

AJK Mass Communication Research Centre
Jamia Millia Islamia

STORYTELLING FOR *ENVIRONMENTAL* → *CHANGE*

TACKLING AIR POLLUTION IN NEW DELHI

EXECUTIVE SUMMARY

Analyzing Media Narratives on Air Pollution



About the Project

A joint project of AJK Mass Communication Research Centre, Jamia Millia Islamia and Keele University, UK

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Executive Summary

Seven key problems, as identified through media analysis, engagement with stakeholders and literature review:

1. Air pollution is created by multiple factors, both 'natural' and 'anthropogenic', which makes it challenging to address.
2. A large proportion of media representation of the air pollution crisis focuses on 'natural' sources of pollution, such as weather systems, which frame the crisis as outside of people's control.
3. A major theme of media representation is stubble burning, which overshadows discussion of other sources of air pollution and frames pollution as the fault of other states and poorer rural communities.
4. Media reports are data-driven and contain significant levels of technical jargon, which may be inaccessible to lay readers.
5. Although some key factors are consistently presented as to blame for air pollution, there is little media discussion of the complex structural or socio-economic reasons why people continue to engage in polluting practices.
6. Reporting relies upon expert voices and government sources, little space is given to those harmed by air pollution.
7. The news cycle is dominated by reports about new initiatives and policies to address air pollution, with similar stories about policy interventions appearing each year, but little critical evaluation of these initiatives.

Seven key recommendations, based on these findings:

1. There is a need for sustained interventions to tackle the bad air crisis. Rather than jumping into action during periods of intense spike, all stakeholders need to work on mitigation measures round the year.
2. Media reportage is heavily skewed towards few sources of air pollution- stubble burning and vehicle emission. There is a need to focus on multi-sectoral emissions for effective mitigation measures.
3. There appears to be an urban bias in the media coverage of air pollution and operational scale of air pollution action plans. Air is not static. Rural areas also contribute to and are affected by the pollution crisis. There is a need to extend design and implementation of action plans to rural areas. Media also needs to provide more 'geographically' inclusive coverage of air pollution.
4. Along with reporting on government interventions, the media should also critically evaluate the efficacy of such interventions.
5. Media houses need to invest in specialized training of their reporters to understand and report on environmental issues.
6. Media needs to mainstream environmental reporting especially in the context of the emerging challenges due to climate change.
7. More media focus needs to be on inequalities that are intensified by pollution and these reports should incorporate the voices of victims of air pollution, rather than relying solely on expert and governmental sources.

Below we offer a more detailed executive summary of the evidence that supports these recommendations.

1 Introduction

New Delhi is the world's most polluted capital city (IQAir 2019). The lives of its over twenty million inhabitants are blighted by extremely high levels of air pollution averaging nearly 10 times the specified WHO limit for fine particulate matter. Every year between 10,000 to 30,000 of the city's inhabitants lose their lives because of causes linked to air pollution (Bithal 2018). 1.24 million succumb to such cause annually across India more broadly (Chatterjee 2019), which is home to 21 of the 30 most polluted cities in the world (IQAir2019). The problem has proven intractable due to a complex combination of causes which include vehicular emissions, dust, seasonal agricultural fires and industry. The sudden and complete lockdown brought about by the Covid-19 pandemic dramatically reduced air pollution. A reduction of 60% in fine particulate pollution in the city was noted days after the lockdown (CSE/Urban Emissions 2020). Experts and the general public alike were surprised by the scale of the reduction and the lived experience of blue skies and breathing clean air. The momentary vision of a clean and liveable urban environment generated by the lockdown provided demonstrable evidence that positive change could be achieved rapidly and at scale; this experience holds transformative communicative potential in terms of shifting attitudes and behaviours towards the problem of air pollution amongst India's urban citizens and its policy makers. At the same time undertaking effective environmental public communication in a context which is otherwise focused on the hugely negative social and economic experience of the pandemic carries dangers. Post-pandemic narratives need to be constructed with care: slogans such as 'humans are the virus' have proliferated as imagery of nature's recovery have been circulated by transnational environmental movements (Searle and Turnbull, 2020). The decontextualized celebration of nature's automatic renewal embedded in such narratives removes attention from the labour that will be required for a more sustained process of ecological resurgence. It also effaces differences and inequalities at international and national scales and across gender, race, and class that need to be taken into account in the development of an ethical environmental politics. These problems are compounded by long standing dangers of transnational environmental groups seeking to speak for 'nature' and inadvertently erasing the voices of those closest to the issues at stake (Haraway 1992; Giraud 2019).

The project researches the development of context-specific stories that can mobilise the emotional power of the experience of the pandemic to underpin ethical and sustainable environmental change. It engages with methods from a participatory action research tradition (Chatterton, Hodkinson and Pickerill 2010), working with grassroots civil society organisations (CSOs) and local documentary filmmakers to co-produce ethical, situated forms of environmental storytelling. It also analyzes the mediatized narratives on air pollution by institutional media. This is done in the context of New Delhi where air pollution has assumed catastrophic proportions and urgent change is required. The project thereby contributes to key debates in the fields of science communication, environmental humanities, social movement studies, and documentary film.

