Clean Air Accelerator

Planned Actions to Deliver Commitments

London

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

London has committed to an ambitious target of meeting the World Health Organization guidelines by 2030, which would exceed, for some pollutants, both European Union and United Kingdom air quality standards.

The city maintains a fixed-site "continuous" monitoring network of over 100 locations as part of the Local London Air Quality Management Framework (LLAQM). Real-time and historical data is available for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide. We have also recently delivered the Breathe London project to augment the fixed-site network with 100 new hyperlocal sensors and new monitoring data from Google Street View cars.

Around half of London's air pollution is caused by road transport and there is no way to make a massive improvement to London's air quality without taking the most polluting vehicles off the road. new substantive policies and programmes include:

• Implement the Ultra Low Emission Zone (ULEZ) – the world's strictest standards for vehicular air pollution – in central London, covering an area of 21km2, 24 hours, 7 days a week, (launched April 2019) and expand the zone to cover an area of 381km2 in October 2021;

• Strengthen the emission standards for the London Low Emission Zone in October 2020 to match the ULEZ, covering the entire city (1,580km2);

• Upgrade 5,000 older buses and deliver 12 Low Emission Bus Zones outside central London (completed September 2019) to reduce bus NOx emissions by an average of 90 per cent;

• Procure only hybrid or zero emission buses (currently over 200 electric buses in the fleet) with the objective to create a zero emission bus fleet by 2037 at the very latest;

• No longer license new diesel taxis and ensure all new taxis being licensed are zero emission capable (over 2,000 electric taxis now licensed in London);

• Ensure all cars in GLA group support fleets (eg the police service) are zero emission capable by 2025;

• Implement a new Electric Vehicle Charging Infrastructure Delivery Plan, setting out how London will expand charging points, including the delivery of 300 rapid charge points by the end of 2020 and new rapid charging hubs by 2025;

• Implement a vehicle scrappage scheme to help low-income Londoners and small businesses shift to cleaner vehicles (launched in February 2019);

• Create a zero emission zone in central London in 2025 in line with the C40 Green and Healthy Streets Accelerator

• Operate a London-wide Non-Road Mobile Machinery Low Emission Zone which uses planning conditions or local codes of practice to ensure that machinery used on construction sites has more modern low-emission engines.

• Measures to prevent poor outdoor air quality entering a building.

• Commit to work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS

Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.

EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS

The amount of money committed to tackling the capital's air quality crisis has significantly increased over five years. Transport for London's Business Plan in 2018, for example, included roughly £800 million to deliver far-reaching programmes to address the threat to health from poor air. Examples of intended actions include:

• Introduced the world's first ULEZ in April 2019 to help remove older polluting vehicles from central London. The ULEZ boundaries will be extended in 2021 to the North and South Circulars for all vehicles, and in 2020 tougher emissions standards will be introduced London-wide for lorries, coaches and buses;

• Transforming London's bus fleet by phasing out of pure diesel buses and a commitment to purchase only hybrid or zero-emission double decker buses from 2018, with the entire fleet becoming 'zero emission' by 2037 at the latest;

• Introduced twelve Low Emission Bus Zones in areas where Londoners are exposed to some of the highest levels of nitrogen dioxide (NO_2) pollution and working to ensure the entuire city is a Low Emission Bus Zone by october 2020;

• Making sure we no longer license new diesel taxis from 2018 and supporting the trade to upgrade to much cleaner 'zero emission capable' vehicles;

• Introducing 15 Low Emission Neighbourhoods (LENs), involving boroughs and a range of local businesses. The LENs and the other projects supported by the Mayor's £22 million Air Quality Fund are helping tackle some of the worst pollution hotspots across London;

• A £48 million fund to support scrappage schemes that will help smaller business owners, sole traders, charities and low income Londoners make the switch to cleaner vehicles and greener forms of transport.

The Mayor is also taking forward a number of initiatives to reduce pollutants from other sources, such as construction machinery and gas boilers.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	• The Mayor has set some of the most ambitious plans to tackle climate change in the world. Our aim is for a zero-emission London by 2050. This is integral to London's first integrated Environment Strategy, which was published in 2018 to bring together air quality, climate mitigation and adaptation, waste, green infrastructure, noise and the circular economy. • The London Environment Strategy was one of the first city plans published to be compliant with the highest ambition of the Paris Agreement and can be found at https://www.london.gov.uk/what-we-do/environment/london-environment-strategy. • The 1.5C Compatible Plan looks at the scenarios London can take, including the relevant top pollution reducing actions, to reach the zero-carbon target. The plan can be found at https://www.london.gov.uk/sites/default/files/1.5_action_plan_amended.pdf	• The Environment Strategy is also integrated with an ambitious Transport Strategy that aims to ensure 80% of all trips in London are made by either walking, cycling or public transport by 2041. The Transport Strategy can be found at https://www.london.gov.uk/what-we-do/transport/our-vision-transport/mayors-transport-strategy-2018. • The new London Plan – our spatial strategy for the city – includes policies that reduce exposure to existing poor air quality through design and mitigation strategies as well as requiring all new major developments (including non-residential) to be zero carbon, including an energy hierarchy and new energy efficiency target. The draft London Plan can be found at https://www.london.gov.uk/what-we-do/planning/london-plan.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• As part of the Breathe London network, London has begun rolling out a network of 100 fixed monitoring sites, street by street mobile air monitoring, and personal monitoring campaigns with school children. Google's Street View mobile monitors started collecting baseline data ahead of the ULEZ implementation, and field co-locations of fixed sensors with reference grade equipment – accessible real-time and historical data was made available to the public via the project website in July 2019.	• Kings College London delivered the wearable monitoring and citizen engagement portion of the project and is currently evaluating the data. This pilot study will help London assess the benefits of strategies underway, identify new policies and targeted intervention, generate awareness and increase understanding of how new monitoring methods can lower the costs of air quality assessments.

Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• The Air Pollution Research in London (APRIL) network was established 20 years ago. It brings together scientists, policy makers and the wider air quality community for regular meetings to discuss research happening in London and the implications of new research on London's air quality and air quality policies. Meetings are held approximately every two- three months at City Hall, hosted by the Greater London Authority. • APRIL identifies priority areas for research to improve air quality in	London and other major cities, supports the development of new scientific research and communicates the latest research findings. APRIL is comprised of a number of specialist groups focusing on various policy areas which are directly affected by air pollution, including; emissions, monitoring and modelling, transport, health impacts, urban development, and synergies with climate policies. Meetings are open to the public and coordinated and arranged through the Chairs of the different groups.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• The Mayor and Transport for London have delivered a coordinated awareness campaign to ensure as many Londoners as possible are aware of poor air quality and the ULEZ. • Together the Mayor and TfL have: Sent 3.3 million emails to registered users Sent 600,000 letters to drivers Spoken with 6,000 fleet operators and more than 1,000 small businesses, charities and health services Installed 300 road signs on the boundary of the zone and on key approach roads, as well as using 140	variable message signs across London Developed an extensive ULEZ website, which has been visited more than 1.8 million times Issued posters and digital displays, alongside print, radio, online adverts and email newsletters Created social media content • Polling reveals more than three-quarters of Londoners (80 per cent) and 90 per cent of drivers know something about poor air quality and the ULEZ.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• The GLA and TfL work in partnership to produce a comprehensive set of air quality datasets in order to formulate evidence-based policy and guide boroughs as they improve air quality locally.	• The LAEI (London Atmospheric Emissions Inventory) is the key tool for air quality analysis and policy development in London, including geographically referenced data and maps.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Working with national government, local boroughs, and the European Union. • Collaborating with UK government to achieve EU compliance and meet	AQ standards, and influence air quality policy and measures e.g. providing fiscal incentives such as vehicle excise duty and tackling non-transport emission sources.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The Mayoral and London transport agency's budgets include funding that is allocated the delivery of the proposals set out in his Environment and Transport Strategies. Currently around £800 million is available over a five year period. Furthermore, he will work with partners to increase the flow of finance to support the delivery of large-scale projects that address the environmental challenges that London is facing. For example, the Mayor will use the Mayor's £500 million Energy Efficiency Fund, supported by the European Commission, to support energy efficiency and low carbon energy supply projects, and the Good Growth Fund of £20 million to provide finance to those businesses seeking to scale-up and achieve their growth ambitions, as well as those aiming for long-term sustainability.

The Mayor will also explore the role and use of low-cost financing and bulk purchasing, as well as innovative products, such as green bonds and climate change ISAs, to help attract large scale institutional investment into environmental projects.


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Abidjan

SIGNATORY SINCE 2022

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Establish air quality reference levels Using its air quality monitoring programme as a basis, including inventories of sources of air pollutant emissions, the Abidjan Autonomous District will establish by 2024 the reference levels of air quality in the City of Abidjan to understand the base concentrations of the different pollutants and their distribution. Ambitious pollutant reduction targets By 2024, Abidjan plans to reduce the current rate of air pollutant emissions in its territory by around 20%, using the measures taken to put in place an action plan that will effectively combat these pollutants with a view to achieving a 50% reduction by 2035: - In addition to the central station already in place at the district hall, measuring pollutants (CO2, NOx, O3, SO2, PM2.5 and PM10), we plan to install four new HAGER-type sensors at the four cardinal points of the city. - We aim to take mobile measurements using bicycles equipped with mobile sensors throughout the city of Abidjan (through a policy of acquiring electric cars to support the use of bicycles). - We are also working on capacity building among engineers responsible for air quality in the fields of modelling and analysis. - Finally, we aim to increase awareness among polluters. The city will set ambitious targets for reducing air pollution as follows: PM2.5 • Work to meet WHO standards for ambient air quality throughout the city by 2035. • Strive to achieve WHO Interim Target 1 by 2030, which means a city-wide average PM2.5 ambient standard of 35 µg/m3 per year. PM10 • Work to meet WHO ambient air quality standards of an annual city-wide average of 15 µg/m3 by 2035. • Strive to achieve WHO Interim Target 3 by 2030, which means an annual city-wide average PM10 ambient standard of 30 µg/m3. NO2 • Work to meet WHO ambient air quality standards of an annual city-wide average of 10 µg/m3 based by 2035. • Strive to achieve WHO Interim Target 2 by 2030, which means an annual city-wide average NO2 ambient standard of 30 µg/m3. O3 Work to meet current national ambient air quality standards of an annual city-wide average of 60 µg/m3 by 2035. Strive to achieve WHO Interim Target 2 by 2030, which means an annual city-wide average O3 ambient standard of 120 µg/m3. SO2 • Work to meet current national ambient air quality standards of an annual city-wide average of 40 µg/m3 by 2035. • Strive to achieve WHO Interim Target 2 by 2030, which means an annual city-wide average SO2 ambient standard of 50 µg/m3.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	By 2026, the city intends to focus on reducing emissions from the main sources of air pollution identified: • Waste • Energy and industry • Transport Emission reduction policies, action plans and prioritisation will be based on information from emission inventories and ambient air monitoring for source apportionment. The actions recommended to combat these emissions are in line with the city's climate action plan and will reduce greenhouse gas (GHG) emissions and air pollutants which will also lead to improved air quality. This shall apply to the following sectors: Waste: Strategic axis 1: Reduce and recover urban waste through the circular economy and selective sorting: • By 2024, deploy an eco-citizen awareness programme on the reduction, selective sorting and packaging of waste at source. • By 2024, contribute to the implementation of the differentiated systematic collection of all waste in the Abidjan Autonomous District • By 2025, contribute to the installation of communal waste recovery and management units, and in particular promote reuse and repurposing • By 2025, support the construction of waste management infrastructures and sanitation and drainage works Energy and industries Strategic axis 2: Promote energy efficiency in buildings and industry and develop the energy mix by introducing renewable energies in the Abidjan Autonomous District • By 2025, support the strengthening of the institutional and legal framework for the energy efficiency of buildings/equipment including in industry • By 2025, encourage initiatives to develop new clean energy sources in collaboration with the national government • By 2025, contribute to the energy mix at the level of the Abidjan Autonomous District by implementing renewable energy projects • By 2025, encourage the production and use of renewable energy in public, residential and social buildings (schools, hospitals etc.) in the Abidjan Autonomous District Transport: Strategic axis 3: Contribute to the development of low-carbon urban transport and soft mobility • By 2025, promote the creation of pedestrian and cycling infrastructures, and also cover the pavement of roads and lanes with either cobblestones or green lawns • By 2025, strengthen the development of the public transport network and multimodal infrastructures in urban planning processes • By 2025, develop a traffic plan to promote public transport • By 2025, encourage the strengthening of checks to ensure the maintenance and operation of the river fleet • By 2025, support the development of multimodal transport systems to complement inland waterway transport with other modes of transport • By 2025, support the strengthening of the regulatory framework on the age and quality of the engines of vehicles admitted into the region

	• By 2025, encourage and develop the use of clean energy sources: electromobility, electric vehicles, biofuel and clean fuel. • By 2025, develop low- or zero-emissions means of travel such as non-motorised two-wheeled vehicles and electric cars • By 2025, implement traffic restrictions for certain categories of vehicles	• By 2025, encourage increased use of electric, hybrid and clean-energy vehicles in the vehicle fleet • By 2025, create incentives for the purchase of electric vehicles • By 2025, implement electric charging stations/and solar vehicle charging system in the city.
SUPPORTIVE ACTIONS	**EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS**	
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 Cities to complete the information requested as part of the reporting process, as set forth in the technical note C40 Clean Air Cities.	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Various measures are planned as part of the climate action plan in place in the Abidjan Autonomous District. The implementation of these measures will reduce greenhouse gas (GHG) emissions and air pollutants in various sectors such as urban	mobility. The aim will be to promote and develop the use of clean energy sources (electromobility, electric vehicle, biofuel and clean fuel), as defined in the climate action plan.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The Abidjan Autonomous District will implement actions to improve air quality and urban health. To this end, it plans to: • Strengthen the technical system for measuring and monitoring air quality including air pollutants • Increase the collection, availability, accessibility and reliability of data and information on air quality levels and their impacts on human health	• Develop studies/pilot projects, reducing human exposure to air pollution, and improving the health and well-being of populations in the Abidjan Autonomous District while ensuring economic productivity • Promote the smart city approach, more specifically urban environmental monitoring of air quality.

Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The Abidjan Autonomous District plans to strengthen its cooperation with the University Félix Houphouët-Boigny (UFHB) through its environmental research centre. We are working in collaboration with	the Ministry of the Environment to pool efforts to measure air pollutants and make measurement results more credible and publicly available through platforms.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The Abidjan Autonomous District plans to strengthen its cooperation with the University Félix Houphouët-Boigny (UFHB) through its environmental research centre. We are working in collaboration with the Ministry of the Environment to pool efforts to measure air pollutants and make measurement results more credible and publicly available through platforms. The Abidjan Autonomous District also intends to work to strengthen air quality measurement equipment through new acquisitions, while	strengthening the capacities of technical staff. This will involve: • Increasing the number of measuring stations to be installed both in the central area of the City of Abidjan and on the outskirts of the city • Acquiring more mobile sensors that can be attached to electric cars to take measurements on the move • Strengthening the capacities of managers through training
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The Abidjan Autonomous District intends to focus on awareness-raising and user education in good practices on the effects of air pollution, with a view to increasing popular understanding of the risks associated with exposure to air pollutants. We plan to raise awareness and com-	municate with the general public and more particularly younger populations, through exhibitions, in-school visits, and via the media.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	We have established a cooperative partnership with UFHB through its environmental research centre.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The Abidjan Autonomous District intends to promote the full involvement of the other districts of Côte d'Ivoire in this fight against air pollution. It will also involve co-facilitating net-	works of cities and national working groups to influence inter-district decision-making on issues of air quality for greater impact.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The resources available to implement the above commitments are limited and many actions with a high potential to improve air quality will require substantial financial support from the city's strategic partners.

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline Levels:

Between 2002 and 2015 EPA Ghana monitored the city's concentrations of SO_2 (Sulphur Dioxide), O_3 (Ozone), CO (Carbon Monoxide), BC (Black Carbon), NO_2 (Nitrogen Dioxide), NO_3 (Nitrate), Particulate Matter (PM10, $PM_{2.5}$). The city used this information to build baseline and modelled scenarios with multiple publications covering health impact of pollution related to the transport, energy and waste management.

BaselinelevelsofPM2.5andPM10wereestablishedin2018aspartoftheAQMPforGreater AccraMetropolitanArea.TheannualmeanvaluesforPM2.5are133.11µg/m3andforPM10 are 79.87µg/m³

Accra will continue to work to expand the city's monitoring network to establish baseline levels of air pollution for other air pollutants by 2024.

In addition, the city conducted a source apportionment study derived from the City's 2015 GHG Inventory using the Pathways Air Quality Model:

Source	Primary $PM_{2.5}$	NO_x	VOC
Waste	71%(2.680tonnes)		32% (2595 tonnes)
Residential	16% (596 tonnes)		39% (3146 tonnes)
On road Transport	11% (415 tonnes)	84% (7311 tonnes)	28% (2249 tonnes)

Reduction Targets for Air Pollutants:

LocalAirQualityManagementGuidelinesestablishedbyEPAGhanain2002proposesatargetof70µg/m³(24-hourmean)forPM10asatransitiontowardstheWHOairqualityguidelines (45µg/m³ 24-hour mean).

And a target set of 35µg/m³ (24-hour mean) for PM2.5 set in 2015.
The table below indicates details of these targets.

AccrawillcollaboratewiththeEPAGhana(Nationalgovernmenthasthejurisdictiontosetuptargets)tosetamoreambitioustargetsthanthecurrentEPAGhanastandards.Thisistoensureco-ownershipofthetargetsbetweenEPAGhanaandtheCityadministration,asthisisimportantinobtainingtheinstitutionalsupportrequiredtoenforceregulationforthestandards.

In order to achieve these targets Accra will work to have a 10% annual reduction from current levels up to 2030 for PM10 and PM2.5, which will put the city on the path to achieve the WHO guidelines interim Targets .

Set Standard (Air Quality)

	PM_{10}	$PM_{2.5}$
WHO Air Quality Guidelines	Annual Mean:	Annual Mean:
	Target :15 µg/m³	Target : 5 µg/m³
	IT-3 : 30 µg/m³	IT-3 :15 µg/m³
	IT-2 : 50 µg/m³	IT-2 :25 µg/m³
	IT-3 : 70 µg/m³	IT-3 :35 µg/m³
	24-h Mean:	24-h Mean:
	Target : 45 µg/m³	Target :15 µg/m³
National Targets	24-h Mean:	24-h Mean:
	Target: 70 µg/m³	Target: 35 µg/m³

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	To address main sources of air pollution in the city we will deliver the following actions: - The Ministry of Transport will develop an e-mobility policy document to serve as a basis for local actions towards reduced transport emissions by the end of 2023. - The city will provide trip-end facilities inside public institution buildings to facilitate a shift to active travel options by end of 2024 - Implement local policies to reduce emissions from the waste sector that are community-level actions to reconfigure waste collection processes and provide new infrastructure for their management. - Implementation of waste segregation policies (to be completed by end of 2023) to increase recycling and re-use of in-organic waste contents (Project commenced in 2019 and On-going until end of 2023) - Integrate sustainable waste treatment practices with urban food production systems in reducing final disposal volumes of waste (Same project as previous. 2019 to 2023) - Implement 95% of actions on emission reduction in the Accra Climate Action Plan by 2030, actions that will have a direct impact on air pollutants emission reduction are: Solid waste and wastewater • Solid waste optimization strat egy • Separate wet and dry waste at source • Divert organic waste from landfills • New engineered sanitary landfill with gas capture • 5 Increase the coverage of sanitation infrastructure Energy, buildings and industry • Support the adoption of Ghana's Net Metering Code • Agreement to Purchase Renewable • Energy from IPPs • Green and Resilient Buildings Programme	• Improving the efficiency of industrial facilities Transportation • Transition to a low-emission bus rapid transit system • Construct shaded sidewalks to protect pedestrians • Accra Low Emission Travel Strategy - Continuously update/review of Byelaws for enforcement to address emerging trends of AQ decline and climate change

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Coordinate technical reporting on all ongoing air quality related activities within the City (Urban Health Initiative, Public Health Department Community Monitoring for waste burning, Waste Management Department Initiatives for waste reduction and separation, Transport Department implementation actions on non-motorised transport modes	
SUPPORTIVE ACTIONS	**EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS**	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	1. Preparation of Air Quality Management Plan (AQMP) by EPA Ghana with stakeholder involvement across the Greater Accra Metropolitan Area-AQMP completed in 2018 by EPA Ghana. Integration with City Medium Term Plan to be Completed by 2024 2. Institutional capacity building through cooperation between EPA Ghana and the USEPA. Training completed for EPA Ghana in 2018. City level dissemination to begin from 2023 (Delayed by Covid for 2 years))	3. Use of open-source software (BenMap) to facilitate identification of air quality modelling spatial surrogates at the city level from 2023-2030 4. The Ministry of Transport in Collaboration with support of the WHO has adopted the Integrated Sustainable Transport and Health Assessment Tool (iSThAT) to evaluate the economic benefits of reducing carbon in urban transportation. This is to inform transport project redesign towards cleaner fuels and net-zero emission technology
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The city developed a Climate Action Plan with emission sources estimates and reduction targets as below: Total 2015 Emissions: 2.4 Million Tonnes (tCO2e) Key Actions: 1. Clean fuels for residential cooking 2. Implement sustainable mobility action plans on active travel options, electric mobility for public transport vehicles 3.Improve energy efficiency for insulation and lighting in homes 4. Implement waste separation policy at the household level through the provision of proper waste handling facilities, equipment and infrastructure 5. Increased budgetary and funding resource support for waste recycling and re-use businesses	Current 2021 Publication by Pierpaolo Mudu estimates monitoring results for Ambient Air Quality in Accra: annual average concentrations- 50 μg/m3 (5 times higher than WHO recommended normal levels). Based on 2015 data the deaths attributed to air pollution causes are of 2,800 and by 2030 the projected BAU air pollution related deaths are of 4,600 Current Institutional management Framework

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS		
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Current 2021 Publication by Pierpaolo Mudu estimates monitoring results for Ambient Air Quality in Accra: annual average concentrations- 50 µg/m3 (5 times higher than WHO recommended normal levels). Based on 2015 data the deaths attributed to air pollution causes are of 2,800 and by 2030 the projected BAU air pollution related deaths are of 4,600 Current Institutional management Framework • Air Quality Monitoring Framework	developed by EPA Ghana for the Greater Accra Metropolitan Area (GAMA) based on best practices of 4km apart for urban network monitoring stations. 16 existing Air Quality monitoring sites have been established by EPA Ghana with this spatial configuration. By implication, recorded expansion in the urban extent will form basis for installation of additional sites • Selected AQ Framework indicators: sulphur dioxide, carbon monoxide, black carbon, PM10, and total suspended particulate matter	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• The city will utilise findings from existing publish research work to package recommendations for air quality improvement actions into bankable projects • Five (5) research publications with recommendations for air quality related development projects are as below: - Health and economic impacts of transport interventions in Accra, Ghana. World Health Organization, License: CC BY-NC-SA 3.0 IGO - Economic costs of air pollution in Accra, Ghana. World Health Organization. License: CC BY-NC-SA 3.0 IGO	- Health impacts of changes in travel patterns in Greater Accra Metropolitan Area, Ghana, Environment International, Volume 155, 2021, 106680, ISSN 0160-4120 - Ambient air pollution and health in Accra, Ghana. World Health Organization. License: CC BY-NC-SA 3.0 IGO - Evidence-based strategies to reduce the burden of household air pollution in Accra, Ghana. World Health Organization. License: CC BY-NC-SA 3.0 IGO	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The major dissemination avenues for making air quality related data available to the public: - Community and technical engagement sessions/actions under 2 air quality related initiatives (Inclusive Climate Actions & Urban Health Initiative) - Routine and mandated community	engagement process for development planning by public agencies the major dissemination avenues for making air quality related data available to the public The city will initiate at least 2 research activities on air quality annually and conduct at least 2 Policy Dialogue sessions for key stakeholders (formal and informal institutions) annually to	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Ongoing updating of Accra's 2015 Carbon Inventory Data. A detailed Air Quality Technical analysis data is under compilation to be annexed to Accra's Climate Action Plan document EPA G hana has established an air quality baseline characterisation along the following contents:	• Emission Sources • Projected Trends • Ambient Air Quality • Health Implications of Baseline Scenario • Capacity Assessment for Air Quality Management	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	An active process is in place to ensure vertical integration of Accra's Climate Action Plan into relevant components of the National Climate Action Plan (2015-2030). The Environment Directorate of the Ministry of Environment Science and Technology works with the EPA Ghana and the Land-Use and Spatial Planning Authority to develop and monitor scenarios for mean annual change in rainfall and temperature in the Sahel region- Sudan, Guinea and vegetation transition zones throughout Ghana. This is part of a national climate adaptation effort. Accra has been identified in this context as a	major service centre for over 50 percent of Ghana's economic production systems. Current investments in environmental programmes in the Savannah Regions of Ghana are expected to be coordinated by MESTI to ensure harmonised actions country-wide to prevent imbalances that may be caused in ecological zones by consumption patterns in service centres including Accra. This framework is being monitored under the Ghana Adaptation Project Fund by a unit within MESTI and will be studied more to identify additional opportunities for city-level regional advocacy.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

1. City Internally Generated Funds- All administrative processes associated with delivery of Accelerator commitments

2.Public and Private Sector Financial Organisations- Direct support for open space greening projects in Accra

3. Potentially, the African Development Bank- Under the C40 Cities Finance Officers' Network activities with the objective to prepare and package bankable city projects.

Addis Ababa

SIGNATORY SINCE 2022

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline levels

The Addis Ababa City will establish city-wide baseline air quality levels of particulate matter, nitrogen dioxide, ozone, and sulphur dioxide concentrations up to the end of 2022 or early 2023.

Ambitious Reduction Targets for Air Pollution

The city will work to set ambitious air pollution reduction targets in the following way:

For PM2.5

By 2025, Addis Ababa will meet the current PM2.5 Ethiopia National Ambient Air Quality Standards of 15$\mu g/m^3$ putting the city on a path to achieving WHO interim target 3 air quality guidelines.

Through the implementation of the Addis Ababa City Air Quality Management Plan 2021-2025 (AQMP) the city will make ambient concentrations of air pollutants comply with the above mentioned ambient air quality standards for PM2.5. The AQMP is also aimed at establishing new city-level ambient standards through review of national standards (see the national guideline in

Pollutant	National Guidelines	Averaging Time
PM_{10}	50 $\mu g/m^3$ (IT-2)*	Annual
$PM_{2.5}$	15 $\mu g/m^3$ (IT-3)*	Annual
SO_2	500 $\mu g/m^3$	10 minutes
NO_2	40 $\mu g/m^3$ (IT-1)*	Annual
CO	10000 mg/m^3	8- hour
O_3	120 $\mu g/m^3$ (IT-2)*	8- hour

*Alignment with WHO air quality guidelines

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

• The city has identified that the transport sector, residential energy, industry, and waste management sectors are the major sources of air pollution.

• The Addis Ababa AQMP has put a target to reduce major sources of air pollution by 2025 through implementing these actions:

- Establish emissions standards for vehicles for Addis Ababa e.g., passenger vehicles, buses, and trucks
- A new strategy for Addis Ababa City Transport Sector Environmental Pollution Controlling Strategy (2020-2029) will be published to set a vision to reduce Greenhouse Gas (GHG) and air pollution Emissions from the transport sector by 2030.
- Assess the need for building construction emissions standards to be added to EIA process
- Promote energy efficient biomass cook stoves technologies

• In addition, The City Climate Action Plan (CAP) will be implemented within the five years (2021-2025). The plan has included 14 prioritised GHG mitigation actions from the energy, transport, and waste sector. The CAP-AQ (Climate Action Plan-Air Quality) integration project has found the air quality benefits brought by implementation of these prioritised actions.

