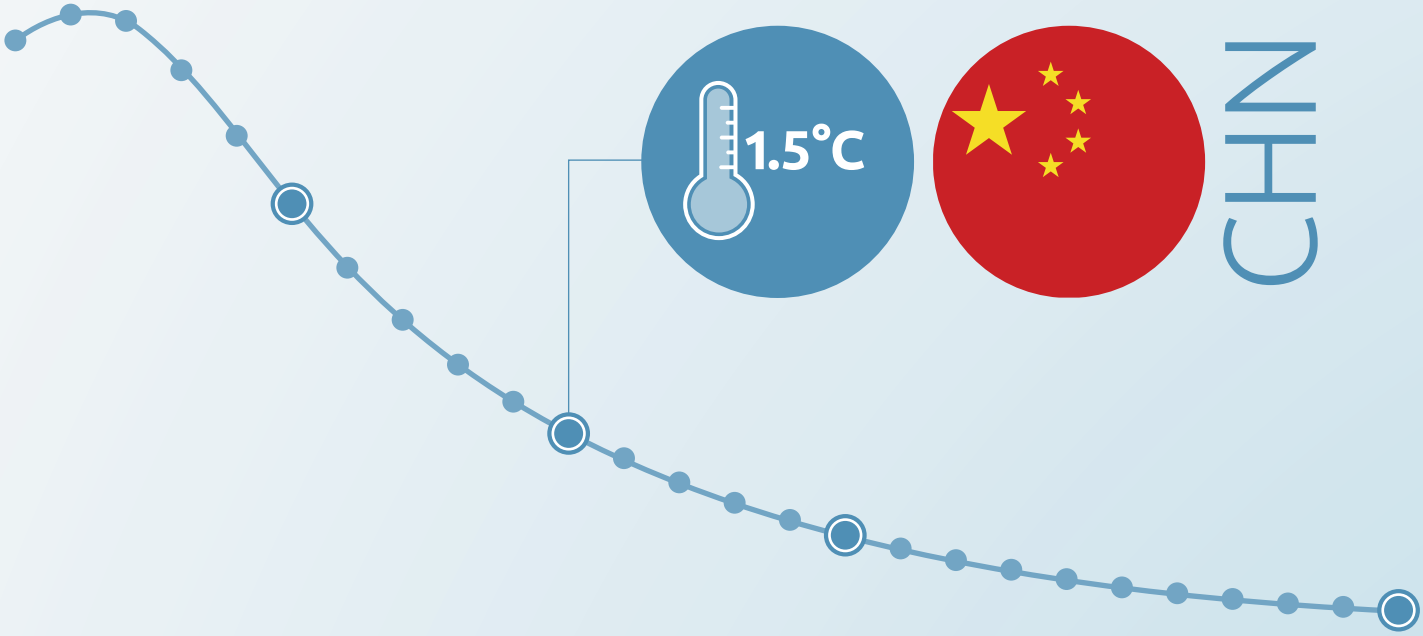
Climate Action Tracker



Climate Action Tracker

1.5°C-compatible climate action and targets: China

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CLIMATE ANALYTICS
NEW CLIMATE INSTITUTE
IESR Institute for Essential Services Reform

