

Climate Action (/en/climatechange)

What Is Climate Change?

Climate change refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions. But since the 1800s, human activities have been the main driver of climate change (<https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>), primarily due to the burning of fossil fuels like coal, oil and gas.

Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures.

The main greenhouse gases that are causing climate change include carbon dioxide and methane. These come from using gasoline for driving a car or coal for heating a building, for example. Clearing land and cutting down forests can also release carbon dioxide. Agriculture, oil and gas operations are major sources of methane emissions. Energy, industry, transport, buildings, agriculture and land use are among the main sectors (<https://www.unep.org/interactive/six-sector-solution-climate-change/>) causing greenhouse gases.



Humans are responsible for global warming

Climate scientists have showed that humans are responsible (https://www.ipcc.ch/report/ar6/wg1/downloads/outreach/IPCC_AR6_WGI_SummaryForAll.pdf) for virtually all global heating over the last 200 years. Human activities like the ones mentioned above are causing greenhouse gases that are warming the world faster than at any time in at least the last two thousand years.

The average temperature of the Earth's surface is now about 1.2°C warmer (<https://wmo.int/news/media-centre/climate-change-indicators-reached-record-levels-2023-wmo>) than it was in the late 1800s (before the industrial revolution) and warmer than at any time in the last 100,000 years. The last decade (2011-2020) was the warmest on record (<https://wmo.int/media/news/2020-was-one-of-three-warmest-years-record>), and each of the last four decades has been warmer than any previous decade since 1850.

Many people think climate change mainly means warmer temperatures. But temperature rise is only the beginning of the story. Because the Earth is a system, where everything is connected, changes in one area can influence changes in all others.

The consequences of climate change (<https://www.ipcc.ch/report/ar6/wg2/resources/press/press-release>) now include, among others, intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity.



People are experiencing climate change in diverse ways

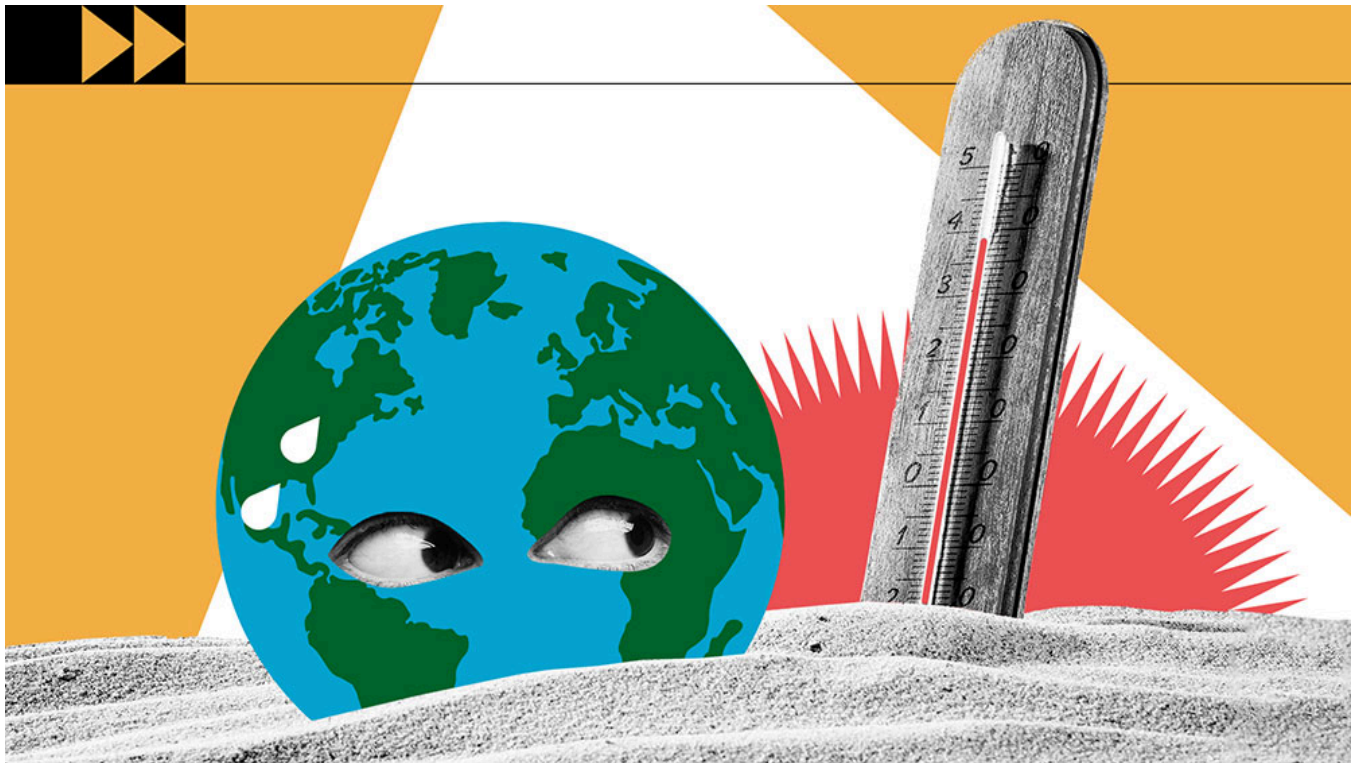
Climate change can affect our [health](https://www.un.org/en/climatechange/science/climate-issues/health) (<https://www.un.org/en/climatechange/science/climate-issues/health>), ability to grow food, housing, safety and work. Some of us are already more vulnerable to climate impacts, such as people living in small island nations and other developing countries. Conditions like sea-level rise and saltwater intrusion have advanced to the point where whole communities have had to relocate, and protracted droughts are putting people at risk of famine. In the future, the number of people displaced by weather-related events is expected to rise.

