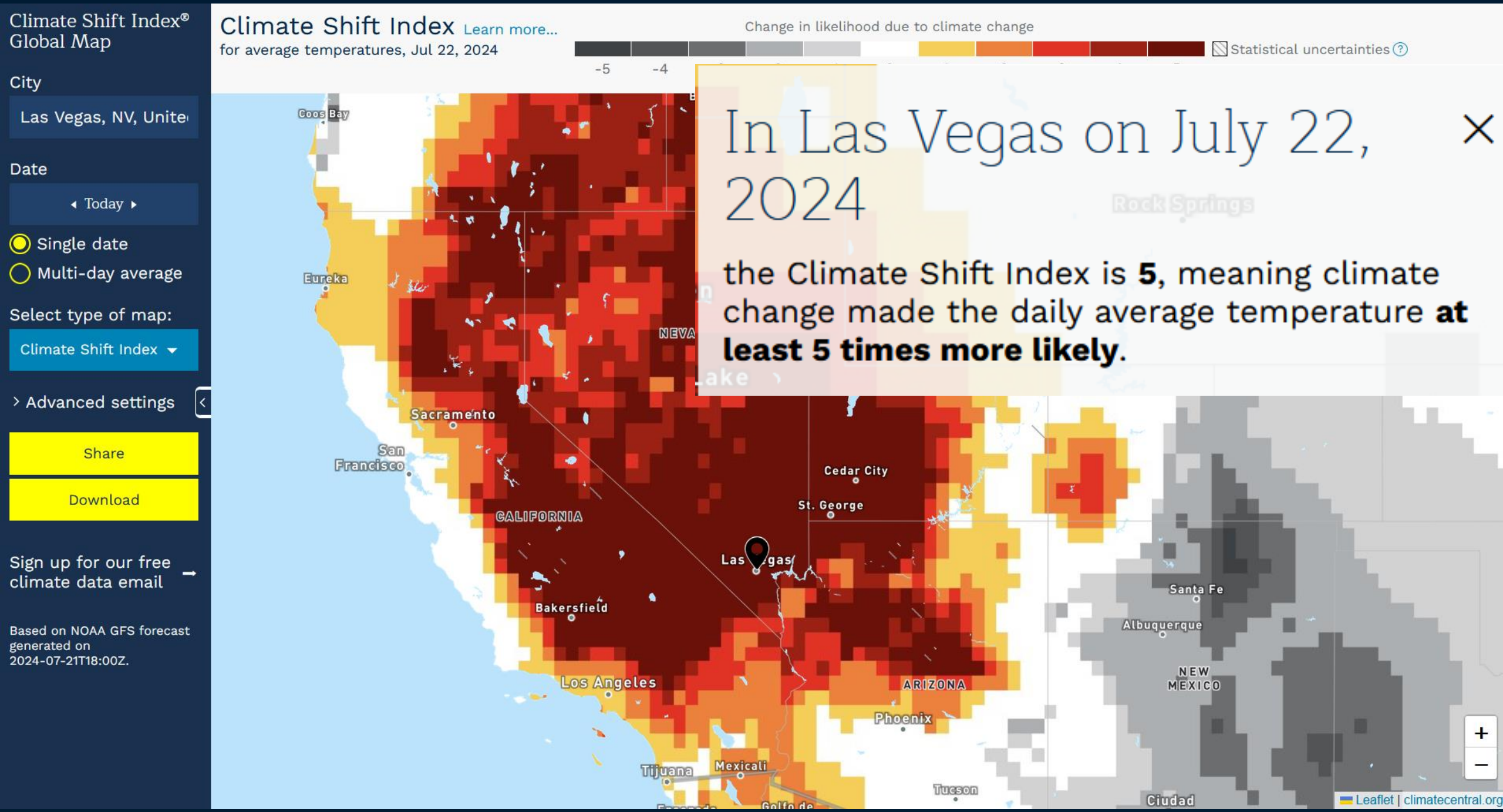
Sign up for our free climate data email →

Based on NOAA GFS forecast generated on 2024-07-09T18:00Z.



csi.climatecentral.org


Climate Shift Index® Global Map
City
Las Vegas, NV, Unite
Date
Today
Single date
Multi-day average
Select type of map:
Climate Shift Index
Advanced settings
Share
Download
Sign up for our free climate data email
Based on NOAA GFS forecast generated on 2024-07-21T18:00Z.
Climate Shift Index Learn more...
for average temperatures, Jul 22, 2024
Change in likelihood due to climate change
-5
-4
Statistical uncertainties
In Las Vegas on July 22, 2024
the Climate Shift Index is 5, meaning climate change made the daily average temperature at least 5 times more likely.
Coos Bay
Eureka
Sacramento
San Francisco
CALIFORNIA
Bakersfield
Los Angeles
Las Vegas
Cedar City
St. George
ARIZONA
Phoenix
Tucson
Santa Fe
Albuquerque
NEW MEXICO
Tijuana
Mexicali
Ciudad
Leaflet | climatecentral.org

CLIMATE CENTRAL

Climate Shift Index® Global Map

City

Type a city name

Date

ay ▸

ingle Multi-day average

Units

Ce

Fah

Advanced settings

Show statistical uncertainties

Show place labels

Select type of map:

Climate Shift Index

Show Climate Shift Index of:

Minimum temperature | Average temperature | Maximum temperature

Share | Download

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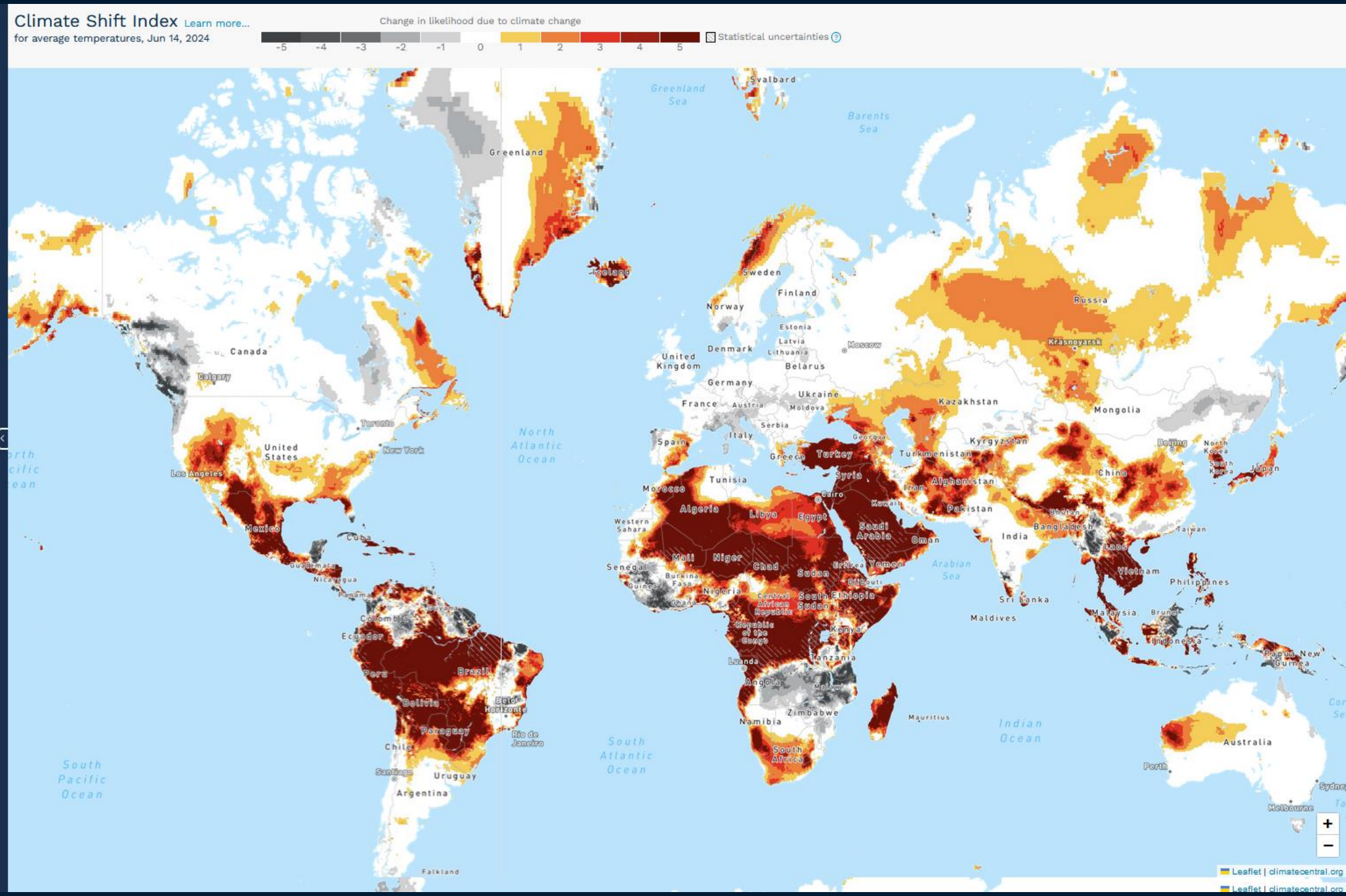
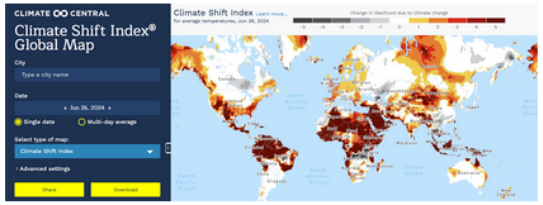
Based on NOAA GFS forecast generated on 2024-06-13T18:00Z.



Climate Shift Index

The Climate Shift Index® indicates how climate change has altered the frequency of daily temperatures in any location around the world, every day. It's grounded in peer-reviewed attribution science and was launched by Climate Central in 2022.



Click to visualize the impact of climate change on today's temperature anywhere on Earth.

How the Climate Shift Index works

We often hear how global average temperatures are increasing because of climate change, but people don't experience global average temperatures. Instead, we mainly experience climate change through shifts in the daily temperatures and weather patterns where we live. Bridging this gap, the Climate Shift Index (CSI) is a system that quantifies the influence of climate change on local daily temperatures around the world.

The Climate Shift Index ranges from -5 to +5. Positive levels indicate temperatures that are becoming more likely due to climate change (negative scores indicate conditions that are becoming less likely).

A CSI of level 5 means that a temperature is occurring at least 5 times more frequently when compared to a world without human-caused carbon pollution. This temperature would be very difficult to encounter in a world without climate change – not necessarily impossible, just highly unlikely. Similarly, a CSI level of 4 means the temperature is at least 4 times more likely, and so on. See the FAQ below for more details.

The science behind CSI

The methods beneath the calculation of the Climate Shift Index are detailed in A multi-method framework for global real-time climate attribution (June 2022). You can also find details of how we implemented these approaches to make a system that works every day, everywhere.

Read on for more detailed explanations of the science behind CSI.

