

Brazil ratification pushes Paris climate deal one step closer

Country joins top emitters United States and China in joining the agreement this month.

Jeff Tollefson

14 September 2016



Zuma Press/eyevine

São Paulo, Brazil: the country accounts for 2.5% of global carbon emissions.

Brazil, one of the world's leading greenhouse-gas emitters, ratified the [Paris climate pact](#) on 12 September, adding to growing momentum to bring the 2015 agreement into force before the end of this year.

The agreement had received a significant boost earlier this month when the United States and China — by far the world's leading emitters — formally joined on 3 September.

The Paris deal seeks to hold warming 'well below' [2°C above pre-industrial temperatures](#). For it to take effect, 55 countries accounting for 55% of global emissions must ratify or otherwise formally join the accord. Countries can ratify, accept or approve the deal, depending on their domestic processes.

So far, 28 countries representing 41.5% of global emissions have joined up, and no one knows precisely what combination of countries might push the agreement over the threshold.

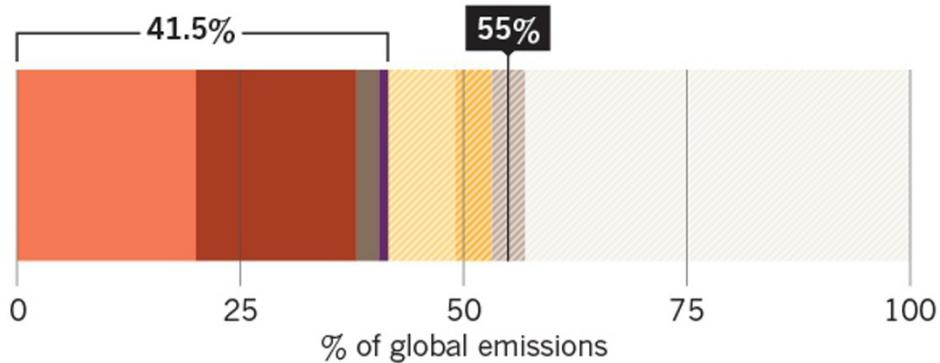
HOW MIGHT THE PARIS DEAL COME INTO FORCE?

The Paris agreement needs 55 countries representing at least 55% of global emissions to join up to become legally binding.

Formally joined



Big emitters yet to join



The European Union, whose 28 member states account for 12% of global emissions, is likely to join the agreement as one bloc.

©nature

At least 58 countries have committed to join by the end of the year, but many of those are island states and other small emitters, says Eliza Northrop, who is tracking the process for the World Resources Institute, an environmental think tank in Washington DC. So the question is how quickly some of the other major emitters will come through, including India, Japan, South Korea, Mexico and Canada.

"It's a bit of a puzzle at this point, but I feel very confident that it will enter into force this year," says Northrop.

Less clear is whether the agreement will take effect before the next round of climate negotiations in Marrakech, Morocco, in November. For that to happen, other major emitters would need to ratify the Paris pact by 7 October, because it only enters into force 30 days after the '55/55' threshold has been met.

One of the biggest challenges comes from the European Union, where each country must go through its own legislative procedures before the negotiating bloc can sign off as a whole. But there is little doubt that the Paris agreement will take effect in record time. By comparison, the Paris deal's predecessor, the 1997 [Kyoto Protocol](#), didn't enter into force for more than seven years after it was adopted.

Nature | doi:10.1038/nature.2016.20588