

CLIMATE CHANGE

AFFECTS EVERYONE

**How media can share critical stories
behind the science**

Wildfires. Heat waves. Rising sea levels destroying coastal communities. Climate change is a defining challenge of our times, and it has widespread consequences that dramatically affect Earth's environment and have serious implications for health, politics, economics, security, and more. Covering this topic as a journalist can be daunting, but evidence-based storytelling is essential to unpack the complexities of climate change and support information, action, and accountability.

The language used to describe climate change can be confusing, but the realities behind the terms are straightforward.

WEATHER V. CLIMATE



Weather refers to atmospheric conditions that occur locally over short periods of time (minutes, hours, days) such as rain, winds, floods, and thunderstorms.

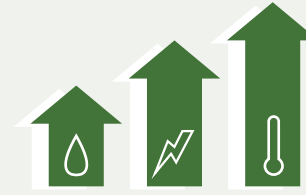


Climate refers to long-term regional or global averages of temperature, humidity, and rainfall patterns over multiple seasons, years, and decades.¹



Greenhouse gases (GHGs) like carbon dioxide (CO₂), methane, and nitrous oxide warm Earth's temperature by trapping the sun's heat reflected from the planet's surface, a process known as the greenhouse effect. These gases are released by burning fossil fuels like oil, gas, and coal, among other activities.²

GLOBAL WARMING V. CLIMATE CHANGE



Climate change is a long-term shift in temperatures and weather patterns. While the climate can change naturally, changes since the 1800s have been caused largely by human activity, especially the burning of fossil fuels, which creates a heat-trapping layer of pollution around the planet.³



Global warming is the long-term warming of Earth's surface temperature. Global warming is only one element of climate change, which also includes rising sea levels, extreme weather (such as typhoons), and ecological collapse (when loss of habitats to safely live, produce food, and access natural resources threatens life on Earth).⁴

MEASURES TO ADDRESS CLIMATE CHANGE



Carbon offsets describe the practice in which tradable “rights” or certificates linked to activities like tree planting and renewable energy investment can be purchased by companies or individuals seeking to offset activities that emit carbon dioxide, like manufacturing or air travel. While this approach may incentivize activities that reduce carbon, it does little to penalize carbon emitters to change their actions.⁵



Climate adaptation describes actions to improve our ability to manage actual and expected climate change impacts, such as by genetically modifying or hybridizing crop varieties to resist weather fluctuations, providing microfinance loans to farmers facing crop failures, or building structures that provide shade.⁶



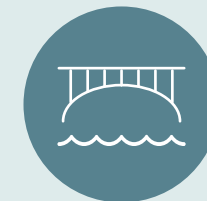
Climate mitigation is the alleviation of climate change by reducing and stabilizing the levels of heat-trapping gases in the atmosphere, such as by decreasing the burning of fossil fuels for electricity, heat, and transportation.⁷

Climate change is a result of human activity.

Climate change is largely driven by unchecked burning of oil, gas, and coal in high-income countries, in addition to the production and consumption of goods and degradation of the natural environment. Many industries currently operate in ways that emit GHGs. Causes include:



