

## The 2010s were a lost decade for climate. We can't afford a repeat, scientists warn.



*Authorities called on residents and tourists to evacuate Australia's coastal towns Jan. 2 ahead of extreme heat forecasts for the weekend. (Reuters)*

By [Sarah Kaplan](#) Jan. 1, 2020 at 12:45 p.m. PST

At the start of the previous decade, Kallan Benson was 5 years old, her favorite story was “The Secret Garden,” and Earth was in the midst of [its warmest year on record](#). Benson had heard about climate change (her mother is an environmental scientist), but she didn’t know world leaders had just signed an agreement calling it “one of the greatest challenges of our time.” She cared about Earth, but she trusted adults to protect it.

She doesn’t feel that way anymore.

By the final year of the decade, the planet had surpassed its 2010 temperature record five times. Hurricanes devastated New Jersey and Puerto Rico, and floods damaged the Midwest and

Bangladesh. Southern Africa was gripped by a deadly drought. Australia and the Amazon are ablaze. Global emissions are expected to hit [an all-time high this year](#), and humanity is on track to cross the threshold for tolerable warming within a generation.

The 2010s were a “decade of disappointment,” said Benson, now 15 and a national coordinator for the youth climate organization Fridays for Future. If the world is to stave off further disasters, the next decade must be one of unprecedented climate action, she said.

“This decade that we’re going into now will be the most important of our lives,” Benson said. “We’re kind of running out of options. And we’re running out of time.”

# The Washington Post



*Students gather at John Marshall Park, blocks from the U.S. Capitol, to protest climate change on Sept. 20. (Astrid Riecken for The Washington Post)*

Ten years ago, the United Nations released its first “emissions gap” report detailing the disparity between commitments made by nations to reduce greenhouse gases and what is needed to meet global temperature targets. [It estimated](#) that countries should be curbing emissions about 3 percent per year.

But that hasn’t happened, said Surabi Menon, vice president for global intelligence at the ClimateWorks Foundation and a steering committee member for the U.N.’s emissions gap reports.

“We’ve left ourselves with a very narrow window to take the kind of action that needs to be taken,” she said.

The 2015 Paris climate accord — the first-ever global agreement to limit warming to “well below 2 degrees Celsius” — was important, Menon said. But the promises made at that meeting fell short. According to the latest [emissions gap report](#), temperatures can be expected to rise 3.2 degrees Celsius above preindustrial levels by the end of the century, unless the world’s top emitters increase their Paris commitments.

Right now, most [aren’t on track](#) to meet even their most modest targets. The world is already about 1 degree Celsius warmer than it was before

humans started burning fossil fuels. Global annual emissions have increased 4 percent since the Paris agreement was signed. And the average concentration of carbon dioxide in the atmosphere — a number that ultimately determines our fate, in the words of Phil DeCola, who chairs the science team for a World Meteorological Organization [greenhouse gas initiative](#) — is the highest in human history.

Meanwhile, improved scientific models found that even 2 degrees of warming — once thought to be a reasonable target — could be practically intolerable in parts of the world. To get on track to achieve a less disastrous 1.5-degree temperature rise, a landmark U.N. report found that nations must nearly halve emissions by 2030.



*Youths pull out an ox stuck in muddy waters in the drying Mabwematema dam in Zimbabwe on Dec. 25. (Zinyange Auntony/AFP/Getty Images)*

The United Nations’ 1.5-degree analysis provoked widespread alarm after it was published in 2018. Politicians referred to the report at rallies; teenagers quoted it during school walkouts.

“If we don’t do something by then,” 14-year-old climate activist Alexandria Villaseñor said in February, referring to 2030, “it will be the end of my world.”

But climate scientists caution against treating 2030 as a deadline and 1.5 degrees as a threshold for extinction.



# The Washington Post

“Climate change is not a cliff. It’s not a pass-fail course,” Georgia Tech researcher Kim Cobb said. “If we meet the 1.5 target, there may still be tons of ugly surprises. And if we don’t meet it, it’s not that everybody’s going to die.”

According to Cobb, the report is better understood as a road map for navigating the perilous path to sustainability.

“Our decisions over the next 10 years will affect the magnitude of climate change for centuries to come,” she said. “I don’t think it can get more sobering than that.”



