

China and climate change ahead of COP21

China's stance on global climate change action has evolved over time, as its domestic climate policy has gained ground against an unabated focus on economic growth rates and disregard for negative externalities. Its intended nationally determined contribution (INDC), submitted to the 21st UN Conference of the Parties (COP21) to the UN Framework Convention on Climate Change (UNFCCC), is a – still hesitant – step in support of the goal of limiting global warming to 2°C above 1990 levels.

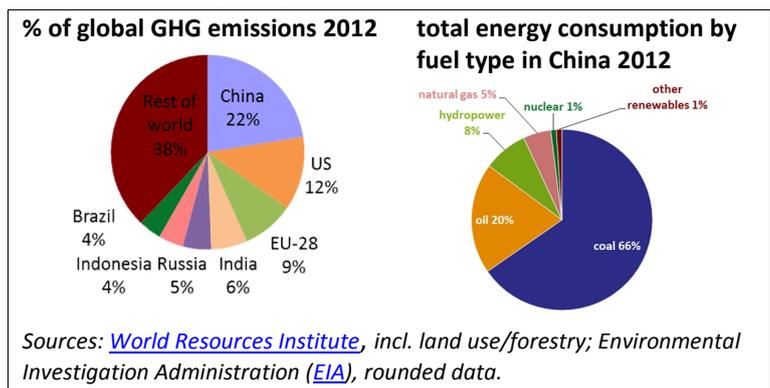
China's ranking as the world's largest greenhouse gas (GHG) emitter

One of the downsides of China's [breathtaking](#) economic development during the past three decades is the country's ranking as the world's largest GHG emitter. China's carbon dioxide (CO₂) emissions [result](#) primarily from fossil-fuel burning (90%) and cement production (10%). China is the world's [first](#) coal producer and accounts for almost as much [coal consumption](#) as the rest of the world together. In 2012, coal was therefore responsible for the bulk (66%) of China's energy consumption, with smaller shares for oil (20%) and gas (5%). In 2014 coal use declined by [2.9%](#), but [new](#) coal-fired power plants are [planned](#). Given China's population size (1.4 billion) its CO₂ emissions [per capita](#) are still lower than in major developed countries where they have already peaked, whereas they are still on the rise in China. Carbon [intensity](#) (emissions per unit of GDP) is very high in China and thus offers significant potential for mitigating carbon emissions.

China's climate change policies

China's domestic climate action is driven by economic considerations, notably by the structural changes linked to the country's transition from a high-growth economic model to a more sustainable economic pathway ('the [new normal](#)'), mounting environmental concerns resulting from dramatic [air](#), [water](#) and [soil](#) pollution and the growing awareness of the need to step up China's own climate change resilience and develop [adaptation](#) strategies. Despite this evolution, a recent [survey](#) shows that Chinese – like US – citizens are much less worried about climate change than their European, African and Latin American peers.

China's 12th Five-Year Plan (2011-2015) sets out a climate [policy framework](#) and binding targets aimed at reducing energy intensity by 16% and CO₂ intensity by 17%, increasing the forest coverage rate to [21.66%](#) and the share of non-fossil fuels in China's primary energy mix to 11.4%. China is well [on track](#) to meet these [targets](#). In 2014, the cumulative installed non-fossil energy capacity reached 11.2% of the 2015 target: 300 GW of hydropower, 95 GW of on-grid wind power, 28 GW of solar power, and 19 GW of nuclear power. Installed solar power capacity grew 400 times which indicates a major policy change, since China [used to](#) produce solar panels primarily for export. In the period 2006-2014 the Chinese government supported clean energy capacity installation with [feed-in tariffs](#) worth US\$20 billion. In 2014, renewable energy investment in China stood at US\$[83.3 billion](#) (up by 33% from 2013) compared with US\$57.5 billion in Europe and US\$38.3 billion in the US. The 13th Five-Year Plan (2016-2020) currently under [discussion](#) is likely to further boost climate action, so far covered by pilot projects such as seven sub-national carbon emissions trading [schemes](#) (ETS) and a [low-carbon city initiative](#) (LCCI). Unlike the [US](#), which [failed](#) to introduce a nationwide ETS, China recently announced its [national](#) cap and trade system for 2017. Cooperation with the [EU](#) and the [US](#) on, and investment in, carbon [capture](#), utilisation and storage (CCUS) [deployment](#) is likely to gain momentum.



