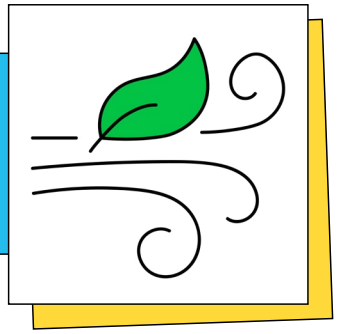
C40 CLEAN AIR ACCELERATOR



How cities are cleaning the air we breathe in an inclusive and equitable way

SIGNATORY CITIES

Abidjan, Accra, Addis Ababa, Amman, Austin, Bangkok, Barcelona, Bengaluru, Berlin, Bogotá, Buenos Aires, Copenhagen, Dakar, Delhi, Dubai, Durban/Ethekwini, Ekurhuleni, Freetown, Guadalajara, Heidelberg, Houston, Jakarta, Johannesburg, Kolkata, Lagos, Lima, Lisbon, London, Los Angeles, Mexico City, Madrid, Medellín, Milan, Nairobi, Oslo, Paris, Phoenix, Portland, Quezon City, Quito, Rio de Janeiro, Rotterdam, Salvador, Seoul, Stockholm, Sydney, Tel Aviv-Yafo, Tokyo, Tshwane, Warsaw, Washington, D.C.

COMMITMENTS

1. **Set ambitious reduction targets for air pollutants that put us on a path towards meeting World Health Organization final and/or interim Air Quality Guidelines and install and/or maintain reliable city-wide air quality monitoring networks with public data access**

2. **Implement new substantive policies and programmes to address the top causes of air pollution emissions within cities and under their control, in order to meet reduction targets for air pollutants set by cities**

SUMMARY

Air pollution is a silent, global killer, responsible for 7.9 million deaths in 2023 alone. It is the second leading risk factor for mortality globally – ahead of even tobacco and poor diet.

Cities are home to the majority of the global population, where air pollution is mainly caused by the combustion of fossil fuels in the transport, energy and industrial sectors.

Mayors worldwide recognise this reality and are taking action, with **51 global cities** committing to the **C40 Clean Air Accelerator**. The Accelerator provides a science-based framework for cities to protect residents by setting and working towards clear air quality targets. Most signatory cities (88%) have World Health Organization (WHO) air quality guideline-aligned targets to reduce $PM_{2.5}$ and safeguard public health. This translates to cleaner lungs for children, fewer hospital visits for vulnerable groups, and thousands of lives saved.

Signatory cities are demonstrating that targeted, bold and rapid progress is possible. Since 2018, signatory cities have achieved a 6% reduction in $PM_{2.5}$ and an 11% reduction in nitrogen dioxide (NO_2). In **Paris**, action including the restriction of polluting vehicles has cut NO_2 nearly in half and $PM_{2.5}$ by more than a third in just 10 years. **Madrid** and **Barcelona** now breathe the cleanest air since records began over 20 years ago. In **Seoul** and **Warsaw**, action including the replacement of old household boilers has slashed $PM_{2.5}$ by 23–30% in under seven years, saving over 30,000 lives in Seoul alone since 2008. The new metro and the shift to electric buses in **Quito** is already improving air quality, with reductions in $PM_{2.5}$ of up to 15% during peak hours in some stations.

Cities know that better data means better action. Thirty-eight cities have expanded their air quality monitoring networks since joining the Accelerator, including through the use of low-cost sensors. Since 2019, signatory cities have expanded from just 250 $PM_{2.5}$ sensors to more than 1,600, and from 49 NO_2 sensors to nearly 900. This has increased capacity to design effective evidence-based policies to address pollution hotspots and main sources of air pollution. In **Houston**, new monitoring is protecting frontline communities near refineries. **Nairobi** launched its first city-owned monitoring network with 50 real-time sensors, and **Johannesburg** measured emissions from 100,000 vehicles, both to guide clean air policies. Data is also helping cities to create long-term plans. **Dakar** has developed its first air quality plan and **Dubai** is adopting a new ambitious 2030 clean air strategy.