- The 14 GHG mitigation actions in the CAP (2021 to 2025) are summarised as follows:

Waste

Action #M1 - Campaign to Promote the Waste Hierarchy
Action #M2 – Construct Composting Facilities
Action #M3 – Enhance Sewage/ Wastewater Treatment System
Action #M4 – Enhance Landfill Management and Install Gas Capture Facilities

Transport:

Action #M5 – Improving Vehicle Efficiency via Emissions Standards
Action #M6 – Improve Public Transport Networks
Action #M7 – Promote Modal Shift to Non-Motorized Transit
Action #M8 – Enhancing fuel efficiency via switch to hybrid/electric vehicles or biofuels

Energy

Action #M9 - Improve Permitting Process for New Buildings
Action #M10 - Improve Energy Efficiency in Existing Buildings
Action #M11 - Improve Energy Efficiency in Industrial Facilities
Action #M12 - Increase/Diversify Renewables in Electricity Generation
Action #M13 - Transition to Efficient cooking stoves
Action #M14 - Upgrade Street Lighting

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Addis Ababa Environmental Protection Agency (AAEPA) has studied a new structure which can allow to assign/hire dedicated experts to manage air quality monitoring activities like maintenance of air quality monitoring equipment, data management, and dissemination of air quality information. • Enhance city experts' capacity to monitor vehicle emissions, • Enhance city experts' capacity to monitor and enforce the compliance to city level air quality regulation such as industrial facilities, including boilers and diesel generators. Eg. • Collaborating with UNEP to deliver air quality and compliance training.

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Addis Ababa City was one of the pilot cities in which the CAP-AQ integration project piloted. Through these, the city has identified the potential GHG emission and air pollution reduction brought by the implementation of 14 prioritised climate change mitigation actions in the CAP. https://addisenviroment.gov.et/wp-content/uploads/2021/10/C-40-September-14-compressed.pdf
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• There are four reference grade monitors in the city. Two of them are managed by the Addis Ababa US Embassy located at the embassy and American International Community School. The other two are in the Black Lion Hospital and AAEPA compound. There are lower-cost air quality monitors in the city which are deployed by different institutions, residents, and researchers. For instance, there are 10 purple air monitors on the purple air map during preparation of this document as in this link https://map.purpleair.com/1/mAQI/a10/p604800/cC0#11/9.025/38.7469. Two of them are managed by AAEPA. AAEPA has also 5 kunuk air quality monitors. • The city has prepared air quality monitoring strategy through the technical assistance support from C40. The strategy will be operational in 2022. The C40 Technical Assistance Programme has also deployed two low-cost monitors (purple air) and one reference grade monitor (T640). The reference graded monitor will be used to produce reliable and accurate data. In addition, the city has a plan to increase the number of air quality monitoring stations to get quality and representative data. • The air quality monitoring strategy will support the city to make this data accessible in the one platform or create a data sharing mechanism among stakeholders and partners so that the AAEPA can take a role in disseminating the real-time data via its web or any app platform. Moreover, to store data will be used to analyse the air quality, health impact assessment • As part of the AQMP, the city is developing a city-wide air quality monitoring strategy based on the AQMP goal 3. It will create enabling environment for collection, management, and public dissemination of air quality data • In addition, as part of the city's 10 Years perspective plan (2021 to 2030) the city will reach a total of 15 active air quality monitors which will be managed by the AAEPA. This will increase the data availability both spatial and temporal for the major air pollutants i.e., O3, PM2.5, PM10, SO2 and NOx

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• The city AQMP plan's goal 5 is aimed to enhance understanding among general public about the negative health aspects of all sources of air pollution, indoor and outdoor, by conducting impact analyses using tools such as BenMAP, data on the burden of disease, and other analyses • The city will expand some of the studies undertaken to understand the effect of air pollution and health burden in the city such as Climate, Air Quality and Health (AAEPA and C40) https://drive.google.com/file/d/1owvz8ge_z9-wedDj-3lzNYhYraw03AFm/view	• The CAP-AQ integration report (AAEPA and C40) • Safe to Breathe? Analyses and recommendation for improving Ambient Air Quality management in Ethiopia (World Bank,2021) • The city will continue to work on air quality studies in collaboration with UNEP, C40, Geo health, Addis Ababa University, USEPA, US Embassy and other stakeholders
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• The city will strengthen the awareness program through training, workshops, social and mainstreaming media. The AAEPA is posting the weekly and monthly reading of lower-cost air quality monitors in social media such as Facebook by compiling the data from the deployed air quality monitors managed by AAEPA such as Kunak air quality monitors.	• The city will continue to work on air quality awareness in collaboration with UNEP, C40, Geo health, Addis Ababa University, USEPA, US Embassy and other stakeholders
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• The city has Air Quality Source Apportionment studies undertaken by different organisations in collaboration with AAEPA. The city will update those source apportionment studies within two years, using the air quality monitoring equipment installed throughout the city by 2022. These are some of the study needs to be updated based on the quality data from air quality monitors : • Addis Ababa AQMP: Baseline air quality characterization in section 3 of Addis Ababa AQMP. • CAP-AQ: Air quality source apportionment study undertaken by AAEPA in collaboration with C40 through the Climate Action Plan-Air Quality Integration Project (CAP-AQ) has shown the sources of emission in the city via air quality pathway modelling	• Safe to Breathe? Analyses and recommendation for improving Ambient Air Quality management in Ethiopia: The World bank study has also shown the source apportionment for different pollutant gases for the city https://openknowledge.worldbank.org/bitstream/handle/10986/36286/Steering-Towards-Cleaner-Air-Measures-to-Mitigate-Transport-Air-Pollution-in-Addis-Ababa.pdf?sequence=1&isAllowed=y
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• City was collaborating with US EPA Mega- Cities partnership in developing of the city AQMP • The city is closely working with US Embassy in Addis Ababa on air quality issue • The city is working with different national and international partners like national EPA, Addis Ababa University, C40, WRI, Geo health etc	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

• The City AQMP has identified mandatory and participatory responsibility to different government and non-government stakeholders who can support the AQMP implementation
AAEPA has planned to deploy 15 air quality monitors in the coming 10 years (2021 to 2030) through its own budget and donors

• The new structure in the city EPA has included air quality experts position whose job will be monitor, measure, and distribute the city air quality data

• The Clean Air Action Plan Addis Ababa prepared by the national EPA and Centre for Science and Environment proposed a financial mechanism that the city can look for to have enough finance for air quality work through leveraging, aligning, and converging budgetary allocation in different sectors, it is also advised to design a fiscal strategy to orient bilateral and multilateral funding and innovative fiscal instruments based on polluter pay principle and cross subsidisation, among others.

Amman

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	• Amman is committing to increase air quality monitoring beyond that conducted by the Royal Scientific Society and the Ministry of Environment (6 stations currently within Greater Amman Municipality (GAM) borders) and in cooperation with the Royal Scientific Society and the Ministry of Environment. To supplement monitoring, the Greater Amman Municipality is committing to installing and operating real-time, wireless, "low cost" air quality systems across the 22 districts, complementing the monitoring stations operated by the Ministry of Environment. GAM intends to create a comprehensive data centre which will include this air quality data. • Amman is committing to using the next two years to set a new target that puts them on the path towards meeting the WHO guidelines.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	• Amman will use emissions inventories, monitoring data, and relationships with the research community, like the Royal Scientific Society, to identify the top causes of air pollution and target new policies and initiatives. While some will be developed over the next several years, examples include: - Expansion of public transit through launching a Bus Rapid Transit Network by 2021. Amman aims to purchase the cleanest possible fuels, including introducing electric buses into the fleet as vehicles need to be replaced. - Expanding walkability, particularly in areas near stations to increase accessibility and reduce private vehicle usage. - Improving transportation mobility planning to account for air quality and sustainable development, through development of its transport mobility plan. - Reducing sprawl and private vehicle use through an intensification strategy for urban corridors along BRT lines, to be completed by 2021. - Implementing policies that increase green space in exchange for development rights, implemented by 2022. - By 2021, creating an incentive program for industrial projects that implement environmentally friendly systems. - By 2022, Identification of Grey and Brown fields in Amman and developing a database to attract rehabilitation programs. Brown Fields are a major contributor to air pollution, they are contaminated sites, and GAM considers rehabilitating them as a priority. - Improving the efficiency and reducing emissions from with waste management. This includes ensuring landfills are in compliance with relevant national and international standards and upgrading transfer stations with closed systems to eliminate odors and reduce emissions. - Implementing new measures to reduce methane emissions from meat production and cemeteries.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	• Amman reports annually to C40 on climate data and aims to build on this to compare climate and pollution data against targets based on Amman Climate Action Plan. • Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Through the Amman Climate Action Plan, GAM has made great steps in the collection and analysis of climate data, setting Amman on a good path to achieve its carbon reduction aims and building a more sustainable and resilient city. Amman aims to build on this to promote new projects with a solid understanding of their benefits to the city. • Implementing Capacity Building Programs that targets Urban Planners and Transport Engineers about the importance of emissions and its relation to air quality and pollution every 6 months. • Adding a new strategic goal in the strategic plan of GAM (2018-2020) that ensures our commitment to reduce air pollution, achieved by different projects, processes, and initiatives at the sector of Districts and Environment of GAM.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	• GAM is on the path increasing sustainable transport through its new BRT network. The aim is to use electric vehicles when vehicles need to be replaced, approximately 10 years. • Amman aims to improve the walkability of areas around the BRT corridors, at strategic areas in the city. • Extra Development Rights in exchange of environmentally sound solutions, by incentivizing and encouraging best practice in passive design and green construction for commercial buildings. • Controlling Urban Sprawl by improving integrated planning for denser, transit-oriented development and green infrastructure and behavior change towards increased public transport use. • Implementing E-Government to reduce traffic, through minimizing daily commutes. • Developing regulations to Natural Heritage Systems (NHS) that increase and preserve green space across the city. • Establish an Archival Data Center to host all the outcomes of municipal works and academia that are directly related to Amman. (It will include air quality datasets) • Increasing the urban green areas within the city of Amman by about 500 donums yearly. • Completion of strategic projects through 2018-2020 and expanding or establishing major parks serving multiple districts.

	• Improving waste management: Operation of the fifth cell in the Ghbawi landfill to absorb 5 million tons of waste, considered one of the leading environmental projects in the Kingdom and the Arab world, matching international standards for waste treatment . • Expanding public transport alleviate traffic congestion. This includes the introduction of 286 buses by 2020 operating with eco-friendly engines and connected tracking systems. A fast-frequency bus project and the joint link with the Amman-Zarqa express bus will be ready before the end of the 2019. The unified operation of the fast-paced bus project will be completed the end of 2020, supported by infrastructure investments of 136 million dinars.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• Data is available from Ministry of Environment on a daily basis. GAM intends to extract and present it, in collaboration with Ministry of Environment, in a more visual way to reach and engage a wider audience. • Amman is committing to expand monitoring of air quality to include PM2.5, which is not currently measured within the city. • The establishment of an advanced – state of the art – data center is aimed to be implemented in the Urban Observatory at (GAM). • By 2022, GAM will begin using real-time observations with Artificial Intelligence (AI) predictions. The comprehensive planning department at GAM is working closely with researchers on developing a tool to aid with predictions from a planning perspective. • The Amman urban observatory (AUO) will establish a website in order to publish the relevant and useful data to planners, decision makers, and those interested in developing the city of Amman.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• GAM intends to participate in research carried out by the Royal Scientific Society (unplanned). • GAM intends to spread the message of the importance of improved air quality and how this can be achieved (unplanned). • Establish a research platform in collaboration with the medical institutions and professionals to conduct studies on the correlation between location of patients and the prevalence/incidents of ailments diagnoses caused by air quality. • Proposed study in cooperation with Ministry of Health to identify sites with the highest number cases of respiratory diseases and asthma in order to specify main pollution problems and remedies (unplanned).
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• A smart awareness campaign targeting all social media outlets and popular public locations to inform the public about pollution and how can they contribute directly to improving air quality. • Coordinating with official media partners to prepare awareness letters to local communities, schools, and universities. In addition to communicating with private companies to send awareness messages to the public through cell phones. • Implementing a number of awareness campaigns about the sources of pollution, their health impacts, and how to minimize or eliminate them.

Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• GAM intends to update the GHG inventory to include air pollutants (unplanned). • Establish an Archival Data Center to host all the outcomes of municipal works that are directly related to emissions and the impacts of air quality in the 22 districts.	• Establish a Smart Data Center that deals air quality in real-time for Amman in all 22 districts, and create algorithms to predict the trajectories of air quality over time through machine learning and AI.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Department of the Environment is coordinating with the Royal Scientific Society and GAM may extend collaboration when inventories are available. • Enhance the support of both the Ministry of Environment (MoE) and the Ministry of Planning (MoP) to Greater Amman Municipality (GAM) in areas that affect Amman Districts but fall under the jurisdiction of The Ministry of Municipal Affairs (MoMA). A good example for this is Russeifa Lagoon Remediation Project. • Amman healthy city initiative to prevent non- communicable diseases (NCDs) and injuries, sponsored by Bloomberg Philanthropies.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

• Many projects are self-financed by GAM, some are sponsored by loans or funds from international organisations such as Afd, the World Bank, EBRD, Bloomberg Philanthropies, the GIZ on behalf of the German Government, and the Swiss Fund.

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Air quality standards for the City of Austin are determined by the National Ambient Air Quality Standard (NAAQS) developed by the Environmental Protection Agency (EPA). As of 2017, the Austin-Round Rock-Georgetown Metropolitan Statistical Area (MSA) air quality level for each pollutant monitored by the Federal Reference Method (FRM) regulatory monitors as a percentage of NAAQS were as follows: 25% for annual NO2, 48% for 1-hr NO2, 99% for 8-hr O3, 80% of annual PM2.5, 57% of daily PM2.5, 43% of daily PM10 and 5% of 1-hr SO2. These values will serve as the baseline values for pollutants from a regulatory perspective, as they represent the values before the 2019-2023 Austin-Round-Rock-Georgetown MSA Regional Air Quality Plan was developed in late 2018. The 8-Hour O3 design value, calculated as the highest 3-year average of the 4th highest daily maximum 8-hour average O3 at a federal reference method (FRM), that determines the standard for attainment is currently set at 70 ppb. Based on air quality monitoring for 2019, the current value is averaged at 68 ppb. These values have led ground-level ozone (O3) values in the Austin area to be considered “near nonattainment” for air quality planning purposes, and therefore the highest area for concern. While recent data indicates levels of the most common pollutants meet NAAQS guidelines, the highest annual mean for Particulate Matter and Ground-Level Ozone in the Austin-Round Rock-Georgetown MSA exceed World Health Organization guidelines. This data includes measurements from additional monitors that are not used for federal regulatory purposes but are monitored by CAPCOG to provide enhanced data of our local air quality. Because of the additional available data, the values provided below from 2018 provide a more comprehensive overall baseline for improvements. Through the city’s commitments in the Regional Air Quality Plan, Austin has a goal of continuing to improve air quality and ensuring that we are not just meeting, but exceeding NAAQS and WHO guidelines.