Every increase in global warming matters

In a series of [UN reports](https://www.ipcc.ch/assessment-report/ar6/) (<https://www.ipcc.ch/assessment-report/ar6/>), thousands of scientists and government reviewers agreed that limiting global temperature rise to no more than 1.5°C would help us avoid the worst climate impacts and maintain a livable climate. Yet policies currently in place point to up to 3.1°C of warming (https://wedocs.unep.org/bitstream/handle/20.500.11822/46445/EGR2024_KMEN.pdf?sequence=9&isAllowed=y) by the end of the century.

The emissions that cause climate change come from every part of the world and affect everyone, but [some countries produce much more than others](https://wedocs.unep.org/bitstream/handle/20.500.11822/46443/EGR2024_ESEN.pdf) (https://wedocs.unep.org/bitstream/handle/20.500.11822/46443/EGR2024_ESEN.pdf). The six biggest emitters (China, the United States of America, India, the European Union, the Russian Federation, and Brazil) together accounted for more than half of all global greenhouse gas emissions in 2023. By contrast, the 45 least developed countries accounted for only 3 per cent of global greenhouse gas emissions.

Everyone must take climate action, but people and countries creating more of the problem have a greater responsibility to act first.



We face a huge challenge but already know many solutions

Many climate change solutions can deliver economic benefits while improving our lives and protecting the environment. We also have global frameworks and agreements to guide progress, such as the [Sustainable Development Goals](https://www.un.org/en/climatechange/17-goals-to-transform-our-world) (<https://www.un.org/en/climatechange/17-goals-to-transform-our-world>), the [UN Framework Convention on Climate Change](https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change) (<https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change>) and the [Paris Agreement](https://www.un.org/en/climatechange/paris-agreement) (<https://www.un.org/en/climatechange/paris-agreement>). Three broad categories of action are: cutting emissions, adapting to climate impacts and financing required adjustments.

Switching energy systems from fossil fuels to renewables like solar or wind (<https://www.un.org/en/climatechange/raising-ambition/renewable-energy>) will reduce the emissions driving climate change. But we have to act now. While a growing number of countries is committing to net zero emissions (<https://www.un.org/en/climatechange/net-zero-coalition>) by 2050, emissions must be cut in half by 2030 (<https://www.ipcc.ch/report/ar6/wg3/resources/press/press-release/>) to keep warming below 1.5°C. Achieving this means huge declines in the use of coal, oil and gas: production and consumption of all fossil fuels need to be cut by at least 30 per cent (<https://www.unep.org/resources/emissions-gap-report-2024>) by 2030 in order to prevent catastrophic levels of climate change.



Adapting (<https://www.un.org/en/climatechange/climate-adaptation>) to climate consequences protects people, homes, businesses, livelihoods, infrastructure and natural ecosystems. It covers current impacts and those likely in the future. Adaptation will be required everywhere, but must be prioritized now for the most vulnerable people with the fewest resources to cope with climate hazards. The rate of return can be high. Early warning systems for disasters, for instance, save lives and property, and can deliver benefits up to 10 times (<https://www.worldbank.org/en/news/feature/2020/11/17/the-adaptation-principles-6-ways-to-build-resilience-to-climate-change>) the initial cost.