China's COP21 negotiating position

China's climate change position in the past

Since the 1997 Kyoto conference, when China's stance was termed the '[three No's policy](#)' ('no obligations on China, no voluntary commitments by China, and no future negotiations to bind China'), its approach to global climate change action has gradually [evolved](#) towards greater [flexibility](#) out of pure economic self-interest. With a participation of roughly [56%](#) in Clean Development [Mechanism](#) projects, China has become the largest beneficiary of one of the [UNFCCC's](#) flexibility mechanisms. At the 2009 [Copenhagen](#) conference China was still criticised for its [stalling tactics](#) and refusal to agree to mandatory targets. Given its current domestic climate change policies and recent diplomatic outreach to the US to strike a [deal](#) on carbon emission caps, China has raised its profile in climate issues as well as expectations for significant mandatory commitments.

Key elements of China's COP21 position

Equity concerns remain a key element of continuity in China's strategy. Its COP21 negotiating [position](#) thus stresses that the Paris climate agreement must be consistent with the principles of equity and common but differentiated responsibilities ([CBDR](#)) and respective capabilities. The differentiation between 'Annex I (developed) countries' and 'Non-Annex I (developing) countries' under the 1992 UNFCCC is based on the argument that developed countries bear historical responsibilities due to their longer-lasting [contribution](#) to GHG concentrations. As a result responsibilities must differ, it is argued, notably in the field of mitigation, in respect of which China expects developed countries to commit to absolute quantitative emission reduction targets, while developing countries, including China, are to take enhanced mitigation actions in accordance with their need for sustainable development with support from developed countries. But the rapid economic development of countries such as China and Singapore that are still considered [Non-Annex I countries](#) has given rise to repeated calls to [review](#) this bifurcated system, interpret it more [flexibly](#) or even unify it.

Despite China's adherence to the CBDR principle, self-defined mandatory commitments appear to be no longer precluded, as its COP21 position also states that it 'will take on international commitments that match its national circumstances'. [China](#) like the EU but unlike the [US](#) advocates a [legally binding](#) Paris deal.

As for finance, it suggests that climate funding from developed countries to developing countries be scaled up yearly from [US\\$100 billion](#) per year as of 2020 and largely be channelled through the Green Climate [Fund](#) ([GCF](#)). China announced the setting up of a separate [US\\$3.1 billion](#) China-South South climate cooperation fund to back low-income countries in combating climate change, thus outperforming the US in respect of its GCF pledge of [US\\$3.0 billion](#).

Table 1: China's voluntary pledges linked to COP15 in 2009 and INDC for COP21 in 2015

	CO ₂ emissions	CO ₂ intensity	share of non-fossil fuels in primary energy mix	forest stock volume/cover
COP15	no commitment	-40% to 45% by 2020 from 2005 levels	15% by 2020	+40 million ha forest cover; +1.3 billion cubic metres by 2020 from 2005 levels;
COP21	to peak 'around' 2030	-60% to 65% by 2030 from 2005 levels	20% by 2030	+4.5 billion cubic metres by 2030 from 2005 levels

Source: [China's INDC for COP21](#).

Assessments of China's COP21 position

China seems to make stronger commitments in 2015 than it did in 2009. But its current pledges feature large [uncertainties](#) and will be an [insufficient](#) contribution to achieve the overall 2°C goal. China's CO₂ emissions peak target is criticised for allowing China to [continue](#) increasing emissions and for its [vagueness](#), as the peak level is not identified. [Projections](#) of China's absolute CO₂ emissions in 2030 vary significantly across studies. A quantitative comparison with the [EU](#) pledge to curb GHG emissions by at least 40% by 2030 from 1990 levels, and the [US](#) commitment to reduce GHG emissions by 26-28% in 2025 (including land use, land use change and forestry – LULUCF) from 2005 levels is not possible. Yet, the target is [regarded](#) as 'an important change in direction' for decoupling economic growth from further increases in emissions. It is [assumed](#) to be a conservative estimate likely to be reached earlier. It thus appears that there is room for China to set more ambitious targets. China's INDC does not contain a long-term post-2030 vision, which is much advocated by the [EU](#) (a GHG emissions cut by 85-90% by 2050). But China has recently [embraced](#) a five-year review clause cherished by the [EU](#) but opposed by countries such as India. This is important in order not to lock in inadequate emission pathways until 2030, but instead to create dynamic evolution of commitments.