2 Objectives and Research Questions

The project has the following objectives:

- O1:** To develop an empirically informed understanding of how environmental issues and the Covid pandemic have been narrativized in the Indian public sphere by institutional news media.
- O2:** To examine the strategic aims of Indian environmental research and advocacy organisations and how they mobilise storytelling in communications with their publics and policy-makers.
- O3:** To enhance the storytelling capabilities of India environmental research and advocacy CSOs to enable them to more effectively achieve their strategic aims in reducing air pollution in the post-pandemic context.
- O4:** To develop and apply a participatory approach to ethical and context-specific environmental storytelling.

These objectives translate into the following *research questions*:

RQ1 (responding to O1): How has Indian news media represented the issue of air pollution? What stories are being told? What environmental futures are being envisaged in these stories?

RQ2 (responding to O2): How have non-governmental environmental research and advocacy organizations communicated with the public in the context of the pandemic? What kind of storytelling approaches have they adopted and why?

RQ3 (responding to O3): What new and environmentally productive ways of narrativizing and communicating the experience and knowledge on air pollution generated in the context of New Delhi?

RQ4 (responding to O4): What are the possibilities and challenges of a participatory approach to ethical and context-specific environmental storytelling?

3 Methodology

The study was carried out in the city of New Delhi. A mix of research techniques, namely, semi-structured interviews, textual analysis and questionnaires were used for the collection of data. Data was collected from four groups: news stories in print and television news media, journalists, representatives of environmental NGOs and advocacy groups and filmmakers.

The method of textual analysis was adopted for analyzing news stories on air pollution by six media outlets, namely, *Aaj Tak*, *NDTV 24x7*, *Amar Ujala*, *Dainik Jagran*, *The Times of India* and *Hindustan Times*. While *Aaj Tak* and *NDTV 24x7* are television news channels, *Amar Ujala*, *Dainik Jagran*, *The Times of India* and *Hindustan Times* are newspapers. Likewise, while *NDTV 24x7*, *The Times of India* and *Hindustan Times* are English language media organisations, *Aaj Tak*, *Amar Ujala* and *Dainik Jagran* are Hindi language media organisations. News stories that were reported by the sample media outlets during the time period, March 2020-July 2020, October 2020-January 2021 and October 2021-January 2022 were selected for analysis. The time period October 2020-January 2021 and October 2021-January 2022 were specifically selected as they coincided with the severe air pollution levels in New Delhi. Likewise, the time period March 2020-July 2020 was selected as it was the covid lockdown period and the focus was to understand the impact of pandemic lockdown on the nature of reporting on air pollution. A total of 667 news stories were analysed for the study. A brief description of each media outlet is as follows.

1. Aaj Tak is a popular 24x7 Hindi news channel. It is owned by the media conglomerate ITG media network with interests in television, music, education, online retail and publishing. Aaj Tak started as a 30 minutes Hindi news show in the public broadcaster *Doordarshan* in the 1990s. It launched as an independent 24x7 news channel in 2000.

2. NDTV 24X7 is a 24x7 English news channel. It was launched as a 24x7 news channel in 2003 under the leadership of Prannoy and Radhika Roy. *NDTV* commenced its television journey as a production house which aired the famous weekly program *The World This Week* on *Doordarshan*. *NDTV* was brought over by the Adani Group in 2022.

3. Amar Ujala is the second largest selling Hindi news daily in India. It is owned by the parent group *Amar Ujala Limited*. According to the Annual Report 2021 of the Registrar of Newspapers, the daily circulation figures of the newspaper are 14,11367. *Amar Ujala* publishes 9 editions, namely, Delhi, Gorakhpur, Lucknow, Varanasi, Allahabad, Meerut, Agra, Bareilly and Kanpur, on a daily basis.

4. Dainik Jagran is a Hindi language daily owned by the *Jagran Prakashan Limited*. According to the Annual Report 2021 of the Registrar of Newspapers, the daily circulation figures of the newspaper are 22,3707. *Amar Ujala* publishes 11 editions, Delhi, Gorakhpur, Meerut, Lucknow, Varanasi, Kanpur, Patna, Muzaffarpur, Bhagalpur, Bhopal and Rewa.

5. The Times of India is an Indian English-language daily newspaper and digital news media owned and managed by *The Times Group*. It is the third-largest newspaper in India by circulation and largest selling English-language daily in the world. It is the oldest English-language newspaper in India, and the second-oldest Indian newspaper still in circulation, with its first edition published in 1838. It is owned and published by Bennett, Coleman & Co. Ltd. (B.C.C.L.), which is owned by the Sahu Jain family. In the Brand Trust Report India study 2019 rated TOI as the most trusted English newspaper in India. It publishes 55 editions.

6. Hindustan Times is an Indian English-language daily newspaper based in Delhi. It is the flagship publication of HT Media, an entity controlled by the K. K. Birla family, and is owned by Shobhana Bhartia. Hindustan Times is one of the largest newspapers in India by circulation. According to the Audit Bureau of Circulations, it has a circulation of 993,645 copies as of November 2017. The Indian Readership Survey 2014 revealed that HT is the second-most widely read English newspaper in India after The Times of India. It is popular in North India, with simultaneous editions from New Delhi, Mumbai, Lucknow, Patna, Ranchi and Chandigarh.

