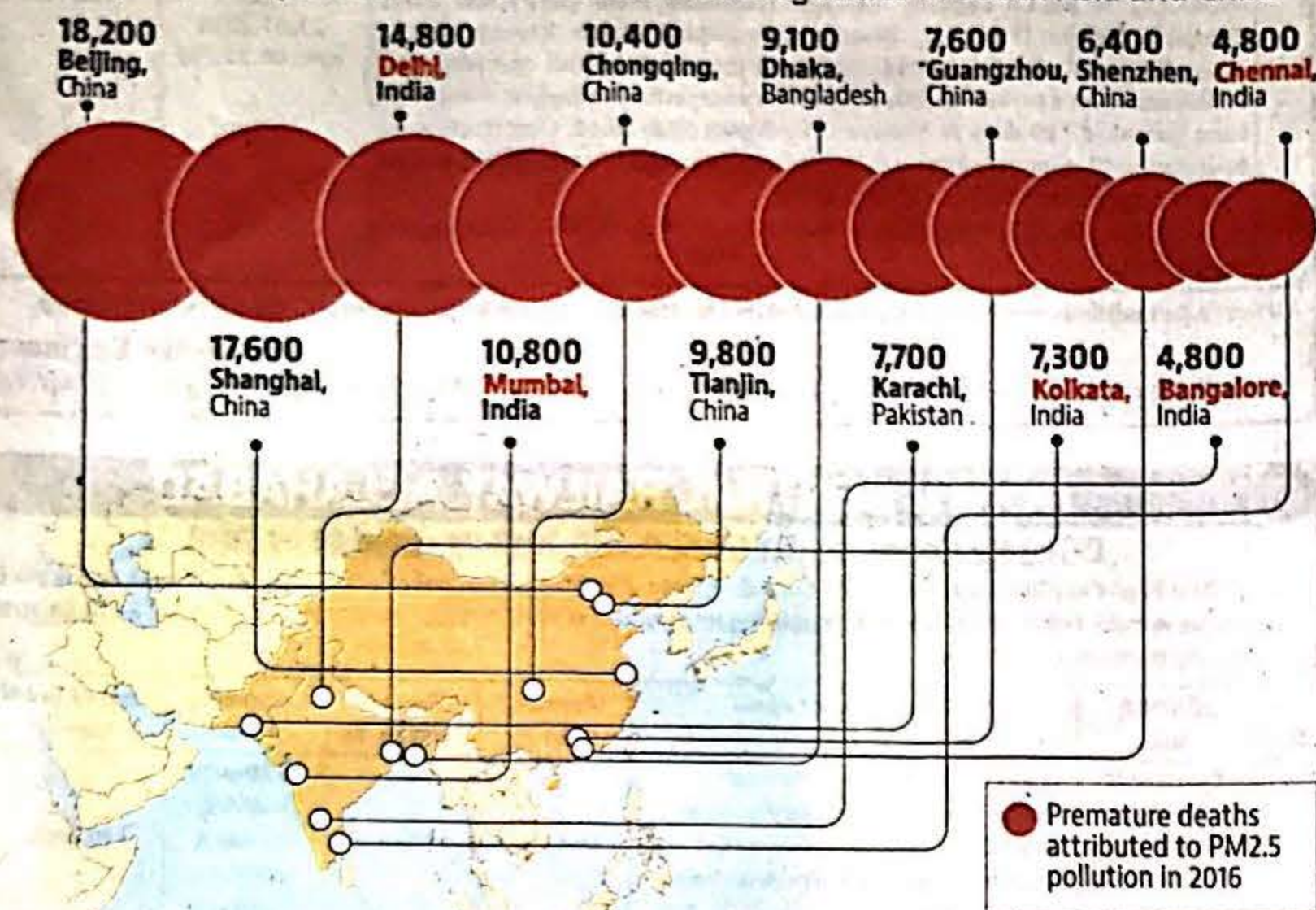


# Breathing to death

Study assesses pollution-related deaths in 13 megacities in South Asia and China



Source: Study 'Premature mortality attributable to PM2.5 exposure and future policy roadmap for 'airpocalypse' affected Asian megacities'

## TAKING ON DELHI'S DUST

The environment ministry's plan to tackle Delhi's pollution includes:

**Road sweepers:** Doubling the number from 32 to 74 by September-end

**Greening:** 262 metro pillars will have green walls and roadside pavings will have green area by September-end.

**Water sprinkling:** Increasing number of water tankers for sprinkling from 175 to 215 by September-end.

**Tackling municipal solid waste:** Increasing capacity of waste-to-energy plants, and remediation of landfills within 10 months

# PM 2.5 particles kill 15k in Capital

**STUDY** Mumbai 4th on list of Indian cities affected by deadly pollutant

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**NEW DELHI:** Close to 15,000 people died prematurely in Delhi in 2016 from illnesses linked to fine particulate matter pollution, according to a new study by researchers from India, Singapore and Thailand that assessed pollution-related deaths in 13 megacities in south Asia and China.

Heart disease, stroke, lung diseases, lung cancer among adults and upper respiratory tract illnesses in children are all related to particulate pollution exposure. The study, accepted for publication in Elsevier's Process Safety and Environmental Protection journal, found that most deaths related to PM 2.5 (particulate matter 2.5 microns or less in diameter), were reported from Beijing (18,200), Shanghai (17,600) and Delhi.

"Chinese cities report higher mortality numbers, despite lower pollution levels than cities like Delhi because the population in their cities is more," Kamal Jyoti Maji, a co-author of the paper, explained. "Also there is a higher burden of elderly people who are disproportionately affected by air pollution exposure."

Beijing's population is close to 22 million compared to 18 million in Delhi (the latter is as per the 2011 census).

Mumbai, which was one of five megacities considered from India, reported the fourth highest number of deaths. This is the first time the disease burden associated with PM2.5 has been calculated for Chennai and Bangalore, according to the authors.

In both Chennai and Bangalore, almost 5,000 people died from PM 2.5 linked causes in 2016. Various reports have highlighted that air pollution is a problem across the country, and a growing monitoring network has only uncovered the extent of the problem.

A Global Burden of Disease report published last year estimated that 1.1 million deaths in India were linked to PM 2.5 air pollution in 2015. Air pollution-linked deaths in India could increase to 3.6 million by 2050 if no further actions are taken, according to a report published by the Health Effects Institute and Indian Institute of Technology-Bombay this year.

A severe air pollution episode in Delhi last November sparked concern with multiple agencies from the National Green Tribunal to the Prime Minister's office to most recently the NITI Aayog releasing their own plans to tackle the issue. Despite this, no clear roadmap to tackle the problem has emerged, activists said. "The current policy is not

enough to protect public health in any megacity in India, Pakistan and Bangladesh. The future also looks bleak if current policies continue," Maji said, adding that "China has stronger regulatory mechanisms and time-bound specific targets."

The Union environment ministry released a draft of the National Clean Air Programme. The draft was strongly criticised for the absence of specific targets for pollution reduction and the absence of adequate attention to the health impacts of air pollution.

"We have held consultations with the states, the programme will be finalised this month," a senior official who did not wish to be named, said. The official said that different states would have different capacities to reduce pollution levels so umbrella targets may not work.

"It's good that the environment ministry is finally thinking of implementing the much anticipated National Clean Air Programme. NCAP should be the ultimate framework to ensure compliance to our commitment towards tackling air pollution from all the sources," Sunil Dahiya, an air pollution campaigner with Greenpeace India, said. "Without time-bound emission and sectoral targets, the National Clean Air Programme will be ineffectual"