

ChinaFAQs

The Network for Climate and Energy Information



Key Questions:

1. Is it true that China is not doing anything to address climate change?
2. Is it true that China's coal use and greenhouse gas emissions are inevitably going to continue to rise throughout the 21st century regardless of what China tries to do?
3. Does it make sense for the U.S. to take climate action given what we know about China's next steps on climate?

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Taking Stronger Action on Climate Change: China and the United States

The U.S. and China are moving forward to fulfill their 2020 greenhouse gas reduction targets and they are beginning to plan for action beyond 2020. Together the U.S. and China make up over 40% of global greenhouse gas emissions,¹ so action on the part of both countries is critical to adequately address climate change. Mutual understanding and action by both countries is important. ChinaFAQs offers this Q&A as part of an occasional series to help inform the discussion regarding next steps.

Q: Is it true that China is not doing anything to address climate change?

A: No, it is not true. China is taking action on multiple fronts to address the climate problem.

China has been investing heavily in renewable energy. In 2013 China was once again the world's number one investor in renewable energy, investing \$54.2 billion, or 21% of the world's total.² 2013 saw China install 12 GW of solar photovoltaic projects, 50% more than any country had previously ever installed in a single year.³ China also has the world's most installed wind power capacity, and has been the world leader in installed wind capacity since 2009.⁴

Along with promoting renewables, China has targets for reducing the energy and carbon intensity (energy consumed or carbon emitted per unit of GDP) of its economy.⁵ In China's 11th Five Year Plan, which covered 2006-2010, China successfully reduced the energy intensity of its economy by 19.1%,⁶ a feat not accomplished in any of the other major emerging economies.⁷

Recently, China launched a \$275 billion investment in improving air quality and regional bans on new coal-fired power plants.⁸ Finally, China has set up seven

pilot cap-and-trade programs for carbon emissions throughout major cities and provinces in China. In terms of total carbon emissions regulated, the Chinese carbon market pilots already make up the second largest amount of regulated carbon emissions, following only the European Union.⁹

Q: Is it true that China's coal use and greenhouse gas emissions are inevitably going to continue to rise throughout the 21st century regardless of what China tries to do?

A: No. China's carbon emissions and coal use rose significantly in the 2000s, but have begun slowing down in recent years.

New installation of coal power in China peaked in 2006 at over 90GW,¹⁰ but since then the number has fallen dramatically to just 36.5 GW in 2013.¹¹

China is also trying hard to control coal for air pollution reasons. In July of 2013, China announced an investment of \$275 billion over five years in curbing air pollution.¹² Then, in September 2013, China announced their Clean Air Action Plan, which included regional bans on new coal plants.¹³

One challenge will be to ensure strong action is taken not only regionally, but also nationally, to ensure China meets its national targets.¹⁴ Despite this and other challenges, however, the natural progression of China's economic development and its efforts to control coal give reasons for optimism. In fact, Lawrence Berkeley National Laboratory (LBNL) says that, given current trends and market policies, China's coal use is projected to peak in 2020.^{15,16} A debate is also taking place about when China's carbon dioxide emissions will peak, with

studies projecting that China's CO2 emissions could peak between 2025 and 2035.¹⁷

China and other developing countries are working to shift to a low carbon path while also trying to lift their people out of poverty and provide the basics for a decent living standard achieved decades ago in more affluent countries. For these reasons developing country emissions are not expected to peak immediately, but China and other developing countries are beginning to shift in that direction. However, having made tremendous economic progress, China is now at a point where stronger and sustained measures are needed to cope with climate and other environmental consequences of growth. This has been dramatized by the urban air pollution crisis. The coming decade will be a critical testing time when China, like other major emitting countries, will need to take much stronger action to achieve and sustain a low-carbon trajectory.

China is now moving to fulfill targets under its 12th Five Year Plan and it is beginning to work on its 13th Five Year Plan. Chinese leaders and energy experts are suggesting strong new measures to limit energy use and improve efficiency,¹⁸ just as planning is moving forward in the U.S. and other countries.¹⁹ China, like the US, can take credit for progress made, but both countries have much more work to do.

Q: Does it make sense for the U.S. to take climate action given what we know about China's next steps on climate?

A: Yes. China is now at a turning point regarding air quality and climate action.

China is at a turning point. The evolving air pollution problems in China have focused the highest level of attention on environmental issues, and China's self-interests²⁰ now strongly align with ambitious climate action.

