

# China's construction boom is sending CO2 emissions through the roof

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China's plan to [build its way out of the pandemic](#) is pushing its [carbon emissions](#) to record highs, new research has found. The country's [CO2 emissions from fossil fuels and cement production](#) grew 14.5% in the first quarter of 2021 compared to the previous year, according to a Thursday report from the Centre for Research on Energy and Clean Air (CREA). That's the fastest rate of growth in more than a decade, lead analyst Lauri Myllyvirta wrote. Emissions were also 9% higher than they were in the first quarter of 2019, before the pandemic. As a result, China's emissions generated nearly 12 billion metric tons of CO2 in the year ending March 2021, a record high.

"The CO2 surge reflects a rebound from coronavirus lockdowns in early 2020, but also a post-Covid economic recovery that has so far been dominated by growth in construction, steel and cement," Myllyvirta said. Recent data from [Carbon Monitor](#) has shown an uptick in China's carbon emissions, too. The global CO2 emissions tracker said the country's emissions in the first quarter increased 21% year-on-year, fastest among the world's major emitters. (Myllyvirta said his estimate is lower than but consistent with Carbon Monitor's. The latter provides real time estimates, while CREA's research considers annual or quarterly government data.)

This latest research highlights a dilemma facing the world's second largest economy. China needs to keep the recovery apace if it hopes to hit President Xi Jinping's goal to double GDP by 2035. But Xi has also vowed [to make his country carbon neutral by 2060](#). Climate policy is seen as a major area of cooperation — and competition — between the United States and China, too.

The 2060 target has always been an ambitious one for the world's largest emitter of carbon. But it's also tough for China to reduce its impact on the climate and achieve a greener economy when its recovery is reliant on projects driven by fossil fuels.

Myllyvirta wrote that China's construction activity had led to an increase in the use of coal, which accounted for around 70% of the growth in emissions in the first quarter. (The rest, he said, was because of growth in oil and natural gas demand.)

About 60% of the uptick in coal usage came from the power sector, according to Myllyvirta. The next two big contributors were the metals and building materials sectors, where activity is increasing because of demand for real estate projects. Beijing has signaled, though, that it wants to cut down on emissions this year.

Chinese Premier Li Keqiang pledged in March that a big priority for 2021 is a push for the wider use of clean energy, and an increase in investments in green technology.

The government has also imposed strict climate targets this year, and local governments have rolled out harsh production cut targets for heavily polluting industries, such as steel. For example, Tangshan, one of the world's largest steelmaking hubs, recently required major steel mills to reduce output by between 30% and 50% for 2021. To help account for the squeeze on supply that such cuts might cause, the government has also encouraged more steel imports.

Myllyvirta said he's noticed the government's attempts to force the steel industry to cut its emissions, adding that the sector has a "major significance for China's emissions trajectory."

"But the emissions reduction plan can only work if the current expansion of steel demand for construction slows down," he said. "This goes to the heart of China's macroeconomic policy."

Time may be running out for Beijing to tame the surge in its carbon emissions so it can meet interim climate targets. "If CO<sub>2</sub> kept going up at the current rate until the end of 2021 — an approximately 9% annual increase from 2019 — then there would be virtually no space for further emissions growth during 2022-2025, meaning emissions would have to stay flat or fall to meet the 2025 targets," Myllyvirta said.