Climate News Roundup

John Posey

Air Quality Advisory Committee

January 25, 2022

Intergovernmental Panel on Climate Change (IPCC)

- United Nations body for assessing science related to climate change
- Established 1988 by UN Environmental Program (UNEP) and World Meteorological Organization (WMO)
- Assessment Reports
  - 5 completed between 1990 and 2018
  - AR6 in production
- Working Groups:
  - WGI: Physical Science (August, 2021)
  - WGII: Impacts and Adaptation (Feb. 2022)
  - WGIII: Mitigation (March 2022)

Al Gore and Rajendra Pachauri of IPCC receive the 2007 Nobel Peace Prize

BY THE NUMBERS

3949 Pages

14,000 scientific publications assessed

Author Team

234 authors from **65** countries

28% women, **72%** men

63% first-time IPCC authors

Review Process

78,000+ review comments

46 countries commented on Final Government Distribution

Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

Changes in global surface temperature relative to 1850-1900

(a) Last time CO_2 levels were as high as present was at least 2 Million years ago.

Observed warming is driven by emissions from human activities, with greenhouse gas warming partly masked by aerosol cooling

Carbon Budget: How much more can we emit, and still stay under a warming goal?

Global warming between 1850–1900 and 2010–2019 *(°C)*	Historical cumulative CO_2 emissions from 1850 to 2019 *($GtCO_2$)*
1.07 (0.8–1.3; *likely* range)	2390 (± 240; *likely* range)

Approximate global warming relative to 1850–1900 until temperature limit *(°C)**(1)	Additional global warming relative to 2010–2019 until temperature limit *(°C)*	Estimated remaining carbon budgets from the beginning of 2020 *($GtCO_2$)* — *Likelihood of limiting global warming to temperature limit*(2)*					Variations in reductions in non-CO_2 emissions*(3)
		17%	*33%*	*50%*	*67%*	*83%*	
1.5	0.43	900	650	500	400	300	Higher or lower reductions in accompanying non-CO_2 emissions can increase or decrease the values on the left by 220 $GtCO_2$ or more
1.7	0.63	1450	1050	850	700	550	
2.0	0.93	2300	1700	1350	1150	900	

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https://interactive-atlas.ipcc.ch/

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Central North America:

Significant intensification of heavy precipitation
(Dunn et al., 2020; Easterling et al., 2017; Wu, 2015; Emanuel, 2017; Risser and Wehner, 2017; Trenberth et al., 2018; van Oldenborgh et al., 2017; Wang et al., 2018)

Evidence of a human contribution to the observed intensification of heavy precipitation
(Easterling et al., 2017; Kirchmeier-Young and Zhang, 2020; Emanuel, 2017; Risser and Wehner, 2017; Trenberth et al., 2018; van Oldenborgh et al., 2017; Wang et al., 2018)

(Chapter 11)

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Glasgow COP26

- US returns to COP. Commitments:
  - Reduce GHG emissions 50% below 2005 levels by 2030
  - Carbon-free electricity by 2035
- “Phase down” coal
- Global methane reduction coalition
- US-China: Cooperation on 1.5° goal.

UN CLIMATE CHANGE CONFERENCE UK 2021

IN PARTNERSHIP WITH ITALY

globalchange.gov/nca5

Understand
Climate Change

Assess
National Climate Assessment

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Reports & Resources

Engage
Connect & Participate

- NCA5 Chapter Leadership
- NCA5 Regions
- NCA5 Engagement
- NCA5 Engagement Workshops
- NCA5 FAQs
- NCA5 Timeline

February 1 | 2 PM –6 PM ET
Transportation (PDF)
Register

February 4 | 10 AM–2:30 PM PT
Southwest (PDF)
Register

February 7 | 11 AM–3:30 PM ET
Adaptation (PDF)
Register

February 7 | 1 PM–5 PM ET
Mitigation (PDF)

Click on Engagement Workshops

February 1 | 2 PM –6 PM ET
Transportation

February 7 | 11 AM–3:30 PM ET
Adaptation

February 7 | 1 PM–5 PM ET
Mitigation

February 9 | 12 PM–4 PM ET
Water

February 11 | 11:30 AM–3 PM ET
Human Health

IPCC_AR6_WGI_Pr....pdf

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1/13/2022