

Climate change: 'Bleak' outlook as carbon emissions gap grows

1 hour ago



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Climate change is said to have increased the severity of recent wildfires in Australia

Countries will have to increase their carbon-cutting ambitions five fold if the world is to avoid warming by more than 1.5C, the UN says.

The annual emissions gap report shows that even if all current promises are met, the world will warm by more than double that amount by 2100.

Richer countries have failed to cut emissions quickly enough, the authors say. Fifteen of the 20 wealthiest nations have no timeline for a net zero target.

Hot on the heels of the World Meteorological Organization's report on greenhouse gas concentrations, the UN Environment Programme (Unep) has published its regular snapshot of how the world is doing in cutting levels of these pollutants.

The emissions gap report looks at the difference between how much carbon needs to be cut to avoid dangerous warming - and where we are likely to end up with the promises that countries have currently committed to, in the Paris climate agreement.

The UN assessment is fairly blunt. "The summary findings are bleak," it says.

"Countries collectively failed to stop the growth in global greenhouse gas emissions, meaning that deeper and faster cuts are now required."

The report says that emissions have gone up by 1.5% per year in the last decade. In 2018, the total reached 55 gigatonnes of CO₂ equivalent. This is putting the Earth on course to experience a temperature rise of 3.2C by the end of this century.



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Forest clearing in Asia has contributed significantly to carbon emissions over the past decade

Just last year, the Intergovernmental Panel on Climate Change warned that allowing temperatures to rise more than 1.5 degrees this century would have hugely damaging effects for human, plant and animal life across the planet.

This report says that to keep this target alive, the world needs to cut emissions by 7.6% every year for the next 10 years.

"Our collective failure to act early and hard on climate change means we now must deliver deep cuts to emissions - over 7% each year, if we break it down evenly over the next decade," said Inger Andersen, Unep's executive director.

The report pays particular attention to the actions of the richest countries. The group of the 20 wealthiest (G20) are responsible for 78% of all emissions. But so far, only the EU, the UK, Italy and France have committed to long-term net zero targets. Seven G20 members need to take more action to achieve their current promises. These include Australia, Brazil, Canada, Japan, the Republic of Korea, South Africa and the US.

For example, Brazil's plans were recently revised, "reflecting the recent trend towards increased deforestation".

Three countries - India, Russia and Turkey - are all on track to over-achieve their plans by 15% but the authors of the report say this is because the targets they set themselves were too low in the first place.

For three others - Argentina, Saudi Arabia and Indonesia - the researchers are uncertain as to whether they are meeting their targets or not.



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Flooding is one of the most damaging consequences of rising temperatures

That leaves China, the EU and Mexico as three countries or regions that are set to meet their promises or nationally determined contributions (NDCs), as they are called, with their current policies.

Without serious upgrades to most countries' plans, the UN says the 1.5C target will be missed by a significant amount.

"We need quick wins to reduce emissions as much as possible in 2020, then stronger NDCs to kick-start the major transformations of economies and societies," says Inger Anderson.

"We need to catch up on the years in which we procrastinated," she added. "If we don't do this, the 1.5C goal will be out of reach before 2030."

The report outlines some specific actions for different countries in the G20.



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There will have to be a huge increase in spending on renewable energy

So for Argentina it's recommended that they work harder to shift the public towards widespread use of public transport in big cities. China is urged to ban all new coal-fired power plants, something that recent research casts doubt on.

The biggest focus of action is the energy system. To get a sense of the massive scale of change that is needed, the study says the world will have to spend up to \$3.8 trillion per year, every year between 2020 and 2050 to achieve the 1.5C target. The impression that time is running short is reinforced by the report - and UN negotiators gearing up to meet in Madrid next week at COP25 are feeling the pressure to increase their ambitions on carbon.

"This is a new and stark reminder by the Unep that we cannot delay climate action any longer," said Teresa Ribera, Spain's minister for the ecological transition.

