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Air Pollution in India — Knowledge, perceptions and public support for action

Over 99% of India's population breathe polluted air, which contributes to more than 1.2 million deaths each year. Though general awareness of air pollution is rising, major gaps remain between scientific evidence and public perception of air pollution's causes, impacts and solutions.
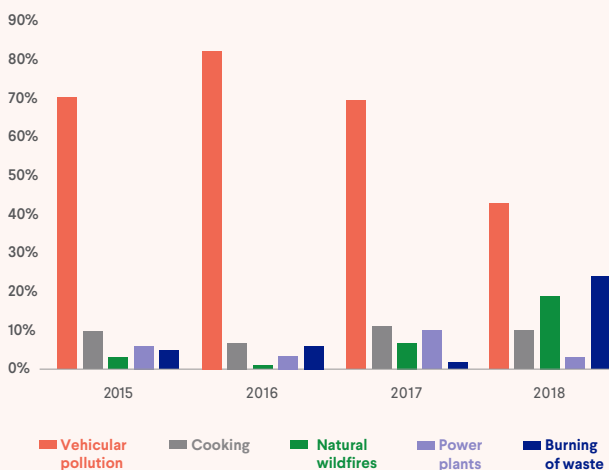
"Through the Smokescreen" presents the results of analysis of more than 83,000 news and social media posts during 2015 to 2018, eight focus group discussions in three cities and interviews of 2,340 adult residents in five cities—Delhi, Mumbai, Bengaluru, Surat and Patna—to assess knowledge, attitudes and support regarding air pollution in 2019.

"Through the Smokescreen" findings include:

1. There is a disconnect between the reality of air pollution and the public and media discourse.

Five most commonly discussed sources of air pollution, 2015 to 2018

Data collected and presented to factor in 5%-10% margin of error

Legend: Vehicular pollution, Cooking, Natural wildfires, Power plants, Burning of waste

Most discussed source: Vehicular pollution was discussed up to four to five times more than other sources, partly due to the odd-even number plate rule in Delhi.

Actual leading sources are less often mentioned: power plants, burning of fossil fuels, agricultural burning, open waste burning.

As limited historic data were available between 2015 and 2018, in total 82,235 pieces of content were scanned. This is a representative sample of 20% of all social media and news articles in India during the reported time period.
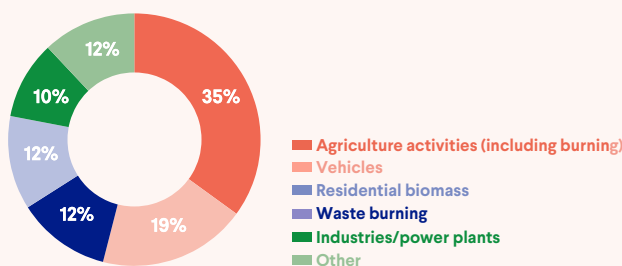
Most respondents get their information from TV and radio, which more frequently mention vehicular emissions.

2. Individual measures to minimize risk are mentioned more than policy solutions (clean energy, waste management and sustainable transportation).

3. Short-term symptoms (e.g. eye and throat irritation) are discussed more often than long-term health risks (chronic lung and cardiovascular disease).

4. Nearly 60% of the respondents believe that it is the responsibility of the government (national, state and local) to address air pollution. However, demand to address the leading sources of air pollution remains limited. Survey participants prioritized actions to address vehicular emissions; addressing one source of emissions will be inadequate to fully address air pollution.

In Delhi, the bulk of media articles and social media conversations focused on vehicular emissions. Pollution from biomass burning, a major sources of air pollution in Delhi, actually comes from outside the city.
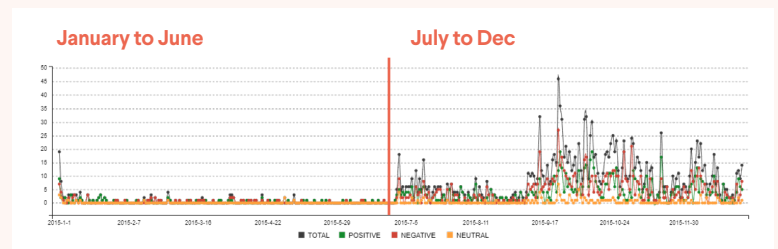
Top 5 sources of air pollution in Delhi

Legend:
- Agriculture activities (including burning) — 35%
- Vehicles — 19%
- Residential biomass — 12%
- Waste burning — 12%
- Industries/power plants — 10%
- Other — 12%

Less than half of respondents were able to correctly identify the actual sources of pollution in their city.

5. Only one-third are familiar with the term "particulate matter" despite it being the pollut- ant of greatest health concern.
- Younger respondents were more familiar with the term than those above 55 years old.

6. Linking air pollution with climate change, children's health and tobacco engaged and resonated most with respondents.

7. The public's attention to air pollution is seasonal. This poses a challenge in maintaining year- round demand for long-term solutions.

January to June
Minimal conversations on air pollution. Those that appear focus mainly on vehicular pollution.

July to Dec
Conversations spike as air pollution episodes due to agricultural fires, fireworks and winter smog become visible.

Recommendations

The most effective ways to improve air quality and health are regulation and legislation from governments. To advance clean air efforts, Vital Strategies recommends:

Correcting misperceptions
- Highlight actual sources of air pollution and proven long-term solutions.
- Messages should raise awareness of the risk of long-term health effects (e.g. chronic illnesses and death).
- Adverse health impacts of particulate matter should be emphasized.

Engaging and motivating the public
- Linking to climate change, children's health and tobacco are effective ways to engage people on air pollution.
- Seasonal variations in air pollution conversations should be leveraged to emphasize the need for proactive, sustained steps to prevent severe air pollution episodes.

Inspiring public demand
- Educate the public on the limited effectiveness of short-term exposure preventive measures, as compared to long-term sustainable pollution control measures.
- Engage health care professionals in patient and public education.
- Highlight the value of collective actions and long-term solutions.

For maximum impact, clean air practitioners should:
- Continuously identify and engage clean air influencers.
- Conduct ongoing evaluation of media and public discourse.
- Evaluate impacts of communication campaigns
- Engage health care professionals on clean air advocacy.
- Train journalists to interpret air pollution and health-related data and report on it.
- Boost data transparency for the media and public
- Encourage effective policy solutions.

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For more information, visit: www.vitalstrategies.org/through-the-smokescreen