- Computing the Climate Shift Index
- Explaining the Climate Shift Index scale

FAQ

- So the Climate Shift Index shows a shift in temperature?
- Does a high Climate Shift Index mean climate change caused the hot weather?
- How do you know what temperatures were like in the distant past?
- What happens when computations produce mixed results about the influence of climate change?
- Why do you include daily low temperatures as well as daily highs in the Climate Shift Index map tool?
- What do the negative Climate Shift Index numbers mean?
- Does the Climate Shift Index work for cold conditions?
- Does the Climate Shift Index only work for temperatures?
- How can the Climate Shift Index be small or zero where I'm seeing unusually warm (or cold) temperatures?
- What's happening in the hatched "Currently unavailable" places?

climatecentral.org/climate-shift-index

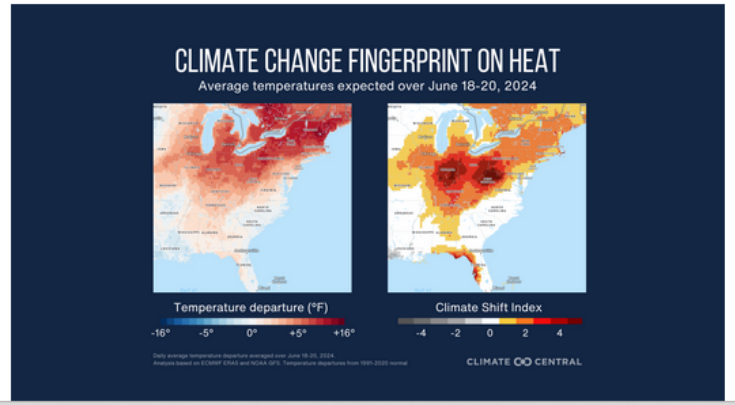
CLIMATE CENTRAL

Climate Shift Index Alert • June 17, 2024

Intense, persistent heat wave across Midwestern and Eastern U.S. influenced by climate change

From June 18-20, over 25 million people in the eastern half of the U.S. will experience heat made at least four times more likely because of human-caused climate change. This week is a continuation of the intense, persistent heat that has already been experienced by much of the Midwestern and Eastern United States.

Note: This event is forecast to continue beyond June 20. Use the Global Climate Shift Index map to stay updated on heat in your region.



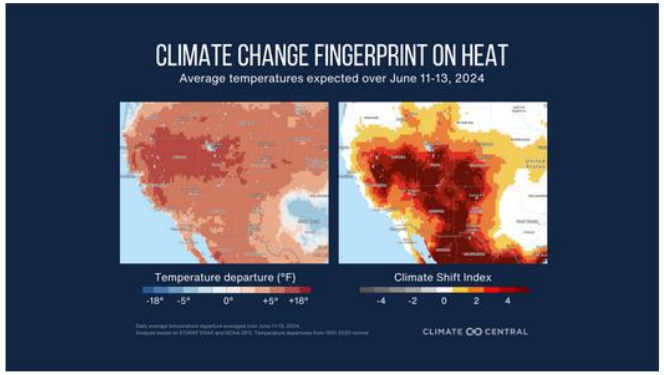
4x

CLIMATE CENTRAL

Climate change influencing severe heat in Southwest U.S.

The Southwest United States is poised to experience unusually intense heat over the next several days (June 11-13), with high temperatures made at least 5 times more likely because of human-caused climate change.

Note: This event may continue beyond June 13. Use the Global Climate Shift Index map to stay updated on heat in your region.



How unusual is this heat event?

- This week, **millions of people across the U.S. Southwest** will be exposed to multiple days moderate to major heat, which will significantly affect those without access to effective cooling and/or adequate hydration.
- Excessive Heat Warnings and Watches have been issued for parts of Arizona, New Mexico, and Nevada including **Phoenix, Tucson, Las Cruces and Las Vegas.**
- **High temperatures of 105˚F to 112˚F** are expected in the lower deserts, and 102˚F to 108˚F in the higher terrain, through June 13.
- Elevated nighttime temperatures in the 73˚F to 83˚F range are expected across much of this region.

Note: Find information on cooling centers, hydration stations and respite centers in the Phoenix area (Maricopa County) and the Las Vegas area (Clark County).

This is a continuation of an extreme heat event that started last week.

- Last week, climate-fueled extreme heat impacted the Southwest with record-setting high temperatures recorded in **Phoenix (113˚F), Las Vegas (111˚F), Reno (98˚F), and Flagstaff (91˚F) on June 6 (the peak of the heat wave)**.
- Record warm low temperatures were also set in **Phoenix (87˚F) and Las Vegas (85˚F).** Unusually high lows contribute to the risk of heat related illness, by not allowing time for our bodies to cool down.

How has climate change influenced this heat?

- Daily average temperatures are expected to reach Climate Shift Index (CSI) levels of 5 in **central and eastern California, Nevada, New Mexico, Utah, Colorado, and Arizona**. **A CSI level 5 indicates** that human-caused climate change made this excessive heat at least five times more likely, signifying an exceptional climate change event.
- Over the next three days, 17 million people in the Southwest will experience at least one day with CSI level 5.

Use the Climate Shift Index global map to see CSI levels in your city and region, and see our FAQs to learn about the CSI in both English and Spanish.

What impacts are we seeing with this continued extreme heat?

- 11 people were hospitalized due to heat exhaustion at a Trump rally in Phoenix, Arizona. Two dozen others were hospitalized and almost 100 people took refuge in cooling tents to escape the scorching temperatures at a rally later in the week in Las Vegas.
- Several wildfires broke out in California last week during the heatwave. In the Central Valley, northeast of Los Angeles, over 3,500 acres of agricultural land were burned.
- Phoenix prohibited hiking at several popular trails and mountains in the state capital due to heat exposure concerns.
- In Nevada, in a span of less than 36 hours, at least 12 calls were made to the Clark County fire department related to heat exposures with three-quarters of them leading to hospitalization.
- Local organizations in Nevada spent several days last week bringing water and other resources to police officers and people experiencing homelessness who were impacted by the excessive heat, along with rides to cooling shelters.
- In Henderson, Nevada (~15 miles southwest of Las Vegas), the asphalt reached a temperature of 162˚F, highlighting the dangerous burn threat posed to pets and livestock.

What do experts say?

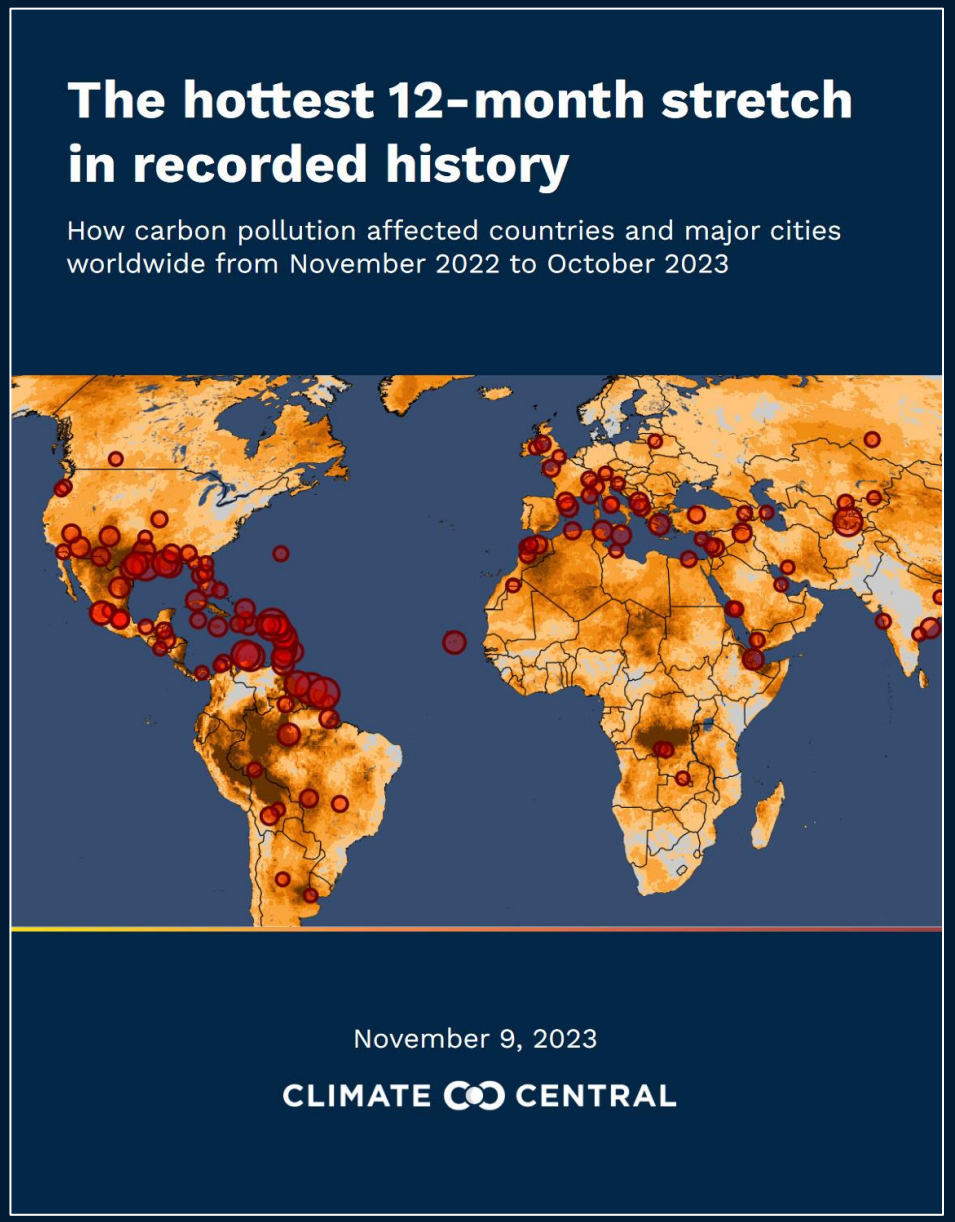
Dr. Andrew Pershing, VP of Science at Climate Central, said:
"The Southwest is the hottest part of the country, and human-caused climate change is making it even hotter. Heat waves like this will continue to become longer, more intense, and more dangerous until carbon pollution ends."

How do we know climate change is influencing this heat?

The Climate Shift Index uses peer-reviewed methodology to estimate how climate change has increased the likelihood of a particular daily temperature. It can be run using historical or forecast temperatures.

Using computer models, we compared the likelihood that these temperatures would occur in a world without carbon emissions released by humans, versus in today's world with decades of carbon emissions building up in the atmosphere. This is an established scientific method to determine how much climate change has or has not affected individual extreme weather events.