Seven semi-structured interviews were conducted with journalists who covered the environment beat across print, television and digital platforms (*Hindustan Times, Amar Ujala, The Third Pole, CNN News18, The Quint and two independent journalists*).

Questionnaires were used for eliciting responses from filmmakers who worked on environmental issues. These filmmakers were part of the workshop 'Air Pollution in Delhi: Confronting Challenges and Telling New Stories' (22nd-23rd August 2022) organized as part of a series of activities undertaken under the project. The focus of the questionnaire was to gain an understanding of how filmmakers visualize the possibilities and challenges of environmental storytelling.

Seven semi-structured interviews were also conducted with representatives of environmental NGOs and advocacy groups, namely, *Centre for Research on Energy and Clean Air (CREA), The Energy Research Institute (TERI), Urban Emissions Info, Toxics Link, Chintan Environmental Research and Action Group and Lung Care Foundation*.

Brief Profile of NGOs Interviewed:

■ **Centre for Research on Energy and Clean Air (CREA):** CREA is an independent research organization founded in 2019 with a focus on energy and clean air. It works towards revealing the trends, causes, and health impacts, as well as the solutions to air pollution. Its aim is to support the advocacy of groups and communities working on combating air pollution by building their capacity in terms of both research and campaign communications. While New Delhi and India are a key point of focus for their work, the organization also works in other national contexts (www.energyandcleanair.org)

■ **The Energy Research Institute (TERI):** TERI is an independent, multi-dimensional organization, with capabilities in research, policy, consultancy and implementation. Its focus is on understanding how to improve the environment for a better living. TERI's areas of interventions are Agriculture, Climate, Energy, Environment, Habitat, Health and Nutrition and Resources. TERI is one of the leading institutions working on the issue of air pollution in India (www.teriin.org)

■ **Urban Emissions Info:** Urban Emissions Info is a research and advocacy organization with a specific focus on air pollution. It has led the development of information technology based analytical tools to generate accessible information on air pollution. It has developed two online air pollution forecasting portals, one focusing on Delhi and another for other Indian districts (www.urbanemissions.info).

■ **Toxics Link :** Toxics Link is an environmental NGO dedicated to bringing toxics-related information into the public domain, both relating to struggles and problems at the grassroots level as well as global information to the local level. It was registered as a Trust in 1996. Prior to that, it was part of another organization 'Shristi'. Toxics Link works on capacity building of various NGOs and advocacy organizations across India (www.toxicslink.org).

■ **Chintan Environmental Research and Action Group:** Chintan was founded in 2000. Initially it looked into the informal sector, especially the waste pickers, who were invisible and had very minimal rights. It started working on implementation of waste management techniques and decentralization of waste management. It also worked with children of waste pickers helping them with formal learning and organizing environment programs. The next step was engagement with policy makers to bring policies and implementation of waste management together. Waste became an important component of Chintan. Currently the focus is on working on the inter-linkages of waste with air pollution and climate change (www.chintan-india.org).

■ **Lung Care Foundation (LCF):** LCF is a not-for-profit organization dedicated to the cause of promoting Lung Health in India. It was registered as Trust in 2015. LCF works across diverse social groups, educating and generating awareness on how to protect health and maintain well-being amidst hazardous pollution levels (www.lcf.org.in). Along with interviews with representatives from NGOs, an interview was conducted with Dr.S.N.Tripathi, Coordinator of the National Knowledge Network, formed under the National Clean Air Program and an Expert Member of Steering Committee and Monitoring Committee, National Clean Air Program.

Sample of the Study

S No	Source	Time Period	Method of Collection	No. of news stories/responses/respondents
1	Print + Television News	March 20-July 20 Oct 20-Jan 21 Oct 21-Jan 22	Newspaper clippings + TV shows	News Items-667
2	Journalists (Print+ Digital +TV)	July 2022 onwards	Semi-structured interviews	Print-3 , Digital-3, TV-1 Total=7
3	Filmmakers (Workshop participants)	24- 31 August 2022	Open-ended Questionnaire	9
4	Non-Governmental Organizations	July-August 2022	Semi-structured interviews	7

4 Key Findings

The key findings of the study have been grouped into four categories:

1. Analyzing News Stories on Air Pollution
2. Reporting on Air Pollution: Perceptions of Journalists
3. Visualizing Air Pollution: Perceptions of Filmmakers
4. Perceptions of Environmental NGOs and Advocacy Groups on Tackling Air Pollution.

