

# World heading into ‘uncharted territory of destruction’, says climate report

**Governments and businesses failing to change fast enough, says United in Science report, as weather gets increasingly extreme**



People in Pakistan carry relief aid through flood water. Photograph: Fareed Khan/AP

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The world’s chances of avoiding the worst ravages of climate breakdown are diminishing rapidly, as we enter “uncharted territory of destruction” through our failure to cut greenhouse gas emissions and take the actions needed to stave off catastrophe, leading scientists have said.

Despite intensifying warnings in recent years, governments and businesses have not been changing fast enough, according to the United in Science report published on Tuesday. The consequences are already being seen in increasingly extreme weather around the world, and we are in danger of provoking “**tipping**

points” in the climate system that will mean more rapid and in some cases irreversible shifts.

Recent flooding in Pakistan, which the country’s climate minister claimed had covered a third of the country in water, is the latest example of extreme weather that is devastating swathes of the globe. The heatwave across Europe including the UK this summer, prolonged drought in China, a megadrought in the US and near-famine conditions in parts of Africa also reflect increasingly prevalent extremes of weather.

The secretary general of the United Nations, António Guterres, said: “There is nothing natural about the new scale of these disasters. They are the price of humanity’s fossil fuel addiction. This year’s United in Science report shows climate impacts heading into uncharted territory of destruction.”

The world is as likely as not to see temperatures more than 1.5C above pre-industrial levels, within the next five years, the report found. Governments agreed to focus on holding temperatures within the 1.5C limit at the landmark UN Cop26 climate summit in Glasgow last November, but their pledges and actions to cut emissions fell short of what was needed, the report found.

Since Cop26, the invasion of Ukraine and soaring gas prices have prompted some governments to return to fossil fuels, including coal. Guterres warned of the danger: “Each year we double down on this fossil fuel addiction, even as the symptoms get rapidly worse.”

The world was also failing to adapt to the consequences of the climate crisis, the report found. Guterres condemned rich countries that had promised the developing world assistance but failed to deliver. “It is a scandal that developed countries have failed to take adaptation seriously, and shrugged off their commitments to help the developing world,” he said.

Rich countries should provide \$40bn (£34.5bn) a year at once to help countries adapt, he said, and increase that to \$300bn a year by 2030.

The question of adaptation to the impacts of extreme weather, and the “loss and damage” that vulnerable countries are experiencing, is likely to be one of the key issues at the forthcoming Cop27 UN climate talks in Egypt in

November. **Leading figures are concerned** about the prospects for that conference, as geopolitical upheavals have imperilled the fragile consensus reached at Glasgow.

Tasneem Essop, the executive director of the Climate Action Network, said governments must prepare for Cop27 with action plans that reflected the urgency of the crisis. “The terrifying picture painted by the United in Science report is already a lived reality for millions of people facing recurring climate disasters. The science is clear, yet the addiction to fossil fuels by greedy corporations and rich countries is resulting in losses and damages for communities who have done the least to cause the current climate crisis.”

She added: “For those already experiencing the climate emergency, particularly in the global south, the Cop27 conference in Egypt must agree to new funding to help them rebuild their lives.”

The United in Science report was coordinated by the World Meteorological Organization, and involves the UN Environment Programme, the UN Office for Disaster Risk Reduction, the World Climate Research Programme, the Global Carbon Project, the UK’s Met Office and the Urban Climate Change Research Network.

Separately, researchers from Oxford University said shifting the global economy to a low-carbon footing would save the world at least \$12tn (£10.4bn) by 2050, compared with current levels of fossil fuel use. Rising prices for gas have shown the vulnerability of economies dependent on fossil fuels.

The study, published in the journal *Joule* on Tuesday, found that moving rapidly to renewable power and other forms of clean energy would benefit the economy, as the costs of green technology have plummeted.

Rupert Way, a postdoctoral researcher at Oxford’s Smith School of Enterprise and the Environment, a co-author of the paper, said: “Past models predicting high costs for transitioning to zero-carbon energy have deterred companies from investing and made governments nervous about setting policies that will accelerate the energy transition and cut reliance on fossil fuels. But clean energy costs have fallen sharply over the last decade, much faster than those models expected.”

## The United in Science report found:

- The past seven years were the hottest on record and there is a 48% chance during at least one year in the next five that the annual mean temperature will temporarily be 1.5C higher than the 1850-1900 average.
- Global mean temperatures are forecast to be between 1.1C and 1.7C higher than pre-industrial levels from 2022-2026, and there is a 93% probability that at least one year in the next five will be warmer than the hottest year on record, 2016.
- **Dips in carbon dioxide emissions** during the lockdowns associated with the Covid-19 pandemic were temporary, and carbon dioxide emissions from fossil fuels returned to pre-pandemic levels last year.
- National pledges on greenhouse gas emissions are insufficient to hold global heating to 1.5C above pre-industrial levels.
- Climate-related disasters are causing \$200m in economic losses a day.
- Nearly half the planet – 3.3 to 3.6 billion people – are living in areas highly vulnerable to the impacts of the climate crisis, but fewer than half of countries have early **warning systems for extreme weather**.
- As global heating increases, **“tipping points” in the climate system** cannot be ruled out. These include the drying out of the Amazon rainforest, the melting of the ice caps and the weakening of the Atlantic meridional overturning circulation, known as the Gulf stream.
- By the 2050s, more than 1.6 billion people living in 97 cities will be regularly exposed to three-month average temperatures reaching at least 35C.