



## At a Glance

# WASTE AND AIR POLLUTION

Air pollution in India is caused by unsustainable solid waste management practices (open burning, landfill fires, and incineration), industrial point and area sources, vehicles, domestic fuel burning, and roads.

## THE CRISIS

- **New Delhi, the world's most polluted city**, broke all records of air pollution in 2017.
- **Patna, Mumbai and Pune regularly report dangerously high levels** of air pollutants.
- Patna and Delhi both have an annual PM 2.5 concentration that is **11–12 times over WHO limits**.
- **Air quality at landfills is usually in the 'severe' category**. The three landfills in Delhi have already crossed permissible height limits, while the one in Deonar, Mumbai, is eight stories tall, and has caught fire several times.

## CHOKING TO DEATH

- Global pollution-related deaths: 9 million
  - Global air pollution-related deaths: 6.5 million (72% of total pollution-related deaths)
  - Waste burnt globally per year: 1.1 billion MT
  - Percentage of global particulate matter from trash fires: 29%
  - Annual air pollution-related deaths in India: 1.2 million
  - Percentage of direct particulate matter due to open burning in Indian cities: 5–11%
  - Percentage of GDP lost due to air pollution: 3%
  - Trash burnt daily in Delhi: 190–246 MT
  - Air quality index in Delhi (Nov 2017): 1,010
  - Air quality equivalent in cigarettes/ day: 50
  - Annual PM 2.5 in Delhi and Patna: 120 ug/nm<sup>3</sup>
  - Daily waste generated in Delhi: 10,000 MT
  - Daily waste transported to Delhi landfills: 8,000 MT
  - Percentage of total air pollution from biomass and open burning in Delhi: 20–30%
  - Percentage of of solid waste burnt on streets: 2%
  - Percentage of solid waste burnt in landfills: 10%
  - Percentage Delhi residents who know improper waste management causes air pollution: 94%
  - National Green Tribunal fine for open burning: Rs 25,000
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- Inefficient waste management through landfills and biomass burning creates **methane, a climate damaging, highly combustible gas** that ignites **fires that spew particulate matter**.

## THE SILENT SAVIOURS

Waste pickers are the true environmentalists of this country, working to reduce, recycle and reuse our waste, to the detriment of their own and their families' health and well being.

- Waste burning releases **carbon monoxide (CO), particulate matter (PM), carcinogenic hydrocarbons (HC) and nitrous oxides (NOx)**, all of which are hazardous to health.
- Air pollution disproportionately affects the vulnerable and the poorest of the poor, such as waste pickers, who live and work near landfills.
- As national inventories of air pollution do not take emissions from open fire burning into account, they are unincorporated into policy decisions.
- The impacts of waste burning are ignored by people and completely hidden by failed government regulation.

## THE LAWS

- In 2016, the National Green Tribunal banned open burning of waste, including at landfills, and imposed a fine for violations.

## GOING FORWARD

- Cleaning up the toxic air of Indian cities requires **strict control on burning of solid waste**.
- **Reducing at source, reusing, recycling and composting locally is more effective than** landfilling and incinerating.

  
environmental research and action group

238, Sidhartha Enclave, New Delhi - 110014, India  
T: + 91-11-46574171/72/73, F: +91-11-46574174  
E: info@chintan-india.org