1. ANALYZING NEWS STORIES ON AIR POLLUTION

i) Media Framing on Air Pollution

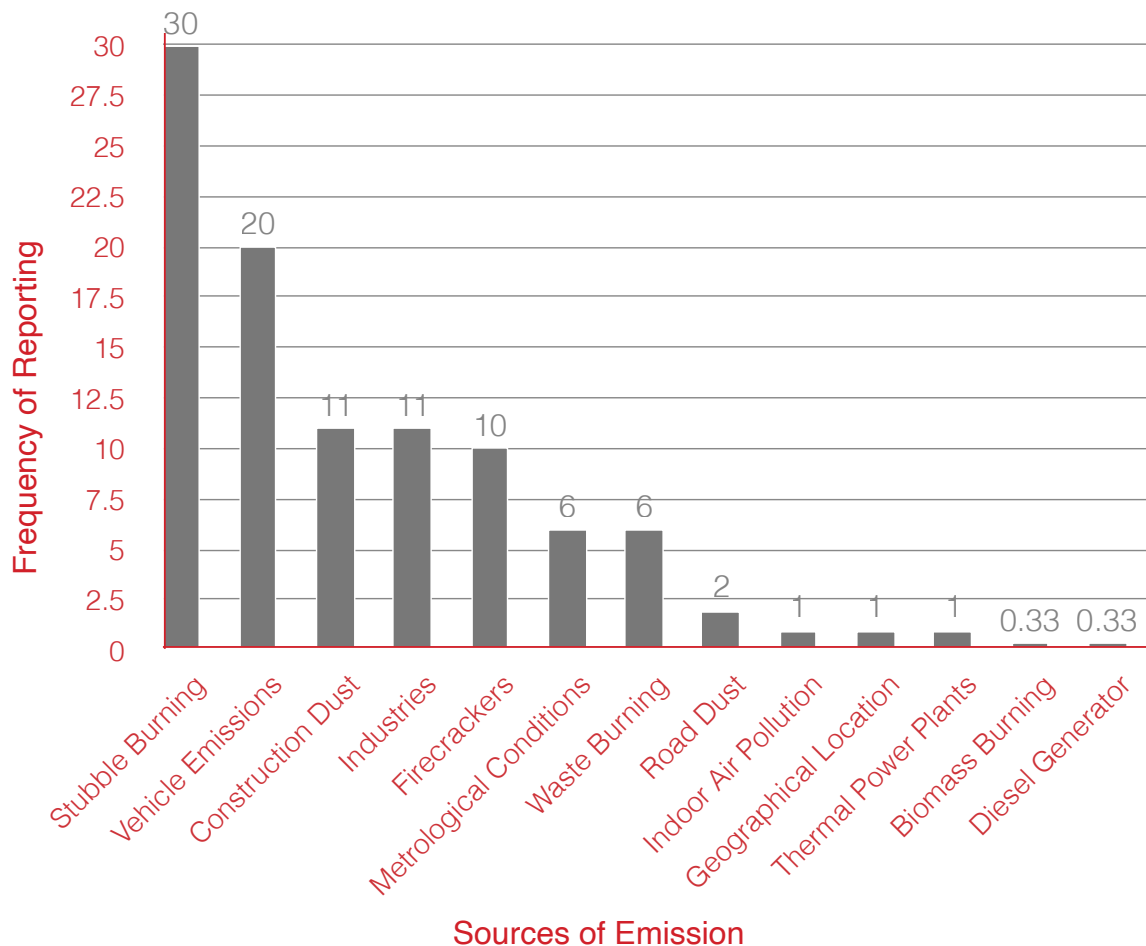
Media uses alarming keywords/phrases such as ‘air emergency’, ‘zehrili hawa’ (*poisonous air*), ‘chemical attack’, ‘smog killer’, ‘flu and allergy season’, ‘Delhi chokes’, ‘pradyushan se hahakar’ (*outcry due to pollution*), ‘toxic haze’, ‘hostile air’ to describe the air pollution in Delhi. Likewise, Covid and air pollution are described as ‘dohari maar’ (*twin attack*), ‘double whammy’, ‘combined terror’, ‘health emergency’ by the media. The tone of Hindi media coverage is combative. Tackling air pollution is framed as ‘pradyushan se jung’ (*war against pollution*), ‘pradyushan par vaar’

(*attack on pollution*). Similarly, judicial interventions are framed as ‘supreme fatkaar’ (*supreme reprimand*), ‘sakht tippani’ (*strict comments*). Hindi television news uses dramatic visuals and background scores in their news reports. In most news stories, AQI levels accompany the media text. *Hindustan Times* put up a graphics of daily pollution tracker along with air pollution news stories. In *The Times of India* and *Hindustan Times*, the graphics on AQI were accompanied by advertisements of Philips air purifier. They appear to be the sponsor of the story. Both the English newspapers *The Times of India* and *Hindustan Times* ran campaigns ‘Let Delhi Breathe’ and ‘Air We Breathe’ respectively. Both newspapers encouraged readers to join their campaigns by clicking on a link placed next to the news stories. Media also reported that covid lockdown had led to temporary relief from air pollution.

ii) Reporting on Sources of Air Pollution

Print media reported on more sources of air pollution than television news. Stubble burning was the most reported source of air pollution in all samples, except *Dainik Jagran*. Geographical location and indoor air pollution featured as sources of air pollution only in print media. Industries were also reported as important contributors to air pollution. However, barring *Dainik Jagran*, there is no in-depth coverage on them in any other sample. Media also reported thermal power plants and road dust feature as sources of air pollution. But there was no in-depth coverage on them. Waste burning as a source of air pollution featured the maximum in *NDTV 24x7*. Diesel generators as a source of air pollution were reported by *Hindustan Times* only. *Amar Ujala* linked the issue of vehicle emission with the farmers protest in Delhi in January 2022. It termed the farmers as ‘upadhravi kisan’(unruly farmers) who turned Delhi’s air black due to their tractor rally. The Hindi media blamed farmers for bad air quality in Delhi. Similarly, Pakistan was also blamed for the bad air crisis in Delhi by Hindi media. Adding a religious tone to its narrative, *Aaj Tak* framed the ban on firecrackers as an attack on Hindu religion.