"We need it at every level, by every national and subnational government, and by the rest of the economic and civil society actors. We urgently need to align with the Paris Agreement objectives and elevate climate ambition.

"It would be incomprehensible if countries who are committed to the United Nations system and multilateralism did not acknowledge that part of this commitment requires further climate action. Otherwise, there will only be more suffering, pain, and injustice."

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UN calls for push to cut greenhouse gas levels to avoid climate chaos

Global emissions must fall by 7.6% a year for next decade to avoid crisis, report says

Fiona Harvey *Environment correspondent*

Tue 26 Nov 2019 08.15 GMT



The plea to tackle emissions comes amid climate protests such as here in Hamburg, Germany, this month.
Photograph: Action Press/Rex/Shutterstock

Countries must make an unprecedented effort to cut their levels of greenhouse gases in the next decade to avoid climate chaos, the UN has warned, as it emerged that emissions **hit a new high** last year.

Carbon dioxide emissions in 2018, also accounting for deforestation, rose to more than 55 gigatonnes, and have risen on average by 1.5% a year for the past decade, according to the UN Environment Programme (UNEP) annual emissions gap report.

Global emissions must fall by 7.6% every year from now until 2030 to stay within the 1.5C ceiling on temperature rises that scientists say is necessary to avoid disastrous consequences. The only time in recent history when emissions have fallen in any country at a similar rate came during the collapse of the Soviet Union. During the financial crisis and recession, emissions in the US and Japan fell briefly by about 6% but **soon rebounded**.

However, technologies such as renewable energy and electric vehicles are now available, and increasingly cheap, which could enable deep cuts in carbon

without jeopardising economic growth.

John Christensen of the Technical University of Denmark, a co-author of the report, told the Guardian the cuts in emissions now required were “unprecedented”.

Postponing action could no longer be an option, said Inger Andersen, executive director of UNEP. “Our collective failure to act early and hard on climate change means we must now deliver deep cuts to emissions [of] over 7% each year, if we break it down evenly over the next decade. This shows that countries simply cannot wait.”

Without such urgent action the world’s fate would be sealed within the next few years as carbon would rise to such a level as to make dangerous levels of warming inevitable, she said. “We need quick wins to reduce emissions as much as possible in 2020, then stronger [commitments under the Paris agreement] to kickstart the major transformations of economies and societies. We need to catch up on the years in which we procrastinated.”

The escalating **heatwaves**, droughts and **extreme storms** being seen across the world demonstrated the effects of failing to cut emissions fast enough, said Kelly Levin of the World Resources Institute, who joined the UN call for action. “While there have been examples of rapid change in specific technologies or sectors, there is no precedent in our documented history for the rate of change at the scale required for limiting warming to 1.5C [above pre-industrial levels]. We have never before witnessed such widespread rapid transitions, and they will need to be made across energy, land, industrial, urban and other systems. Achieving 1.5C will require unprecedented transformative efforts by all.”

Rana Adib, the executive secretary of the renewable energy thinktank REN21, said: “Fossil-fuel-centred economies make it difficult for national governments to put climate concerns front and centre, with the result that globally we are not on track to meet the Paris agreement.” “This truth is hard to face. The emissions gap report shows the harsh reality: countries collectively fail to stop growth in greenhouse gas emissions. We have the necessary means to pursue the energy transition. What we need is the political and institutional will to make the transition a reality.”

Next year, governments are expected to make new commitments to cut greenhouse gases substantially by 2030, as part of the 2015 Paris agreement. Officials and ministers will meet in Madrid next week to clear the way for a

crunch meeting a year from now in Glasgow, where the gap between countries' current emissions pledges and scientific estimates of what cuts are needed will be addressed.

Current pledges under the Paris agreement are deemed inadequate; if countries stick to them next year, they would have to reduce emissions to zero from 2030 to avoid raising temperatures by **more than 1.5C**. For that reason, Andersen urged nations not to wait to enshrine new commitments, but to take immediate action.