Mayors implementing data-driven inclusive clean air actions, prioritising the most vulnerable populations and creating new good green job opportunities. Clean Air Zones are being implemented with an inclusive approach – 66% of signatory cities have implemented or are working towards restricting high-polluting vehicles that are directly impacting residents' health. Signatory cities are reprioritising space for people – 94% are either permanently reallocating road space from cars to active and sustainable modes of transport, or working towards this objective, which benefits lower-income residents who rely on public transport and accessible public spaces.

C40 Clean Air Accelerator cities are also facilitating the transition to cleaner cooking and heating, with 42% having made progress on or implemented actions to eliminate the use of fossil fuels or solid fuels for heating and cooking. Addressing indoor air pollution in homes, especially for lower-income and marginalised communities, can improve health and living conditions, reduce healthcare costs, and combat energy poverty.

Cities are demonstrating real leadership and collaborating with partners to reduce pollution while tackling the climate crisis, which is saving lives, cutting health costs, creating green jobs, and building stronger, more inclusive communities.

IMPACT

BENEFITS FROM CLEAN AIR ACTION

The global cohort of
51 mayors

will save over
450,000 lives
from air pollution across their cities by 2040, gaining

5.4 million
years of life, and saving over

$844 billion
by reducing air pollution to meet their air quality targets

NUMBER OF CITIES THAT HAVE EXPANDED AIR QUALITY MONITORING NETWORKS SINCE JOINING THE ACCELERATOR

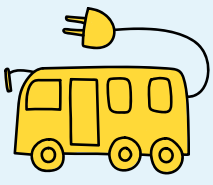
A total of 38 signatory cities have expanded their monitoring networks.

Of these, 22 signatory cities have increased their number of $PM_{2.5}$ and NO_2 lower-cost sensors.

Between 2019 and 2024, the number of $PM_{2.5}$ sensors has increased from 250 to 1,600, and NO_2 sensors increased from 49 to nearly 900.

IMPLEMENTATION OF SUBSTANTIVE CLEAN AIR ACTION

94% of signatory cities are reallocating road space from cars to active and sustainable modes on a permanent basis or are working to achieve that goal (up from 84% in 2023).

