well received by most drivers, who, in spite of the disruption, were willing to comply and alter their behaviour for short periods of time.

Other researchers built on work already under way. The Centre for Science and Environment (CSE), a non-profit research and advocacy group in New Delhi, had been closely analysing government air-quality data since last October. By December, government monitors were recording daily levels of noxious $PM_{2.5}$ in the range of 400–600 micrograms per cubic metre. This is much higher than the Indian legal standard of 60 micrograms (which itself is more than double the 25-microgram target threshold set by the World Health Organization).

$PM_{2.5}$ particles cause more than 600,000 premature deaths in India each year, from lung cancer, asthma, and cardiovascular and respiratory diseases. There is no known safe level for this pernicious pollutant.

The CSE's analysis found that, despite unfavourable weather conditions, the peak pollution during the driving scheme was lower than it would have been without the restrictions in place.

"The region is geographically disadvantaged," says M. P. George, a scientist with the government's Delhi Pollution Control Committee. In winter, particulate levels can be twice as high as during the summer, because 'inversion layers' of warm air trap cold air close to the ground. This prevents pollution from dissipating into the atmosphere. Emissions from vehicles and construction dust also combine with raised levels of black carbon generated from winter sources — fires for warmth, brick kilns that are lit in the autumn, and widespread field burning in neighbouring states.

"This experiment with 'live research' has been really quite exciting."

"It's a very simple math," says Sarath Guttikunda, director of the independent research group Urban Emissions, which is registered in New Delhi. "In winter, your air volume is going down and your emissions are going up."

Because atmospheric conditions such as wind and temperature can greatly affect particulate-matter measurements, researchers from EPIC-India and the Evidence for Policy Design initiative at Harvard University in Cambridge, Massachusetts, gathered data from air-quality monitors in New Delhi and placed monitors in three adjacent cities as a control. They found that the daily level of $PM_{2.5}$ pollution in Delhi dropped by 10–13% during the vehicle restrictions. Hourly comparisons showed an even greater improvement, at times an 18% fall.

The question now is whether New Delhi, the capital of a nation with dozens of growing cities choked by pollution, can build on the experiment for long-term gains in air quality. "Delhi has to get it right," says Namit Arora, a member of the pollution task force of the Delhi Dialogue Commission, a government initiative. This will require long-term strategies and coordination between local, regional and national efforts, he says, as well as a reduction in all sources of air pollution. Other researchers stress the need for more open-access data from a wide range of well-calibrated instruments.

But the driving-restriction experiment has given researchers a tantalizing glimpse of one possible future. "We need to re-imagine the way we think about cities," says Hem Himanshu Dholakia, a research associate at the CEEW. "That's the real opportunity." ■

CORRECTIONS

The Editorial 'Blue future' (Nature 529, 255–256; 2016) should have said that 2.4–4.6% of the world's carbon emissions are captured and sequestered by living organisms in the oceans. And the power of ASTRO-H probe is 3,500 watts not 2,500 as stated in the News story 'High stakes for Japan's space probe' (Nature 530,