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	In order to maintain and improve outdoor air quality, reduce the impacts of emissions and mitigate health, environmental, economic and social impacts of pollution, the 2019-2023 Austin-Round-Rock-Georgetown Metropolitan Statistical Area (MSA) Regional Air Quality Plan was developed. http://www.capcog.org/documents/airquality/2019-2023_Regional_Air_Quality_Plan.pdf The City of Austin joined this plan effective December 21, 2018. As part of this plan, the city made over thirty commitments to emission reduction measures, including strategies involving reducing single-occupancy vehicle use, engaging in outreach to educate city employees and the public, and additional energy conservation, efficiency and clean energy measures. These commitments and the city’s participation in the
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	An annual air quality monitoring report is drafted by the Capital Area Council of Governments, with whom the City of Austin has an Interlocal Agreement for monitoring, reporting and outreach. Further, as part of the commitments outlined in the Austin MSA Regional Air Quality Plan, the City of Austin provides CAPCOG with an annual report on its Ozone Action Plan activities. Annual air quality updates on ground-level ozone are also provided as a section in Austin Watershed Protection’s Annual State of the Environment Report. The City of Austin will work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	As part of the Austin-Round-Rock-Georgetown Metropolitan Statistical Area (MSA) Regional Air Quality Plan, the city made over thirty commitments to emission reduction measures, including strategies involving reducing single-occupancy vehicle use, engaging in outreach to educate city employees and the public, and additional energy conservation, efficiency and clean energy measures. As of April 2019, the City of Austin adopted the Austin Strategic Mobility Plan. Among outlining various strategies to increase multi-modality in the city, the plan adopted a goal of 50/50 mode share by 2039, where 50% of people walk, bike, take transit or any other non-drive-alone mode to get to work. The current percentage is 24%, so this is an ambitious increase that will help reduce air pollution by targeting a reduction in tailpipe emissions. The Office of Sustainability released the Austin Community Climate Plan in 2015, which stated the city’s commitment to reach net-zero emissions by 2050 and developed intermittent targets for the pathway to reach this target. This document is due for a five-year revision, in which the plan will focus on detailing various targets for transportation electrification, net-zero new construction buildings and additional measures. As part of its Fuel Conservation Policy, the City of Austin calls for employees to eliminate or reduce idling in City vehicles and has several policies in place that include no unnecessarily idling while parked and anti-idling decal signage in the passenger cabin of all City vehicles. The City of Austin has also implemented vehicle idling restrictions through a series of city ordinances that prohibits heavy duty vehicles from idling for longer than five minutes. The ordinance follows state policy and has various exceptions regarding the characteristics of the vehicles impacted.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	As previously stated, the 2020 revision of the Austin Community Climate Plan will incorporate measures that are pivotal in improving air quality. The five sections of the climate plan are as follows: transportation electrification (electric vehicles, micro-mobility), transportation and land use (focused on reducing single-occupancy vehicle use), new buildings (new construction net-zero carbon buildings, thermal electrification.), natural systems (green infrastructure, carbon sequestration etc.) and consumption of goods (including food, construction materials and other goods/products). Additionally, Austin municipal utility, Austin Energy, will be updating its Resource, Generation and Climate Protection Plan, which will outline the utility's plans to move towards an increased renewable energy mix and continue its work in increasing access to solar and energy efficiency measures.	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	There are various air pollution monitors across the city and are either maintained by the Texas Commission on Environmental Quality (TCEQ) or the Capital Area Council of Governments (CAPCOG). The TCEQ monitors are used for regulatory purposes, while the CAPCOG monitors are used for monitoring, information and outreach purposes. The city will continue to work with CAPCOG to maintain monitoring throughout the city and surrounding counties as needed. Additionally, alerts are set up to receive air quality monitoring updates daily. As part of their websites, both TCEQ and CAPCOG provide daily air quality forecasts for anyone who visits their website. The city will aim to expand the availability of this information by exploring adding this into the more webpages as needed and engaging in outreach efforts so that residents are aware of the publicly available information and are informed of days with air quality forecasts of concern. As part of the city's ongoing resilience efforts and a grant received from USDN, the sustainability department has partnered with Austin Fire Dept and the Office of Design and Delivery to create a prototype for a real-time smoke map, and outreach associated in communities more vulnerable to grassfires, which occur frequently on the eastern crescent of the city.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The City of Austin works with local government under the Clean Air Coalition and attends regular meetings to both this organization and the local non-profit, Clean Air Force of Central Texas (CAF). CAF is a coalition of local professionals, non-profits, private companies and universities in the area. Together, this organizations works to ensure that there is an institutional connection across sectors that work to improve air quality across the city. Because of the connection with universities in the area, such as the University of Texas in Austin, there is opportunity to continue a collaboration with their research teams on air pollution, health and equity.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	As part of the 2019-2023 Austin-Round Rock-Georgetown MSA Regional Air Quality Plan, the city will collaborate with CAPCOG to engage in outreach to enhance NOx reductions through programs like Commute Solutions, reduce exposure to O3, PM and NO2 by providing air quality forecasting, real-time data and Ozone Action Day alerts.	Further, the Community Climate Plan revision will focus on ensuring equity is a key piece of the process by recruiting representative community organizers into the planning process. This will be part of an ongoing effort to ensure the city is working to engage with vulnerable populations.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	he city will continue working with CAPCOG to ensure that it maintains monitoring of air pollution, and tracks changes across time regarding where the biggest sources are coming from, and how these may shift or change. Additionally, the Office of Sustainability (OOS) will continue to engage in GHG emissions monitoring and reporting and will continue to model potential future scenarios based on policies implemented by departments like Austin Energy through its updates on its Resource, Generation and Climate Protection Plan.	Through the OOS's work on climate resilience planning, climate projections models were completed to determine the biggest impacts of climate change, which include heat, drought and wildfire, which have potential implications on air quality. The city will continue to work on monitoring changes and planning to ensure that residents are aware of hazards and have the resources to protect their health and environment.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Through its Interlocal Agreement with the Capital Area Council of Governments, the City of Austin collaborates on a regional level as part of the Clean Air Coalition and its Advisory Committee to be an advocate for air quality measures along with nearby cities and counties. Additionally, through our city council, the city	has passed resolutions in support of state funding for air quality monitoring, reporting and outreach measures.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The City of Austin will be dedicating an estimated $370,283 in the Austin Transportation Department's 2020 budget towards air quality initiatives. As needed, there are also potential grant opportunities to address community health, climate mitigation and resilience work.

Barcelona

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline levels are set through the Atmospheric Pollution Monitoring and Forecasting Network, which has 11 air quality monitoring stations and is co-managed by the Government of Catalonia and the Barcelona Public Health Agency. It measures concentrations of more than 10 pollutants that are harmful to people's health, including carbon monoxide, benzo[a]pyrene and heavy metals. The monitors are located in places that represent diverse street types. Thus, the results can be extrapolated to other areas with similar urban conditions.

Barcelona has set the goal of reducing road traffic emissions by 30% (from 2017 levels) in 15 years, to gradually comply with WHO air quality guidelines. In March 2019, the administration renewed its commitment to reaching this goal, which was originally set in 2017 as part of Barcelona Summit on Air Quality framework.

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Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

According to Barcelona's latest emission inventory (2013), up to 60% of the city's NO2 came from road traffic. Others important contributors to NO2 levels are the port, the airport, and the industrial sector. As a consequence, the City Council is implementing active actions to reduce the fraction of public space dedicated to vehicles. Fewer vehicles, less pollution and more quality of life and health. That's the objective.

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The Programme includes 58 actions, such as a Low Emission Zone, prioritising walking or cycling transit areas. Our city is developing actions to raise awareness of air quality across the entire population, especially in vulnerable groups (pregnant parents, babies and children (Escola Respira (School Breathes) Programme), elders, etc.).

A Low Emission Zone (LEZ) will be established by Jan 1 2020, which will cover almost the entire municipality (95 km2) with the objective of banning the most polluting vehicles (Monday to Friday, working days, from 7am to 8pm).
Barcelona's LEZ also includes areas of the surrounding municipalities of Sant Adrià del Besòs, L'Hospitalet de Llobregat, Esplugues de Llobregat and Cornellà de Llobregat:

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Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	The City Council will quantify, for example, the economic and health benefits and impacts associated with introducing the actions described above. The more we can quantify the benefits from implementation of pollution-reducing actions, the more effective implementation of future actions will be.	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Our Climate Plan 2018-2030 gives an integrated overview of the measures to tackle climate change, including strategies for achieving the objectives of the new Covenant of Mayors for Climate & Energy, which Barcelona City Council has signed. It includes both short term (2018-2020) and medium-long term (2021-2030) objectives and strategic measures. It has 4 strategic axes: mitigation, adaptation/resilience, climate justice and the promotion of citizen action. In all those axes the top pollution-reducing actions (such as the introduction of Barcelona LEZ) are integrated.	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The Atmospheric Pollution Monitoring and Forecasting Network is co-managed by the Government of Catalonia and the Barcelona Public Health Agency. All the reliable resulting data is publicly available (almost in real-time) in the following link, managed by the Government of Catalonia:	https://analisi.transparenciacatalunya.cat/en/Medi-Ambient/Dades-d-immissi-dels-punts-de-mesurament-de-la-Xar/uy6k-2s8r

Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Barcelona City Council regularly collaborates with both relevant scientific institutions and specialists in management of air quality, such as CSIC or ISGlobal. Resulting studies and reports are published on our website:	https://ajuntament.barcelona.cat/qualitataire/en/actualitat-i-recursos/studies-and-reports.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The City Council is making such a big effort in order to raise awareness of health impacts caused by air pollution. According to that, important communication campaigns have been launched, addressed especially to vulnerable citizens.	A great example of that is the Escola Respira (School Breathes) Programme, tailored to children and babies: https://ajuntament.barcelona.cat/qualitataire/en/qualitat-de-laire/com-es-lluita-contra-la-contaminacio/escola-respira.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The City Council has its own emission inventory (last version: 2013). However, we are currently working on a new one (for 2017), which will include data from the municipalities adjacent to Barcelona, in collaboration with AMB (Metropolitan Area of Barcelona). Collaboration with other institutions is essential, to get city-wide relevant data and also data from the city's boundaries.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Barcelona City Council is currently working with the regional government (Government of Catalonia), AMB (Barcelona Metropolitan Area) and the Spanish Government in order to implement successful actions to reduce air pollution in urban areas.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

For example, the financial resources available to implement the Low Emission Zone are about 2M€.

Bengaluru

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Bengaluru aims to identify baseline levels of pollution through a continuous monitoring network maintained by the Karnataka Pollution Control Board and implementation of a pilot air monitoring project covering a significantly polluted part of Bengaluru. Based on the success of this pilot project it will be enhanced to the entire Municipal limits of BBMP (Bruhat Bengaluru Mahanagara Palike). Pilot project will aim to be finished by mid 2020 and then the entire project implementation will aim to be finished by the end of 2021. Similar projects may be taken up by the Karnataka Government for Tier II and Tier III cities in the state based on the citizens' feedback. Bengaluru is committed to taking actions to mitigate sources of poor air quality, and within 2 years will set a reduction target that puts them on a path of meeting and exceeding the National Clean Air Plan targets by 2025 and on a path towards the WHO guidelines.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	BBMP will analyse air quality data yearly to inform citizens and support action to mitigate pollution. The data inputs shall be taken from Karnataka State Pollution Control Board (KSPCB), who is monitoring Air Quality in different parts of the city on a daily basis. A joint effort by BBMP, industry, academia and the citizens of Bengaluru is to revive this city by 2025 to its old pristine glory of "City of Gardens." Rejuvenation of lakes and creation of parks by BBMP will help in improving air quality in the city and help in reduction in PM 2.5, NOx and SOx levels. BBMP is also committed to reducing emissions of air pollution through several actions by 2025. Examples include: • Expanding sustainable transit, including increasing the number of electric buses through procurement of 300 electric buses by 2020 by using FAME-2 Govt of India subsidy. This will help in increasing the modal share from private transport towards public transport thereby enabling more shared trips by public transit. • Increasing share of public transit, through construction of the city's Metro. In the first phase, 42kms of metro network is operational since 2015. In the second phase, additional 76 kms of metro work is taken up and already 70% of the work is completed and several stretches of this network is also operational. By the end of 2023 entire 118 kms of metro will be operational. Under phase 3 additional 114 kms of metro is planned and few of the works are under progress. • Increasing cycling and walking through street design, a focus of Bengaluru's TenderSURE program. The TenderSURE concept ensures comprehensive planning of urban road and execution of the same. It mainly emphasises on pedestrian pathways as first preference followed by cyclists and finally private vehicles. The guidelines also integrate urban infrastructure services like water lines, sewage lines, OFC, Gas integrated within the footpath. Under the TenderSURE program in the first phase nearly 18kms of road was developed in 2015. In the second phase additional 22kms roads were developed by the year 2018. Using the same concept in the 3rd phase under the Smart City Program another 28kms of streets are being upgraded and will be completed by 2022. • To take action to remove dust and silt from major roads regularly by deploying mechanical sweeping vehicles. • To suppress the dust by using treated water of BWSSB by sprinkling on the roads during night times in the areas where dust levels are high. • Improved solid waste management. To create separate space/zone/ to handle solid waste , C&D waste and any other waste in all BBMP wards / BDA new layouts.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	BBMP will work alongside the Karnataka Pollution Control Board to build air quality improvement activity in Bengaluru. The Central Government has brought in National Clean Air Programme (NCAP) as a long-term, time-bound, national level strategy to tackle air pollution problem across the country in a comprehensive manner with targets to achieve 20% to 30% reduction in Particulate Matter concentrations by 2024 keeping 2017 as a base year. In this line, BBMP along with KSPCB will be taking up several works related to Air Quality Improvement programmes for which a micro-level action plan has already been approved by the government. In addition, banning plastic and plastic products will be taken as a priority and Corporate Social Responsibility (CSR) activity related to pollution control will be incentivized.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	1. BBMP will take up work for "Air Pollution Integrated Command and Control Room with Sensors" in the 15th Finance Commission Grants under Air Quality Improvement Programme. This data will be utilised for the Climate Action Plan. This will be developed with the support of all stakeholders such KSPCB. 2. Air Quality is being monitored by KSPCB through 24 monitoring stations set up across the city. Detailed Project Reports from Air Quality studies will be prepared to include relevant suggestions so that the Climate Action Plan proposed to be prepared is comprehensive and is implementable.	3. Many schemes will be developed using a Public Private Partnership (PPP) Model.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Continuous air pollution monitoring in Bengaluru is conducted by the Karnataka Pollution Control Board at 7 continuous monitoring locations and 15 manual monitoring stations. This data is made publicly available through the KSPCB website on a monthly/weekly basis. https://kspcb.karnataka.gov.in/sites/default/files/inline-files/AQI%20Bulletin%20July-2021.pdf For new air quality monitoring pilot projects, the collected data will be the sole property of BBMP, after anonymization and third party NDAs it will be shared with R&D Organisations for advice on reducing air pollution. Data will reside in India and will be stored on Servers residing in India. This information is being published by KSPCB regularly on its website through Air Quality bulletins. https://kspcb.karnataka.gov.in/environmental-monitoring/air	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	BBMP will collaborate with R&D Organisations for advice on improving air quality and public health.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Air quality information will be promoted through social media campaigns in all channels to generate public support for action..	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	BBMP and KSPCB will work with relevant institutions to access the appropriate data on sources of air pollution to inform mitigation action. KSPCB has installed 7 CAAQM (Continuous Ambient Air quality monitoring Stations) in Bengaluru and the monitoring is done on 24 hours basis for PM10, PM2.5, SO2, NO2, Ammonia, O3, CO and Benzene and the compiled statistical Data is sent to CPCB, New Delhi electronically and also the data is published in the Board Website. The data is then analysed and converted into AQIs.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	BBMP works closely with the KSPCB to plan and implement air quality mitigation initiatives. In addition: 1. Assistance of all concerned stakeholders at the National and Global level would be sought to not only mitigate hazards of pollution but also to spread awareness regarding individual carbon footprints and ways to reduce them. 2. Funds/ Grants will be created at appropriate levels at a later stage in consultation with the State Government. 3. BBMP will use its powers to select the best consultants for execution of air quality projects.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

BBMP has adequate funds for execution of the Pilot Project in terms of procurement of sensor technology and in the installation/calibration of the sensors. Assistance is required in terms of man power and skill sets to work across departments and monitor and air pollution levels.