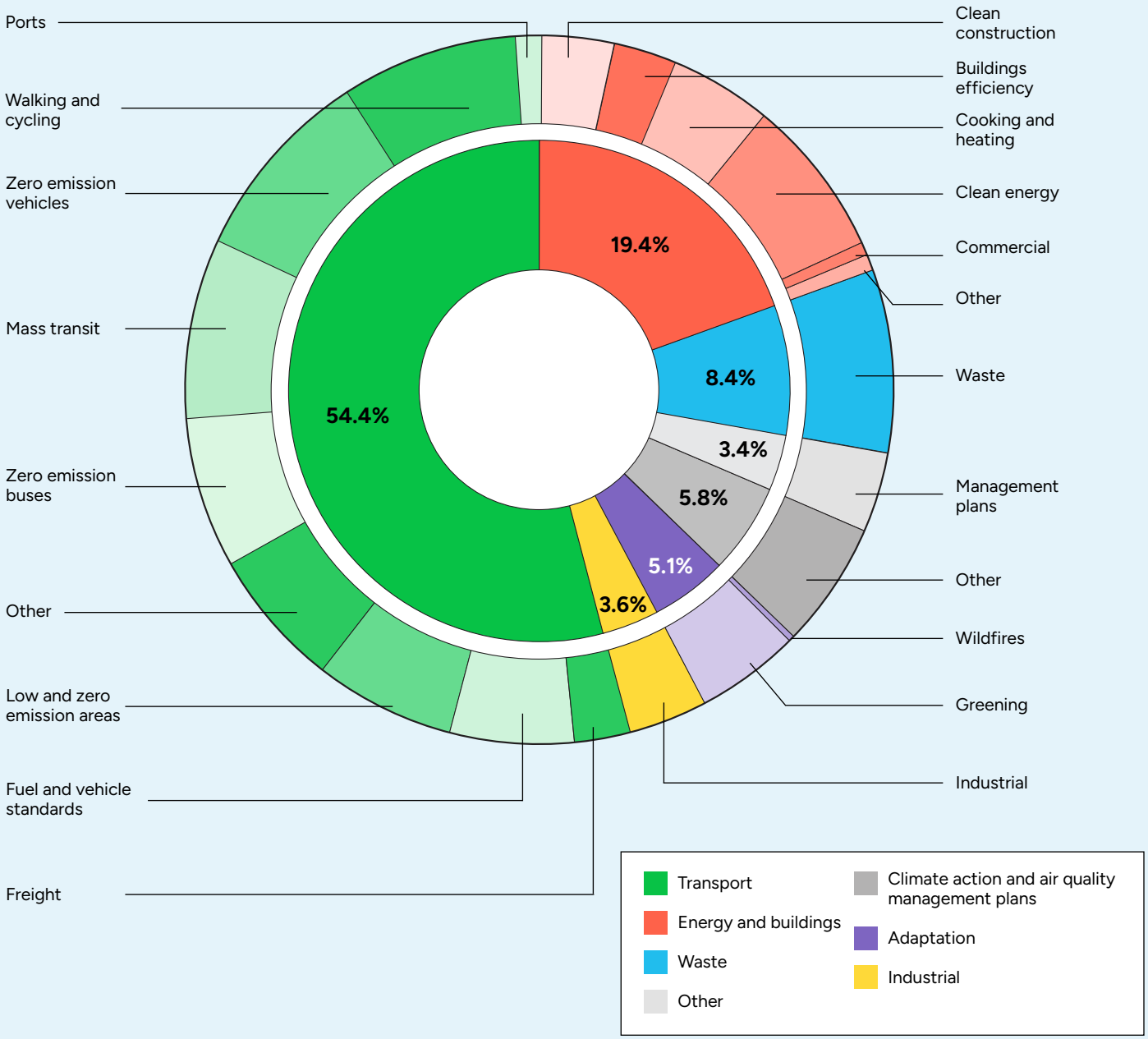


66% of signatory cities are procuring only zero emission buses or are working to achieve that goal (up from 62% in 2023).

66% of signatory cities are restricting high polluting vehicles in a significant part of the city or are working to achieve that goal (up from 62% in 2023).

42% of signatory cities are implementing or incentivising a phase out of fossil fuel or solid fuel technologies for heating and cooking or are working to achieve that goal (up from 34% in 2023).

FIGURE 1: Type of actions and percentage of actions corresponding to each sector of implementation under commitment 2.



TURNING COMMITMENT INTO ACTION

Commitment 1: Set ambitious reduction targets for air pollutants that put us on a path towards meeting World Health Organization final and/or interim Air Quality Guidelines and install and/or maintain reliable city-wide air quality monitoring networks with public data access.

Lagos has added 18 new air quality monitors to its network since September 2024, bringing the total to 60. Monitor locations were guided by equity considerations, to ensure comprehensive data collection across all communities, particularly in historically marginalised and overburdened areas. This network has enhanced data availability for policy making.

Bogotá expanded its microsensor network from 17 sensors in 2023 to 48 in 2024, with a goal of 70 by the end of 2025. This network supports data transparency, public engagement, and the evaluation of clean air interventions like the Urban Zones for Better Air (ZUMAs). Bogotá has also worked on a new, freely accessible educational web platform with real-time air quality data and reports from the city's monitoring network.

