



# **CLEAN AIR FOR ALL**

Principles For Action

# **CEO COMMUNIQUE ON AIR QUALITY**

Meeting India's National Air Quality Standards

# PREAMBLE

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Poor air quality is ubiquitous across the globe, causing approximately 4.5 million premature deaths in 2015 due to exposure to particulate matter and ozone<sup>1</sup>, making it the world's largest single environmental risk<sup>2</sup>. In India, ambient air pollution is responsible for 0.65 million premature deaths per a year, or 3% of the total premature death<sup>3</sup>. The majority of cities in India far exceed the World Health Organization (WHO) particulate matter, PM10, standard of 20 µg/m and half of the world's most polluted cities are in India<sup>4</sup>. In addition to the human health impacts, poor air quality in India has been shown to be responsible for a nationally aggregated (wheat and corn) crop loss sufficient to feed about 94 million people in India<sup>5</sup>. Particulate matter is also impacting the regional monsoon rainfall and circulation in India<sup>6</sup>. Choosing not to act to improve air quality will have significant costs. However, deciding to act to improve air quality will result in multiple benefits to human health, crop yields, and climate change.

The solutions to improve air quality and consistently manage it within safe limits are known. It will take a combination of long term planning, conformance to policies and voluntary leadership to achieve India's National Ambient Air Quality Standards (NAAQS). Recognizing that industries are significant contributors to air pollution, as well as important part of the solution, we as principals of Indian Corporate sector assembled between May 2017 and March 2018 to identify high leverage actions. After careful deliberation, we do note that achieving NAAQS in a time bound manner is a key goal that corporate sector, policy makers and citizens should strive to achieve. To facilitate decision making and shaping actions/initiatives towards this objective – we have outlined suggestive principles visioning “Clean Air for All”. These principles have been built across a series of CEO Round Tables chaired by Mr. Jamshyd Godrej (Chairman, Godrej & Boyce Manufacturing Co. Ltd.) and co-facilitated by World Resources Institute India along with Shakti Sustainable Energy Foundation. Further, the principles also underline key policy actions and voluntary business commitments that can be made towards subscribing to Government of India and Environment Ministry's vision of 35% emission cuts across 100 large cities in the country in next three years and 50% reductions in the next five years (outlined in the National Clean Air Programme<sup>7</sup>). We lay-out our recommendations, policy asks and voluntary commitments that businesses can make as below.

<sup>1</sup> Landrigan, P.J., et al., (2017). *The Lancet Commission on pollution and health*. Lancet DOI: 10.1016/S0140-6736(17)32345-0.

<sup>2</sup> WHO: *Burden of Disease from the Joint Effects of Household and Ambient Air Pollution for 2012*, WHO: 2014.

<sup>3</sup> Lelieveld, J. et al. (2015). *The contribution of outdoor air pollution sources to premature mortality on a global scale*. Nature. DOI: 10.1038/nature15371.

<sup>4</sup> *Ambient Air Pollution Database*, WHO, May 2016.

<sup>5</sup> Ghude, S.D., et al., (2014). *Reductions in India's crop yield due to ozone*. *Geophysical Research Letter*. DOI: 10.1002/2014GRL060930

<sup>6</sup> Lau, W.K.M., et al. (2017). *Impacts of aerosol-monsoon interaction on rainfall and circulation over Northern India and the Himalaya Foothills*, *Climate Dynamics*. DOI: 10.1007/s0038

<sup>7</sup> [https://timesofindia.indiatimes.com/home/environment/pollution/govt-sets-target-of-35-pollution-cut-for-100-cities/articleshow/63276503.cms?utm\\_source=Articleshow&utm\\_medium=Organic&utm\\_campaign=Related\\_Stories](https://timesofindia.indiatimes.com/home/environment/pollution/govt-sets-target-of-35-pollution-cut-for-100-cities/articleshow/63276503.cms?utm_source=Articleshow&utm_medium=Organic&utm_campaign=Related_Stories)

# SUGGESTED POLICY AGENDA AND STRATEGIES

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## **Adopting a National Road-map on Improving Air Quality by 2022.**

