

India's Seasonal Smog Crisis

SANKHYA (संख्या)

“There cannot be a good plan for economic progress without adequate data, and there cannot be adequate data without a good plan for collecting them...”

P.C Mahalanobis, Member, First Planning Commission of India & Scientist

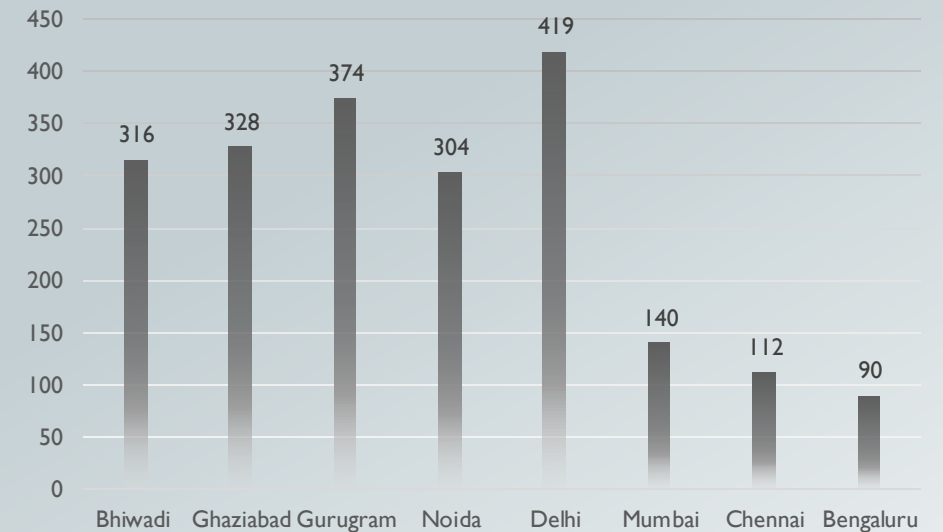
INTRODUCTION

All of India's 1.4 billion residents are exposed to unhealthy levels of PM 2.5, the most harmful form of air pollution.

Among the world's 30 cities with the worst air quality, 21 are in India.

New Delhi, the capital city, has the worst air quality among global capitals, with a PM 2.5 concentration that is nearly ten times higher than the World Health Organization (WHO) recommended limits.