*A man walks among debris at the Mudd neighborhood, devastated after Hurricane Dorian hit the Abaco Islands in Marsh Harbour, Bahamas, on Sept. 6. (Marco Bello/Reuters)*

The first and most important step will be reducing fossil fuel consumption, experts say. According to the [latest emissions gap analysis](#), the past 10 years of inaction have more than doubled the rate at which emissions must fall; to meet the 1.5-degree goal, emissions must be cut by 7.6 percent each year.

Such action would require “unprecedented” transformation of society the report [acknowledged](#).

But many of the solutions needed — both economic and technological — already exist. The report called on the global community to replace coal power with renewable energy, decarbonize transportation and manufacturing, and help

developing nations build green infrastructure to meet their growing power needs.

Ending subsidies for fossil fuels could reduce global emissions 10 percent by 2030, the [U.N. has found](#). And eliminating “short-lived” greenhouse gases — including methane, black carbon and fluorinated gases, which linger in the atmosphere less than carbon dioxide but trap more heat — over the next 20 years could help Earth avoid between 0.3 and 0.8 degrees of warming by 2050, [research suggests](#).

[How a 7th-grader’s strike against climate change exploded into a movement](#)

Menon draws hope from progress that has been made on the ground in the past decade, even as global leaders fell short. Global renewable energy capacity has [quadrupled](#) since 2010, largely because of improved technology and falling costs, she noted. People [increasingly see climate change as a threat](#); a [Washington Post poll this year](#) found that 76 percent of American adults view the issue as a “major problem” or a “crisis.” This year’s global climate strikes, led by teenagers such as Benson and Swedish activist Greta Thunberg, were among the largest environmental protests in history.

“We know what we have to do,” Menon said. “And we know there are pathways, there are policies, and there are people willing to do it.”



*A reforestation assistant measures a newly planted tree in a field damaged during illegal*

# The Washington Post

gold mining in Madre de Dios, Peru, on March 29. (Rodrigo Abd/AP)

The rate at which greenhouse gases are removed from the atmosphere must also increase, said Tufts University climate scientist [William Moomaw](#), a contributor to past UN Intergovernmental Panels on Climate Change. Natural systems currently absorb [more than half the carbon](#) people produce, and a 2018 study found that conservation, restoration and improved land management practices could [reduce the United States' net emissions](#) by as much as 21 percent. But cutting down forests, dredging wetlands and polluting the coasts reduce that capacity.

“If we don’t actually reverse the rise of carbon dioxide, so that we are lowering the concentrations in the atmosphere, it’s just going to go on getting worse and worse,” Moomaw said.

In the [bleak report released this August](#), the United Nations forecast the consequences of inaction on land. Warming beyond 1.5 degrees will lead to high risk of drought, wildfires, destructive hurricanes and outbreaks of agricultural pests, scientists said. Increased atmospheric carbon dioxide levels could lower the nutritional quality of crops and raise grain prices. Millions will be at risk of losing their homes, livelihoods and lives to natural disasters, and countries will be destabilized by mass migrations.

Many parts of the world are already experiencing this extreme change; [a Washington Post analysis this year](#) found roughly 10 percent of the globe

has surpassed 2 degrees of warming since the preindustrial era.

[Quiz: How much do you know about climate change?](#)

“The stakes are high. The climate impacts are severe. And people almost everywhere in the world are experiencing that and waking up,” Menon said. “That gives me hope.”

It’s when she considers the political decisions needed to fight warming that she feels pessimistic.

At the recent COP 25 climate talks in Madrid, the world’s leading emitters, including the United States and China, failed to increase their commitments to cut emissions. Officials deferred until next year the task of establishing a global carbon trading system.

“It felt like betrayal,” said Benson, the 15-year-old activist, who lives in Annapolis. “But for me, it means that I have to keep doing what I’m doing. Keep soldiering on.”

On a chilly Friday in December, shivering through her weekly climate strike at the Capitol, the teenager tried to imagine what the next 10 years might look like. But the normal life milestones — dates and dances, college, a job — were hard to picture. Until the global climate outlook changes, Benson can’t envision doing anything but activism.

It all depends on what happens to the planet. And that depends on what people decide to do.

Finally, Benson sighed. “I really can’t predict the future,” she said. “There’s so many ways this decade could go.”

*Correction: An initial version of this article misstated Phil DeCola’s title. He is science team chair for the Integrated Global Greenhouse Gas Information System, an initiative of the World Meteorological Organization’s Global Atmosphere Watch program.*