CLIMATE CENTRAL



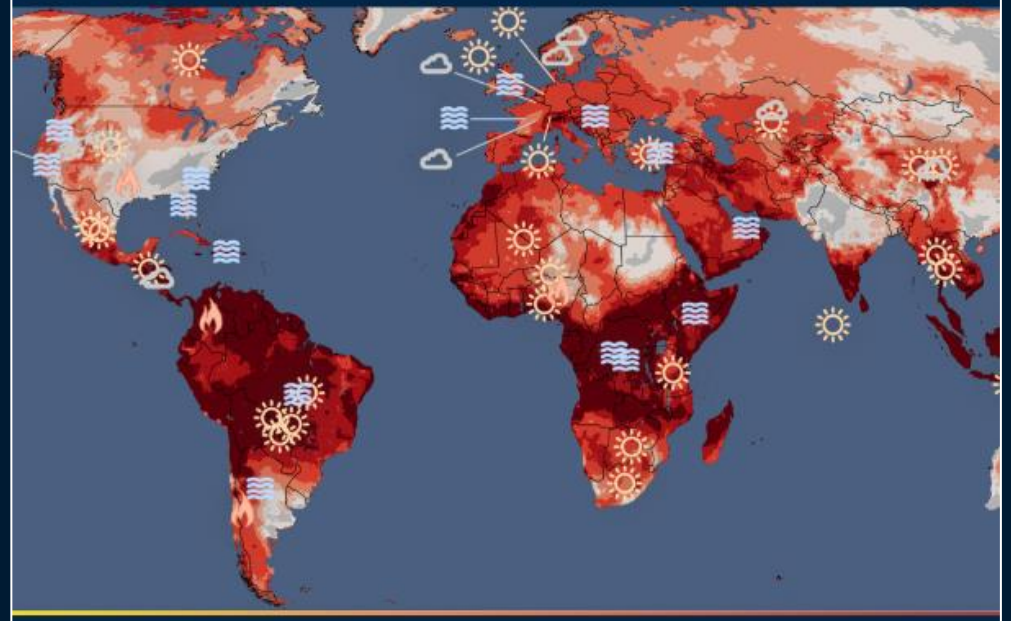
From November 2022 through October 2023, 5.8 billion people—73 percent of the global population—experienced 30+ days of abnormal heat made at least 3x more likely by climate change.

www.climatecentral.org/report/the-hottest-12-month-stretch-in-recorded-history-2023

CLIMATE CENTRAL

Seasonal Attribution Report

An analysis of how climate change boosted temperatures worldwide between December 2023 and February 2024

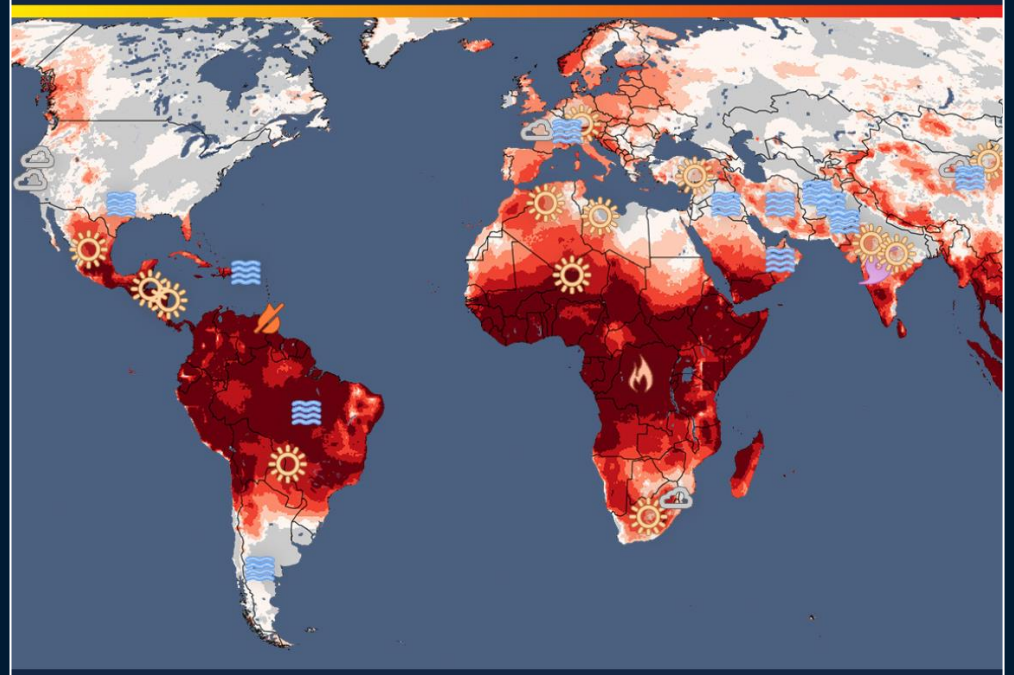


March 7, 2024

CLIMATE CENTRAL

People Exposed to Climate Change: March-May 2024

A Climate Central seasonal analysis of how climate change boosted temperatures worldwide between March 2024 and May 2024



CLIMATE CENTRAL

June 6, 2024

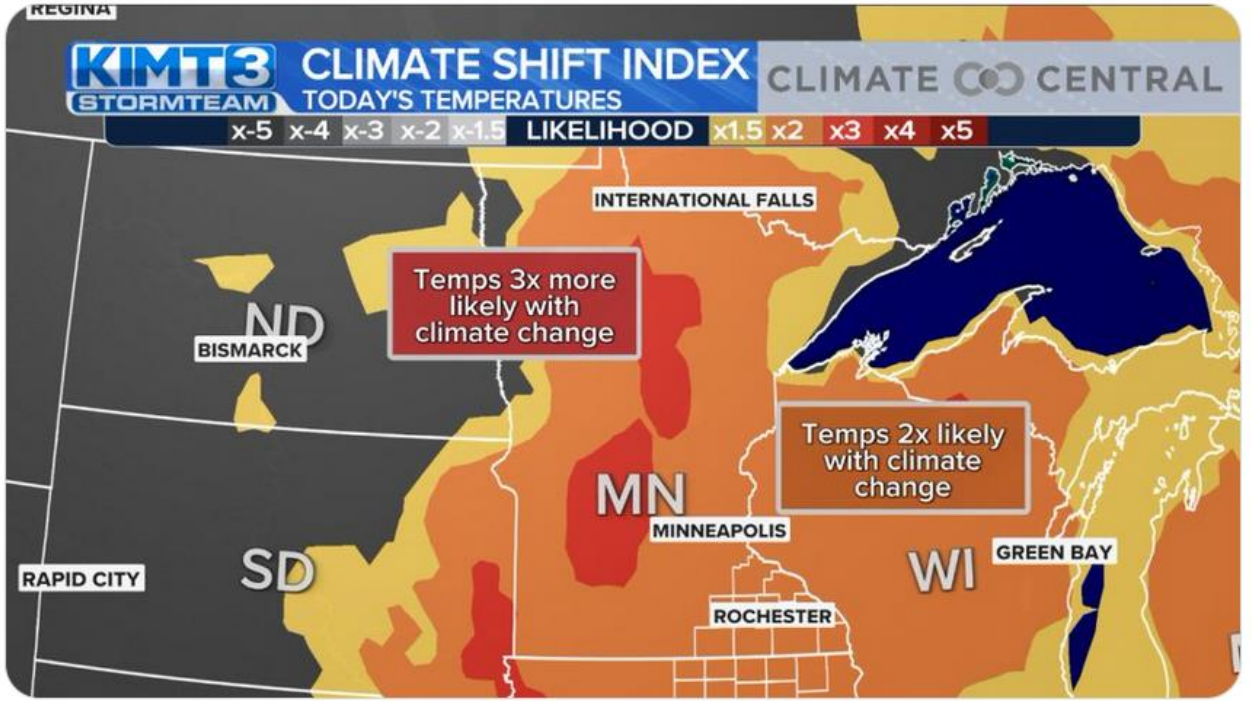
CLIMATE CENTRAL

← **Post**

Sean Macaday
@MacadayWX

🔥 The Twin Cities marathon has been CANCELLED today due to extreme heat.

Our climate shift index from @ClimateCentral shows that these temperatures are 2-3 times more likely with climate change. #climatechange #mnwx #climate