Berlin

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

Berlin already **meets the WHO guideline level for sulphur dioxide (SO2)**, since 2011.
Additional measures are needed to meet WHO guidelines for particulate matter (PM10 and PM2.5) and NO2 (equal to the EU air quality standard).
NO2: Berlin's new Air Quality Plan (AQP 2019) defines a comprehensive suite of measures to ensure compliance with the EU AQ standard and WHO levels by 2020 (details given below).
Particulate Matter:, the AQP 2019 foresees some control measures to secure the current attainment of the EU AQ standards. In addition, Berlin will also develop a long-term strategy to approach WHO guideline levels of PM10/PM2.5 by 2030. In preparation for this strategy, Berlin will update its emission inventory by summer 2021 as an input for subsequent model calculations to estimate PM10/PM2.5 levels in 2030 under baseline assumptions, i.e. taking into account Berlin's Energy and Climate Protection Programme and its revised Strategic Urban Mobility Plan 2030. In doing that, Berlin will also quantify its share of excess pollution above WHO guidelines. Based on these projections, Berlin will define by the end of 2021 feasible, but ambitious reduction targets with the aim of meeting WHO guideline levels for PM10 and PM2.5 by 2030. Achieving this will require also action beyond Berlin, given that more than two-third of the particle pollution stems from outside the city. Berlin will work with the national government, EU institutions and city networks to ensure that the large-scale background pollution is minimised accordingly.

WHO ozone levels are still exceeded but cannot be effectively reduced by local measures alone due to transboundary/large-scale transport of ozone and its precursor substances (VOC and NOx).

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

Berlin will implement bold measures focusing on road traffic to meet NO2 WHO guideline levels by 2020/21. Detailed in other sections, some of these measures include:

• Clean Vehicles, including electric bus purchases, expansion of electric vehicle charging infrastructure, and heavy-duty diesel retrofits.

• Changing public procurement to require clean construction and vehicle technology.

• Ban of diesel vehicles below Euro VI in heavily polluted roads.

• Promotion of sustainable transportation, including non-motorized transportation infrastructure investments.

Based on the baseline scenarios and the target setting for 2030, we will develop in 2022/23 an integrated strategy on how to close the residual gap between the baseline scenario and WHO guideline levels for PM10/PM2.5 by 2030. The main pillar of the strategy will consist of Berlin-based measures, closely linked with the planned revision of our Energy & Climate Protection Programme and Berlin's currently revised Mobility Strategy

However, Berlin will also evaluate the contribution from the national/EU level to simultaneously curb the elevated regional background concentrations of PM2.5. Berlin will (hopefully coordinated with other European C40 cities) lobby our national government(s) and the EU to strengthen their own efforts and to deliver the needed regulatory and financial boundary conditions for Berlin (and other cities) to start implementing after 2023 the additional local measures identified in the integrated urban AQ strategy.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.

Berlin will work with C40 to complete requested information as part of the Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS

EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS

Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.

The new AQP 2019, adopted in July 2019, sets tangible measures to swiftly curb NOx emissions from diesel vehicles with the aim of reducing city-wide NO2 pollution levels below the EU AQ standard/WHO Guideline of 40 µg/m³ NO2 in the next 2 years. Beyond this short-term focus on mobility, we will start implementing, beginning in 2024, new integrated measures within the future AQ strategy in order to meet Berlin's ambitious self-commitments towards a clean, healthy and climate-friendly city.

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.

Berlin's new AQP 2019 schedules about 40 measures, mostly set to drastically reduce NOx emissions from road traffic within the next 2 years. Examples include:

- cleaner vehicle technology, for example, the rapid purchase of 100 electric buses by 2020, large investments in city-wide charging infrastructure, funding of the electrification of light commercial vehicles, the operation of 2/3 of the garbage collection vehicle fleet with self-produced renewable gas and retrofit of 400 Diesel-buses and more than 100 heavy municipal vehicles with effective NOx-catalysts.

- clean public procurement by e.g. requiring construction machines working on public sites to have an efficient Diesel-soot filter (reducing PM2.5 and climate forcing black carbon) and by setting ambitious requirements for purchasing new vehicles with hybrid-, battery-electric or fuel cell technology.

- the promotion of green transport modes stipulated by Berlin's unique and brand-new Mobility Act, through e.g. 30-40 Mio € investments per year earmarked for improving the bicycle infrastructure (e.g. 100 km cycle highways, 50.000 new bike racks/year up to 2025, dedicated cycle lanes in all main roads), heavy investments in better and more frequent public transport (e.g. start building 5 new tram lines by 2021, another 5 lines by 2026, extend the subway, light and regional train services, more attractive PT fares in combination with shared mobility services) .

- massive expansion of the **parking**

	management zones with parking fees to 75% by 2021 and 100% by 2025 of the central city area, plus increase of parking fees. **- traffic management measures**, like 30 km/h speed limits in additional 33 main roads to mitigate air pollution, noise and to enhance road safety; better traffic light synchronization combined with priority of buses and trams and ultimately. **- bans of Diesel vehicles** up through Euro 5/V emission standard in heavily polluted roads. For more details please consult https://www.berlin.de/hauptstadtluft/en/ The future strategy will put more emphasis on reducing PM emissions by continuing Berlin's focus on "no Diesel without filter" and the control of climate-warming and health-threatening black soot emissions. In order to further curb particle emissions from fossil fuel combustion, we will exploit in the AQ strategy to the extent possible the measures in Berlin's Energy and Climate Protection Programme 2030.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Berlin has the densest network of NO2 and black carbon monitors in Germany, exceeding the legal requirements by a factor of seven. For the past 20 years, Berlin has conducted extra passive sampling of NO2 and active sampling for elemental and organic carbon at more than 20 traffic hot spots. Together with regular, city-wide air quality modelling, down to the street canyon level in all main roads, we have a full and reliable picture of the air quality situation in the city. Berlin is currently testing small combined PM10 and NO2 sensors and will potentially deploy them in pollution hotspots and locations representative of population exposure to assess pollution trends. The results of the automatic continuous network is being published in real-time every hour and in the form of air quality index values to help sensitive population groups to reduce their personal exposure. An app for mobile phones will be developed to better reach out to younger people and the growing users of social media.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	While in the past Berlin's efforts to improve the air quality have been largely driven by non-compliance with AQ standards, health impact assessment will become much more relevant in the future within Berlin's air quality strategy, with a more sophisticated assessment of the costs and health benefits of potential measures. Here, Berlin expects to take advantage of the work being done in other C40 cities.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	With the air quality modelling and monitoring infrastructure in place, Berlin has all the data and information available to enhance the awareness of the public, that further action is justified to improve Berlin's air towards the WHO guidelines and ensure a healthy living even in Berlin's buzzling central areas. This will be an inherent part of the AQ strategy.

Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	As indicated above, Berlin will continue to update its comprehensive database on emissions, source information, air quality measurements and model results, in order to underpin the development of the future strategy and to monitor the expected success of the measures stipulated in the new AQP 2019 and other initiatives.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Berlin will continue to exert its constitutional powers as a Federal State in the German Federal Council, the assembly of the German Federal States, which is a powerful platform to influence national policy making in particular on the environment. The same is true for the European level,	where Berlin has been and will continue to work actively in stakeholder working groups set up by the EU Commission, especially on the revision of the European AQ Directive, together with the European City networks EuroCities and Polis.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Around 400.000€/year is earmarked in Berlin's budget to support air quality planning, including the strategy development. This covers for example updating emission inventories, funding of studies on the air pollution sources, the impact of measures on the air quality, emission projections, scenario calculations and – in the future – also on health impact assessment. An extra budget line exists to finance all the air quality-monitoring activities.

About 50 Mio € are dedicated to the implementation of measures of the new AQP 2019, except infrastructure investments in green transport modes, which are underpinned by separate budget lines (like the 30-40 Mio/a for cycling). Almost 100 Mio € is reserved until 2021 for funding the implementation of the Energy and Climate Protection Programme and additional climate adaptation measures.

Bogotá

SIGNATORY SINCE 2020

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	• Adopt and execute the Air Quality Management Plan of Bogotá. • By 2030, meet the WHO Intermediate Objective 3 particulate matter at each monitoring point in the city (30 µg/m3 for PM10 and 15 µg/m3 for PM2.5). This will set the city on a path toward meeting WHO air quality guidelines in the future."	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	• Implement five programs to strengthen the monitoring of pollutants: - Expansion of the Bogotá Air Quality Monitoring Network - Biennial update of air pollutant emission inventory - Integration of air quality models with a regional model - Integration of air quality networks CAR (Regional autonomous corporation) and SDA (District Secretary of the Environment) monitoring. - District network of sensors to measure personal exposure. • Implement Three air governance instruments: - Roundtables with citizens and stakeholders involved in and affected by air pollution emissions. - Adoption of the protocols for action and updating of the IBOCA (Bogota Air Quality Index) - Launch of the update of the APP "Aire Bogotá". • Three technology-based programs to strengthen source control: - Fixed Sources and Mobile Sources web platforms - Program to catch high polluting vehicles - Mobile Source Control by remote sensors. • Four programs for the management of air pollutant emissions: - Bogota Air Quality Management Plan - Urban Freight Transportation Management - Environmental Self-Regulation Program - Management of Resuspended Particulate Material. • Participate in programs or policies led by public and private entities, which have mitigation benefits in air quality pollutants and greenhouse gases. • Participate in research projects that are aimed at the implementation of actions to reduce emissions by polluting sectors.	

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	• One (1) yearly report on the air quality status of the city of Bogotá. • One (1) publication of inventories of air pollutant emissions in the city every two years.	• One (1) progress report on the actions proposed for the C40 Accelerators every 6 months.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Adopt and implement the Air Quality Management Plan of Bogotá. • Implement the District Program for the Management of Emissions from Urban Freight Transport. • Adopt a monitoring and control program for mobile sources through remote sensors. • Adopt action protocols for exceptional air quality events called "Alerts for air pollution". • Launch two control and monitoring platforms for fixed and mobile sources in the city. • Launch the "Program to catch high polluting vehicles"	• Adoption and implementation of the Fleet Environmental Self-Regulation Program update, the aim of which is to reduce transport emissions by encouraging regular vehicle maintenance and eco drive strategies. • Launch of the Intervention Plan for the South West Zone of Bogotá, which will include specific emission reduction strategies in top polluting sectors, such as vehicles and industry, in the most polluted part of the city. • Adopt and implement the Zero and Low Emission Motorised Mobility Public Policy.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Working across institutions and agencies, Bogotá's Climate Action Plan for Bogotá will integrate actions from the Comprehensive Air Quality Management Plan of Bogotá as well as the Green Growth Policy Also the GHG Emission Inventory will assess and define the correspondences with particulate matter emissions.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Strengthen air quality monitoring in the city, with publicly available, reliable data, including personal exposure monitoring: • Integrate seven (7) more stations to the Air Quality Monitoring Network (currently with 13 stations), which will be distributed in the towns of Usme, Bosa, Puente Aranda, Ciudad Bolívar, Suba, Engativá and Fontibón. • Publish the second version of the phone app "Aire Bogotá" which will improve communication to citizens	through infographics and notifications of air quality events of interest to the user. • Launch of the network for monitoring personal exposure to pollution. • Consolidate and publish ambient black carbon baseline measurements, collected with the currently installed monitoring network.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Create a District methodology for the evaluation of health impacts related to air quality, the result of joint work between the health, environment, and other related sectors.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• Hold roundtables with academic institutions and other stakeholders interested in air quality management in Bogotá. • Adopt action protocols for exceptional air quality events "Alerts for air pollution". • Update the Bogota Air Quality Index, IBOCA, based on its regional co-	herence and its role in communicating the risk of air pollution to citizens. • Publish the second version of the phone app "Aire Bogotá" that will improve communication to citizens through infographics and notifications of quality events of interest to the user.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Ensuring that emissions inventories, models and analyzes are available to the general public: • Publish one (1) report every two years on the inventory of atmospheric pollutant emissions in the city of Bogotá.	• Strengthen the accessibility to air quality information on the District Secretary for the Environment website.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Integrate the Bogotá-Region air quality monitoring networks, with the objective of improving knowledge of the carry-over of pollutants from the Region to Bogotá and vice versa. • Integrate the NASA GEOS-CF model to the Integrated Air Quality Modelling System of Bogotá.	• Articulation of emission source management and control strategies between Bogotá and the Region.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Budget assigned to comply with the mission of the entities involved

