

Why India's poor air quality is taking a toll on its economy

Home to 10 of the world's most polluted cities, India's poor air quality is affecting worker productivity and worsening its population's health



Smog envelops the Jama Masjid Mosque in the old quarters of New Delhi, which has the world's most polluted air that worsens in winter. AFP



Rebecca Bundhun
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Saurabh Jain, who runs an IT company in Delhi, dreads the winter season when a thick smog usually blankets the city. The smog is not only a source of physical discomfort for him but also affects his business.

"A lack of fresh air is a drag on employee productivity," Mr Jain, the founder of Thinvent Technologies, says.

Some of the knock-on effects of such high air pollution levels include "productivity loss due to frequent illness of our employees", he says. "Foreign customers and vendors do not want to visit us because of their awareness about the Delhi air situation". Mr Jain also has to invest in air purifiers to withstand the season.

A lack of fresh air is a drag on employee productivity

Saurabh Jain

Toxic air in Asia's third largest economy is now turning into a health hazard for many companies and has a substantial impact on its economy. The World Bank estimates that India's air pollution costs the country as much as 8.5 per cent of its gross domestic product.
















The Delhi region – home to its capital city – has one of the worst air pollution levels in the world, which in recent weeks has hit more than ten times the safe limits set by the World Health Organisation. The deterioration in air quality is mainly due to farmers burning the “stubble” of their crops, snarling traffic in cities and industrial fumes. These emissions further stagnate due to the cooler weather, making the winter season unbearable at times.

The issue has become so severe that the Indian government announced a new law in October to tackle air pollution in the Delhi National Capital Region. Under the legislation, a newly formed 20-member commission will oversee and enforce measures to improve the region's air quality. The commission will have the power to set particular parameters for air quality and emissions, and to inspect premises and even order the closure of plants that do not comply. The law also allows for jail sentences of up to five years for violators.

But the problem is not limited to Delhi. India is home to ten of the world's 15 most polluted cities, according to IQAir, the world's largest real-time air quality information platform.

WORLD'S MOST POLLUTED CITIES, 2019

(Micrograms per cubic meter PM_{2.5})

	Rank	City	Average pollution
	1	Ghaziabad, India	110.2
	2	Hotan, China	110.1
	3	Gujranwala, Pakistan	105.3
	4	Faisalabad, Pakistan	104.6
	5	Delhi, India	98.6
	6	Noida, India	97.7
	7	Gurugram, India	93.1
	8	Raiwind, Pakistan	92.2
	9	Greater Noida, India	91.3
	10	Bandhwari, India	90.5
	11	Lucknow, India	90.3
	12	Lahore, Pakistan	89.5
	13	Bulandshahr, India	89.4
	14	Muzaffarnagar, India	89.1
	15	Bagpat, India	88.6

Source: IQAir

“Air pollution has a deep impact on the economy,” says Divakar Vijayasathy, the founder and managing partner of DVS Advisors, a professional services firm.

“Given the impact on the economy, this also has an obvious impact on the investment climate.”

This year, air pollution has become a serious concern for India after several studies revealed it can lead to more severe Covid-19 infections and a higher death rate from the virus.

With more than 8.1 million confirmed Covid-19 cases, India is the second worst-affected country behind the US, according to official data from the country's health ministry.

With Delhi's new law, “the government has now been forced to take radical measures” after pursuing more piecemeal steps that have “proved to be too little and too late in view of the extent of the problem at hand”, Mr Vijayasathy says.

Other solutions to tackle the poor air quality in recent years have included trying out odd-even number plate schemes to restrict when vehicles can travel on the roads, water sprinkling, monitoring crop stubble burning, and even a temporary ban on the sale of fireworks for Diwali.

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But while experts agree that tough action is needed to tackle the problem, there are questions about how effective Delhi's new law will be.

“This is a welcome step by the government,” says Vikram Thaploo, the chief operating officer at Apollo Telehealth. “However I feel that adding new laws would only end up creating more friction and confusion. There are presently enough laws in force that have the capability to deal with the situation - but the only thing that is lacking is their proper implementation.”