Frequency of Reporting on the Sources of Air Pollution



iii) Reporting on Judicial Interventions

Media reported on the Supreme Court's call for inter-state coordination to tackle the bad air crisis in Delhi NCR. It also reported that the Supreme Court reprimanded the Central and State Government over their inaction to curb air pollution. *NDTV 24x7* and *Amar Ujala* reported that the Supreme Court reprimanded the Central and State government for targeting farmers for the air pollution crisis in Delhi. The Court was also critical over the nature of media reporting on its orders. *Amar Ujala* reported that the Supreme Court reprimanded a section of media for portraying them as 'khalnayak' (villain). *Hindustan Times* reported the Supreme Court as saying 'Debates on TV are creating more pollution than everybody. They don't understand, statements are taken out of context. Everyone has their own agenda.'

iv) Media Coverage of Government Interventions

Government interventions were reported more in print than television news. Media reported extensively on the implementation of GRAP measures to tackle pollution. The campaigns winter action plan, 'red light on, gadi off' (*red light on, vehicle off*), 'yudh-pradyushan ke virudh' (*war against pollution*) launched by Delhi government were widely reported by the media. *NDTV 24x7* was the only media organization that did coverage on the efficacy of government interventions like anti-smog towers, shutting schools, introducing work from home. A major chunk of media reporting also focused on the political slugfest between the BJP led Central government and AAP led Delhi State government over air pollution.

v) Coverage of Non-Governmental Organizations and other Research Bodies

Research studies by NGOs and other research institutions featured regularly in the media coverage. The studies by NGOs focused on identifying the contributions of the various sources of emissions. Few other studies also focused on providing solutions to mitigate the air pollution crisis. Some of the environmental NGOs whose studies were quoted were Center for Science and Environment (CSE), The Energy Research Institute (TERI), Center for Energy, Environment and Water (CEEW). Likewise, studies by Indian Institute of Technology (IIT) Kanpur also featured in the coverage. *Amar Ujala* cited a few studies which revealed that lockdown has brought down pollution levels in the capital.

vi) Coverage of Impact of Air Pollution on Health

Media reported on the 'twin attack' of air pollution and covid 19 on health extensively. Interviews with medical practitioners made it to the news stories in both print and television news. Several studies highlighting the correlation between air pollution and mortality were reported by the media. *NDTV 24x7* did special coverage on the adverse impact of air pollution on the children and the elderly. The reporting also highlighted the precautions that should be undertaken for prevention against covid and air pollution.

2. REPORTING ON AIR POLLUTION: PERCEPTIONS OF JOURNALISTS

i) State of Environment Beat in Indian Media

The interviewed journalists felt that media organizations have minimal revenue for reporting on environment stories. This is compounded by the lack of manpower which has the required skill and expertise to report on environmental issues. Environmental journalists need to have specialized training to understand the nuances of environmental reporting. The interviewed journalists felt that the sidelining of the environment has occurred due to a multiplicity of factors like lack of manpower, minimal revenue, declining domain expertise, and to a large extent the existing political scenario in the country.

ii) Digital Coverage of Environment Beat

Many of the interviewed journalists felt that the coverage of environmental stories by digital platforms appears

to be markedly different from the print and television news. Factors such as low production costs, scope for experimentation, increasing appetite for environmental stories and availability of international grants and funding, are creating a platform for more compelling and nuanced environmental storytelling through the digital medium.

iii) Media Coverage of Air Pollution

A majority of the journalists felt that the coverage of the sources of air pollution appears to be lopsided. Sources such as stubble burning, vehicle emissions gain more prominence at the cost of other emissions such as road dust, thermal power plants and diesel generators. Further, its reportage seems to be limited to the winter months (October to February) when it acquires hazardous levels and also becomes more visible. The 'visible' character of air pollution drives its coverage. The media reporting of air pollution is primarily Delhi-centric. The excessive focus on the national capital has come at the cost of absence of reporting from other parts of the country which also grapple with the crisis of bad air. However, there appears to be more focus on human interest stories, especially on the impact of air pollution on health and livelihood.

iv) Suggestions to Mainstream Environmental Reporting

Some of the journalists suggested that events like global warming and climate change are no longer occurring in geographically distant spaces but are impacting our everyday lives. Therefore, it becomes vital for the media to provide a platform for these conversations to take place. Some of the measures that should be adopted by media organizations to center-stage environment stories are-sensitization of editors to environmental issues, more investment in environment stories, specialized training to develop the necessary skills and expertise to report on environment and encourage more cross-beat environment reporting for more holistic and sustained coverage.

v) Suggestions to Tackle Air Pollution

The interviewed journalist also suggested that rather than focusing on one or two sources, there is a need to adopt a multi-sectoral approach to check emissions from the sources themselves. Further, bad air quality is not a seasonal but an annual occurrence. Instead of adopting a knee jerk reaction when the levels reach hazardous proportions, there is a need to focus on mitigating measures throughout the year. There is a vital need for inter-state coordination as air does not respect geographical boundaries. Delhi is a part of the Indo-gangetic airshed. Tackling air pollution in Delhi needs to take into account the airshed of the entire region which encompasses many North Indian states. A concerted effort requiring coordination across agencies and administrative boundaries is a key to tackle the bad air crisis. Technocratic measures help in dissipating the problem for a short time. The need is to evolve mechanisms which offer long term solutions. Media needs to adopt a more scientific and just approach to cover the issue. It should hold government accountable for meaningful action to tackle polluted air.