Burning fossil fuels



Infrastructure and the built environment



Industry and manufacturing practices



Deforestation

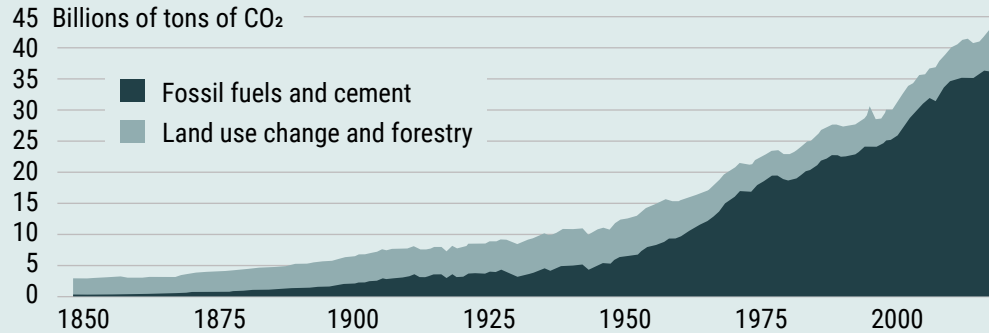


Intensive agriculture



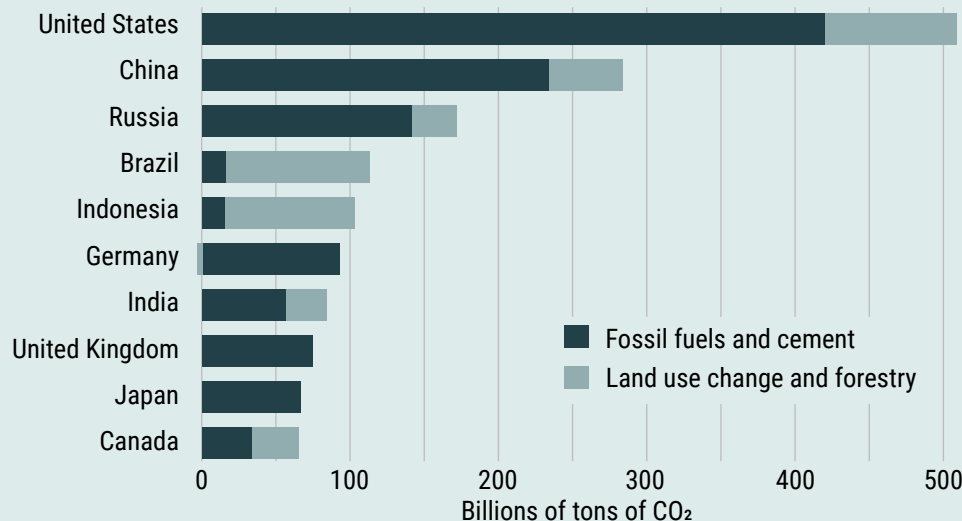
Lifestyle choices and consumption

Burning of oil, gas, and coal has increased exponentially over the past 150 years with industrialization



Notes: Fossil fuels and cement are created by the burning of oil, gas, and coal. Land use change and forestry represent industrialization.

Burning of fossil fuels in industrialized nations contributes the most to climate change



Source: Carbon Brief analysis of data presented in Simon Evans, “[Analysis: Which Countries Are Historically Responsible for Climate Change?](#)” Carbon Brief, Oct. 5, 2021.

Unmitigated climate change will cause catastrophic damage to life on Earth.

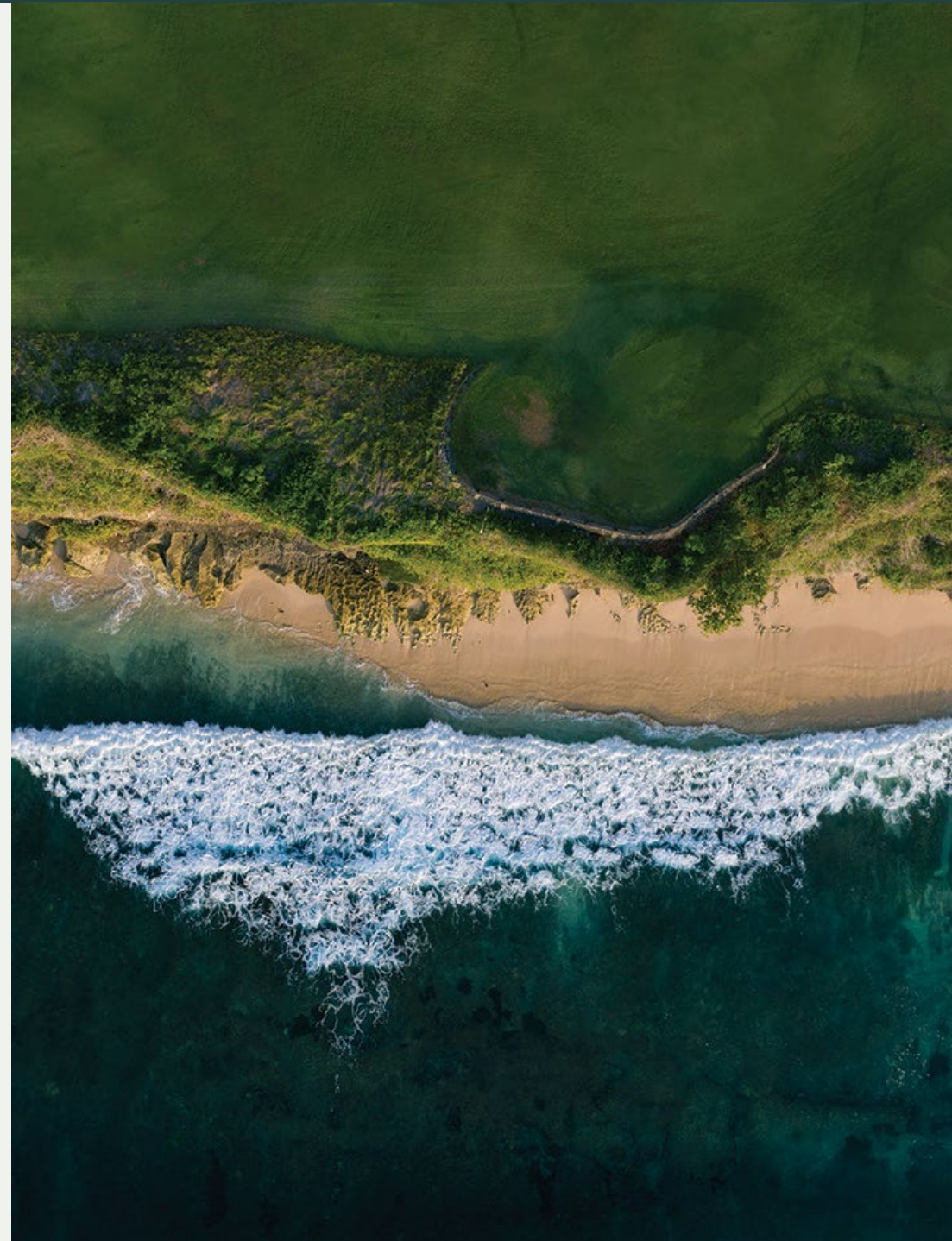
Without decisive action, the world in 2100 will experience global temperature increases of 4° Celsius. While this may not sound like a lot, it would have vast impacts, including:

