



THE POLITICS OF CLIMATE CHANGE

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SENIOR SCHOLARS

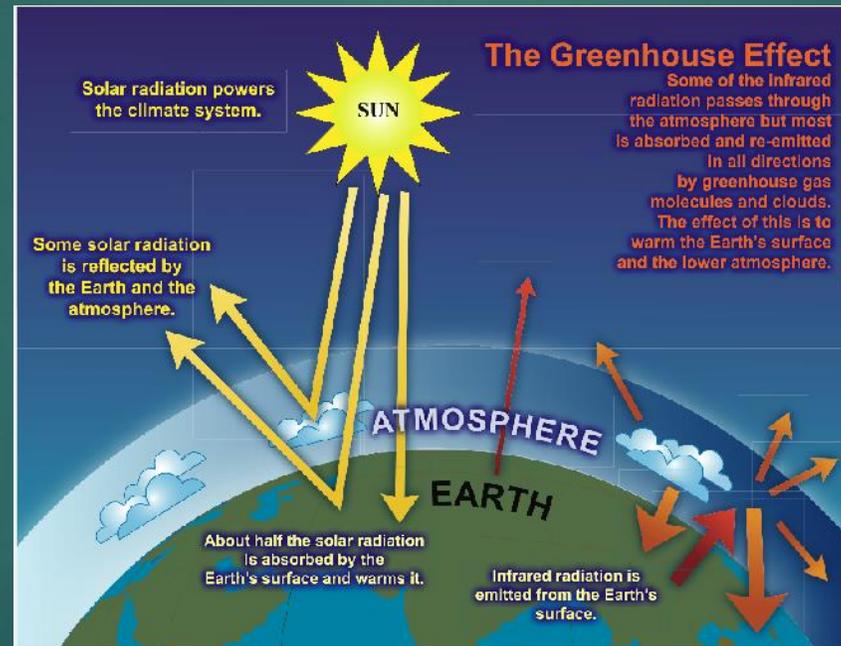
SEPTEMBER 30, 2022

Key Questions

- ▶ What is climate change?
- ▶ What are its possible effects?
- ▶ What are the key factors influencing the politics of climate change?
- ▶ What are the key policy choices regarding climate change?

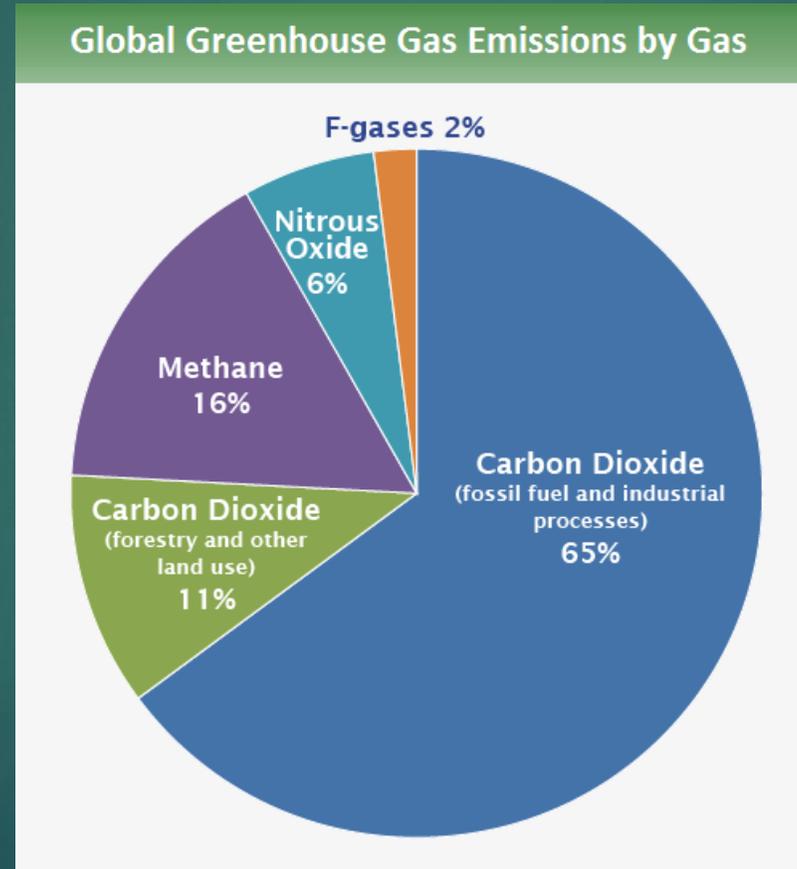
What is the Greenhouse Effect?

