

'Reducing global emissions at the pace we need requires that all countries adopt stronger domestic policies and targets,' a Climate Action Tracker researcher said. Illustration: Guardian Design

Greenhouse gas emissions

Visualised: how all of G20 is missing climate goals — but some nations are closer than others

As world leaders gather at Cop28, these charts show how far away the major economies are from their targets

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Not a single G20 country has policies in place that are consistent with the Paris agreement's goal of limiting global heating to 1.5C and meeting their "fair share" of emissions reduction.

The assessment, based on data up to 5 December provided by the [Climate Action Tracker](#), comes as leaders gather in Dubai for the Cop28 conference.

It assesses each country against its “fair share” contribution to the effort to reduce greenhouse gas emissions, taking into account considerations such as the historical emissions of higher-income countries, which may increase their responsibility to take action. It also considers issues such as economic capability and welfare cost.

Eight G20 countries rated ‘critically insufficient’

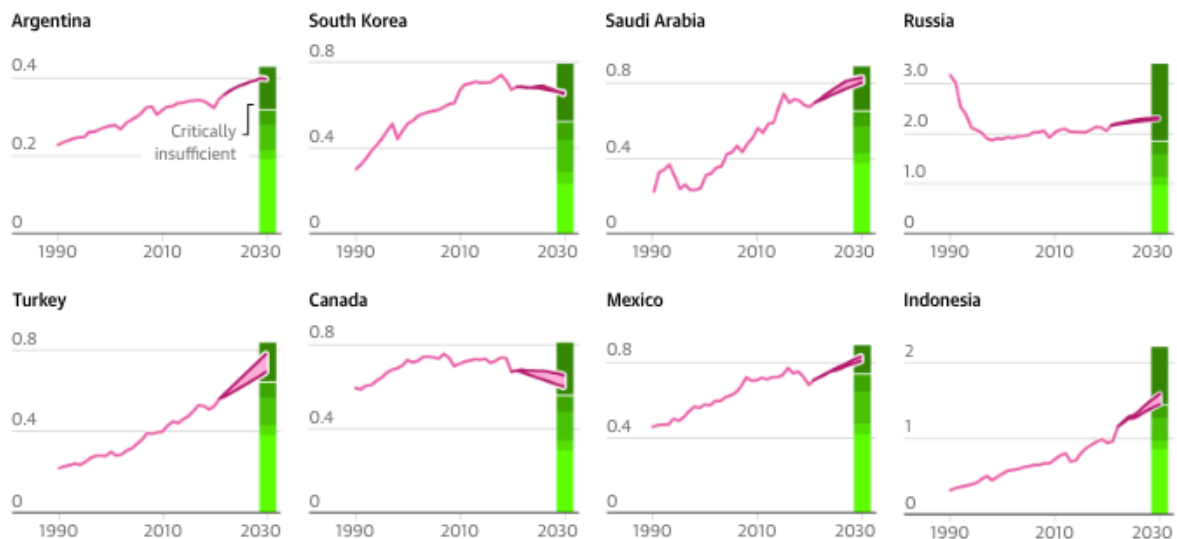
Eight G20 countries – Argentina, [South Korea](#), Saudi Arabia, Russia, Turkey, Canada, Mexico and Indonesia – would all be rated as “critically insufficient” when accounting exclusively for their fair share of contributions. This means their climate policies and commitments reflect minimal to no action, and would lead to warming of 4C (7.2F) above pre-industrial levels over this century

Critically insufficient G20 countries

Annual emissions, billion metric tonnes of CO2 equivalent

— Historical ■ Forecast range based on current policy

■ 2030 assessment of climate policies from critically insufficient to Paris agreement compatible, based on fair-share analysis



Guardian graphic. Source: Climate Action Tracker. Emissions figures exclude land use and forestry impact. Range = critically insufficient (darkest), highly insufficient, insufficient, almost sufficient, 1.5C Paris agreement compatible (lightest)

Even though some of these countries – such as Turkey and Mexico – have such low historical emissions that their requirements are not as stringent as high-income countries, their forecast increased future emissions are still too high and leave them in Climate Action Tracker’s worst category.

Argentina’s emissions are forecast to be 398m metric tonnes by 2030, compared with a 1.5C-compatible fair share limit of 191m metric tonnes. Environmentalists are worried that Argentina may regress further after the election last month of the far-right president, Javier Milei, who has referred to climate breakdown as a “socialist lie”.