Ciudad de Buenos Aires

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT		SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	In its Clean Mobility Plan (PML in Spanish), the City of Buenos Aires sets the goal of reducing GHG and toxic gases from the transport sector by 2035. This roadmap is an important part of the work being done to improve air quality and quality of life for Buenos Aires' residents, to fight against global warming, as well as to reduce health system expenditures associated with environmental pollution. The main air quality objective of the PML is 50% reduction in 2015 levels of NOx and PM emissions, by 2035.	New and updated goals, made with respect to the Carbon Neutral 2050 commitment, are currently in progress and will be announced soon. Criteria air pollutant limits, established by Law 1.356, will be studied and modified accordingly, with the goal of progressive air pollution reduction to first meet WHO interim air quality targets and eventually the WHO air quality guidelines.	**Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.**	Buenos Aires will focus on implementing the objectives set in the PML, taking into account its update based on the Carbon Neutral 2050 commitment, which will be essential to achieve the proposed reductions in emissions from the transport sector; this sector currently contributes 28% of CO2 emissions in Buenos Aires.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Pilot tests are being carried out to better understand how certain technologies and measures can be scaled to fulfill the city's proposed objectives. These tests focus on the technical, economic and environmental effects of electric, biodiesel, and CNG buses; electric and CNG vans; efficient driving for urban logistics and public transport; loading/unloading spaces and lanes.	New fixed source and mobile source inventories will be created and will support subsequent modelling and development of the City's Air Quality Map, to be validated through continuous monitoring. The Map will identify critical and high impact areas, and generate the policies and programs necessary to reduce emissions.	**Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.**	Measures proposed in the PML include reduction of pollution from private cars (promoting public transport, mobility as a service, and shared trips). For freight transport, city level measures focus on implementing intelligent urban logistics (clean technologies and behaviors, better logistics planning, etc.), while national measures focus on efficiency and reduction of emissions. For public transport, and transport in general, the widespread use of cleaner and more efficient alternative technologies, restrictions on high sulfur fuels, and the adoption of EURO 6 / VI regulations will be important. Other important actions include the following: - The "Paseo del Bajo" project (a 7.1-kilometer road corridor that connects the Illia and Buenos Aires-La Plata highways) created 60,000 m2 of new public spaces, of which 35,000 m2 are green spaces. It contributes to the reduction of noise pollution and CO2 emission by reducing traffic congestion in the area. - Ecobici is the City's public bicycle system. The service is available 24 hours and is free for the user. In 2018, there were 2,500 bicycles and 200 stations, and in 2019 this will be expanded to 4,000 bicycles in 400 stations, throughout 38 of the 48 neighborhoods of the City. The cycle network extends some 230km. The objectives are to reduce vehicle congestion, CO2 emissions and noise pollution. - Pedestrian priority areas: This policy aims to rebalance the use of public space, and improve road safety and environmental quality to encourage better quality of life for neighbors. Target areas, chosen for the number of people moving through them daily and available means of transport, were: Once, where more than 250,000 people travel per day; Retiro; Casco Histórico and Microcentro. Also, the famous Avenida Corrientes was optimized for pedestrians, with the construction of flower beds in a median strip, bus-only lanes, and lanes that convert to pedestrian walkways at night, showcasing how the improvement of the environmental quality in a central area of the city is being prioritized. - The City of Buenos Aires began progressive implementation of vehicle restrictions on weekdays in the Pedestrian Center (formed by Microcentro; Retiro; Casco Histórico and Tribunales), resulting in a 50% reduction in vehicle entry.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.			

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	While continuing to monitor criteria pollutants at representative points throughout the city, Buenos Aires is considering expanding air quality monitoring through mobile measurement stations and increasing the number of criteria pollutants to be measured, which was proposed under the 2020-2023 Plan at the city level. National-level initiatives, such as Cambike (low-cost mobile sensors), are also being explored to increase air quality sampling and, specifically, sub-city spatial representation of air quality in the city. A plan will be drawn up to improve the accessibility of the data, which will depend on the resources available.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Following on the pilot tests described above, which combine public and private entities to improve air quality and reduce emissions, public reports are being created to describe the technical, economic, and environmental results of the pilot tests. Through the publication of these reports, and the continuation of roundtable discussions with both logistics and public transport operators, the city will work toward implementation and scaling of the measures and technologies being tested; participation from the private sector is key to this outcome. Work will continue, under the framework agreement established between the Environmental Protection Agency and the Ministry of Health of the City, to study correlations between diseases and air pollution.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Work will be done to improve public communication about air quality levels, including use of a new tool that shows daily air quality index values, their association with health effects, and recommendations. The choice and implementation of the emission model for the creation of the Mobile Source Inventory, the selection and use of the Dispersion Model and Meteorological Model and creation of the Air Quality Map, and all associated actions, will require technical assistance that is expected to be achieved. Through agreements with both local and foreign academic institutions, and technical assistance, the city will choose and implement the emission model underlying the new mobile source inventory, select and use dispersion and meteorological models, and create an air quality map. Currently, work is being carried out together with C40 to adapt the scenarios, projections and objectives of PML, extending the term to 2050 and adjusting according to the carbon neutral objective.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Environmental factors do not have geographical boundaries, so the City of Buenos Aires works with the National Government and the Government of the Province of Buenos Aires, including through the roundtables organized by the Matanza Riachuelo Basin Authority (tripartite entity). For example, the city is currently working to modify the air quality regulations of the Basin within this framework. For transport, the national government has been working under the Smartway program to reduce sector emissions and streamline operations, particularly for cargo vehicles.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The 2020 Budget sent to the Legislature of the City of Buenos Aires included funding to update data acquisition and transmission software for the City's monitoring stations (EPAs), to ensure real-time accessibility of data. This also includes acquisition of a new monitoring station and funds to update aging equipment.

A pilot electric bus program achieved the following results:

- Reduction of import tariffs for buses from 35% to 0%.

- Fleet extension for operators.

- Inclusion for the period of one year that the bus test lasts

- Work to improve cargo infrastructure done by the Government of the Autonomous City of Buenos Aires (GCBA by its acronym in Spanish).

Ciudad de México

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	In 2019 and 2020, the Air Quality Improvement Program (ProAire) for the Metropolitan Area of the Valley of Mexico for 2021-2030 will be developed. This will include 2030 emissions reduction targets and the main measures to be implemented to meet those targets. In addition, photochemical modeling will be carried out to project pollutant concentrations by 2030. Therefore, in less than two years the reference levels and targets for Mexico City will be developed.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Mexico City will begin implementation of the next ProAire 2021-2030. Between 2019 and 2024, some immediate measures will be implemented to reduce emissions from the mobility sector. Some examples include: • Development of a new "Hoy No Circula" scheme (Can't Drive Today) to restrict vehicle traffic in the city. • Ban on freight traffic during certain times and implementation of a freight low emissions zone. • Replacing old buses with electric and high-performance buses. • Expanding clean, integrated public transit, including expansion of Bus Rapid Transit and non-motorized transport
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Work has begun to develop the measures within ProAire 2021-2030, including engagement with various stakeholders. Measures to reduce emissions from the mobility sector in Mexico City by 2024, include: • Traffic management, including a new "Hoy No Circula" scheme, development of carpooling online platform, and other efforts to reduce private vehicle trips. • Cargo transport mobility policy – including bans of large freight vehicles during certain periods of the day and implementation of a low emissions zone where heavy-duty vehicles are banned. • Expansion and integration of public transport infrastructure. • Increasing cycling. • Better emission control technologies for public transport. • Renewal and replacement of taxis, motorcycle taxis and platform services with vehicles with better environmental performance. Likewise, immediate measures were defined that will be implemented from this year until 2024 such as: • Reduction of emissions in the distribution and use of Liquefied Petroleum Gas. • Reduction of volatile organic compounds in household products. • Inspection and strategic monitoring of emission control at gas stations. • Cleaner gasoline in the Megalopolis, by expanding low volatility fuel availability to the wider Mexico City Metropolitan Zone. • Eradication of practices that cause fires. • Low emission industry through promotion of cleaner fuels and solar energy. • Reduction of emissions from urban maintenance activities, including low VOC products and particle emissions control systems. • Detection and fining of visibly polluting vehicles . • Vehicle and fuel emission standards. • Introduction of motorcycles with emission control by coordinating with national governments to set vehicle emissions standards.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The preparation of ProAire 2021-2030 coincides with the preparation of the Climate Action Program of Mexico City 2021-2026 (PACCM) and the Local Climate Change Strategy 2020-2040. Currently, SEDEMA is working transversally across these programs. To date, there have been two collaborative thematic workshops (energy and industry and area sources) in which the representatives of the local governments, the federal government, as well as the industrial, health, research, academic sectors and NGOs have participated. Through this joint work, we seek to identify measures that address air quality and climate change through measures that reduce emissions of criteria pollutants and greenhouse gases.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Mexico City has one of the most robust atmospheric monitoring systems in the country to inform the public of the state of air quality. Monitoring data, as well as the 24-hour air quality forecast, are communicated through of the AIRE CDMX application, the website http://www.aire.cdmx.gob.mx/, the Twitter account @AireCdmx, by telephone through the AIRETEL 52789931 extension 1 and through the AirNow website (https: //www.airnow.gov/index.cfm?action=airnow.local_city&cityid=745)	Mexico City will maintain this monitoring network, including measurements of black carbon, and reevaluate the network design every five years to determine whether monitoring should be increased or sites should be re-located. Additionally, a notification system will be added to the AIRE application where registered users can receive messages when certain air quality thresholds are exceeded, depending on the population's susceptibility (children, older adults, people with diseases preexisting, among others).
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Mexico City is currently working with different research institutions and societies such as the National Institute of Public Health, the National Institute of Energy and Climate Change, the National Autonomous University of Mexico (UNAM), the National Polytechnic Institute, the Center for Economic Research and Teaching, the National Institute of Nuclear Research, the National Institute of Respiratory Diseases, Climate Initiative of Mexico, Mario Molina Center, Mexican Institute of Competitiveness, World Wildlife Fund, among others. The Technical Scientific Committee on Air Pollution Surveillance in Mexico City evaluates the impact of air pollution on the health of the inhabitants of Mexico City, to inform public health strategies and actions. This Committee has three working groups: public policies, analysis and research and, health promotion and social communication. These workgroups are made up of local and national authorities from different sectors, academics and researchers, as well as members of non-governmental organizations. In each working group, policies and studies to be implemented are being proposed and will be considered for inclusion in the next ProAire. Additionally, the next ProAire will include evaluations of the health and economic benefits associated with air quality improvements that will come from the various measures. Likewise, in collaboration with Health authorities of Mexico City, the State of Mexico and the Federation, as well as with the National Institute of Public Health, an Epidemiological Surveillance System of Health Effects of Air Pollution is being built to provide permanent monitoring system capable of detecting abnormal patterns in health conditions associated with air pollution. This will contribute to timely decision-making that protects the population's health. Additionally, the composition of fine particles will be analyzed in collaboration with researchers from UNAM.	

Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The Secretary of the Environment informs the population on the state of air quality, the associated health risks, and provides sub-population specific recommendations. During high pollution episodes, notices are broadcasted through radio, television, web page, the AIRE application, and social networks explaining the episode, health risks, and recommendations. The Ministry of Health and the Secretariat of the Environment of Mexico City will work closely to educate citizens on air pollution and its risks.	In the future, Mexico City may add to the AIRE application notifications when air quality exceeds certain air quality thresholds based on population susceptibility and develop trainings for doctors at different levels of care to raise awareness and disseminate information of the health effects of air pollution and provide recommendations to patients on how to check air quality levels and take action.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The Ministry of the Environment generates inventories of criteria pollutant emissions, air toxic, and greenhouse gas compounds in Mexico City every two years with Tier 3 levels for mobile sources and Tier 2 for other sources. In addition, SEDEMA has its own air quality forecast model that issues information 24 and 48 hours in advance and provides annual air quality reports on City's air quality. Both have been strengthened through working with research institutions, particularly with the Barcelona Supercomputing Center.	Mexico City plans to strengthen the emissions inventory by automating different processes. This 1x1 km high spatial resolution inventory is integrated into the air quality forecasting model and is capable of simulating scenarios to evaluating alternative air quality improvement measures to help select those that are most impactful. Mexico City continues to improve forecasts of ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, fine particulate matter, as well as weather parameters.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	An important source of Mexico City's air pollution is emissions from outside its borders. Mexico City coordinates policies aimed at improving air quality across the Metropolitan Zone of the Valley of Mexico, which includes the 16 mayors and 59 municipalities of the State of Mexico and Tuzayuca, Hidalgo. Likewise, Mexico City is part of the Environmental Commission of the Megalopolis (CAMe) formed by six other states of the central region of the country and the Secretariat of	Environment and Natural Resources (SEMARNAT) of the Federation. The objective of CAMe is to is to help design and implement common policies to control emission sources that affect the region and be more effective in improving air quality. ProAire and the immediate measures are metropolitan management instruments, therefore, both will be implemented by the Government of Mexico City, the Government of the State of Mexico and the Federal Government. In addition, they have worked together with CAMe.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

- The main financial resource available is the Public Environmental Fund of the Federal District, which is a public trust administered by the Ministry of the Environment of Mexico City whose resources come from the annual budget allocated to Mexico City, donations from the National and international private sector for the realization of projects, citizen contributions collected by some services, sanctions, among others.
- FIDAM 1490 - Managed by the Executive Coordination of the CAMe to support environmental projects of the states that make up the CAMe.
- Occasionally RAMO 16 - Awarded by the Federal Government for projects to improve the Environment and Natural Resources.

Copenhagen

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	By 2021 Copenhagen will develop baseline levels and reduction targets for air pollutants.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Before 2025 The City of Copenhagen expects to implement the following policies: • New LEZ. • 100% zero emissions buses on all bus lines financed by City of Copenhagen.	• On-Shore power for cruise vessels. While revision of the City's clean air plan is expected before 2025 a decision on this has not been made.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	New LEZ in 2020. The City will continue to work with the government to exclude more polluting vehicles, machinery and vessels from the LEZ. Roadpricing. The City continues dialogue with the government to create a legal basis for introducing road pricing.	Dialogue with the government to create a legal basis so that stricter requirements can be set for the commercial vessels using the port, including canal tour boats in the inner harbor in City.