Source: National Institute of Water and Atmospheric Research, New Zealand



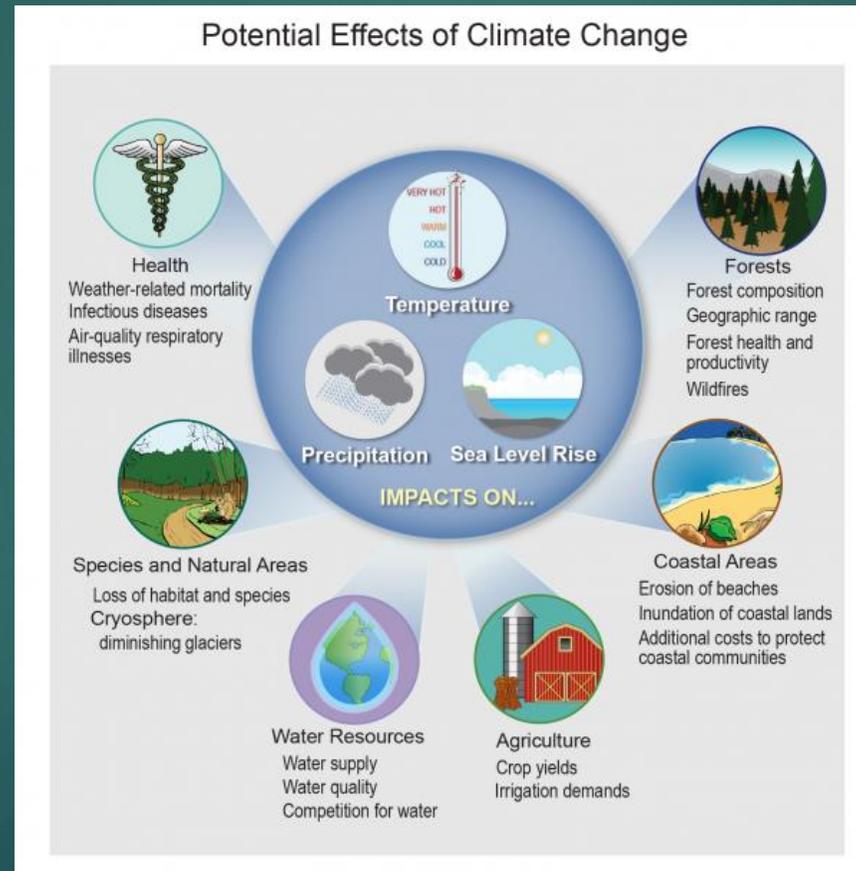
Greenhouse Gases

Source: US EPA



Effects of Climate Change

Source: GlobalChange.gov



Extreme Weather 2022

Sources: Damian Carrington, The Guardian; Anthony DiMaggio, Salon



- ▶ Carbon Brief database analyzed over 500 events that have been attributed to climate change
- ▶ 71% of the 500 extreme weather events and trends in the database were found to have been made more likely or more severe by human-caused climate change, including 93% of heatwaves, 68% of droughts and 56% of floods or heavy rain.
- ▶ One in three deaths caused by summer heat over the last three decades was the direct result of human-caused global heating; this suggests a death toll of millions.
- ▶ All of this is with a 1 degree C rise in global temperature; currently, the Earth is on track for a 2.5 degree rise
- ▶ Picture: View of the forest fire in the Czech National Park Bohemian Switzerland in Hrensko near the border with Saxony, on 26 July 2022 (Robert Michael/picture alliance via Getty Images)

Extreme Weather 2022 (continued)

Sources: Damian Carrington, The Guardian; Gloria Dickie, Reuters



- ▶ From the Guardian article: “Already in 2022, the climate crisis has rampaged around the planet, bringing the reality of global heating into the homes of billions and to the top of news bulletins. Record-breaking heat has hit North America, Europe, China, India and Pakistan, sparking wildfires in many places. Terrible floods have swept Australia, Bangladesh and South Africa.”
- ▶ Dr Fredi Otto, of Imperial College London: We are in the era of [climate] damage and we have been for decades. *This is what we see strongly in the science, but it's not reflected in the policies*” (italics mine)
- ▶ Picture is from flooding in Bangladesh