Rapid urbanization and exponential growth in industrial activity, has significantly stressed air quality across Indian cities. The Central Pollution Control Board (CPCB) has set National Ambient Air Quality Standards, for major pollutants and prescribed guidelines for these standards to be met 98% of the time during the year. Data from the pollution control board shows ~ 69% locations exceed standard limits for particulate matter<sup>8</sup>, routinely for a number of reasons. Given the situation along with the upcoming vision on emission cuts across 100 large cities taking shape – we foresee an urgent need for building and adopting comprehensive national roadmap on air quality improvement. Apart from clarifying roles and responsibilities, such a roadmap should also clearly define liability of polluters, identify monitoring and tracking needs, outline institutional capacity building across local, regional and national entities as well as map investment needs. The roadmap should further develop baseline and interim targets, as well as put mechanisms in place to track and report progress. This will ensure targets are met in an expedited manner and build support for overall national vision, as is being outlined in the initial principles of the National Clean Air Program under development and consultations.

## **Improved Air Quality Measurement and Monitoring Network**

Currently, India has less than 800 ambient air quality monitoring stations across 300 cities, with most of them manually controlled. Very few are real-time, and India still lacks the network and background data necessary for linking pollution to its sources more conclusively. There is an urgent need therefore to rapidly expand the existing network to world-class standards in terms of coverage, periodicity, quality and accuracy. Adequate deployment of regulatory, policy and fiscal measures will accelerate this expansion. While more allocation of public funds is encouraged for high risk areas, additional models including public-private partnerships should be tapped for expanding the network. Additional private sector participation needs to be promoted through issuance of regulatory guidance on the use of CSR funds for the purpose. Furthermore, promotion and outreach of acceptable technical specifications in terms of range, accuracy, speed, coverage etc. will expand capital investments in the monitoring sector, boost markets and eventually reduce the cost of monitors. Additional appropriate fiscal benefits including tax exemptions need to be considered for institutions supporting the government in setting-up additional monitoring stations.

## **Enhancing Research, Information and Knowledge**

Given the current situation, there is an urgent need to expand research capabilities and increasing knowledge on air quality measurement and management. Broadly, source apportionment studies, air quality modelling assessments, forecasting, health-impact studies and cost-benefit assessments are very limited and need to be enhanced significantly. For example, rigorous and scientific source apportionment studies have been carried out for very few cities in India only. It is strongly urged to conduct source apportionment studies for all cities outlined under the non-attainment criteria<sup>9</sup>, to enable appropriate on-ground action in mitigating hotspots.

<sup>8</sup> <http://cpcb.nic.in/openpdf.php?id=UmVwb3J0RmlsZXMvMzJfMTQ1ODEyNjU5MV90ZXdlJdGVtXzE5MI90QUFRU1RlLnBkZg==>

<sup>9</sup> [http://cpcb.nic.in/uploads/Non-Attainment\\_Cities.pdf](http://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf)

This should be supported by exploring public-private partnerships as well as reviewing current regulatory guidance on the use of CSR funds for supporting such studies in high risk regions. We also urge empaneling additional research Institutions (apart from the ones already onboard) for source apportionment studies to be carried out rapidly, across a number of identified cities. Set of standardized criteria, guidelines and specifications should be outlined clearly for the purpose. Additionally, guidelines should be created on acceptable research methodologies for studies mapping economic impacts, health implications, loss of productivity etc. to identify eligible research agencies and channelize additional funds from philanthropies, donor institutions and multilateral agencies.

### **Improved Air Inventories, Modelling Capabilities and Transparency**

Improved data and inventories are absolutely essential and prerequisite in building comprehensive action plans as well as response measures. While the pollution control board mandates continuous emissions monitoring (CEM) across few industries, this needs to be expanded to other sectors to cover a wider range of high impact sources. This can be further structured by way of institutionalizing a comprehensive mechanism for voluntary or mandatory reporting of stack-emissions and air pollutant inventories on an annual/periodic basis. This will further empower agencies, laying a strong foundation for corrective action, tracking of goals and exploring policy options including market-based mechanisms, taxes etc. Existing data collected by pollution control boards, should also be made available to enhance transparency and support additional research. Additionally, air quality and emissions related information mapped within the purview of existing mechanisms like the Environment Impact Assessment reports (EIA) should be made available publicly, for further boosting voluntary action. More data will strengthen in-country modelling capabilities and provide relevant information in terms of trends, reductions, forecasting etc.