Washington, D.C.'s Department of Energy and Environment (DOEE) has continued to expand its air quality monitoring network coverage via its hyperlocal air quality monitoring programme. DOEE has installed nearly 50 air quality sensors at residents' homes, while also preparing to deploy 50 more at schools and on District-owned assets near schools. DOEE collaborated with partners in determining the locations for sensor placement based on factors such as schools closest to sources of pollution, higher numbers of children with asthma, and other risk factors. Additionally, DOEE is planning to conduct mobile hyperlocal air quality monitoring and deploy four park bench monitors around the city; their locations were chosen by the local Air Quality Advisory Board, using the parameters provided by DOEE and community input. A publicly accessible map will display readings from these sensors to better inform the public of the local air quality.

Commitment 2: Implementing new substantive policies and programmes to address the top causes of air pollution emissions within cities and under their control, in order to meet reduction targets for air pollutants set by cities.

Mexico City has made progress on clean air action from 2021 to 2024 by expanding mass transit with new Metrobús (BRT) routes and electric vehicles. The city has expanded one Metro Line, and created two new trolleybus lines and three cable car lines, as well as improved access to sustainable transportation in lower income communities.

The **London-wide** ULEZ One Year Report, published in March 2025, shows the successful reduction in the proportion and number of older, more polluting vehicles on roads in Outer London. Thanks to ULEZ, pollutant emissions in 2024 are considerably lower than before. $PM_{2.5}$ exhaust emissions from cars and vans are estimated to be 31% lower in Outer London, and NO_x emissions from cars and vans are estimated to be 14% lower. Reductions have been achieved through a diverse set of measures led by the Greater London Authority (GLA), including electrifying the city's vehicle fleets, introducing over 2,000 zero emission buses, and an ambition for a fully zero emission bus fleet by 2030. Thanks to these actions legal limits for toxic NO_2 pollution were met in 2024 for the first time 184 years earlier than predicted.

Los Angeles has introduced over 550 zero emission semi trucks to the Ports of Los Angeles, significantly moving forward the joint Ports' Clean Air Action Plan goal of all trucks serving the Ports being zero emission by 2035.

Amman is tackling a main source of air pollution in the city – the waste sector. The city has advanced the Al-Ghabawi Landfill project, including an area of 176,000 metres squared to reduce methane emissions, as well as through a biogas-to-energy plant expected to cover 40–45% of municipal electricity needs.

Ekurhuleni's informal settlement management draft bylaw aims to formalise existing informal settlements and prevent further unplanned growth. The bylaw is still at draft stage, while the city continues to work to improve quality of life for residents. Actions include reducing residents' exposure to indoor and outdoor air pollution by relocating them in neighbourhoods with electricity and tarred roads. The city has developed a sustainable integrated waste management strategy focused on informal settlements, to address illegal dumping, waste burning and improve waste management.

Warsaw is phasing out polluting fuels for heating, while economically supporting residents in the transition. The city passed a ban on 'non-class' coal and wood boilers in the building sector, decreasing the number in the city from 15,000 to 1,508 between 2017 and 2025. Municipal subsidies were offered to replace old heating devices with environmentally friendly alternatives such as air-source heat pumps. Subsidies covered nearly 100% of the costs of replacing the stoves. Since 2017 the City of Warsaw has granted nearly 3,900 subsidies amounting to approximately PLN 91 million (US$25 million) for the replacement of over 4,000 private smoke-belching stoves and 295 oil heating sources.

INSPIRATION

Bogotá has drawn inspiration from various national and international cities such as **Medellín, Barcelona, Auckland,** and **London** in the development and implementation of its Low Emission Zones (LEZs) and sustainable mobility projects – for example the air quality gains from Barcelona's superblocks, London's ULEZ and Auckland's strategies for transitioning to zero-emission vehicles.

Sydney constantly exchanges information and mutually inspires action with neighbouring local governments, other Australian capital cities, and international cities through networks including C40 and the Carbon Neutral Cities Alliance. Breathe London was the initial inspiration to install local sensors in Sydney.