Melting Sea Ice



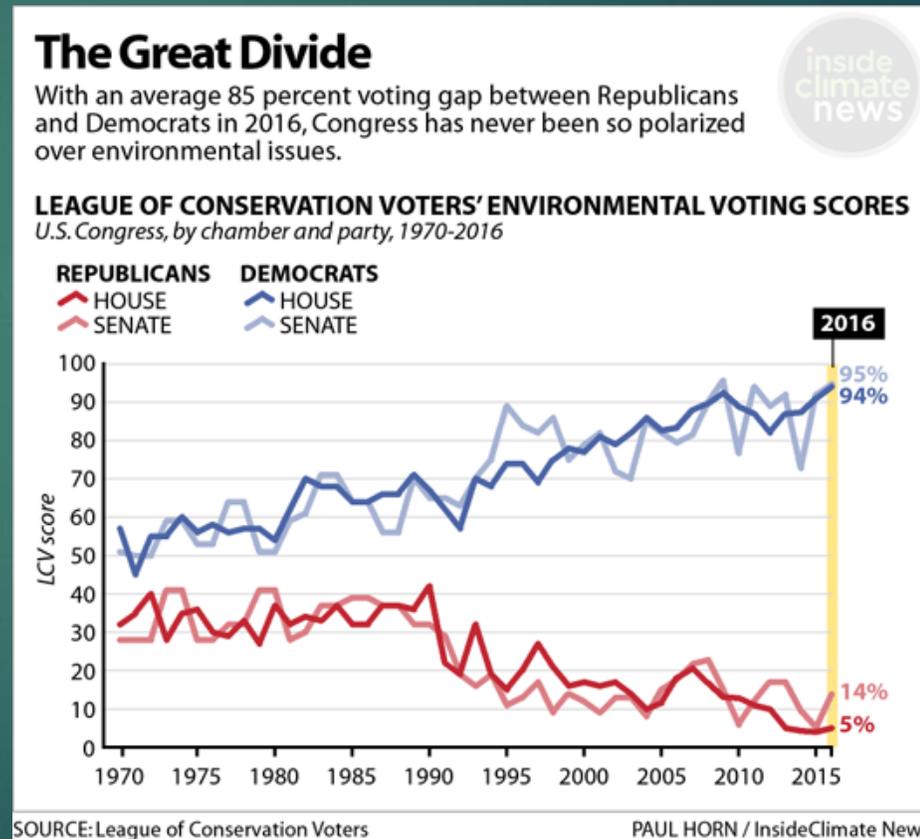
- ▶ From the National Oceanic and Atmospheric Administration:
- ▶ The Arctic is heating up twice as fast as the rest of the world
- ▶ This known as Arctic Amplification and occurs when the sea ice, which is white, thins or disappears, allowing dark ocean or land surfaces to absorb more heat from the sun and release that energy back into the atmosphere.
- ▶ Source: ABC News

The Politics of Climate Change: United States

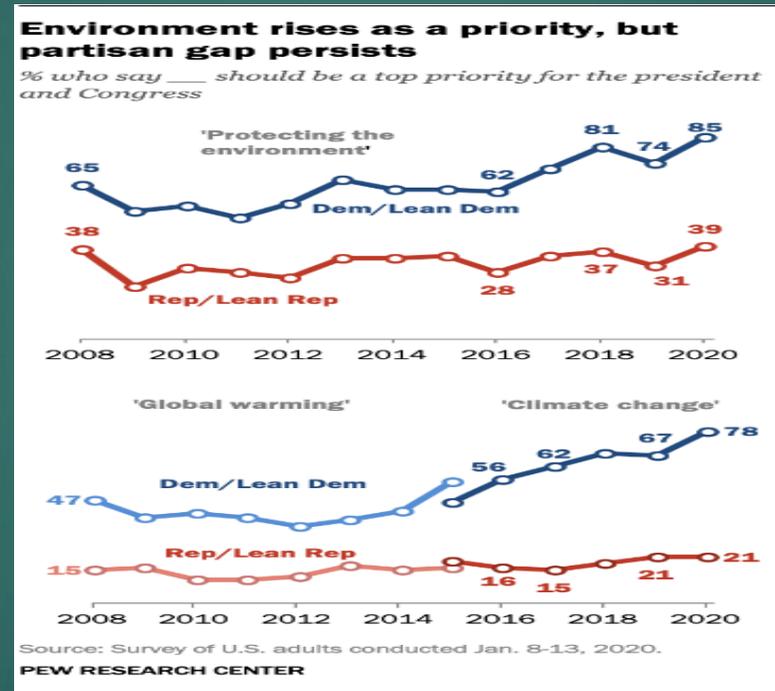
Up until the 1970s, there was a bipartisan consensus on environmental issues in the United States