12:16 PM · Oct 1, 2023 · **4,527** Views

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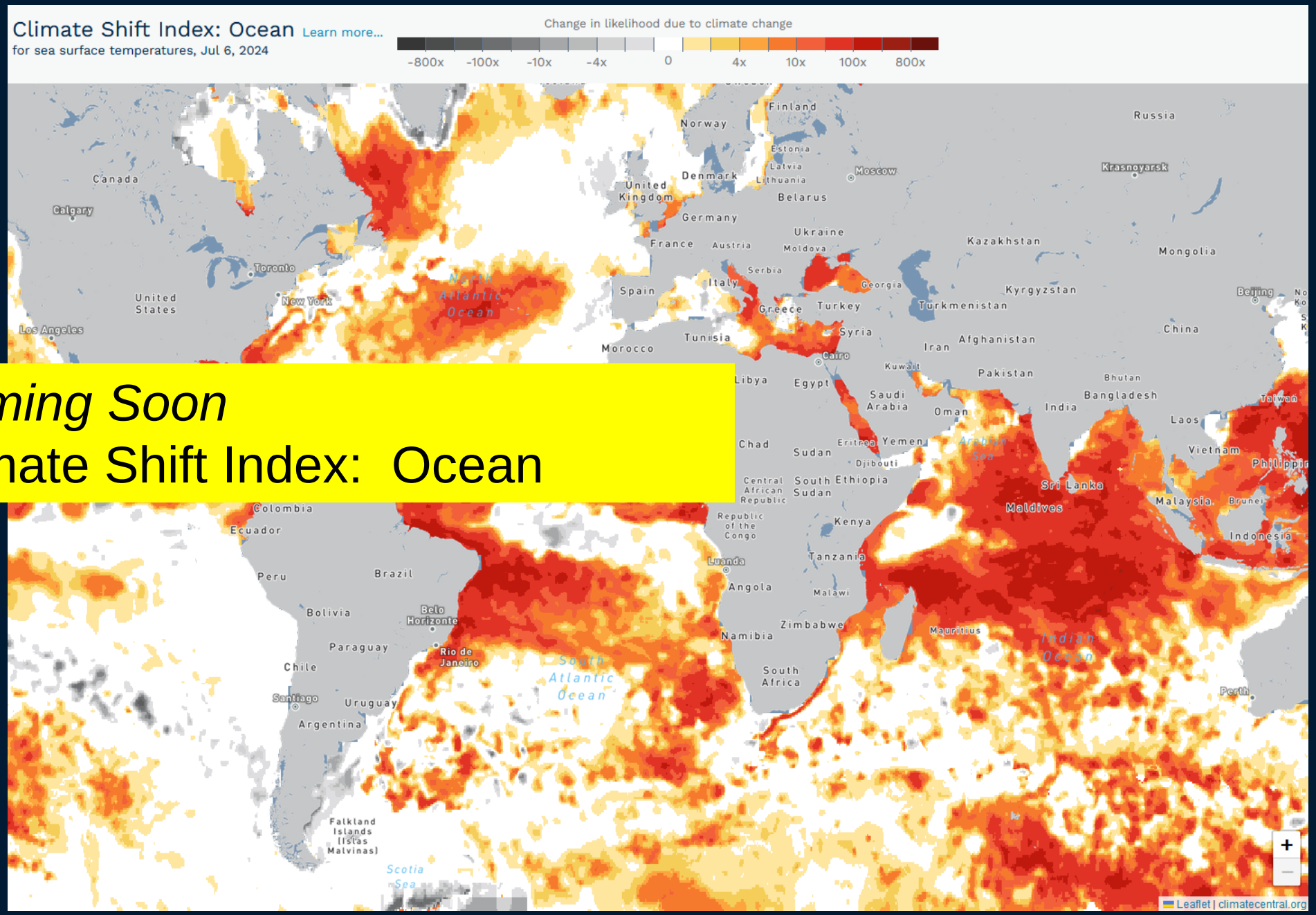
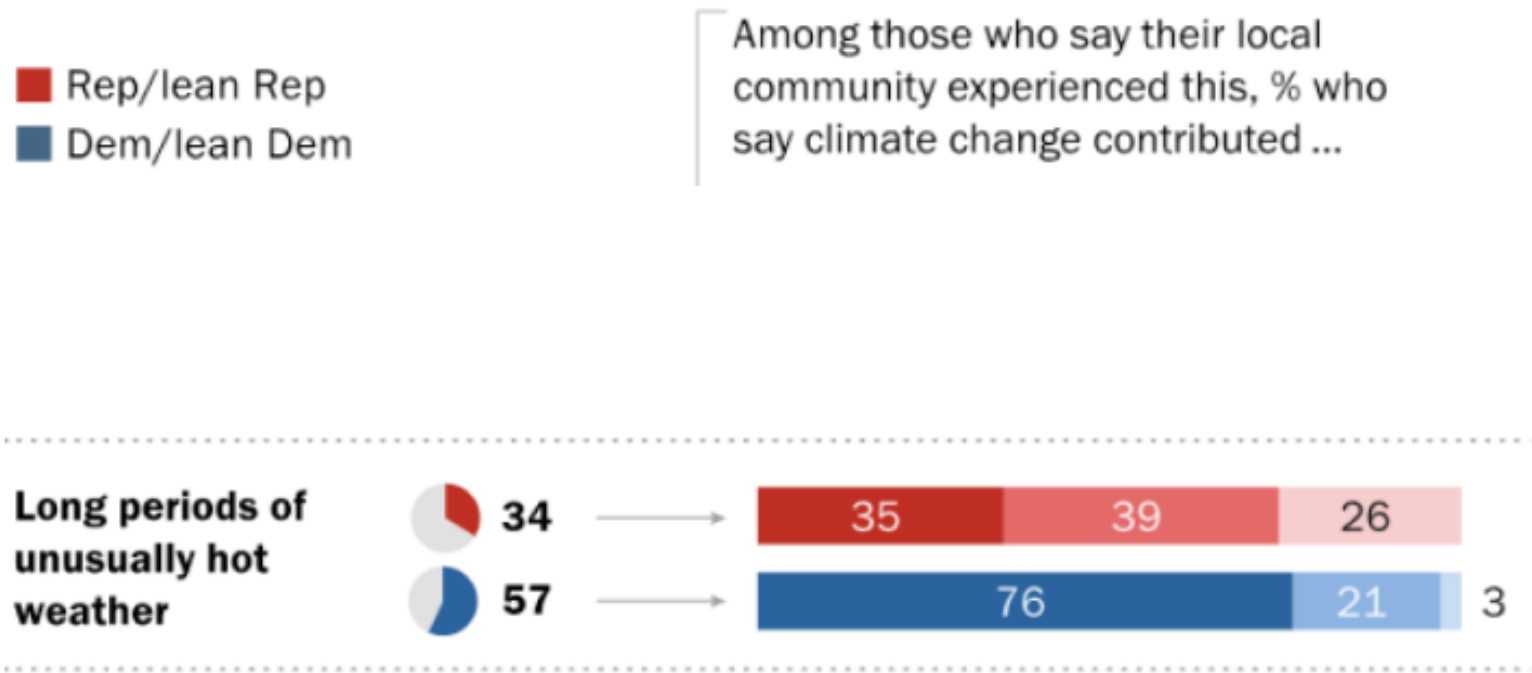

Climate Shift Index: Ocean Learn more...
for sea surface temperatures, Jul 6, 2024
Change in likelihood due to climate change
-800x -100x -10x -4x 0 4x 10x 100x 800x
Coming Soon
Climate Shift Index: Ocean
Leaflet | climatecentral.org

% who say that their local community has experienced the following in the past 12 months



Pew Research Center

Note: Respondents who did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 13-19, 2024.
"Americans' Extreme Weather Policy Views and Personal Experiences"

CLIMATE CENTRAL

Key tools & programs

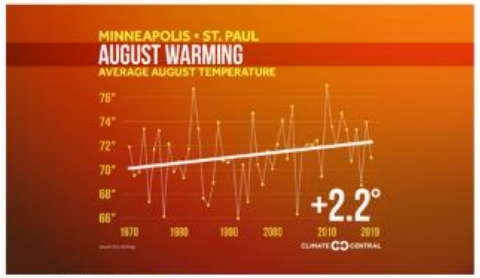
- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

CLIMATE CENTRAL

From: Sean Sublette <ssublette@climatecentral.org>
Sent: Monday, August 24, 2020 11:05 AM
To
Subject: more August heat

Hi Daniel,

We've noticed the heat is continuing for Minneapolis. Below is a new graphic for the month that can help you tell the climate story. You can find similar ones in our media library.



Get the high-res version here.

Share this on Twitter

Additional versions available:
In Spanish
With no title
With no title and a transparent background

Email me if you have questions.

Thanks,
Sean

Click here if you don't want more Realtime Climate alerts like this

[firstname]

From: Sean Sublette
To:
Sent: Dec. 15, 2020 10:13am
Subject: Alert: see how much wind energy Burlington is producing - today

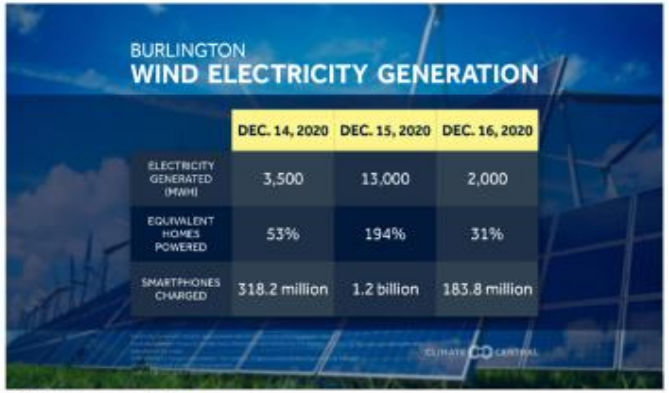
Hi Janel,

Looks like it's especially windy in Burlington. Here's a graphic showing how much wind electricity is now being generated in your area. Create your own customized and downloadable version with different ways to show the data - including equivalent numbers of trees planted, car-miles driven, smartphones charged, and more - using our WeatherPower tool.

Email me if you have questions.

Thanks,

Sean



Get the high-res version here.

Gmail

Climate change fingerprint detected in Mobile
1 message

Climate Central <alerts@climatecentral.org> Mon, Jun 27, 2022 at 6:48 AM
Reply-To: realtime@climatecentral.org
To: Karen Florini <karen.florini@gmail.com>

Hi Karen,

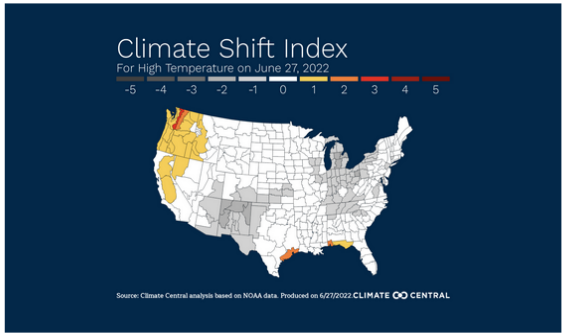
Today is expected to be unusually warm in Mobile. The Climate Shift Index is expected to reach level 2 today. Events reaching Climate Shift Index level 2 indicate a strong climate-related event and show that climate change is having a measurable impact on conditions in Mobile.

I've included today's Climate Shift Index map.

You can learn more about the Climate Shift Index and explore conditions for the next three days at our Climate Shift Index tool.

Questions or comments? Contact Karen Florini, VP of Programs, Climate Central: kflorini@climatecentral.org

Full-size image here.



Click here if you want to customize your preferences or don't want more Realtime Climate alerts like this.

CLIMATE CENTRAL

Key tools & programs

- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

CLIMATE CENTRAL

Key tools & programs

- Sea Level Rise
  - Coastal Risk Screening Tool
  - Risk Finder
  - FloodVision

Time horizon

Explore sea level rise and coastal flood threats by decade.

VIEW MAP

Water level

Choose a water level and see what areas may be impacted.

VIEW MAP

Warming choices

Compare scenarios for long-term sea level rise based on different pollution pathways.

VIEW MAP

Temperature

Explore how different warming scenarios could affect sea level rise in the coming decades.

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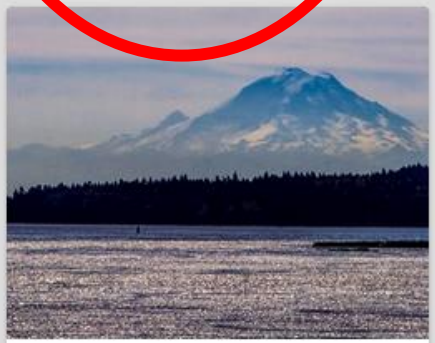

Elevation data

See how improved elevation data show a greater risk from sea level rise and coastal flooding.

VIEW MAP

Ice sheets

Explore how ice loss in Antarctica and Greenland could impact different parts of the globe.

VIEW MAP

Affordable housing

Explore how coastal flooding puts America's already scarce affordable housing at risk.

VIEW STATS

Coastal wetlands

Explore how sea level rise, coastal development, and marsh vertical growth rates impact the resilience of wetlands.

