

Warmed-up numbers

China may be severely under-reporting its carbon emissions

For those who live in China and are forced to breathe in its air every morning, the findings of a recent report may come as no surprise, but to climate analysts it will make for uncomfortable reading. According to a new paper published in the journal *Nature Climate Change*, China may be under-reporting its annual carbon emissions by as much as 1.4 billion tonnes a year—roughly the amount that Japan, the world's fourth-largest emitter of carbon dioxide (CO₂), pumps out each year.

China is the world's largest CO₂ emitter and produces around a quarter of global carbon emissions. But according to the new study, which used more than a decade of official Chinese data, China's carbon emissions could be 20% higher than previously thought. It says the emission discrepancy in 2010 is equivalent to about 5% of the total global output (in 2008).

The authors, a team of scientists from China, Britain and America, found that when comparing national and provincial statistics between 1997 and 2010 a startling gap appeared. National-level statistics from the period reported a roughly 7.5% annual increase in emissions, to 7.69 billion tonnes in 2010. Data released by provincial-level statistics offices and compiled by the group showed that the increase could be nearer 8.5%. By 2010 this amounted to a difference of 1.4 billion tonnes of carbon pollution a year, and rising.

It appears no one knows what the true amount is. "Both sets of data have flaws so we can't tell which one is nearer the real stats," says Dabo Guan, the lead author of the paper, based at the University of Leeds in Britain. "The poor quality of the energy data is the dominating factor in this discrepancy," he adds.

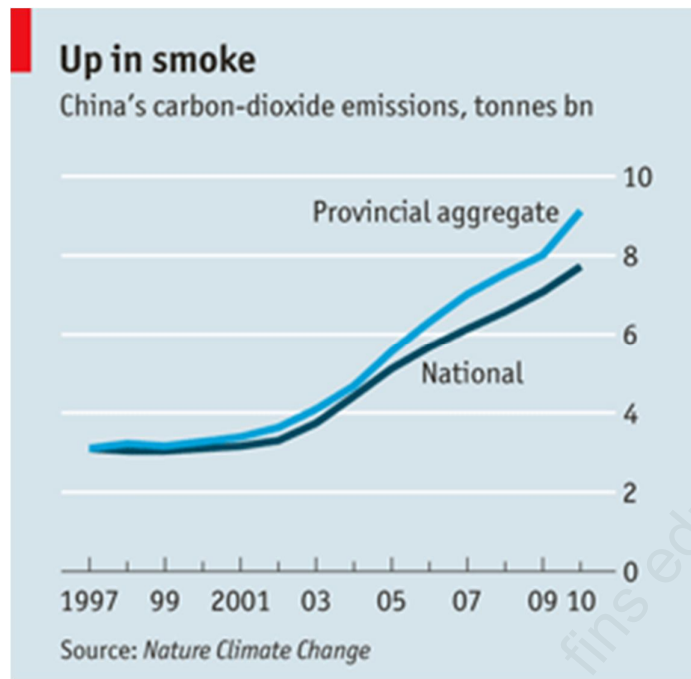
The authors suggest part of the problem is provincial politicians boosting their GDP numbers, and so their emissions too, in order to win promotions in a system where economic growth is the main criterion of success. Conversely, another potential cause of the discrepancy is national-level officials understating their figures in order to claim success with pollution-reduction measures. The key factor behind the uncertainty, however, according to the authors, is the limited scope of available monitoring and data.

"The central government is able to monitor large and medium-sized companies, but small ones they can't monitor well or verify their emissions," says Mr Guan. The same is true of provincial data.

Last November the Chinese government passed a work plan to control greenhouse-gas emissions further. This included encouraging carbon trading in pilot regions and the establishment of a national carbon-accounting system. However, encouraging carbon trading when there are doubts about the overall emissions produced by the country will raise problems. "Who would invest in a market when the commodity is so uncertain?" asks Jay Gregg, a climate scientist.

If China's emissions are higher than previously thought, that does not in itself mean the climate outlook is worse. Net levels in atmospheric CO₂ can be measured directly and are not in dispute. If China is putting in more than previously thought then some natural aspect of the carbon cycle must be taking out more. The worry is that it may not keep doing so indefinitely.

"Twenty percent a year in China is a very large number—big enough to affect predictions of the global carbon cycle," says Gregg Marland, a lead author of recent emission guidelines for the Intergovernmental Panel on Climate Change. "China is by no means the worst when it comes to uncertain CO₂ data," he adds. The difference is that China is so huge.



Fonte: The Economist, London, v. 403, n. 8790, p. 50, 23-29 Jun. 2012.