That consensus has vanished since then

This polarization has a significant effect on how issues like climate change are addressed in the US



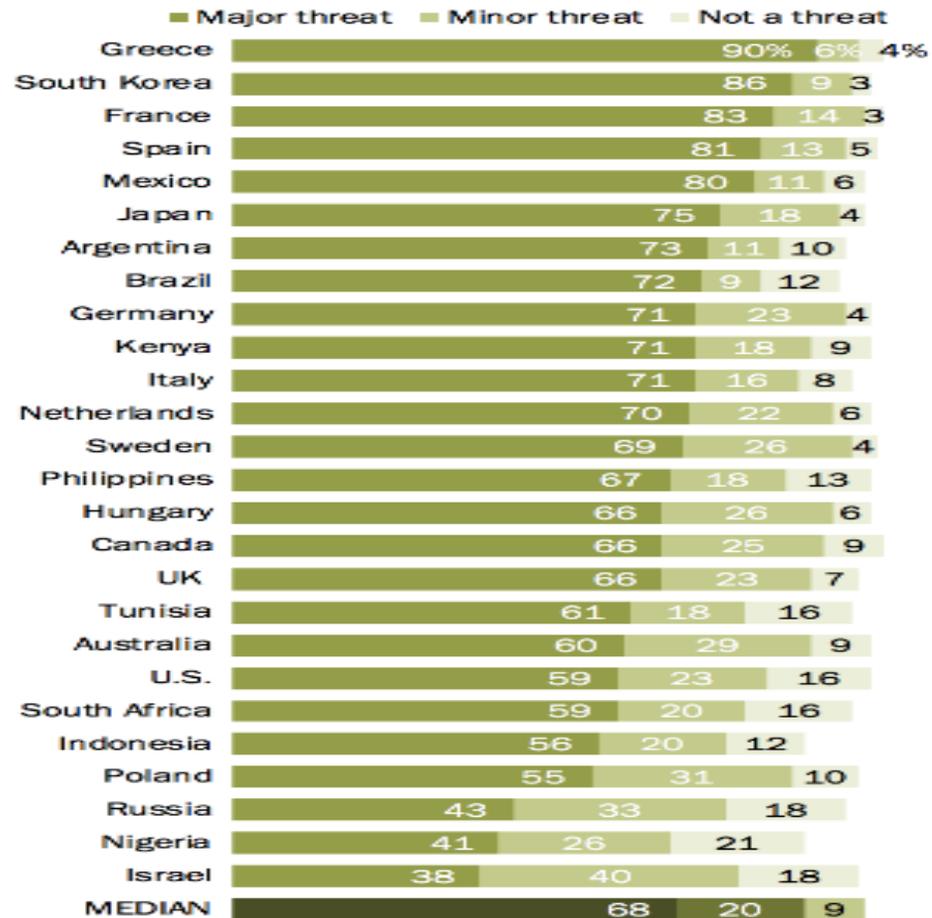
Public Opinion on Climate Change



Public Opinion on Climate Change (cont.)

In most surveyed countries, majorities see climate change as a major threat

Global climate change is a ___ to our country



Source: Spring 2018 Global Attitudes Survey. Q22d.

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Biden versus Trump on Climate Change, 2020 Election

Source: National Public Radio

Biden

- ▶ Rejoin Paris Climate Accords
- ▶ Combat climate change by pushing the United States on a path toward net-zero carbon emissions by 2050, with an intermediate goal of ridding the power sector of carbon pollution by 2035.
- ▶ Invest \$2 trillion over four years in green areas, including infrastructure, transportation and auto industries, housing and construction practices, nature conservation efforts and work in environmental justice.
- ▶ Create 1 million new jobs in the auto industry, boosting electric vehicles
- ▶ Build 1.5 million "sustainable homes"

Trump

- ▶ Pulled the US out of the Paris Climate Accords
- ▶ Bolster the country's oil and gas industries, and the supply and production of those energy products.
- ▶ Denied the scientific consensus on climate change,
- ▶ Administration has worked to scrub mentions of climate change from government websites
- ▶ Reversed many of the climate policies put in place during the Obama administration.
- ▶ Attempted to push policies that back the coal industry, though that sector has continued to its longer-term decline.