VIEW MAP VIEW STATS

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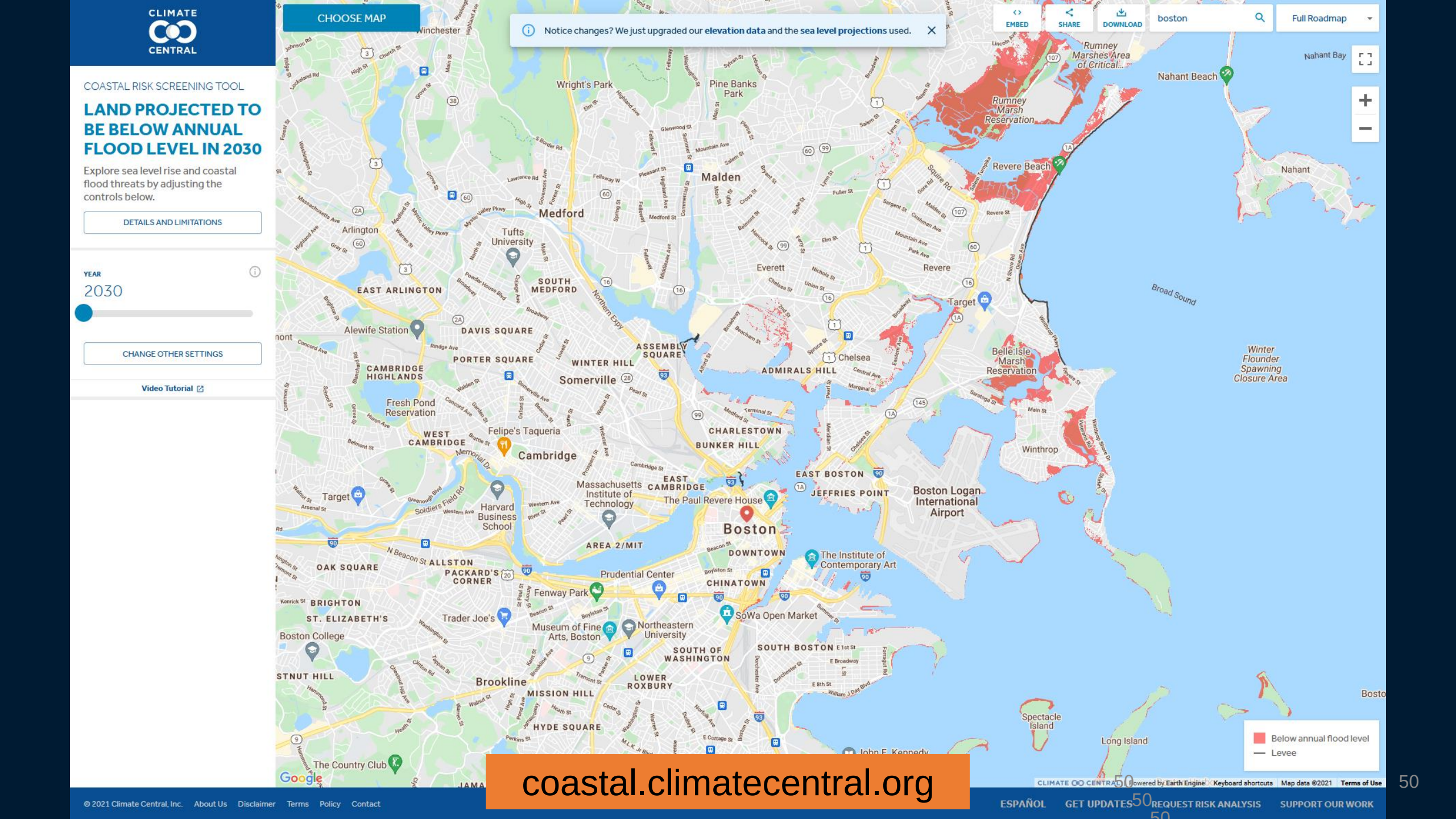
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COASTAL RISK SCREENING TOOL
LAND PROJECTED TO BE BELOW ANNUAL FLOOD LEVEL IN 2030
Explore sea level rise and coastal flood threats by adjusting the controls below.
DETAILS AND LIMITATIONS
YEAR
2030
CHANGE OTHER SETTINGS
Video Tutorial
CHOOSE MAP
Notice changes? We just upgraded our elevation data and the sea level projections used.
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Full Roadmap
Below annual flood level
Levee
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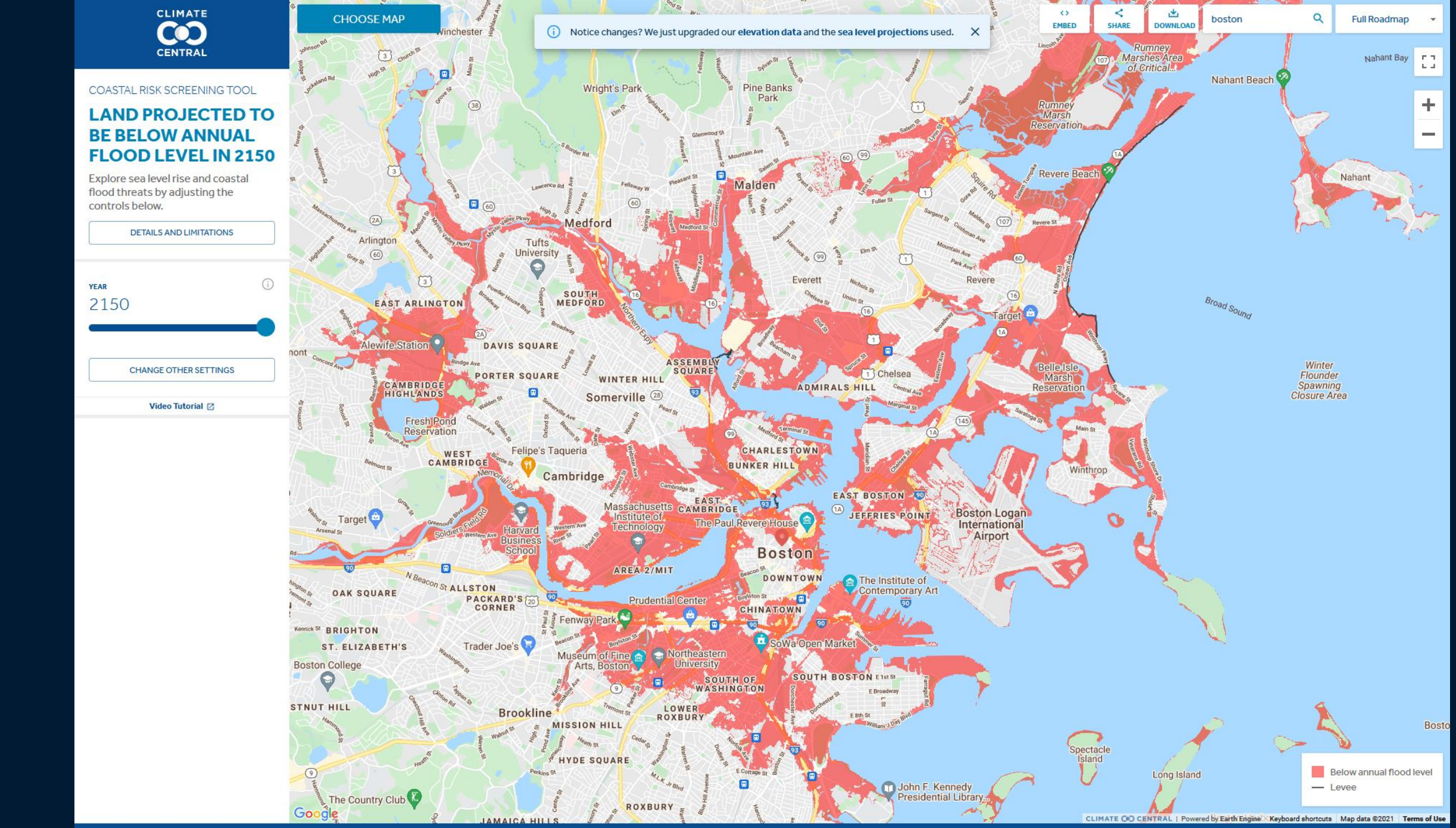
CLIMATE CENTRAL
COASTAL RISK SCREENING TOOL
LAND PROJECTED TO BE BELOW ANNUAL FLOOD LEVEL IN 2150
Explore sea level rise and coastal flood threats by adjusting the controls below.
DETAILS AND LIMITATIONS
YEAR
2150
CHANGE OTHER SETTINGS
Video Tutorial
CHOOSE MAP
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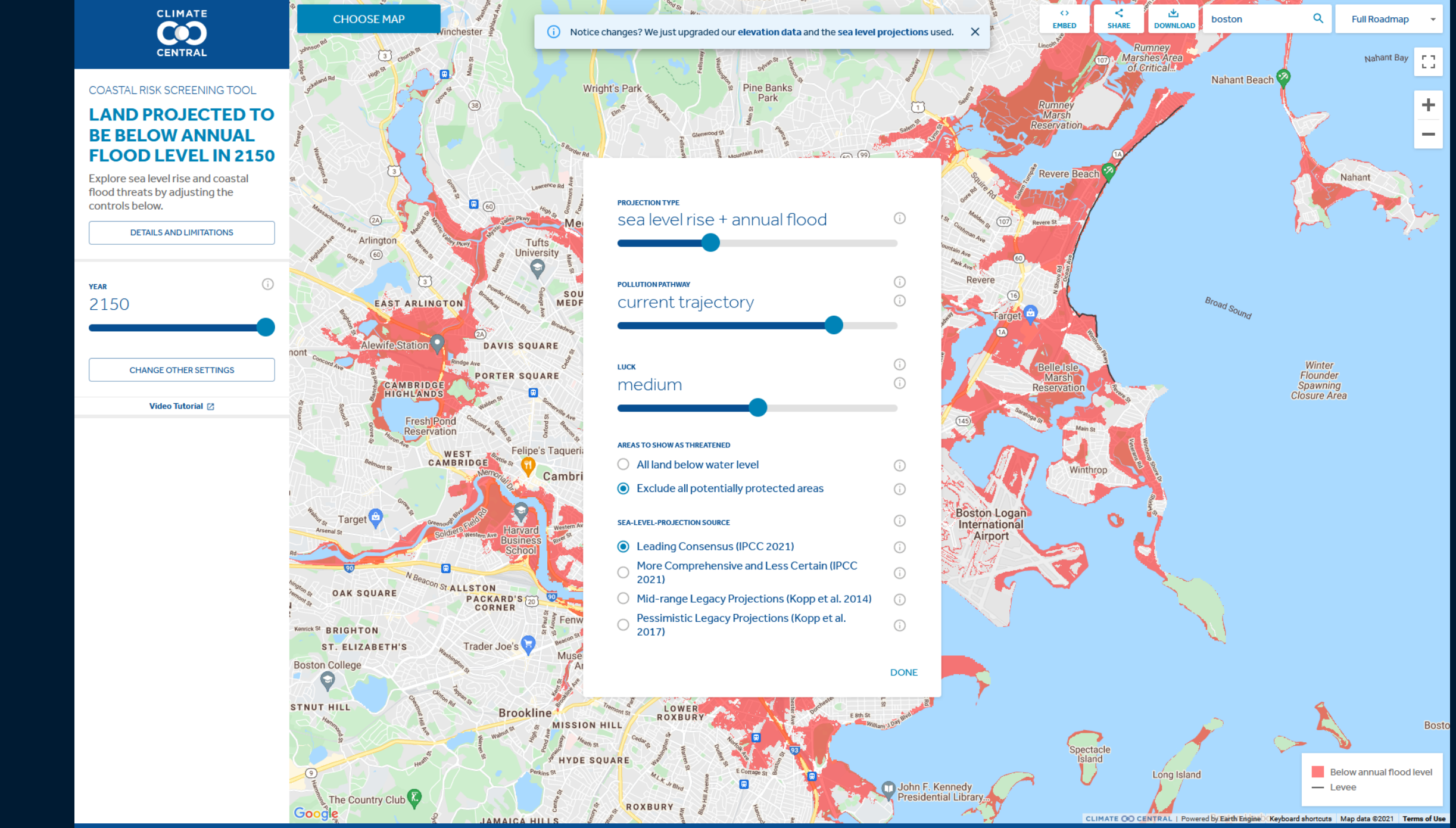
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DETAILS AND LIMITATIONS
YEAR
2150
CHANGE OTHER SETTINGS
Video Tutorial
CHOOSE MAP
Notice changes? We just upgraded our elevation data and the sea level projections used.
EMBED
SHARE
DOWNLOAD
boston
Full Roadmap
PROJECTION TYPE
sea level rise + annual flood
POLLUTION PATHWAY
current trajectory
LUCK
medium
AREAS TO SHOW AS THREATENED
All land below water level
Exclude all potentially protected areas
SEA-LEVEL-PROJECTION SOURCE
Leading Consensus (IPCC 2021)
More Comprehensive and Less Certain (IPCC 2021)
Mid-range Legacy Projections (Kopp et al. 2014)
Pessimistic Legacy Projections (Kopp et al. 2017)
DONE
Below annual flood level
Levee
Winchester
Wright's Park
Pine Banks Park
Rumney Marshes Area of Critical...
Rumney Marsh Reservation
Nahant Bay
Nahant Beach
Nahant
Revere Beach
Revere
Target
Broad Sound
Belle Isle Marsh Reservation
Winter Flounder Spawning Closure Area
Winthrop
Boston Logan International Airport
Spectacle Island
Long Island
John F. Kennedy Presidential Library...
Arlington
Tufts University
EAST ARLINGTON
Alewife Station
DAVIS SQUARE
PORTER SQUARE
CAMBRIDGE HIGHLANDS
Fresh Pond Reservation
WEST CAMBRIDGE
Harvard Business School
OAK SQUARE
ALLSTON
PACKARD'S CORNER
BRIGHTON
ST. ELIZABETH'S
Trader Joe's
Boston College
Brookline
MISSION HILL
LOWER ROXBURY
HYDE SQUARE
ROXBURY
The Country Club
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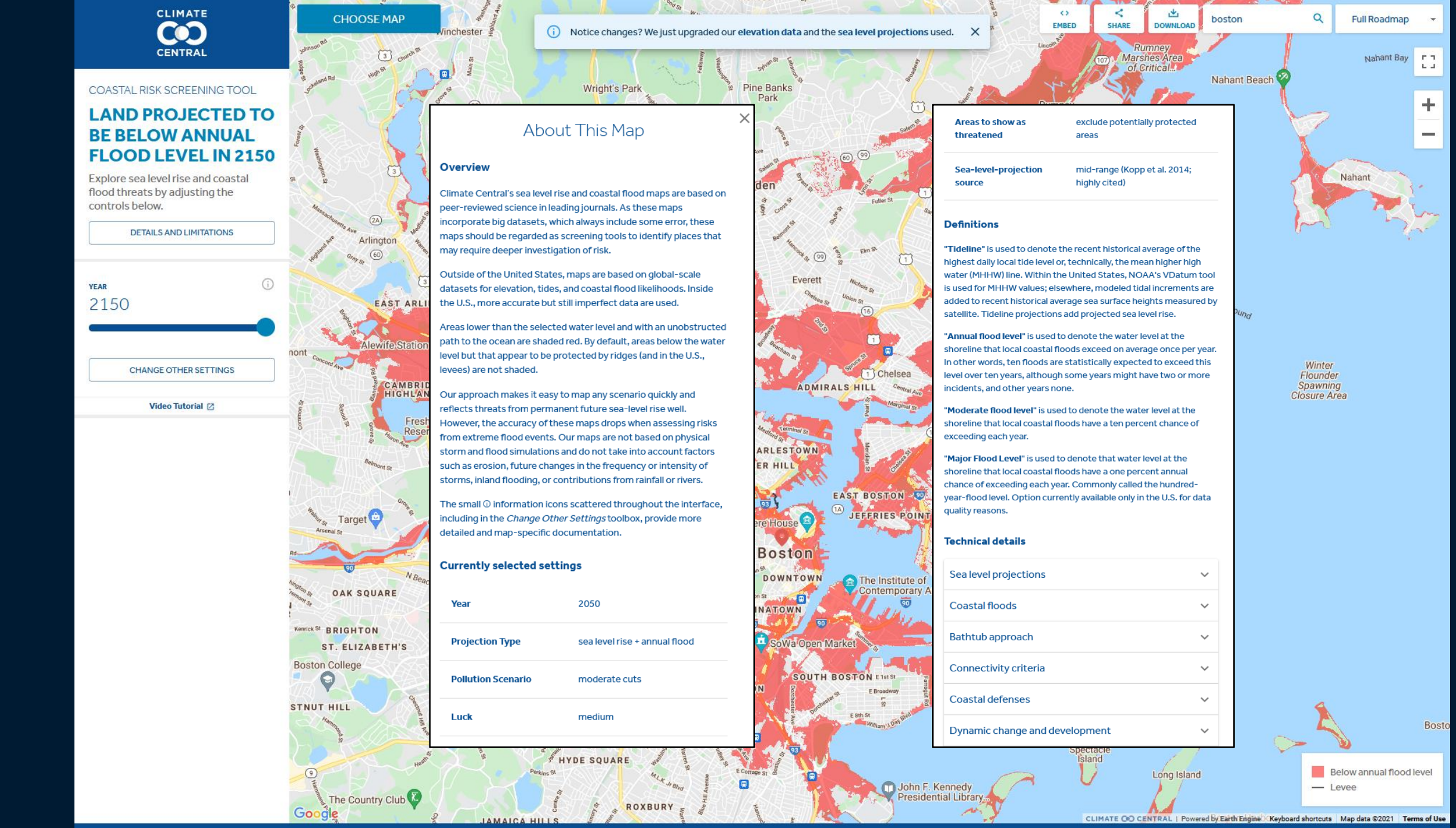
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About This Map
Overview
Climate Central's sea level rise and coastal flood maps are based on peer-reviewed science in leading journals. As these maps incorporate big datasets, which always include some error, these maps should be regarded as screening tools to identify places that may require deeper investigation of risk.
Outside of the United States, maps are based on global-scale datasets for elevation, tides, and coastal flood likelihoods. Inside the U.S., more accurate but still imperfect data are used.