The 11 Argentinian negotiators sent to Dubai for Cop28 are representatives of the previous government and so, in effect, are lame ducks. Milei, who is an admirer of Donald Trump, has indicated he is likely to follow Trump’s lead and withdraw Argentina from the Paris agreement.

Likewise, South Korea’s 2030 emissions level of 654m metric tonnes is significantly higher than the limit of 235m metric tonnes under a 1.5C-compatible fair share scenario.

EU and UK among those rated ‘highly insufficient’

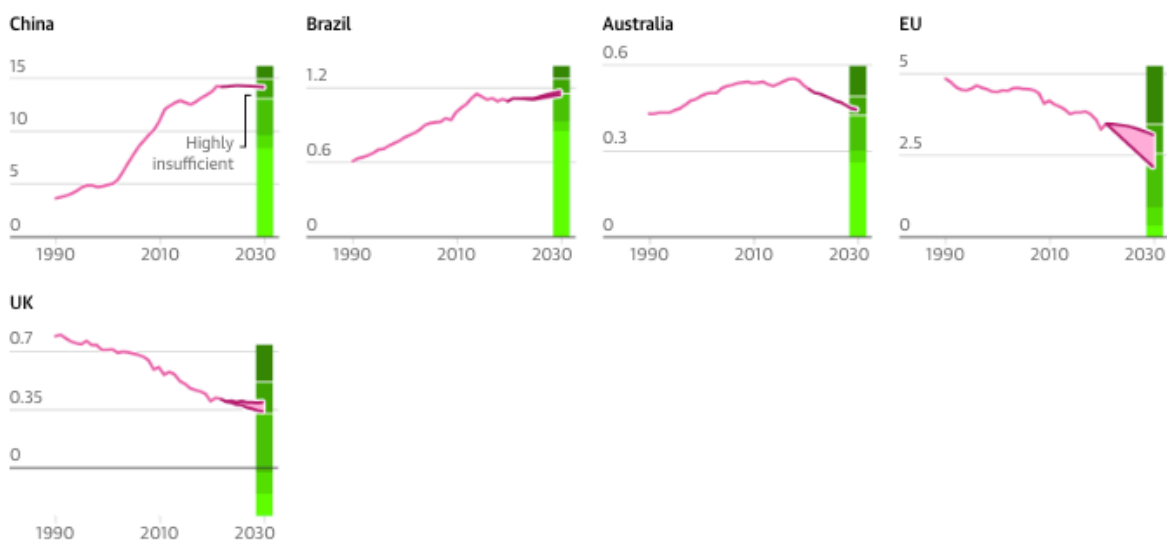
China, Brazil, Australia, the EU and the UK would all be rated as “highly insufficient”, meaning their policies and commitments are not consistent with the 1.5C (2.7F) temperature rise limit when factoring in their historical emissions.

Highly insufficient G20 countries

Annual emissions, billion metric tonnes of CO2 equivalent

— Historical ■ Forecast range based on current policy

■ 2030 assessment of climate policies from critically insufficient to Paris agreement compatible, based on fair-share analysis



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The UK, under a fair share scenario, would need to have net negative emissions of 152m metric tonnes by 2030 to be consistent with the 1.5C target pledged at Paris. The analysts suggested that where such stringent reductions could not be achieved domestically, a country could compensate by measures such as climate finance to support emissions reductions in other countries.

The UK is way off this target, with emissions forecast to be about 367m metric tonnes by 2030.

China is by far the largest individual emitter in the G20, with its emissions forecast to peak at 14.3bn metric tonnes in 2026.

In Brazil, after four years under the rightwing hardliner Jair Bolsonaro, Luiz Inácio Lula da Silva of the Workers' party was elected as president last year on pledges to reduce deforestation and protect the rights of Indigenous people.

The amount of forest being cleared has fallen significantly but the country is still a major fossil fuel producer and has a heavily polluting agricultural sector. The news that Brazil is set to align itself with the Opec oil cartel was met with disappointment from many campaigners. Brazil is also planning to stage an auction for oil drilling blocks in ecologically sensitive areas later this month.

However, Brazil this year improved its emission reduction targets after they had been reduced by the Bolsonaro administration, and as hosts of Cop30 in 2025 Lula is under pressure to be seen as a climate leader.

