



Windmills, seen from a high-speed train traveling from Beijing to Zhangjiakou, in China's Hebei province. Climate advocates want China to set more ambitious targets for cutting carbon emissions. AP PHOTO/NG HAN GUAN

## Grim new climate report triggers calls on China to slash carbon emissions sooner

By **Lili Pike** Aug. 12, 2021 , 4:35 PM

The sweeping **report** documenting the world's changing climate released Monday by the Intergovernmental Panel on Climate Change (IPCC) puts a spotlight on China. The report, based on 14,000 studies, highlights the problems the country will face as the climate warms, from increased flooding and droughts to devastating cyclones. But it should also serve as a warning for the Chinese government to cut its emissions more rapidly, some climate policy experts say.

China is responsible for more than **one-quarter** of the world's annual carbon dioxide emissions, yet it has lagged other big emitters in pledges to reduce its output. Whether China can begin to slash its emissions significantly in the next 10 years will play a large role in determining the magnitude of the global climate crisis, they say.

“We know China is [currently] the main contributor of carbon dioxide emissions, so that is why China is devoted to decreasing our contribution,” says Wang Wen, a hydrologist at Hohai University and one of the lead authors of the report’s chapter on the regional impacts of climate change.

Details of how climate change will impact humanity will come in the next IPCC volumes in 2022, but the current report offers a synthesis of what China can expect. The language is dry but presents a grim future: If temperatures climb 2°C above preindustrial levels, heavy precipitation will become more intense and frequent; drought will become more severe and regular in large parts of China; tropical cyclones will increase in intensity; and, by the end of the century, sea levels will rise 0.3 to 0.5 meters and temperatures could surpass 41°C on 30 days of the year.

The scientific literature underpinning the IPCC assessment paints a more vivid picture of how a 2°C rise would impact China. For instance, in one **cited study** from 2018, Chinese scientists found that summer floods at the scale that killed more than **3000 people** in 2010 and caused more than \$50 billion in economic losses would be three times more likely to occur.

The July flood in Zhengzhou, in China’s central Henan province, was a stark reminder of the toll such extreme weather can exact: It **trapped residents in subways** and tunnels, and ultimately killed **nearly 300 people** and displaced 1.5 million. Even for climate scientists in China, the storm’s severity was surprising. “Of course we know climate change will bring more and more extreme precipitation and droughts,” Wang says. Still, “We really didn’t expect such heavy precipitation.”

From its own studies, the Chinese government is well aware of the rising risks of climate change. The China Meteorological Administration has been carefully documenting the trends in an

annual **blue book** that shows how China's climate has changed to date, from sea level rise to extreme weather.

And although many heads of state **called for** enhanced climate action following the IPCC report this week, Chinese leaders have stayed quiet. In a statement to **Agence France-Press**, China's Ministry of Foreign Affairs simply reiterated China's existing climate policies and said the world should have faith in China's climate actions.

China's current climate plans fall short of what IPCC says is needed to stave off the worst climate impacts. In September 2020, President Xi Jinping announced the country will aim to achieve carbon neutrality—only putting as much carbon dioxide into the atmosphere as it can draw down—by 2060. This announcement was in part a response to IPCC's **Special Report on 1.5°C**, issued in 2018, which concluded that the world will be much better off if it succeeds in limiting temperature rise to 1.5°C, says Jiang Kejun, a senior researcher at the Energy Research Institute, a think tank affiliated with China's economic planning agency. "IPCC reports really influence our policymaking," says Jiang, who is also an IPCC lead author. China also promised to level off its emissions sometime before 2030—a deadline by which the United States and the European Union have pledged to cut their emissions by half from 2005 levels.

However, the 2018 report showed that sticking to the 1.5°C target requires countries to achieve carbon neutrality **by 2050**, not 2060. "I think [China is] going to start to get even more pressure to move that 2060 carbon neutrality goal to 2050 because that is really what is in line with the IPCC science," says Angel Hsu, an assistant professor of public policy at the University of North Carolina, Chapel Hill, who focuses on Chinese climate policy. To meet the earlier deadline, China also needs to sharply reduce emissions in the coming 5 to 10 years, according to a **recent study** in *Science*. At the moment, carbon emissions are still growing—China was the only major

economy where they climbed even amid the pandemic in 2020, according to the **International Energy Agency**.

China's Special Envoy for Climate Change Xie Zhenhua recently **said** developing countries like China should have more time to reach carbon neutrality than nations that industrialized earlier. But Inger Andersen, executive director of the United Nations Environment Programme, said at a press conference that China and the other G20 nations "bear a special responsibility." She called on them to be "ambitious" in the fresh emissions reduction plans that all nations are expected to submit ahead of the next major international climate negotiations, in Glasgow, U.K., in November. So far, **81 countries** have submitted plans, and China **has pledged** to do so before the meeting begins.

European leaders and climate advocates have **pushed** for China to move its emissions peaking date up from 2030 to 2025, and some have called on the country **to establish** a moratorium on new coal plants. Last year, China accounted for **three-quarters** of the new coal power that came online worldwide; more than 200 gigawatts of additional capacity is still planned. But Jiang says the plants are being built to provide energy security and will likely only run at a low capacity. "We can see that coal use will peak soon," he says.

Just how ambitious China will be in tackling its emissions leading up to 2030 may become clearer in the next few months. For now, Chinese climate scientists say IPCC's message has landed in Beijing. "I think the results of the report will be treated seriously by the Chinese government," Wang says. IPCC assessment shows that "we cannot wait anymore," Jiang adds. "This is the time we decide our future, not only for China, but also for the world."

**\*Correction, 13 August, 11 a.m.:** A previous version of this story said Jiang Kejun is director of the Energy Research Institute. Jiang is a past director of the institute who is now a

*senior researcher. Also, a quote by Jiang about the future of coal in China has been clarified.*