- Global sea levels will rise by as much as 0.55 meters (1.8 feet) by 2100. This rise could affect 1 billion people, flooding major cities such as Lagos, Rio de Janeiro, and Hong Kong and submerging island nations such as Tuvalu and the Marshall Islands.⁸
- 2.7 billion people will be routinely exposed to severe heat waves.
- Earth will experience more frequent wildfires, droughts, floods, and other extreme weather events.
- Vast geographic areas will become uninhabitable even as the global population grows.



With so many newsworthy events happening around us, why report on climate change?

- To help the public understand a complex issue so they can make informed decisions.
- To fight disinformation or deflection of responsibility for climate change with evidence.
- To highlight the links between climate change and people's daily lives, families, communities, and futures.
- To drive accountability and transparency in climate finance and governance.
- To identify, promote, and drive momentum for climate solutions.

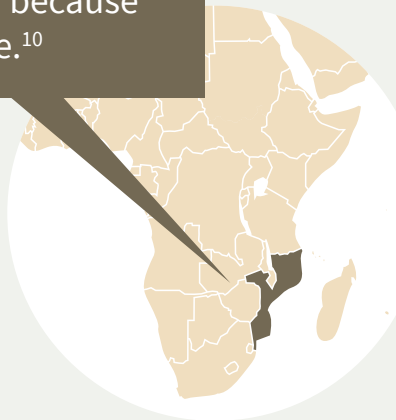


Climate change isn't a future story. Its harmful effects are happening around us.

WEATHER

2023 was the hottest year on record as global temperatures increased.⁹ Warming causes extreme and unpredictable weather, and floods, droughts, and hurricanes are more intense and common.

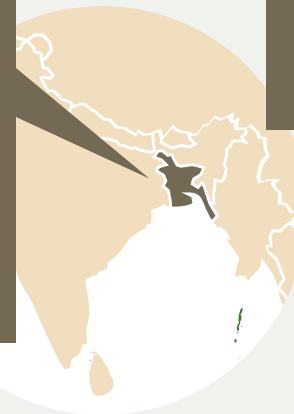
Weather like 2019's Cyclone Idai in **Mozambique**, which caused over 1,500 deaths and massive destruction and displacement, will occur more often because of climate change.¹⁰



RISING SEAS

Even slightly warming temperatures melt sea ice in the Arctic, leading to rising sea levels as more water is released into the world's oceans. Saltwater incursion into drinking water and agricultural land is already affecting life in coastal communities. Entire cities and even low-lying island states are at risk of inundation as sea levels rise.

17% of **Bangladesh's** low-lying southern coast is expected to be inundated with sea water by 2050, displacing as many as 20 million people and increasing competition for land and resources.¹¹



AGRICULTURE YIELDS AND FOOD SHORTAGES

Climate change affects agriculture and food security, worsening extreme and unpredictable weather and driving pest invasions.

Locust outbreaks in **East Africa** in 2019 and 2020 wiped out crops and imperiled food security for 15 million people. These swarms formed after excess rain in **Oman** created perfect breeding conditions for the locusts, and experts expect these swarms to worsen with climate change.¹²



How can journalists report on this topic?



Make it personal.

Connect individual or local experiences such as increasing food or fuel prices, natural disasters, or lack of access to clean water and other resources to climate change. Explore how local, subnational, national, and even international climate action plans make a difference—or don't—for communities near you.



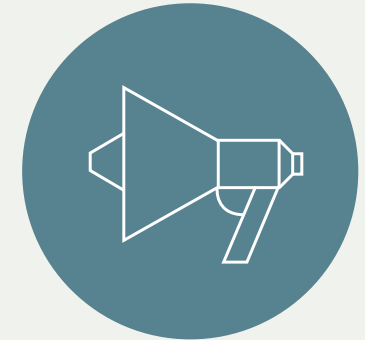
Follow the money.

