

# Environmental pollution in China decreases

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For decades pollution in China has paralleled economic growth. But this connection has been weakened in recent years, according to a new international research study published in the *Science Advances* journal.

The study was conducted by an international team of researchers from

five countries, including Deliang Chen, a professor of physical meteorology at the University of Gothenburg and a Coordinating Lead Author of the UN Intergovernmental Panel on Climate Change (IPCC).

"Our research shows that increased environmental awareness and investments in China over the past decade have produced results," says Chen.

## **Economic growth has come at a high price**

In the late 1970s China's economy began expanding, and the expansion accelerated during the following decades. Environmental [pollution](#) kept pace with economic growth.

"But the analysis of our data shows a weakening of that relationship for China starting in 1995," Chen says.

Researchers have studied statistics for economic growth, [environmental conditions](#), regional differences, the gap between urban and [rural areas](#), social inequality, land-based impacts on the ocean, equality in education, health care and living standards in China during the 1977-2017 period. The research results are based on huge amounts of "big data."

"In our study we have looked at the data from all areas based on the UN's 17 Sustainable Development Goals (SDGs). As researchers, we normally tend to look at our own data, but in this study, we have used existing data from many different sources."

## **Major challenges remain, despite progress**

The study shows that [environmental pollution](#) in China as a whole has begun to decline, but that greenhouse gas emissions have continued to

increase.

The study also shows that China has improved in 12 of the 17 SDGs during the last 40 years, while major problems still exist in the other five.

"China's [economic growth](#) has not come without great sacrifice and with negative consequences for the environment and climate. But it is still encouraging to note these improvements. At the same time, it reminds us of the urgent need to solve major problems such as increased greenhouse gas emissions and inequality of income.

Many believe that economic progress and pollution have to go hand in hand. But our study shows that this connection has become weaker in recent years in China. And it provides a little more hopeful picture. This hope and the lessons learned in China can be interesting for other countries that also need to be developed."

Big data is digitally stored information so massive (usually terabytes and petabytes) that it is difficult to process with traditional database methods.

**More information:** Yonglong Lu et al, Forty years of reform and opening up: China's progress toward a sustainable path, *Science Advances* (2019). [DOI: 10.1126/sciadv.aau9413](https://doi.org/10.1126/sciadv.aau9413)

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