We can pay the bill now, or pay dearly in the future

Climate action requires significant financial investments (<https://www.un.org/en/climatechange/raising-ambition/climate-finance>) by governments and businesses. But climate inaction is vastly more expensive. One critical step is for developed countries to support developing countries so they can adapt and move towards greener economies.



To get familiar with some of the more technical terms used in connection with climate change, consult the [Climate Dictionary](https://climatepromise.undp.org/news-and-stories/climate-dictionary-everyday-guide-climate-change) (<https://climatepromise.undp.org/news-and-stories/climate-dictionary-everyday-guide-climate-change>).

Learn more about...



(<https://www.un.org/en/climatechange/science/mythbusters>)

The facts on climate and energy

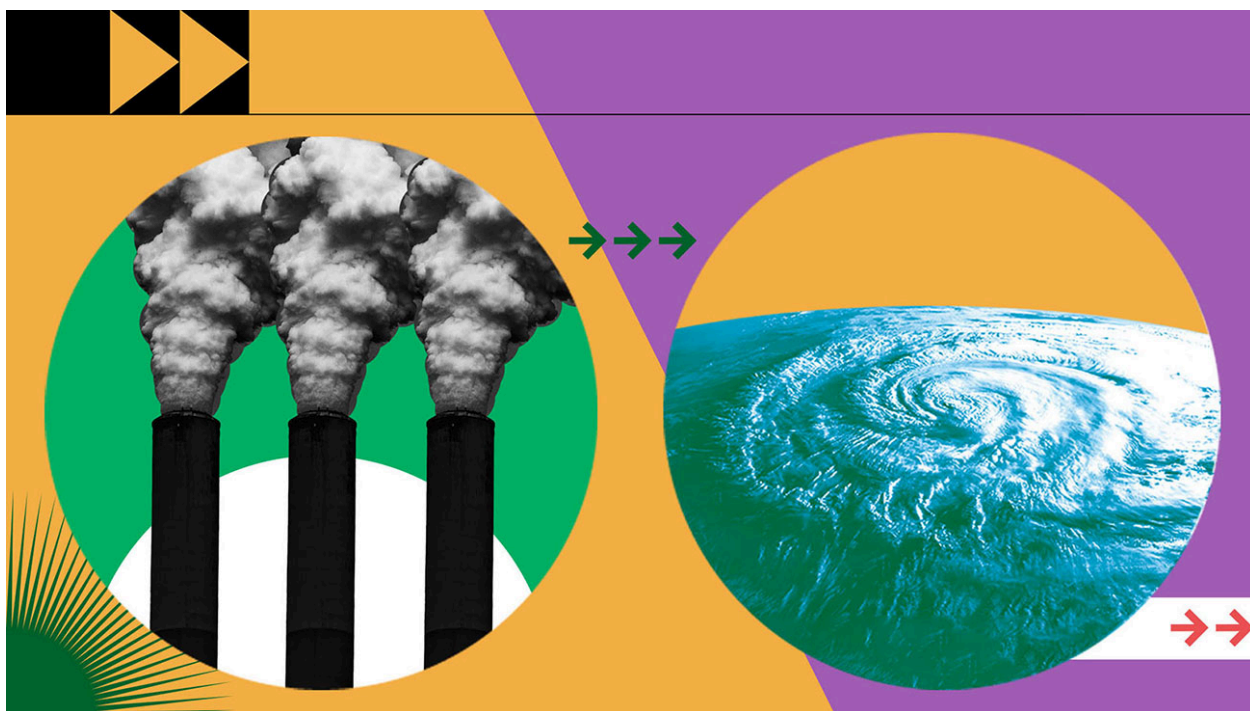
Climate change is a hot topic – with myths and falsehoods circulating widely. Find some essential facts [here](https://www.un.org/en/climatechange/science/mythbusters) (<https://www.un.org/en/climatechange/science/mythbusters>).



(<https://www.un.org/en/climatechange/science/key-findings>)

The science

See the latest climate reports (<https://www.un.org/en/climatechange/reports>) from the United Nations as well as climate action facts (<https://www.un.org/en/climatechange/science/key-findings>).