INDEX VALUE

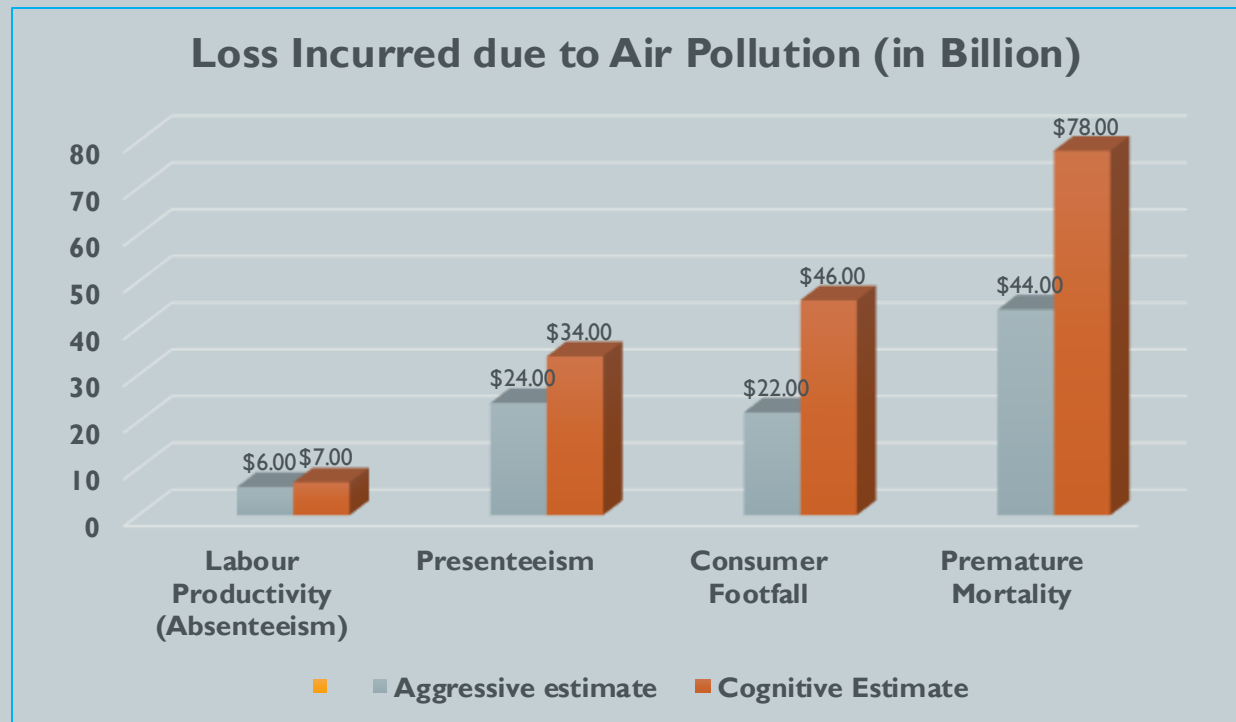


[Source: AQ Index CPCB](#)

ECONOMIC EFFECTS OF AIR POLLUTION IN INDIA

The health effects of air pollution led to significant economic losses in India, including \$28.8 billion in lost output from premature deaths and \$8 billion from morbidity in 2019.

The total economic loss, amounting to \$36.8 billion (1.36% of GDP), ranges from \$27.4 billion to \$47.7 billion.



HEALTH EFFECTS OF AIR POLLUTION IN INDIA

Exposure to PM 2.5 is linked to deadly illnesses, including Lung Cancer, Stroke, and Heart Disease.

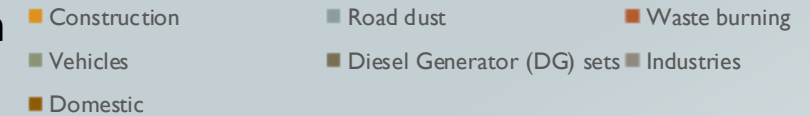
In 2019, air pollution caused 1.67 million deaths in India, accounting for 17.8% of the country's total deaths.

Health effects attributed to short-term and long-term exposures to air pollution	
Health effects attributed to short-term exposure to air pollution	Health effects attributed to long-term exposure to air pollution
Respiratory & cardiovascular emergency department visits	Acute symptoms (Wheezing, coughing, phlegm production, respiratory infections)
Respiratory & cardiovascular primary care visits	Chronic respiratory disease incidence & prevalence (asthma, COPD, chronic pathological changes)
Use of respiratory & cardiovascular medications	Physiological changes (e.g. lung function)
Respiratory & cardiovascular hospital admissions	Chronic changes in physiologic functions
Days of restricted activity	Chronic cardiovascular diseases
Work absenteeism	Intrauterine growth restrictions (low birth weight at term, intrauterine growth retardation, small for gestational age)
School absenteeism	Mortality due to cardiovascular & respiratory diseases
daily mortality/deaths	Lung cancers

RECOMMENDATIONS

- To effectively control pollution in cities such as Delhi, multi-sectoral interventions must be implemented across the extensive regions surrounding metropolitan areas.
- Tailoring multi-sectoral interventions to the specific contexts of regions around metro cities, stakeholders can enhance the effectiveness of their efforts in addressing complex urban challenges. This approach not only promotes better health outcomes but also fosters sustainable development by leveraging local resources and engaging communities in meaningful ways.
- Improving urban planning by increasing green spaces can help absorb pollutants and improve overall air quality. Initiatives include planting trees along roadsides and developing parks in urban areas
- Effective management of solid waste, including reducing open burning of waste, is crucial for controlling emissions from landfills. The government encourages segregation at source and recycling initiatives
- The government should develop a comprehensive database of air pollution data sources, enabling researchers to produce informed and impactful reports.

CONTRIBUTORS OF AIR POLLUTION



Sources : [TERII Report](#)

WANT TO SUBMIT IDEAS FOR
SANKHYA OR GIVE YOUR
VIEWS ON OUR PAST
EDITIONS?

*Share your views, analysis, ideas and
questions*

appointments@bridgethinktank.com



BRIDGE
— THINK TANK —

Sankhya* is an initiative of Bridge Policy Think Tank to create interface snapshots in statistics and policy analysis while promoting critical thinking and analysis.

** Sankhya means numbers and is also a school of rationalist Indian philosophy. According to Sankhya philosophy reliable knowledge comes from only three pramanas (proofs)- pratyakṣa ('perception'), anumāṇa ('inference') and śabda (āptavacana, meaning, 'word/testimony of reliable sources').*