Areas lower than the selected water level and with an unobstructed path to the ocean are shaded red. By default, areas below the water level but that appear to be protected by ridges (and in the U.S., levees) are not shaded.
Our approach makes it easy to map any scenario quickly and reflects threats from permanent future sea-level rise well. However, the accuracy of these maps drops when assessing risks from extreme flood events. Our maps are not based on physical storm and flood simulations and do not take into account factors such as erosion, future changes in the frequency or intensity of storms, inland flooding, or contributions from rainfall or rivers.
The small ⓘ information icons scattered throughout the interface, including in the Change Other Settings toolbox, provide more detailed and map-specific documentation.
Currently selected settings
Year 2050
Projection Type sea level rise + annual flood
Pollution Scenario moderate cuts
Luck medium
Areas to show as threatened exclude potentially protected areas
Sea-level-projection source mid-range (Kopp et al. 2014; highly cited)
Definitions
"Tideline" is used to denote the recent historical average of the highest daily local tide level or, technically, the mean higher high water (MHHW) line. Within the United States, NOAA's VDatum tool is used for MHHW values; elsewhere, modeled tidal increments are added to recent historical average sea surface heights measured by satellite. Tideline projections add projected sea level rise.
"Annual flood level" is used to denote the water level at the shoreline that local coastal floods exceed on average once per year. In other words, ten floods are statistically expected to exceed this level over ten years, although some years might have two or more incidents, and other years none.
"Moderate flood level" is used to denote the water level at the shoreline that local coastal floods have a ten percent chance of exceeding each year.
"Major Flood Level" is used to denote that water level at the shoreline that local coastal floods have a one percent annual chance of exceeding each year. Commonly called the hundred-year-flood level. Option currently available only in the U.S. for data quality reasons.
Technical details
Sea level projections
Coastal floods
Bathtub approach
Connectivity criteria
Coastal defenses
Dynamic change and development
Below annual flood level
Levee
Winchester
Wright's Park
Pine Banks Park
Rumney Marshes Area of Critical...
Nahant Beach
Nahant Bay
Nahant
Winter Flounder Spawning Closure Area
Arlington
Everett
Chelsea
ADMIRALS HILL
EAST BOSTON
JEFFRIES POINT
Boston
DOWNTOWN
The Institute of Contemporary A...
SoWa Open Market
SOUTH BOSTON
Target
OAK SQUARE
BRIGHTON
ST. ELIZABETH'S
Boston College
HYDE SQUARE
ROXBURY
The Country Club
John F. Kennedy Presidential Library...
Spectacle Island
Long Island
Google
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VIEW MAP VIEW STATS