(<https://www.un.org/en/climatechange/science/causes-effects-climate-change>)

Causes and Effects

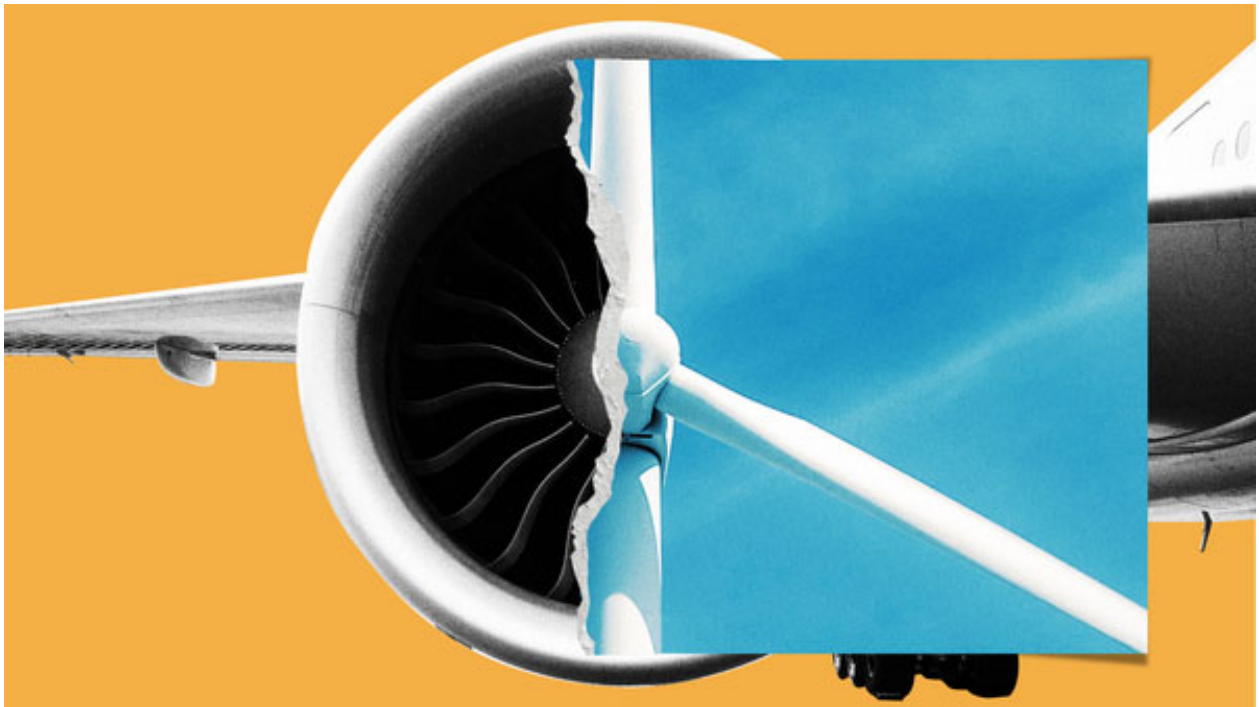
Fossil fuels are by far the largest contributor to the greenhouse gas emissions that cause climate change, which poses many risks to all forms of life on Earth. [Learn more \(https://www.un.org/en/climatechange/science/causes-effects-climate-change\)](https://www.un.org/en/climatechange/science/causes-effects-climate-change).



(<https://www.un.org/en/climatechange/speeches>)

