

Global Stocktake Outcomes: Mitigation

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CGS is an action-oriented research center supporting improved global climate outcomes through policy engagement at multiple levels



Founded to support to the cycle of ambition and implementation under the Paris Agreement

The **University of Maryland** is the major R1 research university in the Washington DC area, 8 miles (12 km) from U.S. Capitol; 40,000 students and annual research budget of \$1.2 billion

The Center for Global Sustainability: Over 60 people; linking research on climate and energy transitions with policy strategies at international, national, & subnational levels

- Climate pathways and national strategies: large-scale modeling, econometrics, mixed methods
- Major collaborative country programs, including U.S., China, Indonesia, India, Brazil; Subnational program across U.S. and State of MD; other programs on fossil phaseout, methane, finance

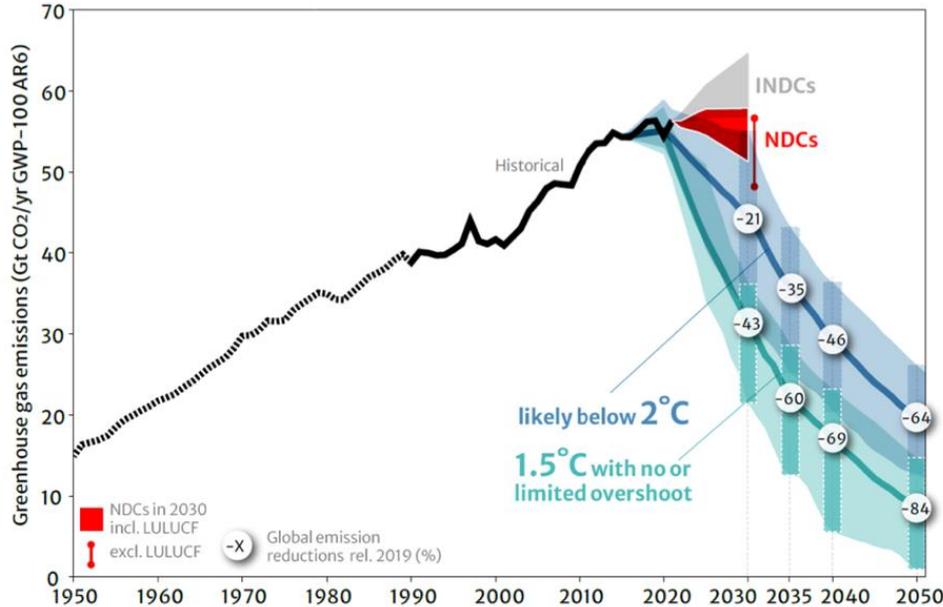


Washington DC Region

University of Maryland

State of Maryland

Global Stocktake: The Central Question



Key Question of the Global Stocktake:
 Are we on track to reach our agreed climate goals?

Emissions reduction pathways are tied to an agreed, science-informed temperature goal of limiting warming to well under 2°C and pursuing 1.5°C

Answer: No, not yet — but we are making progress and the goals remain within reach

Close the “emissions gap”
 Close the “implementation gap”

	Reductions from 2019 emission levels (%)				
		2030	2035	2040	2050
Limit warming to 1.5°C (>50%) with no or limited overshoot	GHG	43 [34-60]	60 [49-77]	69 [58-90]	84 [73-98]
	CO ₂	48 [36-69]	65 [50-96]	80 [61-109]	99 [79-119]
Limit warming to 2°C (>67%)	GHG	21 [1-42]	35 [22-55]	46 [34-63]	64 [53-77]
	CO ₂	22 [1-44]	37 [21-59]	51 [36-70]	73 [55-90]

Source: Technical dialogue of the first global stocktake: Synthesis report by the co-facilitators on the technical dialogue. FCCC/SB/2023/9.

Global Stocktake Key Findings: Overall + Mitigation

Overall Key Findings

- Paris Agreement has driven near-universal climate action by setting goals and sending signals on urgency. But much more is needed now on all fronts.
- Governments need to integrate climate resilience and low-GHG development; non-Party stakeholders are a key part
- Systems transformations open up many opportunities, but rapid change can be disruptive. Inclusion and equity can increase ambition and support.