3. VISUALIZING AIR POLLUTION: PERCEPTIONS OF FILMMAKERS

i) Media Reporting on Air Pollution

The filmmakers felt that the engagement of media with air pollution was at the surface level, not meaningful enough to stir public apathy or political action. Media looks for visually compelling dramas like stubble burning, smog-filled air, and smoldering garbage dumps but there is a need to go a bit beyond & address the adverse effects of the pollutants. Further, the corporate ownership of media impacts its coverage. Although industries and vehicle emissions are the biggest emitters, the media indulges in passing the buck to neighboring countries (Pakistan) and the farmers for air pollution. It also appears that there has been a rise of alternative news portals specializing in environmental issues in response to skewed reporting by prominent media outlets.

ii) What Stories to be Told

Interviewees felt that stories that sensitized viewers, broke stoic silences and stirred political and public debates

on air pollution needed to be told. They felt Filmmakers needed to align their craft with voices and narratives of communities working to counter air pollution. Environmental stories are required to have the right kind of balance between showcasing the urgency and providing solutions. There should be more focus on stories which showcase successful solution providers whose products/activities have helped the society in some way should be told. Further, environment stories need to go beyond the anthropogenic world. Stories of birds, animals, trees and mountains, indigenous communities and marginalized classes need to be retold.

iii) Challenges on Visualizing Air Pollution

The filmmakers identified that one of the biggest challenges in visualizing air pollution was syncing information with accurate narrative emotion. While it is easy to get access to visuals of trash burning, tailpipe emissions, smoke from factory chimneys, encroachment in forest lands, foam on river Yamuna, connecting them with narration which stirred emotion and left a lasting impact on people watching them was difficult. Many times this happened due to the absence of approaching the problem of pollution from the lens of equity and empathy. Another challenge was while it is fairly easy to acquire visuals of hospitals, babies, patients & interviews with doctors & experts, to show how minuscule nano-particles travel through the brain & cause harm inside was difficult as these pollutants were microscopic in nature. One would need to use more technical lenses and gear and use macro photography to demonstrate them.

4: PERCEPTIONS OF ENVIRONMENTAL NGOS AND ADVOCACY GROUPS ON TACKLING AIR POLLUTION

i) Sources of Air Pollution

Interviewees identified several key factors they felt were major contributors to air pollution, which can broadly be divided into two categories:

- Natural sources- Dust from arid regions, meteorological conditions, forest fires, volcanoes
- Anthropogenic sources- Biomass burning, vehicle emissions, construction and demolition dust, road dust, brick kilns, industries, stubble burning, indoor air pollution

ii) Mitigation Measures by Government Agencies

In terms of existing mitigation measures, interviewees identified two major policy responses that were designed to address pollution, one local and one national:

- City based plan- Graded Response Action Plan to arrest periods of sharp spike in pollution
- National Plan- National Clean Air Program to combat air pollution at the national level

However, there was broad consensus that both existing measures had shortcomings. For instance, NCAP was not an enforcement agency and its operation was limited to urban centres. There was also concern that the focus of GRAP was on immediate emergency mitigation measures and techno fixes, rather than creating infrastructure for lasting change (which would require large-scale transformation of agricultural and transport policy).

iii) Impact of Covid19 Pandemic on Air Pollution

The activist from various NGOs felt that the most visible impact of the pandemic was reduction in pollution levels due to stoppage of human activities such as closure of industries, stoppage of construction activities, minimal movement of traffic etc. But this resulted in loss of livelihood especially in the informal sector. The pandemic was also responsible for increase in volume of biomedical waste due to covid mandated prevention and treatment measures.

iv) Impact of Air Pollution on Health

The health related NGOs primarily talked about how air pollution adversely impacts the respiratory cardiovascular

and neurological system. It also has differential impact on the basis of age, gender and geographical location. People residing near landfills are more impacted by toxic fumes from exposed waste. Children and elderly are more impacted due to their weak immunity levels. Likewise, women suffer more from polluted air due to long exposure from biomass cooking specially in low income neighborhoods in urban centres and rural areas.

v) Awareness Campaigns by NGOs

Non-governmental organizations and civil society organizations are involved in awareness campaigns, citizen mobilization and social and behavioral centric mode of communication to tackle the issue of polluted air. They are also collaborating with government agencies to bring in new/upgrade existing regulations for effective mitigation measures. There is also the focus on translating scientific data on air pollution into simple and easy to comprehend language for timely and prompt action.

vi) Suggestions to Tackle Air Pollution

Non-governmental organizations call for the adoption of an airshed approach to tackle air pollution. They also emphasize on enhancing the capacity building of monitoring and enforcement agencies. Since, air is not demarcated by geographical boundaries; there is a need to engage in international cooperation and collaboration. Lastly, political will is needed to combat the crisis of air pollution in India.

5. Recommendations

The following are some of the recommendations of the study.