As former Secretary of the Treasury Henry Paulson said regarding China's action on climate and air, the Chinese see there is a huge need. "If you look at what they are doing, they are doing important things with resource taxes and experimenting with taxing carbon, they are doing a lot of things. And so there is no doubt they are serious about it."²¹

The recent Intergovernmental Panel on Climate Change's report shows that the planet is already experiencing the impacts of climate change,²² and the effects are projected to become more severe unless serious action is taken soon.²³ It is therefore in the interests of all countries to act to avoid huge costs, but they won't if each country sees everyone else stopping. The fact is that all major emitters are taking some action, the U.S. and China included, but none is doing enough.²⁴ The way to accelerate action is for each country to move forward on its own and develop an understanding internationally that encourages everyone to do the same.

The Bottom Line

U.S.-China cooperation on climate, as already seen through smaller scale collaborative efforts that have been embraced by China,²⁵ can and has galvanized proponents of climate action in China. With measures such as the \$275 billion investment in improving air quality, regional bans on new coal-fired power plants, and pilot cap-and-trade systems for carbon emissions, China is ramping up from what they were already doing on air and climate. China is at a pivotal moment where it can be expected to keep doing more. However, this depends in part on their seeing that the U.S. and other countries are also serious about the problem.

This fact sheet is a product of ChinaFAQs, a joint project of the World Resources Institute and experts from leading American universities, think tanks and government laboratories. Find out more about the ChinaFAQs Project at: <http://www.ChinaFAQs.org/>.

Sources

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³ <http://about.bnef.com/press-releases/chinas-12gw-solar-market-outstripped-all-expectations-in-2013/>

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¹⁰ <http://news.bjx.com.cn/html/20130318/423217.shtml> 1998-2011, Compilation of Statistics of Electric Power Industry China Electricity Council, 2012 (in Chinese)

¹¹ http://www.cpnn.com.cn/zdzt/201402/t20140207_652292.html (China Power News Network, in Chinese).

¹² <http://www.reuters.com/article/2013/07/25/us-china-pollution-idUSBRE96001220130725>

¹³ <http://www.chinafaqs.org/blog-posts/chinas-new-clean-air-action-plan>

¹⁴ <http://www.chinafaqs.org/library/chinafaqs-what-are-chinas-national-climate-and-energy-targets>

¹⁵ <http://eaei.lbl.gov/publications/china-energy-and-emissions-paths-2030>

¹⁶ There are both more optimistic and pessimistic projections of how China's coal use will evolve, but the middle-of-the-road LBNL projection's power comes from the 'bottom-up' nature of their model. This means that, rather than making many big assumptions about macro-economic elements of China's economy, the model makes assumptions at smaller levels of the economy that are better understood, such as the steel or chemical sectors.

¹⁷ <http://www.energypost.eu/professor-ye-qis-inside-view-chinese-climate-policy-way-can-peak-2015/>

For an additional discussion of the kinds of measures that would be necessary to stay under the agreed threshold to avoid dangerous anthropogenic climate change of 2 degrees see: Jiang, et al. http://www.tandfonline.com/doi/full/10.1080/14693062.2012.746070#.U2qQm_ldXhA

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²⁰ <http://www.chinafaqs.org/blog-posts/new-issue-brief-explores-chinas-motivation-act-clean-energy-and-climate-change>

²¹ Former U.S. Treasury Secretary Hank Paulson speaks at a CSIS event in Washington on April 15, 2014. Quoted material begins about 11:15 into the recording. <http://www.businessweek.com/videos/2014-04-15/hank-paulson-on-chinas-economy-climate-policies>

²² <http://www.wri.org/blog/4-takeaways-ipcc-report-reveal-worsening-impacts-climate-change>

²³ <http://www.wri.org/blog/analyzing-ipcc-report-6-things-you-need-know-about-reducing-emissions>

²⁴ The U.S. leads in terms of all carbon emission since 1850. Elzen, et al. <http://link.springer.com/article/10.1007%2F10584-013-0865-6>

China is currently the world's largest emitter of greenhouse gases, while the U.S. is second. The sum of all proposed emissions reductions from all countries currently does not add up to enough to stay under the 2° C target for avoiding dangerous climate change. For more see: UNEP. "The Emissions Gap Report 2013" <http://www.unep.org/publications/ebooks/emissionsgapreport2013/>

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