Climate Emergency & Climate Action

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Institute for Advanced Study, Amsterdam
Climate Emergency
Every tonne of CO₂ emissions adds to global warming

Global surface temperature increase since 1850-1900 (°C) as a function of cumulative CO₂ emissions (GtCO₂)

The near linear relationship between the cumulative CO₂ emissions and global warming for five illustrative scenarios until year 2050

Historical global warming

Cumulative CO₂ emissions since 1850

GtCO₂
Limiting warming to 1.5C is increasingly difficult without large-scale negative emissions.

Matthews et al. (2021); Dickau et al. (2022)
“Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all.”
Exceeding 1.5°C global warming could trigger multiple climate tipping points

Armstrong McKay et al. (2022)
Empirically grounded technology forecasts and the energy transition

Rupert Way, Matthew C. Ives, Penny Mealy, J. Doyne Farmer
“Governments plan to produce more than twice the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C.”
2020 Budget

- Remaining carbon budget from the start of 2020 from IPCC AR6 WG1 ≈500

2023 Budget

- Remaining carbon budget from the start of 2023, reported by Global Carbon Project: based on IPCC AR6 WG1 and 2020-2022 emissions ≈380
- Remaining carbon budget from the start of 2023: based on updated IPCC WG1 methods and WG3 data, and 2020-2022 emissions ≈260

Future CO₂ emissions from existing and planned fossil fuel infrastructure from 2020 WG3 estimate, minus GCP estimates ≈780

for a 50% chance of staying within 1.5°C

Source
Stoddard et al. (2021)
Climate Action
Civil Resistance

Method to change the status quo using a diverse set of nonviolent, noninstitutional actions (strikes, protests, occupations, boycotts, etc.)
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On the Duty of Civil Disobedience

by Henry David Thoreau

1849, original title: Resistance to Civil Government
Civil Disobedience

Public, conscientious and nonviolent breach of law with the aim to bring about a change in laws or government policies

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1849, original title: Resistance to Civil Government
Geographical Mapping of Campaigns

Nonviolent action campaigns are waged all over the world. See a distribution of the campaigns across the globe in our interactive map.

1,200+ cases  |  100+ countries  |  400+ years covered

View Campaigns on the Map
2018

SKOLSTREJK FÖR KLIMATET

2019

STRIKE FOR THE CLIMATE
World Scientists’ Warning to Humanity: A Second Notice

William J. Ripple, Christopher Wolf, Thomas M. Newsome, Mauro Galetti, Mohammed Alamgir, Eileen Crist, Mahmoud I. Mahmoud, William F. Laurance, 15,364 scientist signatories from 184 countries


Published: 13 November 2017

Source
Ripple et al. (2017)
Concerns of young protesters are justified

Gregor Hagedorn, Peter Kalmus, Michael Mann, Sara Vicca, Joke van den Berge, Jean-Pascal van Ypersele, Dominique Bourg, Jan Rotmans, Roope Kaaronen, Stefan Rahmstorf, Helga Kromp-Kolb, Gottfried Kirchengast, Reto Knutti, Sonia I. Seneviratne, Philippe Thalmann, Raven Cretney, Alison Green, Kevin Anderson, Martin Hedberg, Douglas Nilsson, Amita Kuttner, and Katharine Hayhoe

Scientists endorse mass civil disobedience to force climate action

By Matthew Green

London (Reuters) - Almost 400 scientists have endorsed a civil disobedience campaign aimed at forcing governments to take rapid action to tackle climate change, warning that failure could inflict “incalculable human suffering.”
“Einstein said to think and not act is a crime. If we understand the situation, we must try to make it clear. I decided six or seven years ago that I did not want my grandchildren to look back in the future and say ‘Opa understood what was happening, but he didn’t make it clear’.”
“There is a very widespread feeling that the individual is impotent against governments, and that, however bad their policies may be, there is nothing effective that private people can do about it. This is a complete mistake. If all those who disapprove of government policy were to join in massive demonstrations of civil disobedience, they could render governmental folly impossible and compel the so-called statesmen to acquiesce in measures that would make human survival possible.”

Source
Civil disobedience by scientists helps press for urgent climate action

Time is short to secure a liveable and sustainable future; yet, inaction from governments, industry and civil society is setting the course for 3.2 °C of warming, with all the cascading and catastrophic consequences that this implies. In this context, when does civil disobedience by scientists become justified?

Stuart Capstick, Aaron Thierry, Emily Cox, Oscar Berglund, Steve Westlake and Julia K. Steinberger
Over 1000 academics in 27 countries took to the streets during 4 - 9 April

- Blocking government ministries / corporations, paper pastings
- Academic strikes, occupations, teach-ins, street theatre
- Mass arrests in multiple countries
- Global press coverage
Scientist Rebellion at Chase Bank Los Angeles
8.6K views • 9 months ago

Climate Ad Project

When *scientists* around the world are putting their bodies on the line to warn

Scientist Rebellion takes action in the Netherlands
4.5K views • 9 months ago

Scientist Rebellion

To secure a liveable future, we need emergency action! 🌍 The scientific community has been

Scientist Rebellion rings the alarm at the World Health Summit
747 views • 3 months ago

Scientist Rebellion

60 scientists from Scientist Rebellion disrupt opening of World Health Summit in Berlin, Germany.

Scientists and activists block private airports in eleven countries
406 views • 2 months ago

Scientist Rebellion

Scientists and climate campaigners from Scientist Rebellion and Extinction Rebellion barricaded mu
Thank you!