Biden as President on Climate: Positives

Source: New York Times

- ▶ Rejoined Paris Agreement
- ▶ Cancelled Keystone XL Pipeline
- ▶ Paused new leases for oil and gas drilling on public lands and in federal waters
- ▶ Called for increasing renewable energy production, with the goal of doubling offshore wind power by 2030.
- ▶ Installed longtime climate advocates in key positions and made tackling the climate crisis a priority across the federal government
- ▶ 1 trillion dollar bipartisan infrastructure bill that included billions for clean energy research and making communities more resilient to disasters.
- ▶ Returned US to global leadership on the issue.

Biden as President on Climate: Negatives

Source: New York Times

- ▶ As gasoline prices surged in the summer and fall, the White House sought to increase oil production, even as Mr. Biden implored world leaders to stop burning fossil fuels.
- ▶ The administration auctioned off nearly 80 million acres in the Gulf of Mexico, a record for that location, for offshore drilling (although a federal judge recently blocked these sales, saying the government had failed to take climate change into consideration)
- ▶ Build Back Better: agreed to strip out the most muscular part of the bill, a clean electricity program that would have rewarded electric utilities that stopped burning fossil fuels in favor of wind, solar and other clean energy, and penalized those that did not.
- ▶ To gain support of Senator Manchin, scuttled a provision that would have prohibited most offshore oil drilling.

Inflation Reduction Act

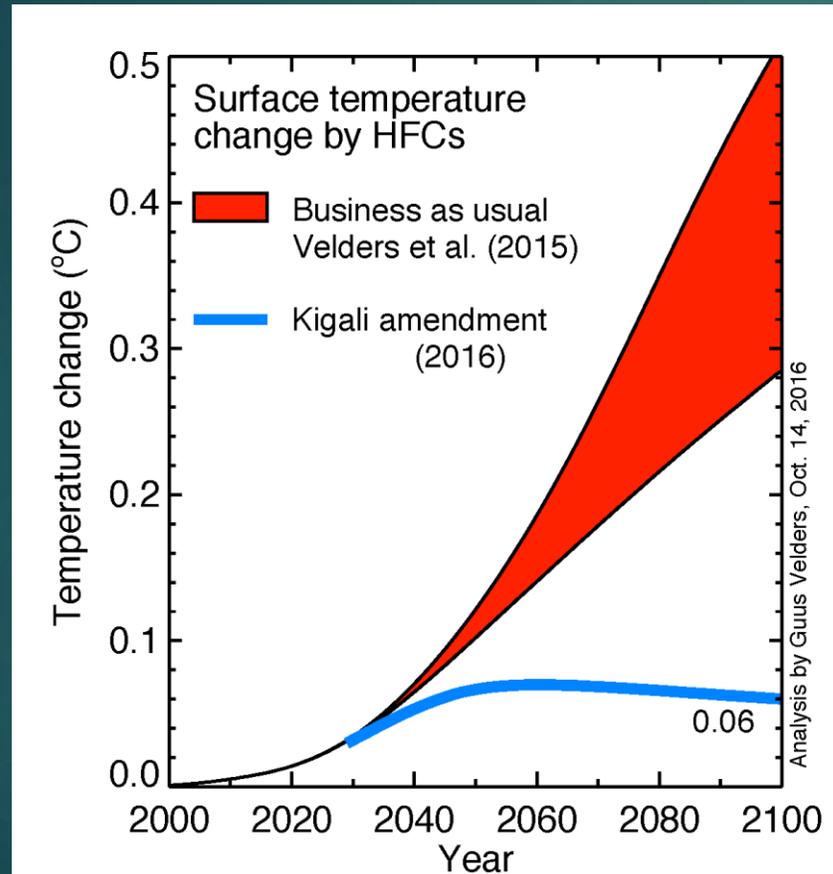
Source: CNBC



- ▶ \$369 billion for cutting emissions, clean energy and environmental justice
- ▶ “the most aggressive climate investment ever taken by Congress”
- ▶ OMB estimates that will cut the costs of climate change by \$1.9 trillion by 2050
- ▶ Reduce US climate emissions by 40% by 2030