CHINA

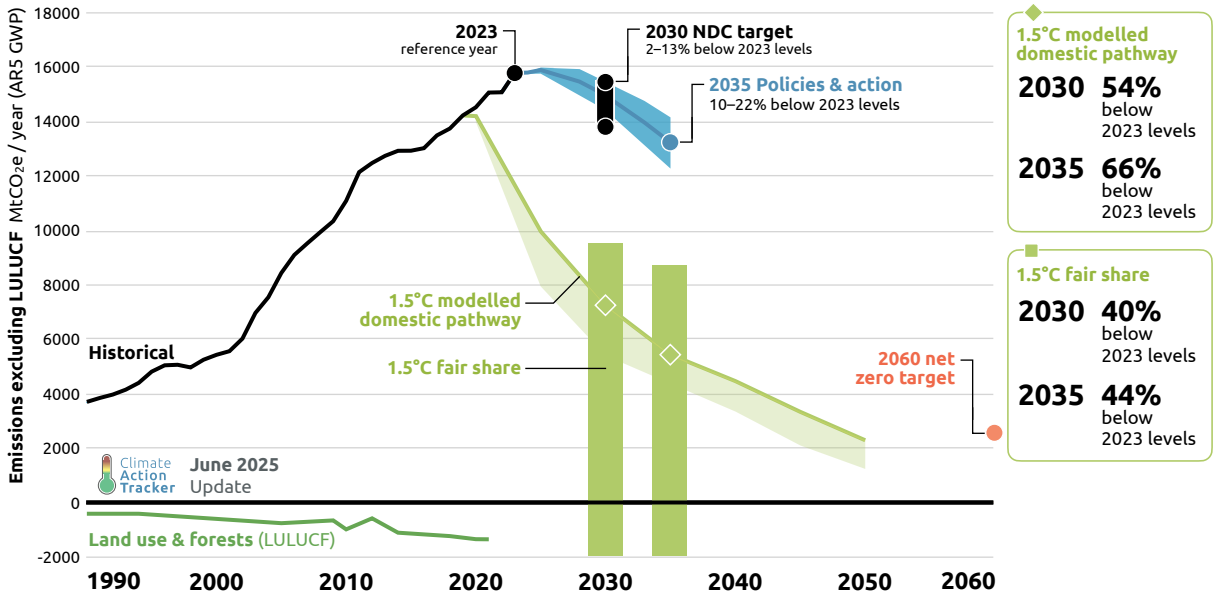
China is the world's largest greenhouse gas (GHG) emitter, responsible for 30% of global emissions in 2024. Following decades of rapid growth, emissions have stabilised in 2024, albeit at historically high levels. However, China's energy consumption remains the largest contributor to global CO_2 emissions and, as such, is the single most important factor driving global emissions.

The CAT projects that China's CO_2 emissions have already peaked or will do so in the short term. While peaking emissions is a critical milestone, the focus should now shift to steep and sustained emissions reductions across all sectors. In China, this will be particularly challenging: despite the rapid deployment of renewables—reaching its 1,200 GW wind and solar target six years early—coal continues to play a major role in the energy mix, keeping emissions high. Notably, coal power construction hit a decade-high in 2024, following the 2022-2023 permitting boom.

The country's future emissions trajectory remains uncertain, as it has yet to submit its 2035 NDC. The government is expected to set a target that includes a quantified reduction in GHG emissions below peak-year levels. But so far, the government has refrained from specifying what year it will peak its emissions. This continued ambiguity, combined with economic headwinds and growing geopolitical tensions, creates large uncertainty on the level of ambition China will ultimately commit to.

Encouragingly, the government has announced that the 2035 NDC target will, for the first time, cover all GHGs and all sectors, an important step forward. Yet, there is still significant room to increase ambition. China's upcoming climate commitments should prioritise sustained emissions reductions after the peaking year and ensure alignment between medium- and long-term targets. As the world's largest emitter, China's NDC will have an outsized impact on global efforts to limit warming to 1.5°C. A more ambitious target could meaningfully reduce projected global emissions and help close the emissions gap.