From the Secretary-General

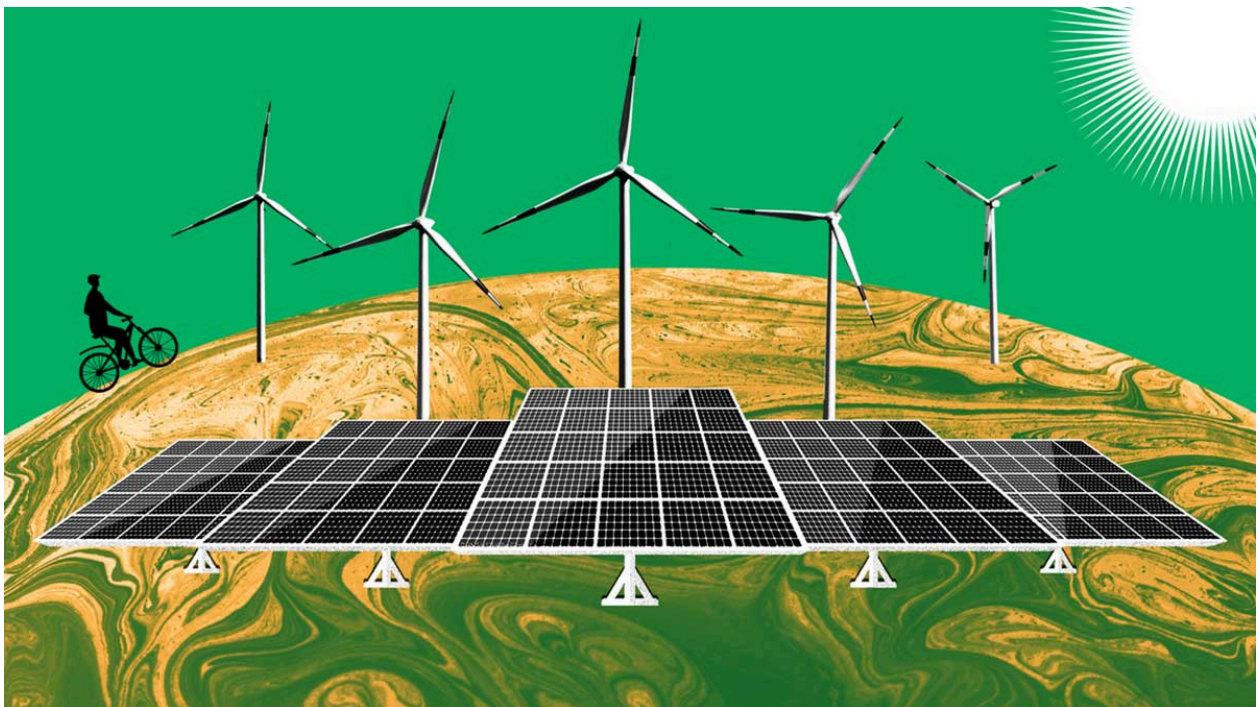
Read the UN Chief's latest statements on climate action.



(<https://www.un.org/en/climatechange/net-zero-coalition>)

Net zero

What is net zero? Why is it important? Our [net-zero page \(https://www.un.org/en/climatechange/net-zero-coalition\)](https://www.un.org/en/climatechange/net-zero-coalition) explains why we need steep emissions cuts now and what efforts are underway.



(<https://www.un.org/en/climatechange/raising-ambition/renewable-energy>)

Renewable energy – powering a safer future

What is renewable energy and why does it matter? Learn more about why the shift to renewables is our only hope for a brighter and safer world.



(<https://www.un.org/en/climatechange/raising-ambition/climate-finance>)

Finance

How will the world foot the bill? We explain the issues (<https://www.un.org/en/climatechange/raising-ambition/climate-finance>) and the value (<https://www.un.org/en/climatechange/why-finance-climate-action>) of financing climate action.



(<https://www.un.org/en/climatechange/climate-adaptation>)

Adapting to climate change

What is climate adaptation? Why is it so important for every country? Find out (<https://www.un.org/en/climatechange/climate-adaptation>) how we can protect lives and livelihoods as the climate changes.



(<https://www.un.org/en/climatechange/science/climate-issues>)

Climate Issues

Learn more about how climate change impacts are felt across different sectors and ecosystems.



(<https://www.un.org/en/climatechange/page/why-women-are-key-climate-action>)

Why women are key to climate action

Women and girls are on the frontlines of the climate crisis and uniquely situated to drive action. Find out why it's time to invest in women.

(<https://www.addtoany.com/share?url=https%3A%2F%2Fwww.un.org%2Fen%2Fclimatechange/what-is-climate-change&title=What%20Is%20Climate%20Change%3F%20%7C%20United%20Nations>)
(/#facebook)

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FACTS AND FIGURES

- What is climate change? (<https://www.un.org/en/climatechange/what-is-climate-change>)
- Causes and effects (<https://www.un.org/en/climatechange/science/causes-effects-climate-change>)
- Myth busters (<https://www.un.org/en/climatechange/science/mythbusters>)
- Reports (<https://www.un.org/en/climatechange/reports>)
- Fast facts (<https://www.un.org/en/climatechange/science/key-findings>)

CUTTING EMISSIONS

- Explaining net zero (<https://www.un.org/en/climatechange/net-zero-coalition>)
- High-level expert group on net zero (<https://www.un.org/en/climatechange/high-level-expert-group>)
- Checklists for credibility of net-zero pledges (<https://www.un.org/en/climatechange/implementing-high-level-expert-group-report>)
- Greenwashing (<https://www.un.org/en/climatechange/science/climate-issues/greenwashing>)
- What you can do (<https://www.un.org/en/actnow/ten-actions>)