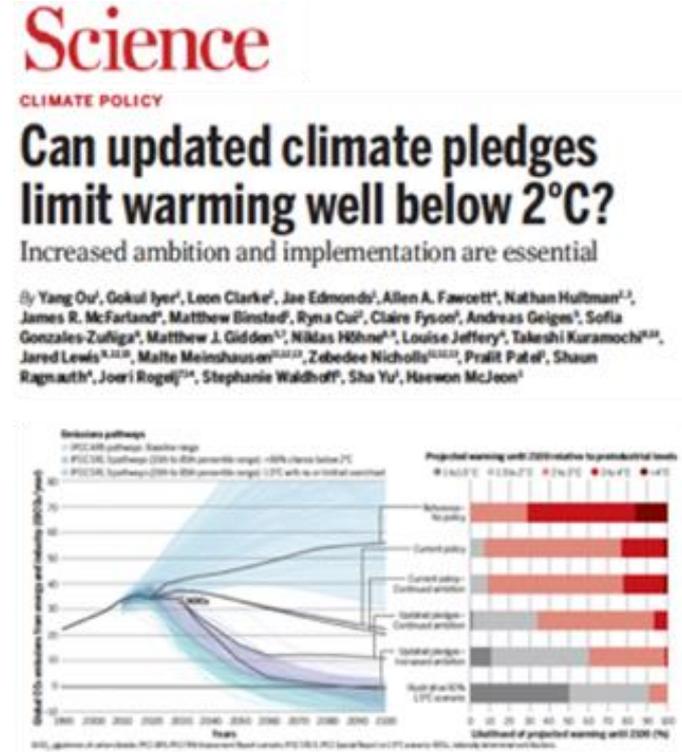
Mitigation Key Findings

- Global emissions not in line with 1.5C; rapidly narrowing window to raise ambition and implement existing commitments
- New NDCs needed for global GHG emissions reduction of 43% by 2030, 60% by 2035; net zero CO₂ by 2050.
- Net zero CO₂ and GHG emissions requires systems transformations across all sectors and contexts, including scaling up renewable energy; phasing out unabated fossil fuels, ending deforestation, reducing non-CO₂ emissions and implementing both supply- and demand-side measures.
- Just transitions can support more robust and equitable mitigation outcomes
- Economic diversification is a key strategy to address the impacts of response measures,

Implications for All Countries

In response to the Global Stocktake, all countries will be called upon to enhance their ambition and improve implementation

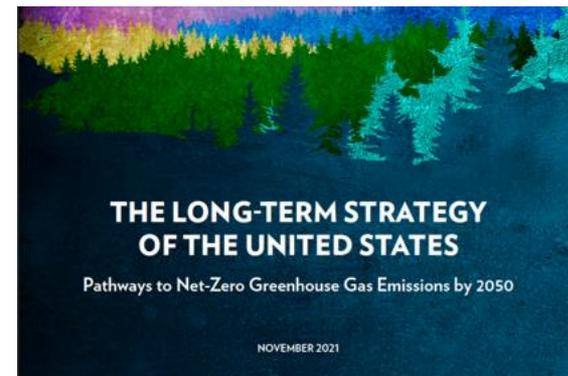
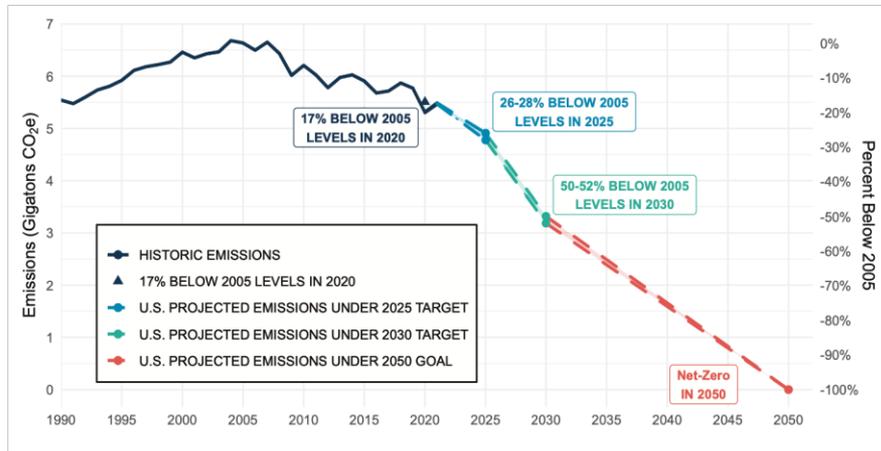
- Near-term actions needed to close the “implementation gap”
- Planning for enhanced ambition for the next round of NDC communication under the Paris Agreement, which will be happening in 2024-2025
- Discussion of ambition at COP28 linked to other topics such as resilience and adaptation, finance, equity, and loss and damage



Implications for the United States

Doing our part for global success delivers real and immediate benefits at home, and can support U.S. position internationally so that others will step up to do more

- The United States has set an ambitious and achievable 2030 emissions goal of 50-52% reductions by 2030
- The IRA+BIL, plus other substantial subnational actions, place the U.S. to achieve reductions in the low-40% range, but substantially more will be needed and can be delivered in the 2020's
- Combination of federal reg actions plus subnational actions; Congress?
- Recent U.S.-China Sunnylands Statement is evidence of this type of leadership working
- Planning soon for a new, 2035 target under the Paris Agreement to be determined by 2025
- Linked issues to pay attention to include finance in particular



Thank You