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	100% zero emission buses on all current diesel bus lines in 2025. Promoting alternative fuels in non-road mobile machinery indirectly involved in 40-60 % of all building and construction projects in Copenhagen. By 2019 include requirements for alternative fuels in non-road machinery in municipal tenders for construction work. Onshore Power for cruise vessels. Working with the port to introduce Onshore Power before 2025 >90% of city owned passenger cars are Zero Emission. The City has implemented a dense citywide bicycle path grid and continue to develop, extend and improve	the grid. Currently more than 1/3 of all driven trips to from and within Copenhagen are by bike. Improvement and expansion of regional cycling infrastructure. Opening of new metro line (city ring) in 2019. Expansion in 2020 to Nordhavn and in 2024 to Sydhavn. Installation of charging infrastructure for cars. Promotion of car sharing schemes such as dedicated parking. Improve EV parking. Potential reduction of traffic in inner city.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Air Quality data from measurement stations is published every hour on a web page. Air quality data for every address in Copenhagen is calculated by national authority. A prognosis 72 hours ahead is calculated daily.	The city works on additional monitoring by increasing number of measurement stations in different areas in Copenhagen and combining the new monitoring with "health warning "for the citizen of Copenhagen.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Local air quality data will be made available for academic institutions for further research on health effects of air pollution. Collaboration with academic institutions on new research projects involving health aspects of air pollution in Copenhagen.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Health perspectives on air pollution will be included in public health awareness campaigns and information in the city.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The city cooperates with a number researchers and institutions to secure high quality inventories, models e.g. Annual air quality reports.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	National framework conditions can help the City of Copenhagen to achieve the targets laid down in different municipal plans and the C40 clean air Accelerator. The City of Copenhagen will continue the dialogue with the government for improvements e.g. implement better LEZ and other projects to reduce air pollution.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

In 2019 the City of Copenhagen has allocated funds to a project “creating increased knowledge about the health-damaging effects of air pollution in Copenhagen”. The project has been initiated as a collaboration between the Technology and Environment Administration and the Health and Care Administration. The project contains four sub-projects where one of the projects concerns the setting up three measuring stations to measure the nitrogen content of nitrogen dioxide, particles (PM2.5), and ultrafine particles (UFP). Measurement results must be submitted to a group of experts who will, among other things, contribute to creating increased knowledge such as air pollution and health effects for the citizens of Copenhagen.

The City of Copenhagen has financed investigation in Onshore Power Supply for cruise vessels and for international cooperation to implement Onshore Power in many cities simultaneously.

The new LEZ implemented by 2020 is financed by City of Copenhagen (80% and City of Frederiksberg (20%).v

Dakar

SIGNATORY SINCE 2022

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Establish air quality baseline levels in the City of Dakar by 2023, as well as the background concentrations of different pollutants and their apportionment. Strengthen the air quality management system through the acquisition of new measuring instruments by 2024. There are currently 5 fixed monitoring stations across the city. In order to fill gaps in data and ensure better spatial coverage, whilst at the same time optimising operating costs, sensors that detect and are adapted to measure and monitor O_3, $PM_{2.5}$, SO_2 and NOx will be set up. To reduce air pollution, the city intends to set the following targets: For $PM_{2.5}$ Meet current national standards (NS-05-62, cf. Table 2 in Annex 1, p. 14) on ambient air quality in line with Goal 6 of the Sustainable Development Goal (SDG 11.6) by 2026. • Meet the WHO guidelines' interim target 3 of an annual citywide average of 15µg/m3 for PM2.5 by 2030. Periodic monitoring will be conducted to assess progress and possibly update and adjust the commitment to the WHO standards by 2030. To ensure consistency and sustainability in meeting the commitments, the targets will be included in the Air Quality Management Plan (AQMP) which will be published on the City of Dakar website and made available to the public by 2025. Regarding the other pollutants measured daily in Dakar (Co, NO_2), the differences between the national standards and the WHO standards are minimal and the targets are often met, except for PM_{10} and Pb. Dakar will continue efforts to reduce other pollutants with various sources to remain below the WHO standard.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The city will focus on reducing emissions from the major air pollution sources identified in the development of the baseline by 2025. Emission reduction strategies or policies, the action plan and the approach for prioritising ambitious measures will be based on emission inventory results, the Business As Usual (BAU) trajectory and major public health issues. The reduction of emissions from the transport sector will be achieved by strengthening the implementation of the 2008-2025 Dakar Urban Transport Plan (DUTP) and the sustainable mobility programme, which aim to replace the vehicle fleet. The main measures that will be implemented are: • Promote the Low Emission Zone concept by the end of 2023 for the downtown area, with full implementation in 2030. • Improve walking and cycling capacity in the city with the implementation of BRT by 2024 and the deployment of bike lanes being planned with the DUTP. • Put electric Regional Express Trains (TER - Trains Express Regional) into service with an 8-km line in the City of Dakar. The introduction of this type of low-emission mass public transport by 2024 will reduce pollutants from diesel combustion. • Rehabilitate illegal solid waste dumping sites by 2024 to curb the burning of waste in the open air. • Increase electricity production capacity from renewable energies to boost the energy transition by the end of 2024. Development of a network of bicycle paths and promotion of cycling. The goal is to create 18 km of bicycle lanes by 2024 as part of the BRT with an additional network of secondary lanes along the feeder routes. • Expand the sidewalk paving program to promote walking, accessibility and traffic flow. Collaboration with the Executive Council of Urban Transport in Dakar (CETUD - Conseil Exécutif des Transports Urbains de Dakar) within the framework of the programme for the improvement of urban transport, the renewal of the vehicle fleet (permanent withdrawal of old diesel buses) and the regulation of traffic in the city. The BRT project provides for 144 articulated electric buses being put into service by 2023-2024 with a daily target of 300,000 passengers.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to provide the information requested in the monitoring mechanism for the commitments in the Accelerator, as outlined in the C40 Clean Air technical note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Establish a framework for dialogue between the national, regional, city and municipal levels in order to build the capacity of members to influence compliance with current air quality standards. Form a lobbying committee for compliance with the regulation to reduce air pollution.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS		
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Other actions to be implemented based on the city's five-year operational climate action plan, including engagement with various stakeholders. • Establish a vehicle fleet that meets fuel efficiency standards per fuel type by 2025. • Raise awareness among young people for the use of bicycles by combining sustainable urban mobility, sport and well-being. • Development of green infrastructure in accordance with the city's climate action plan. This involves the development of green spaces, the strengthening of reforestation initiatives to improve the rate of vegetation cover. These green spaces will constitute biologically active zones to filter and reduce urban pollution, particularly suspended particles. • Evaluation of the impact of BRT modal share on the mass transportation sector and the reduction of CO_2 emissions and air pollutants.		
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	In 2010 the State of Senegal established the Air Quality Management Centre (CGQA - Centre de Gestion de la Qualité de l'Air) within the Directorate of the Environment and Classified Establishments (DEEC - Direction de l'Environnement et des Établissements Classés) of the Ministry of the Environment. The CGQA currently has 6 fixed stations, 5 of which are spread throughout the City of Dakar. These stations allow continuous measurement of air quality and the daily dissemination of an Air Quality Index (AQI) to inform the public and decision makers about air quality and the associated health risks in the event of a pollution peak. As they are concerned with the issues that urban pollution poses, its impact on the health of citizens and their right to be informed, the City of Dakar and the DEEC signed a partnership protocol in 2011 as part of the development of the air quality monitoring system. This protocol is renewed periodically, making the city an important partner/actor in the scheme. This institutional support and collaboration enable the CGQA to take on many of the operating costs, light maintenance of the air quality monitoring network and the procurement of equipment. Obsolete instruments increase quality assurance work, which leads to the need for their renewal. Therefore, the partnership between the City of Dakar and the CGQA is open to all issues related to the sustainability of air pollution monitoring and the development of an early warning system for populations and decision makers. It therefore reinforces the city's commitment to promoting good environmental governance in terms of respecting the population's right to be informed. Consequently, Dakar will contribute to: • The reinforcement of the expansion of the air quality measurement network with the installation of a 7th monitoring station to measure pollutants; • The deployment of lower-cost monitors in view of the organisation of the Youth Olympic Games in 2026 in Dakar.		

Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• Sign a partnership with the University of Dakar to bolster research on the impact of air pollutants on the health of populations.	• Conduct a cost-benefit analysis to assess the economic cost of pollution in Dakar and alert decision makers to the cost of inaction.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The City of Dakar is working with stakeholders in the health sector and researchers to raise awareness about air quality, the different types of pollution and their impacts on health. Awareness-raising initiatives are carried out with the involvement of community-based organisations (CBO), in addition to administrative, religious and customary authorities. Social media campaigns are also being conducted. This includes: • Strengthening local communication to raise awareness and reduce the effects of pollutants on the population. • Using connected digital signs for continuous, real-time information using Air Quality Index (AQI) metrics and colour codes.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• Collaborating with the CGQA, C40 and all relevant research institutions and data holders to produce quality inventories that are representative of the reality of Dakar. • Create a multi-stakeholder ad-hoc committee to monitor and coordinate air quality improvement actions.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Because of the common goal to ensure a healthy environment for the population, the city encourages collaboration with the state administration and multinational entities involved in air quality management to develop joint activities for greater impact.	

Delhi

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

The present Government of National Capital Territory of Delhi (GNCTD) came to power in 2015 through a political platform of sustainability, decentralization, anti-corruption, freedom and prosperity. Its actions have been in-line with its vision and every project, program, policy and practice of the Delhi Government has linked back to these principles and the promises that flowed from them.

The National Clean Air Programme (NCAP) of India sets the target of bringing down the PM2.5 and PM10 levels by 20%-30% by 2024, relative to 2017. Delhi is already a model for other Indian cities on fighting pollution by successfully bringing down the average annual PM2.5 levels by 25% over 2016-18, as compared to the baseline of 2012-14. The Government of NCT of Delhi will further endeavour, in a period of 2 years, to set a reduction target that puts them on a path to achieving and exceeding NCAP targets by 2024.

This commitment will be actioned and monitored by the "Delhi Dialogue and Development Commission" chaired by the Chief Minister Arvind Kejriwal. Members of this task force will consist of line department heads and external experts working on sustainability, resilience, public health, social activism, energy and mobility. This task force will also create a "Climate Transformation Plan and Budget" that combines best practices emanating from the task force, Delhi Government's Outcome/ Green Budget and leverages the salient strengths of state, market and society in implementation.

GNCTD's commitments will be actioned and monitored by the "Clean Air Task Force" chaired by the Chief Minister Arvind Kejriwal. Members of this task force will consist of line department heads and external experts working on sustainability, resilience, public health, social activism, energy and mobility. This task force will also create a "Climate Transformation Plan and Budget" that combines best practices emanating from the task force.

The GNCTD will take up the implementation of the following ambitious programmes under seven main departments to address the top causes of air pollution, before 2025:

Transport Department

1. Large scale transformation of the public bus system is underway that will substantially increase the capacity (from 5500 buses to 11,000 buses), safety and convenience of travel. The government has already introduced a common mobility card valid across travel in metro and buses, India's first. Implementation of scientific route rationalisation of bus routes, installation of CCTVs and panic buttons in buses is under way..

2. GNCTD has released a progressive draft Electric Vehicle policy, expected to be finalized by October 2019. The policy focuses on large scale transition of vehicles in shared/public transport with an aim that Battery Electric Vehicles (BEVs) constitute 25% of all new vehicle registrations by 2024.

3. Complete electrification of Delhi's bus fleet is planned over two phases. Phase I will include rolling out 1000 fully electric buses (around 20% of the total bus fleet) by 2020 supported by the induction of 905 additional electric feeder vehicles by Delhi Metro. Phase II will build on the experiences of Phase I and will aim at 100% transition to 11,000 electric buses in Delhi by 2030.

4. Strong incentives, programs and academic collaborations to improve and strengthen Pollution Under Control (PUC) programme in Delhi.

Power Departmen

5. Provision of generation-based incentives, streamlining of tripartite agreements and payments by the Delhi Government have bolstered solar installation, with total capacity now at 133 MW.

6. Group Net Metering Policy and Virtual Net Metering Policy to promote installations of solar panels on all buildings in Delhi notified.

7. Agrisolar policy launched and floating solar projects are under process at Rajghat Power Plant

8. All PWD streetlights to be replaced with efficient LEDs; building code to integrate photovoltaics and innovations in energy efficiency.

Environment Department

9. Provision of subsidy of ₹5,000 per tandoor to restaurants to replace coal-based tandoors with electricity or gas-based tandoors as well as subsidy to various firms and establishments of up to ₹30,000 to switch over from Diesel Generator Sets to Clean Generator Sets.

10. Challans or fines by department officers and revenue enforcement for violators of construction debris, biomedical and municipal solid waste as well as fire-cracker/waste burning.

11. Installation of air pollution abatement devices at traffic intersections with urban heat island effect as well as technical assistance to crematoriums and gaushalas to become green.

12. Development of city forests to create green areas with 6 city forests already created increasing Delhi's green cover from 20.2% to 20.6%.

13. To ensure the participation of the residents of Delhi in the fight against pollution and to stay alert to the risks of air pollution, we will provide a dedicated information system showing current levels of pollution by installing 1000 indoor display panels inside all government buildings that are dealing with the public.

Urban Development Department

14. Creation of 259 water bodies, 7 lakes and hundreds of decentralized sewage treatment plants to clean River Yamuna and the drains leading into it leading to a positive impact on dust and recirculated pollution within the city.

15. The Delhi government is procuring N95 masks on a large scale, and we will make it available to the people for their use to protect them from damage due to pollution and ensure they are safe.

Public Works Department

16. Edge-to-edge paving/ greening and beautification of all roads falling under the jurisdiction of the Public Works Department. This will be accompanied with a push for transit-oriented development, construction of green roads and improving walking/cyclability.