UNEP has been reporting on the “**emissions gap**” between countries' pledges and the cuts needed since the Paris agreement was signed in 2015, but rising emissions in the meantime have made the situation even more urgent. Last year's landmark scientific assessment by the Intergovernmental Panel on Climate Change revealed the ravages that would result from a 1.5C rise above pre-industrial levels, including the near-total extinction of coral reefs, and extreme weather around the world.

The current pledges made by countries under the Paris agreement would cause temperature rises of about 3.2C this century, according to scientific estimates.

In bleak report, U.N. says drastic action is only way to avoid worst effects of climate change

“We need to catch up on the years in which we procrastinated,” a top official says.



Smoke rises from chimneys of the gas boiler houses as the temperature dropped to minus-7 Celsius in Moscow this month. (Maxim Shipenkov/EPA-EFE/Shutterstock)

By

Brady Dennis

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The world has squandered so much time mustering the action necessary to combat climate change that rapid, unprecedented cuts in greenhouse gas emissions offer the only hope of averting an ever-intensifying cascade of consequences, according to new findings from the United Nations.

Already, the past year has brought devastating hurricanes, relentless wildfires and crippling heat waves, prompting [millions of protesters](#) to take to the streets to demand more attention to a problem that seems increasingly urgent.

Amid that growing pressure to act, Tuesday's U.N. report offers a grim assessment of how off-track the world remains. Global temperatures are on pace to rise as much as 3.9 degrees Celsius (7 degrees Fahrenheit) by the end of the century, according to the United Nations' annual "emissions gap" report, which assesses the difference between the world's current path and the changes needed to meet the goals of the 2015 Paris climate accord.

As part of that deal, world leaders agreed to hold warming to "well below" 2 degrees Celsius compared with preindustrial levels; the current trajectory is nearly twice that.

Extreme climate change has arrived in America

Should that pace continue, scientists say, the result could be widespread, catastrophic effects: Coral reefs, already dying in some places, would probably dissolve in increasingly acidic oceans. Some coastal cities, already wrestling with flooding, would be constantly inundated by rising seas. In much of the world, severe heat, already intense, could become unbearable.

Global greenhouse gas emissions must begin falling by 7.6 percent each year beginning 2020 — a rate currently nowhere in sight — to meet the most ambitious aims of the Paris climate accord, the report issued early Tuesday found. Its authors acknowledged that the findings are “bleak.” After all, the world has never demonstrated the ability to cut greenhouse gas emissions on such a scale.

“Our collective failure to act early and hard on climate change means we now must deliver deep cuts to emissions,” Inger Andersen, executive director of the U.N. Environment Program, said in a statement announcing the findings. “We need to catch up on the years in which we procrastinated.”

The sobering report comes at a critical moment, when it remains unclear whether world leaders can summon the political will to take the ambitious action scientists say is essential. So far, the answer has been no.

Global emissions have risen about 1.5 percent annually on average over the past decade. In the coming decade, that trend must reverse — profoundly and rapidly — if world leaders are to limit the Earth’s

warming to 1.5 degrees Celsius (2.7 Fahrenheit) or even 2 degrees Celsius (3.6 Fahrenheit) compared with preindustrial levels, scientists say.

The world already has warmed more than 1 degree Celsius.

Tuesday's report, which is viewed as the benchmark of the world's progress in meeting its climate goals, underscores how the pledges that nations made years ago in Paris are woefully inadequate to achieving the goals of the accord. To hold warming to "well below" 2 degrees Celsius, the authors found that countries would need to triple the ambition of their current promises. To hit the more ambitious target of no more than 1.5 degrees of warming, they found, nations would need to ramp up their pledges fivefold. "Every year of delay beyond 2020 brings a need for faster cuts, which become increasingly expensive, unlikely and impractical," the report states. "Delays will also quickly put the 1.5C goal out of reach."