- Environmental NGOs and advocacy groups are supporting government institutions by providing them with data on emissions, research on health impact, research on livelihood impact etc. Such information is helpful in formulating air pollution action plans. There is a need for such knowledge sharing on a continual basis.
- Some environmental NGOs are engaged in translating complex and scientific pollution data into simple language for awareness among the public at large. Such organizations should be encouraged and supported by government institutions for effectively carrying out the message of clean air at the grassroots level.
- Government institutions need to engage with the wider international governmental and civil society groups to combat air pollution at a global stage.
- There is an urgent need to adopt the airshed management approach by coordinating across state boundaries to tackle air pollution.
- The issue of stubble burning has to be understood within the larger context of agricultural policies in India. These policies appear to favor powerful groups at the cost of farmers. There is an urgent need to frame policies or revisit existing policies that safeguard the interests of the farming community.
- The issue of adverse impact of air pollution on health has gained primacy in media coverage. Media coverage highlights the various life-threatening ailments due to intake of polluted air. The coverage also focuses on preventive measures that ought to be taken by citizens to keep themselves safe. However, one glaring omission of this coverage is the inadequacy of the public health system to deal with the air pollution emergency. The Indian public health system is ill-equipped to deal with such a mammoth crisis as was evident during the pandemic crisis where the public health system collapsed due to the sheer overload of medical emergencies. So while air pollution has been declared as a public health emergency, there is an immense need for sustained and meaningful media coverage on the public health system in India to mainstream it in policy making and governance.
- There is a need for sustained interventions to tackle the bad air crisis. Rather than jumping into action during periods of intense spike, governments need to work on mitigation measures round the year.
- Technofixes such as anti-smog gun, odd-even policy, smog towers are short term interventions to arrest spikes.

There is a need for more effective long term measures to combat air pollution in the country.

- The government monitoring agencies appear to be lacking in technical expertise. Most of these agencies are understaffed and lack technical knowhow. There is an urgent need to ramp up the capacity building of these agencies.
- The impact of the pandemic on air pollution was two-fold. While on one hand, the pollution levels reduced drastically due to curtailment of industrial activities, movement of vehicles, stoppage of construction activities etc., on the other hand, the pandemic resulted in an enormous increase in the volume of biomedical waste, thereby contributing to the air pollution crisis.
- Media reportage is heavily skewed towards few sources of air pollution- stubble burning and vehicle emission. There is a need to focus on multi-sectoral emissions for effective mitigation measures.
- There appears to be an urban bias in the media coverage of air pollution and operational scale of air pollution action plans. Air is not static. Rural areas also contribute significantly to bad air primarily through biomass burning and brick kilns. There is a need to extend the implementation of action plans to rural areas. Media also needs to do a more 'geographically' inclusive coverage of air pollution.
- Media needs to refrain from its eye-grabbing TRP model of coverage and focus more on reporting on environmental issues, responsibly.
- Media houses need to invest in specialized training of their reporters to understand and report on environmental issues.
- Along with reporting on government interventions, the media should also critically evaluate the efficacy of such interventions.
- Media needs to mainstream environmental reporting especially in the context of the emerging challenges due to climate change.
- More media focus needs to be on inequalities that are intensified pollution due to and these reports should incorporate the voices of victims of air pollution, rather than relying solely on expert and governmental sources.



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The Project Team

Dr Pawas Bisht (Principal Investigator) Keele University, UK: Dr Pawas Bisht is Senior Lecturer in Media and Deputy Director, Institute for Sustainable Futures at Keele University (UK). Pawas is an experienced media researcher and documentary filmmaker and has previously worked for leading institutions in the UK (Loughborough and Leicester) and India (AJK Mass Communication Research Centre, Jamia Millia Islamia). His research focuses on media and cultural politics in relation to environmental activism, cultural memory, and public mobilisations of documentary storytelling. His earlier ethnographic research on social movements and memory-work in relation to the Bhopal Gas Disaster has been published in leading journals including *Media, Culture & Society* and *Contemporary South Asia*. His films have been shown on Channel 4 (UK), CNBC, and Doordarshan (India's national public service broadcaster) as well as in art venues in UK, India, US, and Europe. They include work commissioned by the United Nations Development Programme and the Global Environment Facility. Recently produced films include 'Back to the Drawing Board' (2017), a portrait of the British designers Pat Albeck and Peter Rice, 'Memory Archipelago' (2018), an examination of the politics of Gulag memory on the Solovetsky Islands in Russia's Far North, and '(Not) Acting Our Age' (2019), examining ageing, theatre and creativity.

Dr Sabina Kidwai (Co-Investigator) AJK MCRC, JMI, India: Dr Sabina Kidwai is Associate Professor at the AJK Mass Communication Research Centre, Jamia Millia Islamia, New Delhi, India. Sabina has been teaching film production for nearly three decades at AJK Mass Communication Research centre, Jamia Millia Islamia, New Delhi. She has extensive experience in the scripting and editing of environment and wildlife documentaries on a variety of subjects including climate change, sustainable development and wildlife trade. This has included films produced for the Ministry of Environment, Forest and Climate Change (Government of India) which were screened at COP 21 in Paris and COP 22 in Marrakesh. She co-directed the film 'Diminishing Resources' which was produced under the UK Environment Film Fellowship 2006. The film was also screened on Discovery Channel and National Geographic. She has edited films made for the World Wide Fund for Nature India, ICARDA, US Fish and Wildlife service and many other international organisations. She regularly teaches courses on environmental communication using films to generate awareness among media students on environmental issues. She has also given lectures on 'Media Management and Environment films' at the Wildlife Institute of India, Dehradun and on 'Science Communication and Environment films' for Vigyan Prasar, Ministry of Science and Technology (Government of India). Her other areas of research include Minority Studies and she has a number of publications in this area.