COLLABORATION

Quezon City's air quality management actions, like expansion of active travel across the city, have involved collaboration with stakeholders including youth groups, vulnerable sectors and civil society organisations such as Bikers for Environment, AKAP Para sa Lahat Inc., and the Quezon City Ladies' Foundation, among others. These partnerships have helped implement initiatives like awareness campaigns, community capacity building workshops, and policy advocacy to improve air quality.

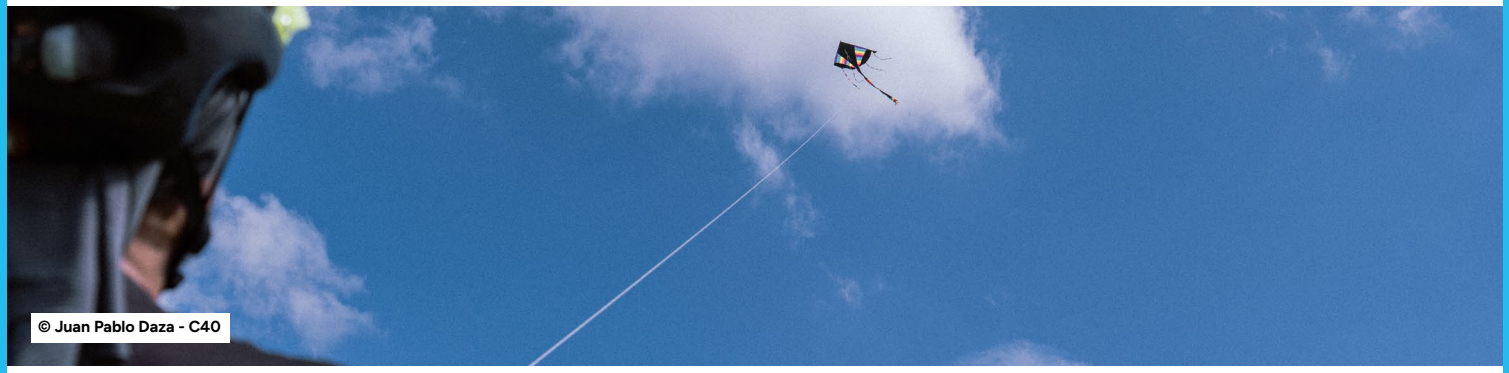
Milan published a call for participation in its Air and Climate Alliance in November 2024, addressed to companies operating in the city. A total of 56 companies have joined, including 21 large, 8 medium-sized, 12 small, and 15 micro companies. By joining the Alliance, businesses have committed to voluntary initiatives and actions contributing to improved air quality, adaptation to climate change, reduction of emissions and awareness-raising. Companies are addressing environmental sustainability through initiatives in energy saving, renewable energy, climate adaptation, circular economy, air quality, mobility, green infrastructure, and public awareness campaigns.

EQUITY AND INCLUSION

The **Nairobi** City County Air Quality Action Plan 2019–23 delivered major achievements, including the recruitment of a record number of environmental and climate change officers deployed across all 85 wards in the city, promoting local action and oversight as well as increased air quality monitoring, greater community awareness, and multi-stakeholder partnerships aimed at promoting cleaner air. Nairobi is now working on updating its Air Quality Action Plan with a multisectoral approach that better connects air quality with tackling inequality and improving public health. The city is creating green jobs for young people while advancing environmental goals. The county has mapped over 600 youth groups actively engaged in the circular economy, diverting waste from landfills and reducing superpollutant emissions like methane or black carbon. These initiatives are building youth livelihoods, advancing climate resilience, and delivering inclusive, measurable impacts for the city's residents.