### **Improved Compliance and Policy Actions**

Currently, there are 110+ emission standards applied across the country for various industries, processes and operations. These should be reviewed periodically for relevance and revisions should be made on permissible pollutant limits, as appropriate. We also strongly urge to aligning these standards in line with the National Ambient Air Quality Standards (NAAQS) in a time-bound manner. Periodic publication and information sharing on compliance status based on industry segments is encouraged. It is also recommended to follow an informed, inclusive and transparent standard setting process by referring to relevant techno-economic assessments, industry and expert consultations, comparisons with international limits and performance-based approaches.

Leaving aside Delhi and a handful of major cities, most regions lack comprehensive clean air action plans, which cover short, medium and long-term proactive interventions. We encourage regional, national and international cooperation facilitating best practice sharing and approaches. This should be then translated for affected regions to develop comprehensive clean air action plans locally and implement them.

The nodal agencies responsible for implementation and compliance, i.e. the Central and State Pollution Control Boards along with the Ministry of Environment, Forests and Climate Change have multiple and urgent issues to deal with. We therefore urge to strengthen institutional capacity of these nodal agencies and have a dedicated department, cell or a committee working to advance progress against established national goals. We also encourage gradual mainstreaming of air quality goals into public investment planning, with leadership being driven by the nodal agencies, eventually.

## **Communication and Public Awareness**

Various measures including display and communication of Air Quality Index in public places via billboards or internet are in place already. We urge to improve effectiveness of these measures by running campaigns that simplify index components, build awareness about pollutant sources, health effects and recommend corrective actions. We further urge issuance of appropriate health advisory at specific breach levels in coordination with relevant civil society organizations and media representatives to avoid extreme instances. Interactive portals like SAFAR need to be further enhanced and expanded to include more cities and engage effectively with the wider civil society.

# **OUR COMMITMENTS**

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## **Committing to Ambitious Emission Cuts**

We commit to supporting progress towards India's National Air Pollution reduction goals of 35% across 100 cities in three years and 50% in five years as outlined in the National Clean Air Program. For this, we urge our business peers and signatories to the "Clean Air for All" principles to undertake comprehensive internal assessments, set appropriate voluntary targets and draw-up internal plans to effect reduction in pollutant levels, as per individual capacity and as appropriate to the sector/nature of operations. We commit to support as well as urge industry and knowledge partners to build a bottom-up industry emission reduction roadmap, aligned with the implementation of national goals. We further encourage and offer the "Clean Air for All" principles platform to act as central repository for sharing of best practices, key learnings and experiences, approaches and outlining of technology options facilitating emission reductions.

## **Voluntary Information Disclosures**

Supporting the Air Quality Monitoring Network: In line with the added focus on expanding the national air quality network, we commit to explore approaches within our respective capabilities to feed into the overall network /database. One approach, we urge our peers and ourselves commit is to explore possibilities to disclose and share pollutant/emissions information on a periodic basis.

Control Measures: Additionally, we also volunteer to share details and information of various control measures being undertaken individually and collectively. These would be shared across relevant platforms and media including EIA reports, technical blogs, sectoral best practice documents etc. We would also support webinars and interactions on mapping best available technologies, adoption of control equipment etc. under the "Clean Air for All" platform.

## **Advancing Measurement & Research**

We commit to help advance monitoring, research and knowledge, as well as broader expertise building to complement the Government of India initiatives. We would accordingly explore CSR initiatives or other approaches to further enable support for installation of high-grade monitoring stations across key areas. Similarly, we would explore opportunities to collaborate amongst business peers for supporting source apportionment studies across select cities.