Investigate the funds being dedicated to climate change for your country or region, including amounts that may be pledged but not delivered. What mechanisms exist to deliver these funds to local leaders who can direct their use? How are local communities involved (or not) in determining priorities for use of climate funds? Who stands to benefit?



Look at political accountability.

Under the United Nations framework for the global climate response, countries have developed climate action plans called Nationally Determined Contributions, including cost estimates. Has your country's plan been put into action, and what financing has been secured? Are civil society and the public holding leaders accountable for meeting these goals?



Focus on action.

Seek out stories on climate solutions at all levels that can be scaled up or rolled out in new geographies. How can the public play a role in spreading awareness about climate, its impacts, and possible solutions?

FOR MORE INFORMATION

[Intergovernmental Panel on Climate Change \(IPCC\)](#)

The United Nations body for assessing the science related to climate change. IPCC releases regular reports on the scientific basis for climate change, its impacts and risks, and options for mitigation and adaptation.

[Yale Program on Climate Change Communication](#)

Program conducting scientific studies on public opinion and behavior to inform decisionmaking of governments, media, companies, and advocates and building public and political will for climate action.

[Project Drawdown](#)

A global organization outlining climate solutions. Provides user-friendly data visualizations and resources for action on climate solutions.

[Climate Vulnerable Forum](#)

South-South collaboration platform of the 58 countries most vulnerable to climate change, currently chaired by and housed in Ghana.

[Institute for Climate and Sustainable Cities](#)

South and Southeast Asia

International climate and energy policy group advocating for equitable climate policy, finance, and climate-resilient development.

[African Climate and Development Initiative](#)

Africa

Interdisciplinary research institute at the University of Cape Town focused on nexus of climate change and development in Africa to improve human development outcomes.

[Inter-American Institute for Global Change Research](#)

Latin America

Regional research institute coordinating scientific and economic research on environmental change in the Americas, based in Uruguay.

[Afrobarometer](#)

Africa

Pan-African, independent, nonpartisan research network that measures public attitudes on economic, political, and social matters in Africa. [Afrobarometer climate change country cards](#) present survey findings from 39 African countries from 2021-2022 on citizens' awareness of climate change, experiences, and expected climate action.

REFERENCES

1. United Nations, "[What Is Climate Change?](#)"
2. Climate Portal, "[Greenhouse Gases.](#)"
3. United Nations, "[What Is Climate Change?](#)"
4. National Aeronautics and Space Administration (NASA), "[What's the Difference Between Climate Change and Global Warming?](#)"
5. Climate Portal, "Carbon Offsets."
6. NASA, "[Responding to Climate Change.](#)"
7. NASA, "[Responding to Climate Change.](#)"
8. Michael Oppenheimer, Bruce C. Glavovic, Jochen Hinkel et al., "[Sea Level Rise and Implications for Low-Lying Islands, Coasts, and Communities](#)" in *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (Cambridge, UK and New York: Cambridge University Press, 2019), pp. 321-445.
9. Copernicus Climate Change Service, "[Global Climate Highlights 2023.](#)"
10. Nomsa Maseko, "[Mozambique Storms: How to Cyclone-Proof Your Life,](#)" BBC News, Jan. 10, 2024.
11. A. Atiq Rahman, "[Regional Cooperation to Combat Climate Change: The Way Forward,](#)" Bangladesh Centre for Advanced Studies.
12. Nita Bhalla, "[Climate Change Linked to African Locust Invasion,](#)" Reuters, Jan. 29, 2020.

ACKNOWLEDGMENTS

This publication is made possible by the generous support of USAID under cooperative agreement 7200AA22CA00023. The information provided in this document is the responsibility of the PROPEL Health Project, is not official U.S. government information, and does not necessarily reflect the views or positions of USAID or the U.S. Government. The contents are the responsibility of Population Reference Bureau.



PROPEL
Health



PRB

1111 19th St. NW, Suite 400
Washington, DC 20036 USA
800.877.9881 • prb.org

This media brief is a companion to PRB's [2023 World Population Data Sheet](#) and is complemented by the media brief, [Climate Change Is Fundamentally Reshaping the World](#).

Follow us on [X](#) [f](#) [@](#) @PRBdata

Photo Credits: Cover: Zoltan Tasi/Unsplash

Page 5: © Andriy Onufriyenko/Moment via Getty Images

© 2024 Population Reference Bureau. All rights reserved.



PRB promotes and supports evidence-based policies, practices, and decisionmaking to improve the health and well-being of people throughout the world.