Kigali Amendment

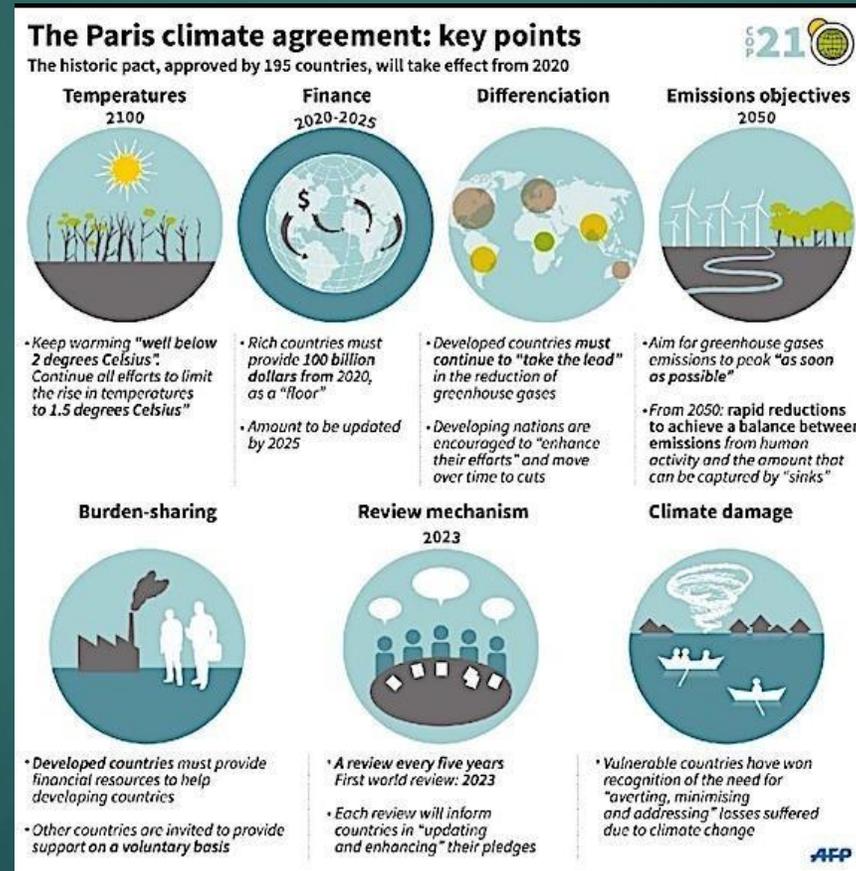
Sources: New York Times
NRDC



- ▶ Last week, the US Senate voted to approve the Kigali Amendment
- ▶ This agreement reached in 2016, “would sharply reduce the production and use of hydrofluorocarbons, or HFCs. The chemicals are potent greenhouse gases, warming the planet with 1,000 times the heat-trapping strength of carbon dioxide.”
- ▶ These chemicals are widely used in air conditioning and refrigeration
- ▶ The US joins 137 other nations in agreeing to this treaty

Global Politics: Paris Agreement

Source: World Economic Forum



Assessing the Paris Climate Accords

Source: Science Magazine

Success

- ▶ US, EU, Canada, Japan, South Africa, among others have strengthened their initial pledges by promising to cut their net climate emissions to zero by 2050.
- ▶ Before the 2015 Paris summit, global emissions were on course to push temperatures up by 3.5°C by 2100, according to estimates by the Climate Action Tracker, a nonprofit science consortium. Now, that trajectory has flattened to 2.9°C.
- ▶ This is due to technological, economic and political changes: lower costs of renewable energy, lower economic growth, impact of regulation of emissions in certain countries

Challenges

- ▶ Emission cuts in the US are not on track: 18% by 2025; goal was 26 to 28%
- ▶ Key countries, like Russia and Brazil, are not keeping their commitments. Deforestation has soared in Brazil under Bolsonaro
- ▶ Global emissions of warming gases continued climbing to a record high in 2019
- ▶ If a grade is awarded to the Paris pact "based on whether we have any prospect of meeting a 2°C target, from that point of view, it's probably a D or an F," says Michael Oppenheimer, a climate scientist and policy expert at Princeton University.