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COASTAL RISK SCREENING TOOL

LAND BELOW 5.8 FEET OF WATER

A water level of 5.8 feet above the high tide line could be reached through combinations of sea level rise, tides, and storm surge.

DETAILS AND LIMITATIONS

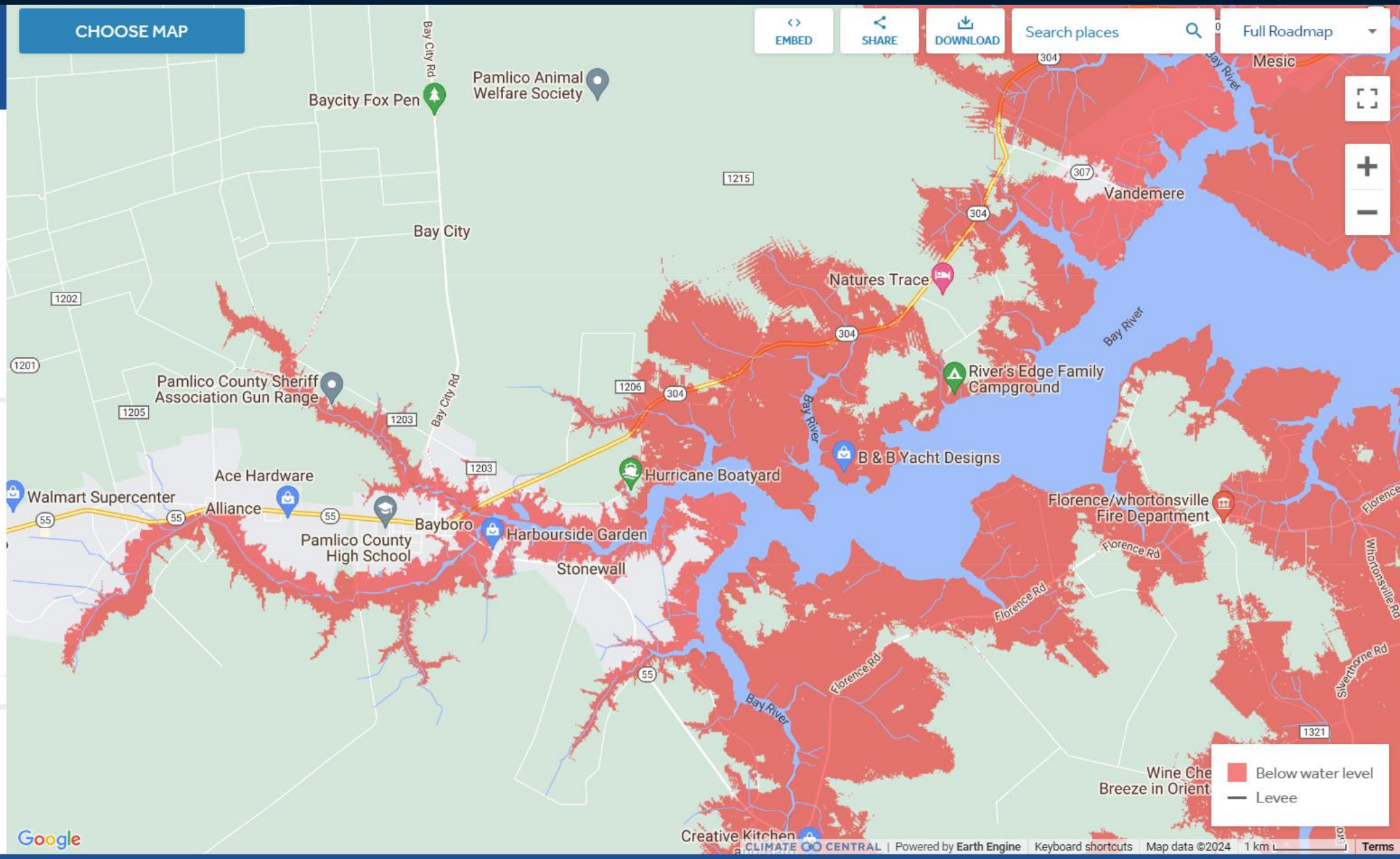
WATER LEVEL

5.8 ft

Feet Meters

CHANGE OTHER SETTINGS

Video Tutorial



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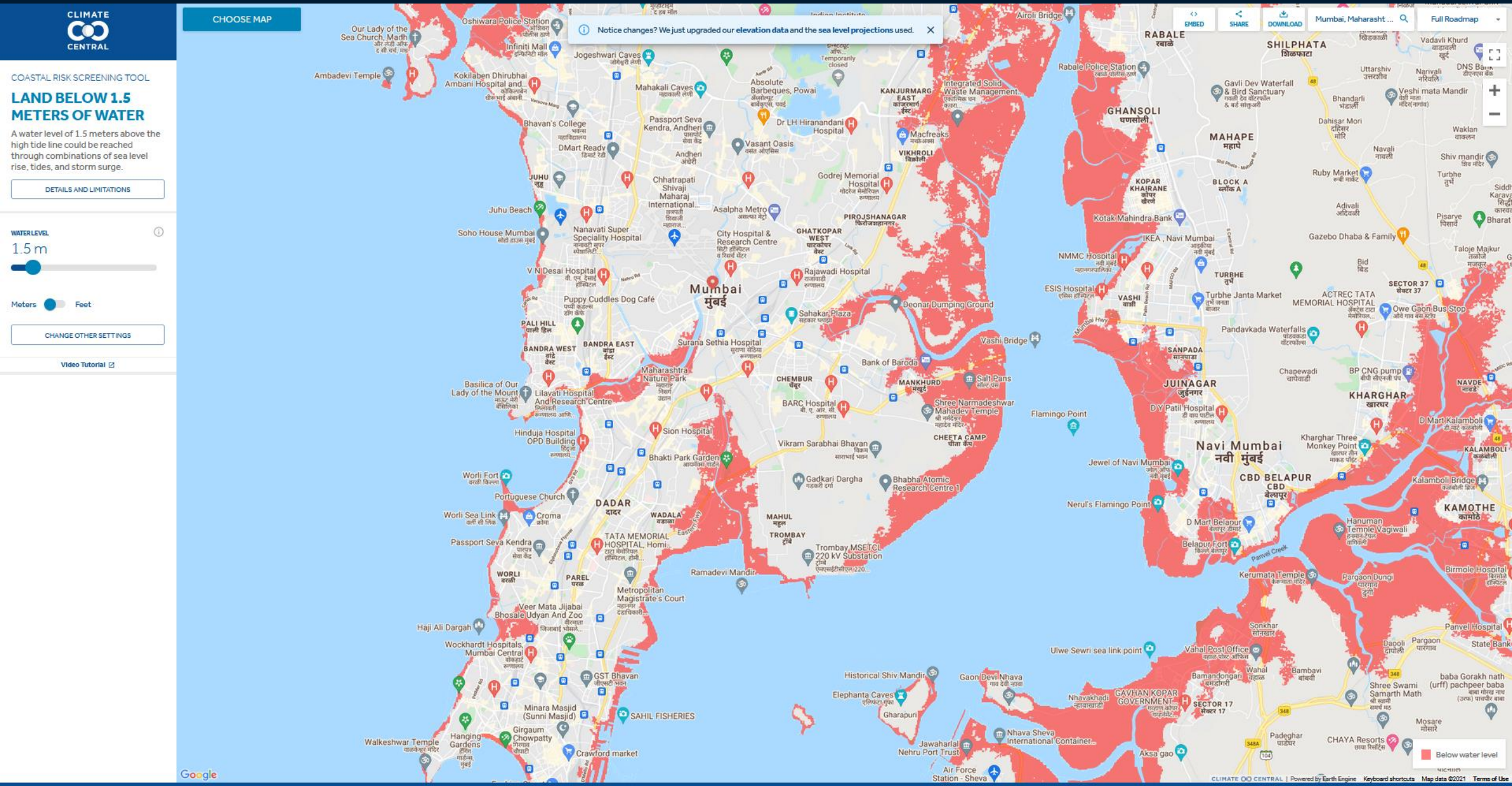
coastal.climatecentral.org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COASTAL RISK SCREENING TOOL
LAND BELOW 1.5 METERS OF WATER
A water level of 1.5 meters above the high tide line could be reached through combinations of sea level rise, tides, and storm surge.
DETAILS AND LIMITATIONS
WATER LEVEL
1.5 m
Meters
Feet
CHANGE OTHER SETTINGS
Video Tutorial
CHOOSE MAP
Notice changes? We just upgraded our elevation data and the sea level projections used.
EMBED
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DOWNLOAD
Mumbai, Maharasht ...
Full Roadmap
Mumbai
मुंबई
Navi Mumbai
नवी मुंबई
Below water level
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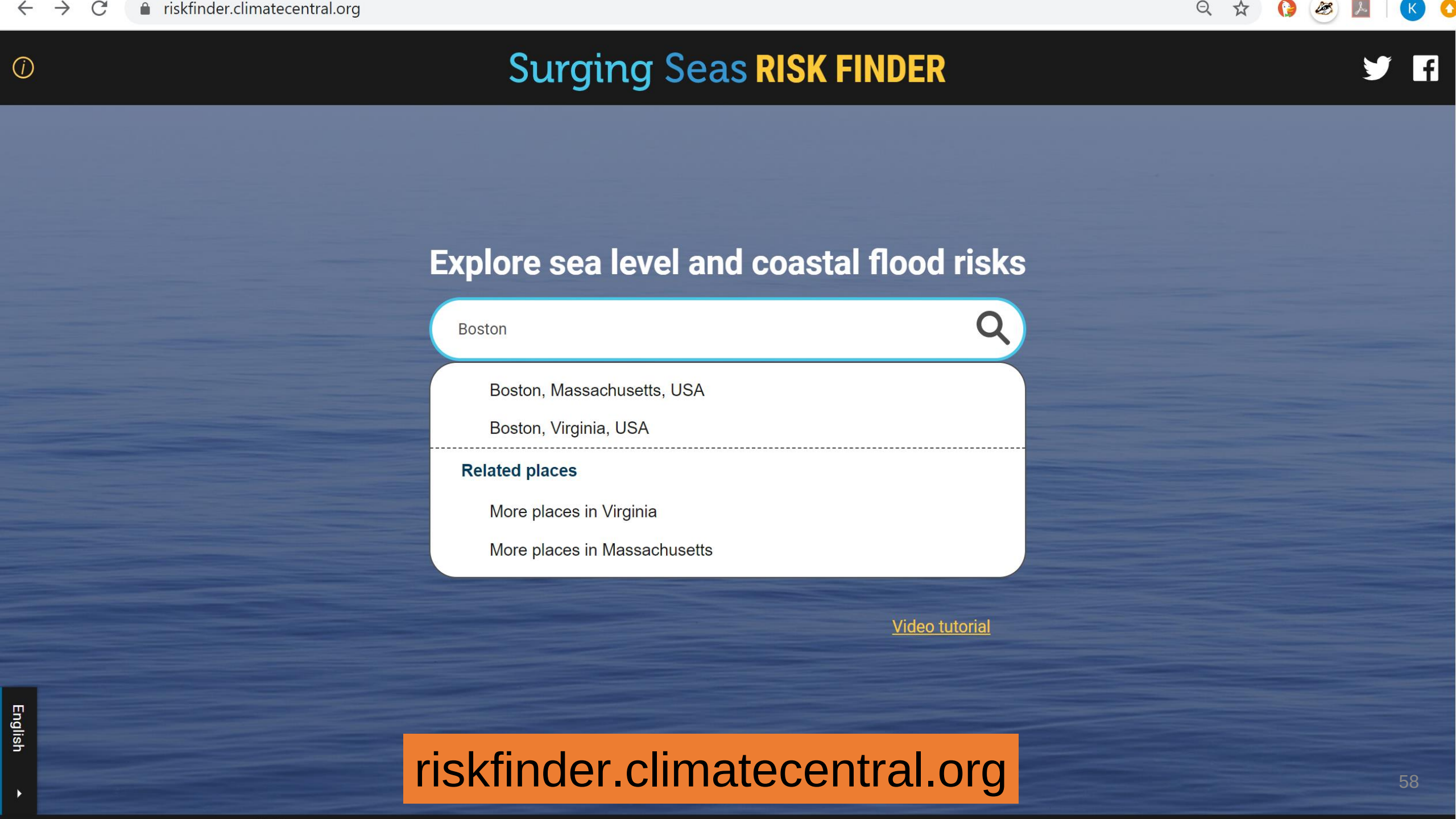
Key tools & programs