We also commit to identify and support additional research, tools and methodology development opportunities, in line with the current gaps. We commit and urge other business peers to share experiences, best practices, learnings from deploying key control measures to be collated across the “Clean Air for All” platform, to be made centrally available on the web. We also commit to work with and urge sectoral as well as industry led coalitions including the Cement Sector Initiative, Fertilizer Association of India, Society of Indian Automotive Manufacturer’s Association etc. to include Air Quality Management in their agenda, research priorities and roadmaps.

### **Support on Policy Design and Implementation**

We commit to participate in the policy design and implementation process, by effectively engaging on public and industry consultations. Specifically, we would urge and support close examination of policy instruments successfully across other geographies and help identify recommendations on what can work. Accordingly, we support and make available relevant senior practitioners within our set-up to further engage on such policy consultations, design process etc. including engagement on development, updates and implementation of industry emission standards. We further commit to explore participation on policy pilots and voluntary schemes covering adoption of market-based instruments like pollutant cap and trade schemes with a goal facilitating steeper emission reductions as a group and eventually achieving India’s national ambient air quality standards.

### **Outreach, Communication & Awareness Building**

We commit to including knowledge building and training modules specific to air quality management as a part of existing employee, supply chain and local community-focused capability building initiatives. We also offer support and make ourselves available for building various collaterals including high level messaging across key events, outreach tools like LeaderSpeak video’s, and relevant mechanisms to spread the word on urgency and need to act in a holistic comprehensive manner. We would also volunteer and urge peers to participate and support existing national/government led communication campaigns to magnify the impact.

## **GOING FORWARD**

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We urge our peers and fellow-business leaders to collaborate, and further explore possibilities on expanding the “Clean Air for All” principles towards achieving India’s National Ambient Air Quality Standards. We invite leaders to adopt and help consolidate the Clean Air for All principles covering voluntary commitments on emission cuts, information, data disclosure, compiling best practices and committed participation on policy planning process to help map a consolidated response for managing air quality challenges in a timebound manner, with the Clean Air principles as a guiding framework. Additionally, we urge and offer support to relevant nodal agencies in advancing the monitoring network, enhancing research and knowledge capabilities to broadly outline comprehensive air quality actions plans in line with the national goals.

### **ACKNOWLEDGEMENTS**

We sincerely acknowledge support from Shakti Sustainable Energy Foundation and World Resources Institute India for supporting this initiative, and facilitating the CEO Round Table meetings, compilation of this CEO Communique and committing to expanding the work under “Clean Air for All” principles.

# FOUNDING SIGNATORIES

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We support the "Clean Air for All" principles and subscribe to the views outlined in this CEO Communique with an aim to meet India's National Ambient Air Quality Standards.

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**Jamshyd N. Godrej**

*Chairman & Managing Director*

Godrej & Boyce Mfg. Co. Ltd

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**Punit Lalbhai**

*Director*

Arvind Ltd.

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**Sanjay Kirloskar**

*Chairman*

Kirloskar Brothers Ltd.

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**Anil Sardana**

*Managing Director*

Tata Power Co. Ltd

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**Mahendra Singhi**

*Group CEO*

Dalmia Bharat

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**Gunter Butscheck**

*Managing Director*

Tata Motors Ltd.

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**Naushad Forbes**

*Chairman & Managing Director*

Forbes Marshall India Limited

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**Brotin Banerji**

*Managing Director*

Tata Housing Ltd

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**Uday Gupta**

*Managing Director*

Mahindra Sanyo Sp. Steel. Ltd

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**Anita Arjundas**

*Managing Director*

Mahindra Lifespaces Ltd

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**Nitin Prasad**

*Chairman*

Shell (India) Ltd

---

**Ravi Pandit**

*Chairman*

KPIT Technologies

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To get in touch or know more  
about the initiative, reach out to

**Vivek Adhia ([vadhia@wri.org](mailto:vadhia@wri.org))**

**Chinmaya Acharya ([Chinmaya@shaktifoundation.in](mailto:Chinmaya@shaktifoundation.in))**