COP 26: Glasgow, Scotland, 31 October to 13 November 2021.

4 Key Achievements: UN Climate Change Executive Secretary, Patricia Espinosa

Source: United Nations Framework Convention on Climate Change

- ▶ Creation of a work programme to define the global goal on adaptation to the impacts of climate change to address the climate impacts already happening in all regions of the world.
- ▶ On finance, governments at COP26 agreed on the need for much greater support to developing countries.
- ▶ Collective agreement by governments to explore ways of increasing actions to close the current emissions gap, which she called a “significant area of focus as we move forward.”
- ▶ The finalization of guidelines for the full implementation of the Paris Agreement, including the compromise reached on Article Six relating to carbon markets, which will ensure a level playing field for everyone; and the finalization of negotiations on the Enhanced Transparency Framework, which allows countries to continue building trust.
- ▶ “The UN Climate Chief pointed out that despite the accomplishments in Glasgow, the world is still far off track to stabilizing global temperature rise at 1.5 degrees and urged further and immediate international collaboration to get the world back on track to achieving this goal.”
- ▶ The next COP will be held in Egypt from November 6 to 18, 2022

What Can Be Done?

From Paul Hawken, *Drawdown: The Most Comprehensive Plan Ever Proposed To Reverse Global Warming*

	TOP TEN SOLUTIONS	Gigatons of Carbon Reduced	Net Savings Minus Costs
	Estimate based on implementation of each solution over a 30-year period using a reasonable yet optimistic forecast for their global rate of growth (p. 220)		
1	Refrigeration	89.74	Too variable to calculate
2	Onshore Wind Turbines	84.60	\$7.4 trillion
3	Reduced Food Waste	70.53	Too variable to calculate
4	Plant-Rich Diet	66.11	Too variable to calculate
5	Tropical Forests	61.23	Too variable to calculate
6	Educating Girls	59.60	Too variable to calculate
7	Family Planning	59.60	Too variable to calculate
8	Solar Farms	36.90	\$5.02 trillion
9	Silvopasture	31.19	\$699.4 billion
10	Rooftop Solar	24.60	\$3.46 trillion
	TOTAL	584.10 (36.2% of the way towards a carbon-free future)	\$16.58 trillion

Implementation of Solutions

- ▶ Question: Working for sustainability takes many forms, from personal lifestyle choices to activism to policies and laws. How likely do you think it is that sustainability can be achieved solely by individuals without the addition of systemic changes? (Source: Margaret Robertson, *Sustainability: Principles and Practice*, 3rd Edition)
- ▶ Answer: *Systemic Changes Are Needed*
- ▶ **1. Economic:** Move our economies in the direction of low-carbon practices
- ▶ **2. Social/Cultural:** Change our lifestyles to accommodate ways of living that incorporate genuine concern for the health of our environment
- ▶ **3. Political:** Develop the political will to make the changes that are necessary

Reason for Hope?

- ▶ We have done it before:
- ▶ 1. Clean Air Act: Since the first strong version of this legislation passed in the US in 1970, the six main pollutants covered by act have dropped 78% (EPA)
- ▶ 2. Endangered Species Act: Since the first strong version of this legislation passed in the US in 1973, 99% of listed species have avoided extinction and 93% of listed species have stable or improving populations (Center for Biological Diversity)
- ▶ 3. Montreal Protocol: Adopted in 1987, this international treaty to address ozone depletion has resulted in a 98% reduction in ozone-depleting substances globally compared to 1990 levels (UNEP)
- ▶ 4. Great American Outdoors Act: Signed in 2020 after bipartisan approval in Congress, this law establishes a National Park and Public Lands Legacy Restoration Fund that will provide up to \$9 billion over the next five years to fix deferred maintenance at national parks, wildlife refuges, forests, and other federal lands and guarantees \$900 million per year in perpetuity for the Land and Water Conservation Fund (LWCF) (Harvard)
- ▶ Inflation Reduction Act, 2022

FINAL THOUGHTS

1. Climate change is here and it is affecting our world
2. Climate change has a number of serious effects, ranging from extreme weather to melting icebergs to sea level rise to increased drought
3. The politics of climate change are difficult, exacerbated by political polarization in the US and political disputes among the countries of the world
4. We know what to do to address climate change; the question is whether we will make the economic, social/cultural and political changes necessary to do it

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