“A consolidated political will to deal with this critical issue at all levels,” he says.

Many companies in India also recognise they have an important role to play in improving air quality.

Stuti Gawri, the chief executive of The Greyy Room, an interior design firm based in Delhi, says that her firm is focusing on using low VOC paints and more greenery in its projects to help improve the air quality.

“Air pollution is simply bad for business and just like all other entities, we have been affected too,” says Ms Gawri. “It strains employee productivity, increases sick leaves, in turn escalating health costs and delaying in terms of meeting deadlines and timelines. This decreases business growth and expansion.”



Smoke rises from brick kiln chimneys on the outskirts of New Delhi, India. India's filthy air is cutting 660 million lives short by about three years, while nearly all of the country's 1.2 billion citizens are breathing in harmful pollution levels, according to research. Altaf Qadri / AP Photo

Mr Jain at Thinvent Technologies says that his company is also striving to reduce its emissions amid his frustration with the impact of air pollution on his business.

“We encourage employees to take public transport and we're are also very judicious in our electricity consumption,” he says.

The renewed focus on addressing Delhi's toxic air comes as India is under pressure to meet the targets of the Paris climate accord.

Campaigners have long been sounding the alarm on the impact of air pollution.

“Air pollution is a threat to our health and our economies,” said Minwoo Son, a clean air campaigner at Greenpeace East Asia, in a report issued earlier this year on the global cost of air pollution from fossil fuels, which is estimated at \$2.9 trillion. It said that India bears the third highest costs from fossil fuel air pollution after China and the US. The report also estimated that about 490 million days of work are lost in India due to illnesses resulting from exposure to air pollution.

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“But this is a problem that we know how to solve, by transitioning to renewable energy sources, phasing out diesel and petrol cars, and building public transport,” Mr Son says.

As part of India's longer-term efforts to tackle the problem of air pollution – and also motivated by a need to reduce its dependence on costly fossil

fuel imports – the government is promoting the use of renewable energy. Prime minister Narendra Modi is pledged to generate 175GW of energy from renewable sources by 2022.

In September, in a statement issued at a virtual conference, Mr Modi said he was confident that India would surpass this target. “We have scaled up our non-fossil fuel-based generation to 134 GW, which is about 35 per cent of our total power generation. We are confident of increasing it to 220 GW by 2022.”

Analysts agree that India is making progress when it comes to adopting renewable energy.

“The government’s thrust on solar and other cleaner sources is definitely paying off,” says Mr Vijayasathy.

The country has also set an ambitious target of 30 per cent of the vehicles on its roads being electric by 2030.

But with India's expanding middle class, increased urbanisation and industrial activity, urban planners explain that cities such as Delhi will have to adapt rapidly to bring air pollution under control.

“The ever-increasing urban population needs replacement of obsolete infrastructure, transport plans and new implementation methods, as well as increased receptivity to the regulation of private vehicles,” says Prabhakar Kumar, the assistant vice president and head of department, urban planning at REPL, a Mumbai-based urban development and infrastructure consultancy.

As India also builds new developments, including “smart cities”, he says that masterplans have to factor in “sufficient green belts, green building designs, efficient public transport systems, walk-to-work concepts, and robust systems for solid waste management” to control air pollution.



epa07955818 Haze blankets the streets after the Diwali celebrations in New Delhi, India, 28 October 2019. Levels of pollutants and smog in India rise every year on the day following Diwali festival, as millions celebrate around the country by lighting firecrackers. According to media reports, on 28 October 2019 air pollution levels in New Delhi, Lucknow and Patna were worse than the ones recorded in 2018, despite a government's restriction on the sale and use of firecrackers in a bid to control air pollution. EPA/STR

The issue of India's air pollution may be gaining renewed attention and more efforts are being made at a government level, but an enormous amount of work is still required to address a problem that is hampering the economy and claiming lives, experts say.

“There’s no doubt that India’s air pollution crisis is taking a huge toll on public health and economic growth,” says Mr Thaploo.

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