Dr Eva Giraud (Co-Investigator) University of Sheffield, UK: Dr Eva Giraud is Senior Lecturer at the Department of Sociological Studies at the University of Sheffield (UK). After completing her PhD in 2011 in the University of Nottingham's Centre of Critical Theory, Eva worked in the Department of Culture, Film and Media at Nottingham and at Keele University's Media Department. Eva's research has two strands. In empirical terms, she is interested in the ways that activists negotiate frictions associated with the media platforms they use, particularly the challenges posed by social media. Eva also has a broad conceptual interest in some of the potentials and tensions associated with non-anthropocentric theoretical work. She has drawn these themes together in her books *What Comes After Entanglement?* (Duke University Press, 2019) and *Veganism: Politics, Practice and Theory* (Bloomsbury Academic, 2021). Eva is currently on the editorial team of the international journal *Cultural Politics*.

Dr Sudeshna Devi (Research Assistant) AJK MCRC, JMI, India: Dr Sudeshna Devi is employed as a Research Assistant on the project. Sudeshna has a PhD in Sociology from the Center for the Study of Social Systems, Jawaharlal Nehru University, New Delhi and MA and M.Phil in Sociology from University of Hyderabad. She has worked independently and institutionally as a researcher on several projects: 'Paharias: The Struggle of a Tribe for Recognition', sponsored by UNDP, New Delhi; "Preparation of District-level Food Insecurity Atlases" at KIIT School of Rural Management, Bhubaneswar, in collaboration with Institute of Human Development, New Delhi; 'Women, Political Parties and Decentralised Governments: Case Studies of Women Leaders in India and Cambodia', sponsored by Local Human Resources and Public Policy Development System Open Research Centre, Ryukoku

University, Japan; Corporate Social Responsibility in the Mining Sector of Odisha, sponsored by University of Agder, Norway. Her areas of research are media history, public opinion, newsrooms, media representation, digital media and media consumption. Her work has been published in journals including Journalism Practice, Contemporary South Asia, Journalism, Asian Journal of Communication, New Media and Society and IASSI Quarterly. Her doctoral thesis has been published as a monograph titled Media Discourse in Contemporary India: A Study of Television News (Routledge: UK and New York 2022)

Abbreviations

AAP	Aam Aadmi Party
AQI	Air Quality Index
BJP	Bharatiya Janata Party
CEEW	Council on Energy, Environment and Water
CREA	Center for Research on Energy and Clean Air
CSE	Center for Science and Environment
GRAP	Graded Response Action Plan
HT	Hindustan Times
IIT	Indian Institute of Technology
NCAP	National Clean Air Program
NCR	National Capital Region
NDTV	New Delhi Television
NGO	Non-Governmental Organization
NGT	National Green Tribunal
TERI	The Energy Resources Institute
TOI	The Times of India



Jamia Millia Islamia, New India

Jamia Millia Islamia is a public university located in New Delhi, India. It was established in 1920. It is a national institution that offers progressive education and nationalist ideals to students from all communities, providing them with cutting edge learning experience, internationally benchmarked education, intellectual freedom and research opportunities in frontier areas of contemporary concern. Today the university is ranked third in university category and ranked twelfth in overall category by the NIRF 2023 rankings. It was also accredited with the highest grade of 'A++' by the NAAC, Ministry of Education, Government of India in 2021. The university offers teaching and research in Natural Sciences, Social Sciences, Engineering and Technology, Humanities and Languages, Architecture and Ekistics, Fine Arts, Law and Dentistry.

AJK Mass Communication Research Centre, Jamia Millia Islamia is a premier media training and research centre. Founded in 1982 by Anwar Jamal Kidwai -former Vice Chancellor of JamiaMillia Islamia- MCRC offers post-graduate courses in art, craft and technology of modern media. Established in collaboration with York University, Toronto and Canadian International Development Aid Agency (CIDA), the centre provides the highest standard of media education and training by professionally and academically accomplished faculty and a broad spectrum of visiting professionals.

Keele University, United Kingdom



Keele University is a public university located in Keele, United Kingdom. Established in 1949 by Lord Lindsay-the former Vice-Chancellor of Oxford University-the University's founding aim was to produce graduates who not only had the technical and specialist knowledge to move society forward, but who understood the social and political landscape that drove this need. Today, the university has a global network of 100,000 alumni in 120 countries, who are creating positive impact across the world in a range of diverse careers. Keele university was ranked as the 'Britain's Best University' by students in the Student Crowd University Award in 2022 and the highest rating of 'Gold' overall in Teaching Excellence Framework.

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Executive Summary

Analyzing Media Narratives on Air Pollution

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For more information about the project and other detailed
findings and media output, please visit: www.pollutionstories.org

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