CLEAN ENERGY

- Renewable energy – key to a safer future (<https://www.un.org/en/climatechange/raising-ambition/renewable-energy>)
- What is renewable energy (<https://www.un.org/en/climatechange/what-is-renewable-energy>)
- Five ways to speed up the energy transition (<https://www.un.org/en/climatechange/raising-ambition/renewable-energy-transition>)
- Why invest in renewable energy (<https://www.un.org/en/climatechange/raising-ambition/why-invest-renewable-energy>)
- Clean energy stories (<https://www.un.org/en/climatechange/how-communities-are-embracing-renewable-energy>)
- A just transition (<https://www.un.org/en/climatechange/sharan-burrow-shared-prosperity>)

ADAPTING TO CLIMATE CHANGE

- Climate adaptation (<https://www.un.org/en/climatechange/climate-adaptation>)
- Early warnings for all (<https://www.un.org/en/climatechange/early-warnings-for-all>)
- Youth voices (<https://www.un.org/en/climatechange/voices-of-change>)

FINANCING CLIMATE ACTION

- Finance and justice (<https://www.un.org/en/climatechange/raising-ambition/climate-finance>)
- Loss and damage (<https://www.un.org/en/climatechange/adelle-thomas-loss-and-damage>)
- \$100 billion commitment (https://www.un.org/sites/un2.un.org/files/climate_finance_report.pdf)
- Why finance climate action (<https://www.un.org/en/climatechange/why-finance-climate-action>)

EXPLAINERS

- Health (<https://www.un.org/en/climatechange/science/climate-issues/health>)
- Food (<https://www.un.org/en/climatechange/science/climate-issues/food>)
- Biodiversity (<https://www.un.org/en/climatechange/science/climate-issues/biodiversity>)
- Ocean (<https://www.un.org/en/climatechange/science/climate-issues/ocean>)
- Water (<https://www.un.org/en/climatechange/science/climate-issues/water>)
- Land (<https://www.un.org/en/climatechange/science/climate-issues/land>)
- Greenwashing (<https://www.un.org/en/climatechange/science/climate-issues/greenwashing>)
- Human Security (<https://www.un.org/en/climatechange/science/climate-issues/human-security>)
- Women (<https://www.un.org/en/climatechange/science/climate-issues/women>)
- 1.5°C (<https://www.un.org/en/climatechange/science/climate-issues/degrees-matter>)

INTERNATIONAL COOPERATION

- Paris Agreement (<https://www.un.org/en/climatechange/paris-agreement>)
- What are Nationally Determined Contributions (<https://www.un.org/en/climatechange/all-about-ndcs>)
- Acceleration Agenda (https://www.un.org/sites/un2.un.org/files/un_sgs_acceleration_agenda.pdf)
- Climate Ambition Summit (<https://www.un.org/climatechange/climate-ambition-summit>)
- COP29 (<https://www.un.org/en/climatechange/cop29>)
- Climate conferences (COPs) (<https://www.un.org/en/climatechange/un-climate-conferences>)
- Youth Advisory Group (<https://www.un.org/en/climatechange/youth-in-action/youth-advisory-group>)
- Action initiatives (<https://www.un.org/en/climatechange/climate-action-coalitions>)
- Sustainable Development Goals (<https://www.un.org/en/climatechange/17-goals-to-transform-our-world>)

RESOURCES

- Secretary-General's speeches (<https://www.un.org/en/climatechange/speeches>)
- Press material (<https://www.un.org/en/climatechange/press-materials>)
- Interviews (<https://www.un.org/climatechange/un-climate-interviews>)
- Fact sheets (<https://www.un.org/en/climatechange/climate-fast-facts>)
- Graphics (<https://www.un.org/en/climatechange/graphics>)
- Communications tips (<https://www.un.org/en/climatechange/communicating-climate-change>)

- Statements (<https://www.un.org/en/climatechange/speeches>)

(<https://www.un.org/en/>)

[DONATE \(/EN/ABOUT-US/HOW-TO-DONATE-TO-THE-UN-SYSTEM\)](/en/about-us/how-to-donate-to-the-un-system)

 (<https://www.youtube.com/playlist?list=PL4BF02A105C347439>)



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[PRIVACY NOTICE \(HTTPS://WWW.UN.ORG/EN/ABOUT-US/PRIVACY-NOTICE\)](https://www.un.org/en/about-us/privacy-notice) |
[TERMS OF USE \(HTTPS://WWW.UN.ORG/EN/ABOUT-US/TERMS-OF-USE\)](https://www.un.org/en/about-us/terms-of-use)