A Washington Post analysis this year found that [roughly 20 percent of the world has already warmed](#) to troubling levels. Slowing future warming will require monumental changes, such as phasing out gas-powered cars, halting the construction of coal-fired power plants and overhauling how humans grow food and manage land.

But the world's carbon emissions have moved in the opposite direction. The United States' energy-related CO₂ emissions [rose 2.7 percent last year](#), after a gradual decline. That increase came as the Trump administration continued to roll back Obama-era climate

regulations and made clear that the United States, once a leader in pushing for climate action, will withdraw from the Paris accord in 2020.

Investment in renewable energy in the developing world also dropped significantly in 2018, according to [an analysis](#) released Monday by BloombergNEF, which tracks worldwide energy trends.

Last year developing countries added “an extra Texas worth of coal generation,” said Ethan Zindler, head of Americas for the group. “And that’s obviously scary.” At the same time, China’s investment in clean energy projects dropped from \$122 billion in 2017 to \$86 billion in 2018.

On Monday, the intergovernmental World Meteorological Organization reported that levels of greenhouse gases in the atmosphere had [hit a record high](#) and that the trend “means that future generations will be confronted with increasingly severe impacts of climate change.”

[With climate change, these Canadian islands are crumbling into the sea](#)

“There is no sign of a slowdown, let alone a decline, in greenhouse gases concentration in the atmosphere despite all the commitments under the Paris Agreement,” WMO Secretary General Petteri Taalas said in an announcement, noting that the last time the Earth experienced comparable CO₂ concentrations, “sea level was 10 to 20 meters higher than now.”

Next month at the annual U.N. climate conference in Spain, representatives from countries around the world will face pressure to ramp up their ambition — not just their rhetoric — over the coming year. So far, only a handful of the world’s largest greenhouse gas emitters have policies in place to meet the promises they made in Paris four years ago, much less more aggressive strategies “for transformative climate commitments at the breadth and scale necessary,” Tuesday’s report says. The report also found that cutting greenhouse gas emissions could do more than just mitigate climate change. It also could reduce air pollution, improve public health and help conserve wildlife.

Niklas Höhne, a German climatologist and founding partner of NewClimate Institute, which created the Climate Action Tracker, a tool that tracks whether nations are meeting their goals, said Tuesday’s report demonstrates in painful detail how past inaction has made the urgency around climate change more dire.

“We are not a little bit off, we are far off from where we should be,” Höhne said in an email. “The longer action is delayed, the higher cuts will be required. We cannot wait another 10 years.”

Still, Höhne and others have continued to find hope that the world might still marshal the action necessary to stave off the worst effects of climate change.

Already, 70 countries have told U.N. officials they plan to craft more ambitious national climate pledges in 2020 — even as some of the world’s largest emitters have yet to follow suit. Scores of private

companies have set their own targets, vowing to investors to sharply cut their carbon footprints. A growing list of states and cities have pushed ahead with policies aimed at meeting the goals of the Paris accord, even as the U.S. government remains on the sidelines.

“These examples show that the transition is possible,” Höhne said.

Even the authors of Tuesday’s depressing U.N. report wrote that they see slivers of hope “behind the grim headlines.”

“A number of encouraging developments have taken place,” they wrote, “and the political focus on the climate crisis is growing in several countries, with voters and protesters, particularly youth, making it clear that it is their number one issue.”

Juliet Eilperin contributed to this report.

Countries urgently need to ramp up emissions cuts to meet climate targets

New U.N. report urges much deeper cuts ahead of 2020 climate talks



Signers to the 2015 Paris climate treaty agreed to lower greenhouse gas emissions to keep global warming to well below 2 degrees Celsius. But nations' current pledged cuts are nowhere near enough to make that target, a U.N. report says.

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By [Carolyn Gramling](#)

10 HOURS AGO

The world is way behind on its commitment to reduce greenhouse gas emissions — and nations need to act immediately if they want to stave off the worst effects of climate change, an international study finds.