Bengaluru, with support from C40's Inclusive Climate Action (ICA) programme, provided targeted training and capacity-building for frontline waste workers in three semi-formal worker groups: Link Workers, Marshals, and Identified Waste Pickers. Discussions with 75 waste workers culminated in a high-level city dialogue in July 2025. This dialogue brought together the Bengaluru administration (BBMP), the waste management entity (BSWML), and frontline waste workers, offering a direct platform to present collective solutions developed during consultation sessions.

The outcome was a set of actionable, worker-informed solutions, which BBMP and BSWML will implement in alignment with the Bengaluru Climate Action Plan (BCAP). This initiative will reduce the impacts of air pollution on workers' health through reduced exposure and health checks, as well as support the city's Clean Air Accelerator goals to reduce air pollution from the waste sector.



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CHALLENGES

Barriers to improving air quality can vary across regions and manifest in different ways, while some of them are common across cities in all contexts. They typically fall into the following categories:

- **Financial limitations** can present significant barriers due to the cost of clean air action, such as transitioning to cleaner energy sources, expanding and improving sustainable transport infrastructure, electrifying transport fleets, and/or deploying and maintaining robust air quality monitoring networks.
- **Data gaps** can lead to incomplete understanding of air pollution trends and hotspots. Cities should be able to accurately identify emission sources, develop evidence-based action, and track impact of interventions. Beyond air quality monitoring, cities should also track indicators related to health and equity disparities, and use them to better design, deliver, and evaluate policies
- **Limited capacity of municipal staff** dedicated to air quality work constrains city capacity to effectively implement policies and actions, assess their impacts and increase public awareness. Some activities like air quality monitoring or emission inventory studies require a high level of technical expertise and cities often require external support for the delivery of these.
- **Ineffective intergovernmental and inter-departmental collaboration.** Cities often lack the full authority to address emission sources even within their city limits, depending on regional, federal, or national entities for air quality monitoring, air quality target setting, policy development and enforcement. This dependency can create significant barriers, especially when there is a lack of internal structures for coordination. While these challenges are universal, their manifestation varies by city context. Overcoming them requires clear mandates and mechanisms for inter-agency cooperation.

HOW CITIES ARE STEPPING UP THEIR ACTION

Cities are committed to overcoming the main barriers to implementation and reducing the health impacts of air pollution for residents. The WHO announced an updated roadmap for an enhanced global response to the adverse health effects of air pollution, during the second WHO Global Conference on Air Pollution and Health in March 2025. In response, C40 Cities Co-chairs Mayor of London and Mayor of Freetown released a statement on behalf of the signatory cities of the C40 Clean Air Accelerator, endorsing and commending the updated roadmap for addressing the health impacts of air pollution. They highlighted the critical role cities play in tackling this crisis, championed the work delivered by Accelerator signatory cities and recognised the need for further urgent action to tackle toxic air across all levels of government.

Signatory mayors are leading the way with planned action, including improving access to data through expansion of air quality monitoring networks; raising residents' awareness; and implementing inclusive clean air action through proven solutions like Clean Air Zones, expanding public transport, electrifying bus fleets, and supporting commercial and private vehicle electrification. Improving access to healthy urban environments and promoting active travel. They are also planning to tackle emissions from the waste sector, expand renewable energy production, and phase out the use of fossil and solid fuels for cooking and heating in the coming years.

FUTURE ACTION

Berlin will plan work in the coming years based on the new European Union air quality limits for 2030. This includes adapting the air monitoring network and expanding data modelling on the impact of potential traffic measures. Berlin will also work to strengthen public participation in air quality planning, and will continue expanding public transport, with plans to increase the number of electric buses to reach a 22% share by 2026, up from 14.5% in 2024.

Jakarta plans to expand its air quality monitoring network and develop early warning systems to protect residents. Over the next two years, the city will also continue to promote modal shift towards public transport, expanding its metro (MRT), bus rapid transit (BRT) and light rail transit (LRT) systems, and implementing Low Emission Zones.

FIND THE FULL 2025 CLEAN AIR ACCELERATOR REPORT HERE