1.5°C-compatible NDC targets for 2030 and 2035



CHINA	2030	2035
INCLUDING land use & forests	Emissions reductions from 2023 levels	
1.5°C modelled domestic pathway	**64%**	**76%**
EXCLUDING land use & forests		
1.5°C modelled domestic pathway	**54%**	**66%**

As global GHG emissions need to be roughly cut in half by 2030 to be in line with the 1.5°C limit, the emissions cuts for the largest emitter, China, need to be in that order of magnitude:

- From an equity perspective, our fair share pathways require a little less than the global reductions, i.e. **40% below 2023 levels by 2030 and 44% below 2023 levels by 2035 (emissions from all sectors, excl. LULUCF)**.
- But considering globally least costs, our modelled domestic pathways require a bit more than the global average, i.e. **54% below 2023 levels by 2030 and 66% below 2023 levels by 2035 (emissions from all sectors, excl. LULUCF)**.[1]

Although recent projections suggest that China's emissions may have peaked or stabilised, current policies remain well off track from both our 1.5˚C fair share and modelled domestic pathways. Under current policy projections, China's 2035 gross emissions (excl. LULUCF) are projected to reach 12,300–14,200 $MtCO_2e$. This is well above the gross emission levels (8,800 $MtCO_2e$) needed for a 1.5°C fair share pathway, and more than double the levels (5,200 $MtCO_2e$) required to align with a 1.5°C modelled domestic pathway.

A minimum 27% reduction in total GHG emissions (excl. LULUCF) from 2023 levels by 2035 is crucial for China to stay on track for its 2060 domestic net zero target, assuming a linear decline in emissions from the peak to 2060.

Entry points to increasing climate action

To align with a 1.5°C pathway and raise the ambition of its climate commitments, China could do the following**:**

Ideally, China's NDC targets should be specified from a historical base year rather than peak year: Assessing the ambition of a reduction target from the peak year is uncertain as it depends on the level at which emissions peak. If they plateau at a higher level through to 2030, much steeper 2030-35 reductions will be required; current policies suggest this to be the case.

China needs to strengthen its energy-related climate targets: China has reached its 1,200 GW wind and solar capacity target six years ahead of schedule, totalling 1,400 GW in 2024, and is also on track to meet its 25% non-fossil energy share target by 2030. Updating its NDC with more ambitious goals, particularly for renewable energy deployment and integration, would reflect this progress and help drive deeper emission reductions through 2030.

China should set clear targets for coal consumption reduction: While the rapid deployment of renewables is beginning to meet demand, it is not yet sufficient to meaningfully cut fossil fuel consumption and bring down emissions in the medium-term. China remains the world's largest coal consumer: coal accounted for 60% of power generation in 2023 and construction starts reached their highest level since 2015, driven by a permitting boom. To be compatible with a 1.5°C pathway, China must halt new plants approval and rapidly decrease the share of unabated coal in power generation, with a complete phase-out before 2040.

China should establish clear targets and policies to reduce non-CO_2 GHGs: In 2024, China emitted approximately 2.8 Gt CO_2e of non-CO_2 GHGs. Although its 2035 NDC is expected to be economy-wide and include all greenhouse gases, the formulation and ambition of non-CO_2 targets remain uncertain. Defining specific targets and implementing additional measures, particularly for methane, would improve transparency and support the meaningful reduction of non-CO_2 emissions.

For further details on China's current policies and action, please see our China assessment.

1 For further information on the CAT methodology, please see modelled domestic pathways and fair share.

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CAT The Consortium

The Climate Action Tracker (CAT) is an independent scientific analysis produced by two research organisations tracking climate action since 2009. We track progress towards the globally agreed aim of holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C.

climateactiontracker.org

Climate Analytics is a non-profit institute leading research on climate science and policy in relation to the 1.5°C limit in the Paris Agreement. It has offices in Germany, the United States, Togo, Australia, Nepal and Trinidad and Tobago.

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NewClimate Institute is an independent non-profit organisation that develops solutions to tackle climate change and drives their implementation worldwide. Through research, policy advice and knowledge sharing, we aim to raise the ambition for climate action and support sustainable development.

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Institute for Essential Services Reform (IESR) is an energy and environment focused think-tank that aims to accelerate the energy transition by supporting sustainable mobility, green economy, and well designed climate change policy. IESR has experience mainly in Indonesia, but is expanding its focus to work in other regions and countries.

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