Humans [must reduce emissions by 2.7 percent each year from 2020 to 2030](#) just to achieve the goal set by the 2015 Paris Agreement of limiting global warming to 2 degrees Celsius above preindustrial times by 2100. That's the conclusion of the 2019 emissions gap report released by the U.N. Environment Programme, or UNEP, on November 26. The report, the 10th such annual report released by the UNEP, analyzes the gap between global greenhouse gas emissions and how much the world needs to reduce those emissions to avoid the worst consequences of climate change.

To limit warming to 1.5 degrees Celsius — a more stringent goal but [one that studies show](#) would result in fewer life-threatening climate extremes, less sea level rise and

fewer species lost (*SN: 10/7/18*) — nations would have to reduce emissions by 7.6 percent each year during the next decade, the report finds.

“Each year, the report has found that the world is not doing enough,” Inger Andersen, UNEP executive director, writes in a foreword to the 2019 report. “The size of these annual cuts may seem shocking, particularly for 1.5° C. They may also seem impossible, at least for next year. But we have to try.”

This year’s report comes at a particularly significant time, as nations consider how much they will pledge to reduce greenhouse gas emissions by December 2020, a deadline set by the Paris Agreement.

Originally 195 nations, including the United States, [agreed to reduce their greenhouse gas emissions sufficiently to limit warming](#) to “well below” 2 degrees Celsius (*SN: 12/12/15*). The future of the United States’ participation in the treaty remains in limbo: President Donald Trump has begun proceedings that would withdraw the country from the treaty by November 4, 2020.

Countries’ current pledges to reduce emissions are nowhere near enough to achieve even the 2-degree target, the UNEP report finds. Even if all of those contributions are implemented, the world would still warm by 3.2 degrees C (5.8 degrees Fahrenheit) by 2100.

Meanwhile, the report notes, greenhouse gas emissions continue to rise rather than fall. Over the last decade, total greenhouse gas emissions rose 1.5 percent per year, hitting a new high in 2018 of 55.3 metric gigatons of “carbon dioxide equivalent,” in which the total mass of the gases has the atmospheric warming potential of that much carbon dioxide.

Previous studies have found that carbon dioxide [emissions from existing power plants](#) and vehicles, as well as plants that are planned or under construction, could already be high enough by midcentury to increase global average temperatures to

1.5 degrees C (SN: 7/1/19).

It may still be possible to bring global temperatures down again by 2100, with the help of [negative emissions technologies](#), which can remove carbon dioxide from the atmosphere (SN: 12/17/18). But it's unclear whether that removal would come too late to avoid some of the worst knock-on effects of warming temperatures, such as the collapse of large parts of the ice sheets blanketing West Antarctica and Greenland, and the accompanying sea level rise.

UNEP's report is the latest in a series of increasingly urgent international assessment studies on climate. Scientists and activists hope that it will spur the Paris treaty's signatories to devise more stringent targets for themselves.

The report's release also comes one week ahead of the start of the U.N. Climate Change Conference COP 25, an annual summit in which nations assess their progress in combating climate change.

At this year's COP, to be held in Madrid, many of the more vulnerable nations are likely to make their case for the bigger emitters to take greater action, says Elliot Diringer, a climate policy expert at the Center for Climate and Energy Solutions, a think tank based in Arlington, Va. "There will be plenty of political messages sent, urging countries to do more," Diringer says. "The major emitters will be put on notice."

The UNEP report zooms in on seven economic powerhouses — Argentina, Brazil, China, the European Union, India, Japan and the United States — which are currently responsible for about 56 percent of the world's greenhouse gas emissions. These entities are in a financial position to decarbonize their economies, the report notes, but that will require fundamental changes, particularly to the energy sector, such as expanding renewable energy and phasing out coal.

Outlining these solutions and the choices that nations can make, Diringer says, is a key part of the report. "People need to see that there are solutions, too. We know the

direction we need to go, and we need to move in that direction as quickly as possible.”