- Sea Level Rise
  - Coastal Risk Screening Tool
  - Risk Finder
  - FloodVision


riskfinder.climatecentral.org
Surging Seas RISK FINDER
Explore sea level and coastal flood risks
Boston
Boston, Massachusetts, USA
Boston, Virginia, USA
Related places
More places in Virginia
More places in Massachusetts
Video tutorial
English
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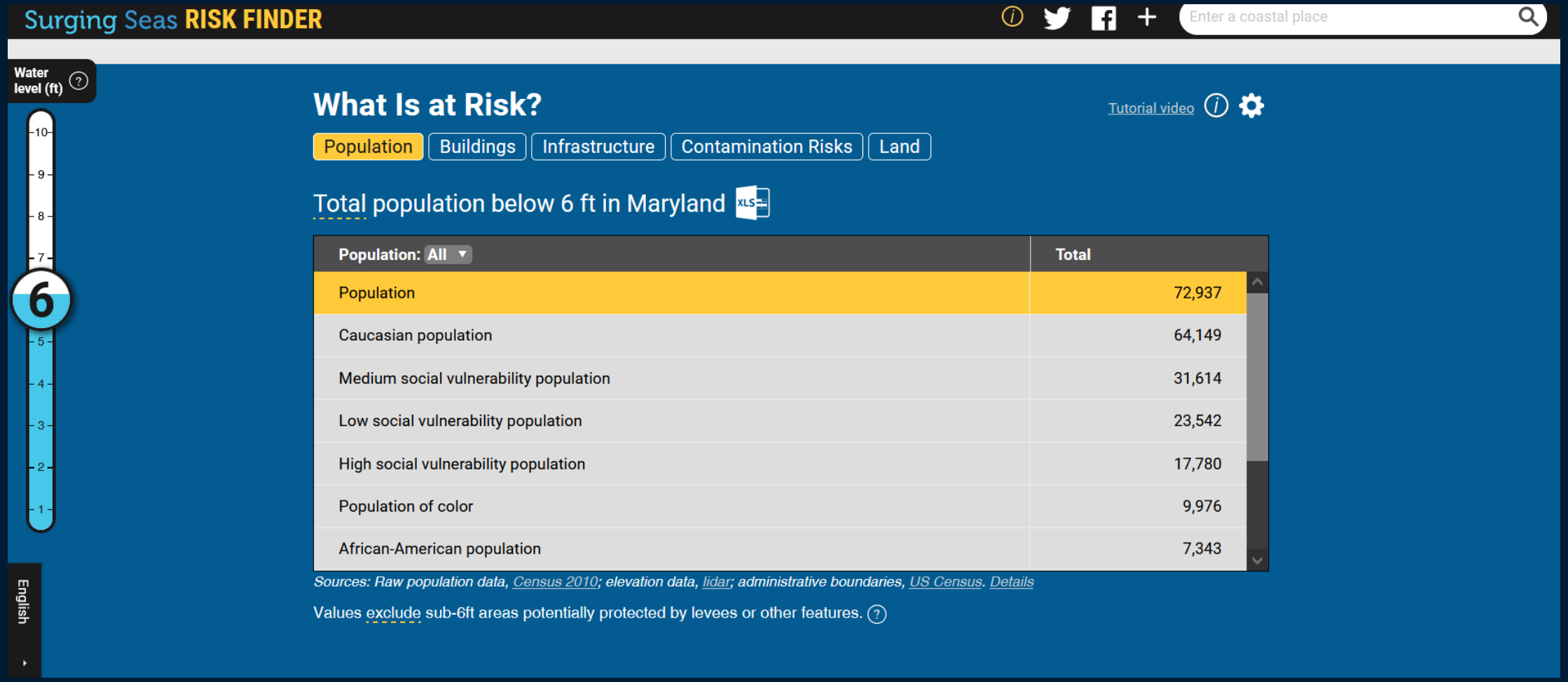

riskfinder.climatecentral.org

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Water level (ft) ?

10
9
8
7
6
5
4
3
2
1

What Is at Risk?

Tutorial video

Population | Buildings | Infrastructure | Contamination Risks | Land

Total buildings below 8 ft in Boston

Buildings: All	Total
Schools	29
Public safety facilities	24
Colleges and Universities	21
Public Schools	19
Medical facilities	17
Museums	12
Hospitals	12

Sources: Raw medical facilities data, NTIA 2013; elevation data, lidar; administrative boundaries, City of Boston. Details

Values exclude sub-8ft areas potentially protected by levees or other features. ?

English

Key tools & programs

- Sea Level Rise
  - Coastal Risk Screening Tool
  - Risk Finder
  - FloodVision

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MODELED
VISUALIZATION
5 ft. above ground level
Water Height: 8' 4" above MHHW
© 2023 Climate Central

MODELED VISUALIZATION

5 ft. above ground level
Water Height: 8' 2" above MHHW

MODELED VISUALIZATION

NOAA 2022 Intermediate-High Sea Level Rise Scenario for 2050 + 1% annual chance flood

Water Height: 7' 4" above MHHW


utmb Health
EMERGENCY
UTMB Health Clinics
HERE
utmb Health
UTMB HEALTH CLINICS
MODELED VISUALIZATION
NOAA 2022 intermediate-high sea level rise scenario for 2100 + 1% annual chance flood
Water height: 12' 7" above MHHW
© 2024 Climate Central

bit.ly/floodvision

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Key tools & programs

- Climate Matters
- WeatherPower
- Climate Shift Index
- Realtime Climate
- Sea Level Rise
- Partnership Journalism

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Climate Central + Local Outlets: co-bylined and co-published articles

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Gothamist A non-profit newsroom, powered by WNYC.

NEWS

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By Nathan Kensinger and John Upton, Climate Central

Published Jan 2, 2023
Modified Jan 5, 2023

41 comments

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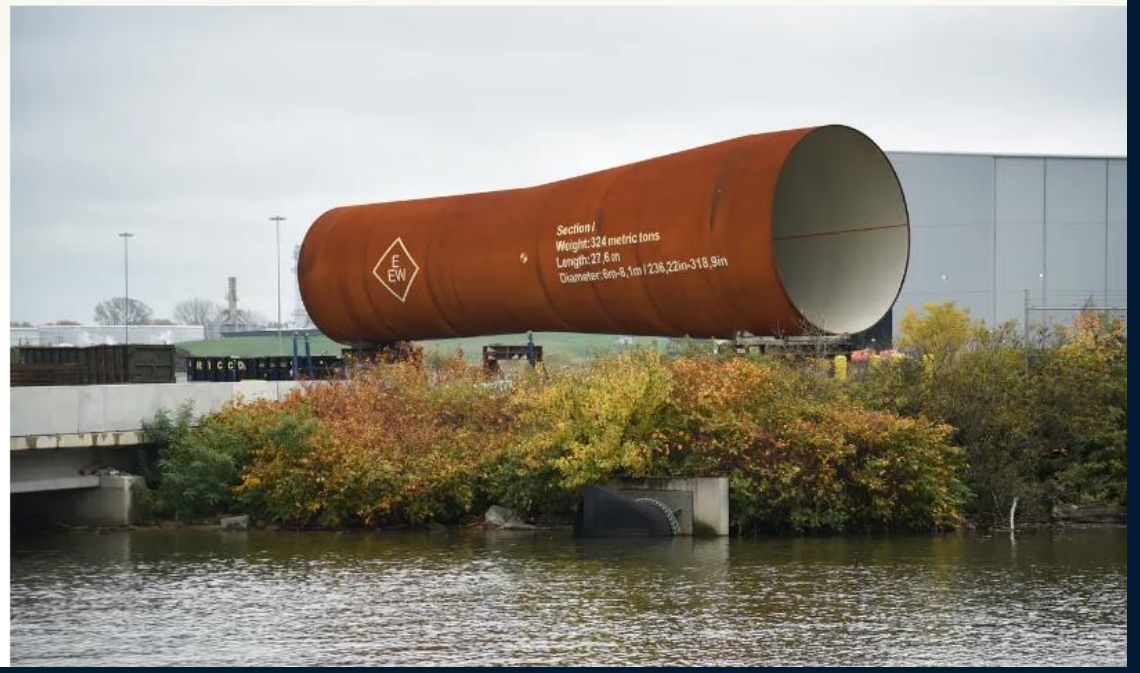

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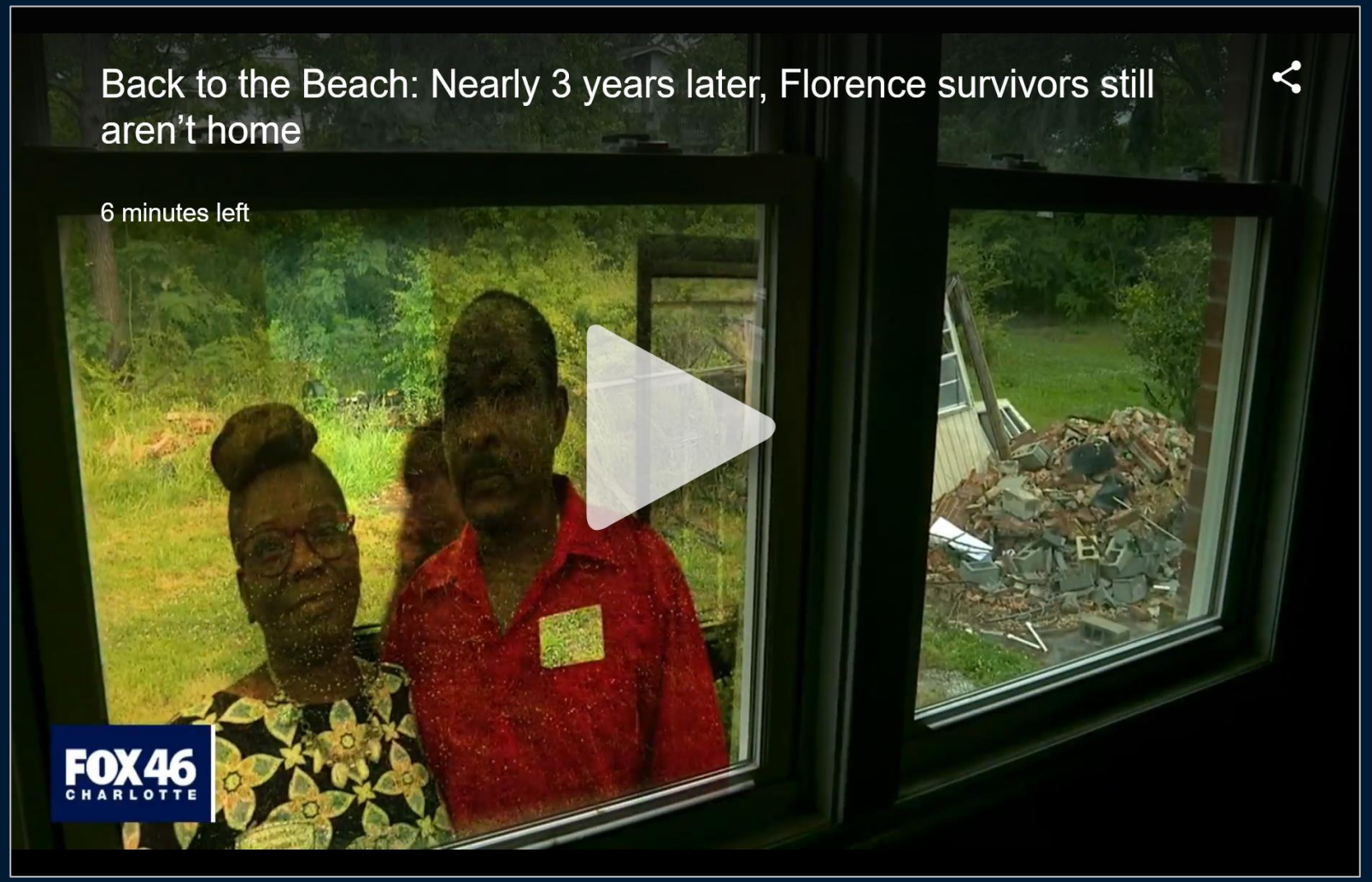
FOX 46 CHARLOTTE



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ISO examples & suggestions

- A request: share examples of using Climate Central materials, and of real-world impacts that result
- Suggestions for additional topics & tools extremely welcome

Karen Florini - *kflorini@climatecentral.org*

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Karen Florini
kflorini@climatecentral.org

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Q&A

CLIMATE X CHANGE
[SCPN]

Thank you for joining!

Reach out to kristen@climate-xchange.org with any additional questions!

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