US and India rated 'insufficient'

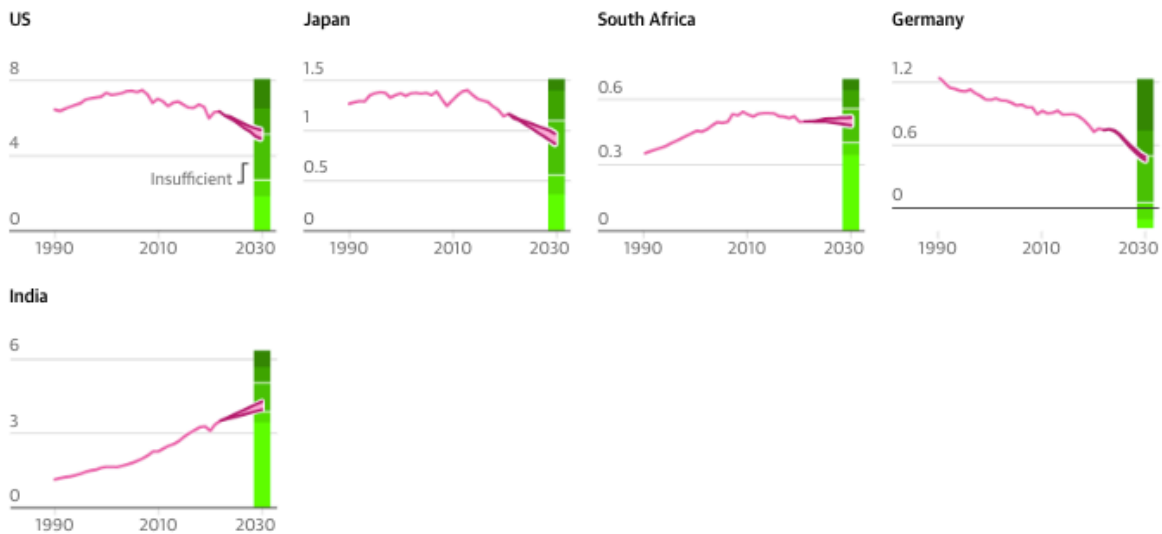
Five G20 countries – the US, Japan, South Africa, Germany and India – would all be rated “insufficient” in the fair share analysis. The assessment indicates that while these countries' policies and commitments mean their emissions are likely to flatline or even fall, they are not likely to fall at a fast enough pace to prevent global warming of more than 1.5C.

Insufficient G20 countries

Annual emissions, billion metric tonnes of CO2 equivalent

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The emissions of Indonesia and India are forecast to rise but this is accounted for to a degree under the fair share distribution.

The US's forecast 2030 emissions of more than 5bn metric tonnes is significantly higher than the 1.9bn metric tonnes it was allocated by the analysts under a 1.5C-compatible fair share model.

The US has so far achieved about one-third of its 2030 emissions reduction target and took a major step forward with Joe Biden's Inflation Reduction Act, which included promising signs including investments in clean energy.

While there are concerns that the potential election of a Republican president next year could undermine progress, there is also hope that this private investment is firmly rooted and would be hard to completely undo.

Like the UK, Germany would need to be a net absorber of emissions in 2030 – to the tune of 104m metric tonnes – but it is forecast to be emitting 472m metric tonnes by this point.

The assessment ranks several non-G20 countries' policies and commitments as compatible with 1.5C global warming under a fair share scenario, including Ethiopia, Kenya and Nigeria.

Leonardo Nascimento, a researcher for the Climate Action Tracker, said: “The world is on track for a disastrous 3C of warming by the end of the century. This is an improvement compared with 10 years ago but remains drastically insufficient to ensure a livable future for the next generations.

“Reducing global emissions at the pace we need requires strong international cooperation and that all countries, without exception, adopt increasingly stronger domestic policies and targets. The time to act is now. Any additional delays on improving targets and policies intensifies climate change and increases the effort to reduce emissions later.”

When explaining the fair share classifications, a researcher at the Climate Action Tracker said: “Assessing what is fair depends on the viewpoint and interests of governments. Many consider it fair that those who have made a bigger contribution to the problem, or who have a higher capability to act, should do more. To create our ranges, we compiled a wide range of perspectives on what is considered a fair contribution to greenhouse gas reductions: so-called effort-sharing studies.”