17. Vacuum sweeping of roads 4 times a month, mechanical road washing once a month, landscaping of major arterial roads and conversion of road dividers into bio-filters along with wall to wall paving of roads.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Delhi will work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	**Policies:** The Delhi Government has already notified water policy, solar policy, JJ (Jhuggi Jhopari) cluster and slum rehabilitation as well as municipal solid waste management policies that are sustainable, progressive and green. It will soon notify the Electric Vehicle policy too. Delhi already implements the Graded Response Action Plan (including the road rationing scheme called Odd-Even) when air pollution peaks in winter, in collaboration with the Central Pollution Control Board and under the supervision of National Green Tribunal. **Enforcement:** Delhi will push for the constitution of the Metropolitan Planning Committee and attempt to operationalize the NCR (National Capital Region) planning board, both of which would help solve Delhi's problems in a larger context. The DPCC (Delhi Pollution Control Committee) and revenue department officers will penalize acts of pollution, especially in commercial, construction, industrial and institutional areas. The government will conduct local enforcement by allocating 552 environment marshals across Delhi and awareness campaigns with RWAs (Resident Welfare Associations). **Resources:** The Delhi Government has invested its political capital, policy timelines as well as financial resources to each and every item mentioned in the budget. There will be no unfunded mandates. **Capacity and Skill Building:** MoUs with organizations, think-tanks and universities working on sustainability, resilience and public health will be signed. Several research centers on health, mobility, urban development, energy and environment have and will be opened in Delhi state universities. Organizations will go through employability and skill re-training based on the future of the respective industries, especially in state-run companies.	

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The GNCTD commits to the pollution-reducing actions, with the goal of not just reaching but exceeding the National targets for reduction in particulate matter by 2025. Some other relevant initiatives that add to the policy list from above: • Reduction in open biomass burning, through higher LPG penetration in households and imposing a blanket ban, has the potential of reduction in PM2.5 and PM10 by 6% each by 2025. • Stricter enforcement of standards in Industries through continuous monitoring, along with a 100% switch from solid fuels to gaseous fuels. • 24x7 electricity supply resulting in 90-95% reduction in usage of DC (diesel generator) sets, which has the potential to reduce by 2% each PM2.5 and PM10. (Source – Source Apportionment Study by TERI, 2018). GNCTD will pursue air quality for public health as a theme with sustainability, monitoring and abatement as key action areas to improve city emissions and citizen healthcare outcomes. Some of the strategies outlined in the Green Budget have also been incorporated in the State Action Plan for Climate Change (SAPCC) in Delhi. Once an updated Source Apportionment study is completed and the GHG inventory is in place, data will be used to formulate a Climate Action Plan involving strategies and projects which also address particulate matter emissions.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	With 40 continuous air quality monitoring stations, Delhi has the most robust city-level air quality monitoring infrastructure in India, and among the best in Asia. GNCTD will build an open disaggregated stack of air quality monitoring and evaluation that will combine efforts of state, market, civil society and academia. This will include the following: 1. Hyper local monitoring of a select area in the city, based on the London hyperlocal monitoring model, from the EC Fund by 2020 and implement the initiative by 2024 with DPCC and IIIT Delhi. 2. Run student programs on low-quality AAQMS and run challenges and competitions in the research, analysis and communication of air quality data, and also, develop a pollution forecasting model for the city and its decision makers. 3. Start a real-time open data initiative around air quality at IIIT Delhi with DPCC in Environment, EEREM Cell in Power and DTC in Transport, coordinated by UD Department.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The City is working with C40 to estimate the benefits of Air Quality actions, collect relevant health and air quality data, and identify the air pollution mitigation actions that needs to be further researched. The city also has collaborations and linkages with entities such as CSIR: CRRI, Lungcare Foundation, EPOD Harvard, EPIC UChicago Center, IIT Delhi, IIT Bombay, CSTEP, CSE, Chintan, C40, WRI and Shakti Foundation in Delhi, all of which work on public health or air quality or issues of science, technology, sustainability, governance and policy.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The Chief Minister of Delhi has recently announced an air pollution mitigation plan as a means to involve the citizens of Delhi as change agents in the fight against pollution and to prepare the city for the upcoming winter season: • Odd Even, the road rationing scheme, will be implemented across the city. Past implementation of odd-even policy in winter months have brought down particulate emissions by 14-16% as per a study by Energy Policy Institute at the University of Chicago. • Community Diwali Laser Show will be organized, open spaces for fire-cracker burning have been identified to prevent residential area pollution, and pollution masks will be distributed at scale. • In order to control dust on roads, the frequency and area of water sprinkling will be increased. Sweeping the roads will be completely mechanized and will collaborate with Municipal Corporations of Delhi. • Special plans will be devised to deal with the 12 identified pollution hotspots in the city. GNCTD will launch 'Delhi Tree Challenge' which encourages individuals to plant saplings in and around their houses. The government plans to home deliver the sapling free of charge to the homes of the residents who intend to participate in the challenge.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The Department of Environment, GNCTD, along with C40 and other organizations, plans to take up the following activities– 1. Building GHG inventory with C40. 2. Agreement with World Bank to create air pollution forecasting model and University of Washington on Real-Time Source Apportionment Study. 3. Collaborate with national and international universities and labs of repute to build a full-stack regularly updated emissions inventory and start a centre for sustainability to work on these issues.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The GNCTD will work with the following bodies to implement the Air Quality initiatives: 1. Government of UP, Haryana and Punjab on agricultural stubble burning and industrial pollution. 2. Government of India for coordination and follow-up.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Financial Support, Budgetary Allocations and Outcomes from Climate Allocations
Exemplars from Budgetary Allocations and Projects

(1 USD = 70 INR, 1 crore = 10 million, Delhi has approx. 20 million population in 1492 square kilometres)

Delhi is among the few cities in India with an annual surplus budget. The annual budget has grown sharply from US$ 4.4 billion in 2014-15 to US$ 8.6 billion in 2019-20 and is the major source of funding for all city commitments.

In addition, GNCTD has created two funds based on the "polluter pays principle" and has a mandate to use these to promote sustainable mobility and improve air quality in the NCT.

• Environment Compensation Charge (ECC) is levied on all commercial vehicles entering NCT and the corpus of the fund stands at INR 1100 crore (US$ 157 million) currently. The ECC will be used to exclusively to augment public transport and to create non-motorized transport facilities in the city.

• Air Ambience Fund: A fixed amount is levied on every litre of diesel sold in the city, which accrues to this fund. At present, around INR 40 crores (US$ 6 million) is collected annually.

Delhi © tushar-arora

Dubai

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Dubai Municipality will update the baseline levels and the monitoring network is continuously being assessed and will be updated/expanded when necessary. The Dubai Air Quality Strategy 2017-2021 Strategy which sets the air quality targets in line with the UAE National Agenda of 90% clean air days based on National AQI by 2021. The strategy will be evaluated and updated with targets that will drive towards achievement of WHO guidelines
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The comprehensive Air Quality Management Information System, which includes emission inventory of sources across all sectors, will be updated. PM characterization and source apportionment for air pollution will be undertaken to determine the contribution of each significant source, and determine the contribution ratio of anthropogenic and natural sources. This analysis will help identify additional local measures required to enhance air quality. Additionally, DMSAT-1 will be launched in January 2020 that will provide PM2.5 and PM10 satellite data which will support studies and policies on PM reduction. Dubai Air Quality Strategy is annually assessing the impacts of various strategies, programmes and initiatives to the air quality in Dubai. While the air quality strategy will include a range of strategies, some examples of measures intended to be taken by 2025 include: • Increased capacity of Mohammed bin Rashid Al Maktoum Solar Park - 2863 MW by 2023. • Dubai's Green Mobility Strategy – increasing penetrance of electric vehicles in city owned and private fleets. Mandatory enforcement of Euro 5 vehicle engines by 2022. • Enforcement of IMO's (International Maritime Organization) new 0.5% global sulfur cap on fuel content from 1 January 2020, lowering from the present 3.5% limit.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Dubai Municipality will work with Federal and local authorities in updating, developing and implementing regulations
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	a. Dubai Demand Side Management Strategy (DSM) – Eight programs to serve the demand reduction targets through engaging key stakeholders with a clear road map targeting 30% reduction of Dubai's water and electricity consumption by 2030. At the end of 2018, DSM programmes had saved 4.5 TWh of electricity and 6.7 billion imperial gallons of water. As an example, program 8 (Shams Dubai) consists of an initiative that encourages household and building owners to install PV panels to generate electricity. b. Dubai Green Mobility Strategy - accelerates the uptake of hybrid and electric vehicles targeting a penetration of 10% of Hybrid and EVs in government fleet by 2021. To attract private owners, a set of incentives has been implemented some of which include: • Exemption of parking fees in designated spaces for Electric Vehicles by Dubai Roads and Transport Authority. • Provision of green loans and benefits to the EV/Hybrid purchasers by the Local Banks i.e. Emirates National Bank of Dubai. Free-charging on Dubai Electricity and Water Authority's public electric vehicle infrastructure for private vehicles. c. Dubai Clean Energy Strategy 2050 sets targets of 25% clean energy by 2030 and 75% by 2050. Dubai operates 413 MW Solar Plant with additional 1,750 MW awarded to be commissioned in 2019, 2020 and 2021.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Dubai will continue to expand its network of fixed and mobile monitoring stations. A plan is in place to install a network of low-cost sensors to supplement the reference stations. The publicly available air quality online platform which reports the real-time air quality data is continually enhanced and marketed.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and	Dubai Municipality will collaborate with the health authority and other relevant entities to address health impacts of air pollution. This is a priority risk requiring detailed assessment and action plan as identified in the Dubai Climate Change Adaptation Strategy. Separately, the Dubai Health Authority is currently undertaking a study to assess the impact of air pollution on public health.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Dubai Municipality is developing an air quality online application which will provide real-time and forecasted air quality data, issue pollution alerts and advise public on health implications. Dubai Municipality will continue to conduct a number of air quality awareness campaigns such as the annual Car-Free Day.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The online emissions inventory submission platform of the Air Quality Management Information System will be updated to cover all sources across Dubai sectors. Data collected will serve as input to the built in air dispersion models. Inventory, monitoring and modeling tools will be available to analyze air pollution in the city.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Dubai will work with and support the Federal authority in its efforts to control emissions from outside the city.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Actions will get financial support from government budgetary allocations.

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Establish by 2022 baseline air quality levels in hotspots, non-industrial areas, traffic congested areas, areas affected by biomass burning, rural areas, as well as background concentrations of pollutants. Develop Quality Management System for Ambient Air Quality Monitoring and procure new instruments for existing air quality monitoring station. Initiate low cost sensor programmes to fill in gaps and ensure adequate spatial and temporal coverage of AQM Network for O3, BTEX (benzene, toluene, ethylbenzene and xylene), PM, SO2 and NOx. Establish baseline levels for three-year periods up until 2025. • By 2025, meet the current National Ambient Air Quality Standards of 20µg/m3 annual average city wide. • By 2030, the country's NAAQS are met, which means a PM2.5 ambient standard of 15µg/m3 annual average city wide. While the city aims to meet the WHO guidelines by 2035, the city will periodically revisit these timelines to determine whether these can be met sooner.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	By 2023, the city intends to focus emission reductions on industrial sources then followed by biomass burning and freight-related emissions. Emission reduction policies, action plans, and prioritisation will be based on information from emission inventories and ambient monitoring for source apportionment. The first phase is to deal with industrial, followed by biomass and freight. For industrial emissions the city aims to ensure industries comply with new plant standards which come into place in 2020 which are much stricter than current standards. Vehicle emissions will be tackled by vehicle emission testing. Sugarcane burning emission can be dealt with by initiating a process to discontinue allowing commercial farmers from burning (only 10% currently green harvest).
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Ensure industrial compliance with Minimum Emission Standards by June 2021 by evaluating compliance of all industries annually. • Use cost benefit analyses to gauge air quality improvements and to drive air quality improvements by continuously measuring and calculating benefits annually. • Build strong compliance monitoring and enforcement capacity in institutional arrangements. • Traffic emissions modelling capacity to be developed within city by 2021. • Ensure all tank farms in South Durban Basin for volatile organics have floating roof tanks with double seals. Continuously evaluate best practice and best available technology to minimize VOC emissions in tank farms and refineries. • Increase capacity for pollution control officers to deal with open burning and biomass burning in eThekwini through enforcement of bylaws.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	• Develop policy for prohibition of coal use in eThekwini metro by 2030. • Develop low emission zone concept policy by end of 2021 for inner city for implementation in 2030. • Improve walking and cycling capacity within city during low emission zone introduction. • Supporting dry harbor project to limit heavy motor vehicles that come to harbor. • Evaluate compliance with dust control on developments through participation in environmental impact assessment. • Expansion of electrification so that 100% of homes have access by 2030. • Introduction of low or zero emission public transport. • Proactively rehabilitate any illegal waste dumping and any abandoned waste and improve in enforcement capacity. • Actively deal with fugitive emissions through investigating best practice and evaluating best available technology with other international partners. • Align air quality actions with climate actions plan.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Ensure that all National Air Quality Indicator (NAQI) Ambient Air Quality Monitoring stations report to South African Air Quality Information System in real time. Development of an air quality web page on the Durban website for reporting of ambient air quality data and to allow stakeholders to log complaints and request air quality data.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Update a 2004 health study and establish an air quality-related health baseline within the eThekwini metro. Project to begin June 2020 and run until June 2022, subject to adequate funding being made available. Funding being currently sought from Province, national and international sources. Establish health economics of Durban by end 2023.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Ensure adequate spread of low cost sensors for traffic and other air quality hotspots and for information to be displayed on city air quality website, with National Air Quality Indices and relevant colours by 2023.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Develop by June 2021 bottom up emission inventories for all sectors (i.e. heavy industry, light industry, commercial, biomass and freight) for the five pollutants. Continuously update emission inventories at least every two years, and model emissions to determine areas of worst impacts. Model emissions using relevant software.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Advocate for provincial air quality management forums to take place quarterly and present background air quality results to platform. Attend national working group 2 and Lekgotla and deliberate on impacts of transboundary air pollution.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Human capital expenditure to ensure all functions are adequately staffed.

Capex for replacing instruments and procuring low cost sensors.

Operating expenses for maintenance of network, training of technicians, modelling software, development and maintenance of AQ website and attending the various platforms for information gathering and advocating.

Operating budget to be made available for Health Study.

Ekurhuleni

SIGNATORY SINCE 2022

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline levels

Establish **by 2024** 1) city-wide baseline air quality levels and 2) background concentrations of pollutants. Expand the Air Quality Management System within the region, for ambient air quality monitoring, and upgrade the existing air quality monitoring network. There are currently 10 reference grade monitoring stations and the city will maintain and upgrade these stations in the 2022/23 financial year.

By 2024 the city plans to introduce a lower-cost monitoring program to provide real time data within identified areas of concern.
Utilising existing data from the current 10 reference grade monitoring stations the city will establish baseline levels for the upcoming three-year periods 2022-2025.
Overall reduction in GHGs emission by 20% by 2030 from the established baseline.

Ambitious Reduction Targets for Air Pollution

The city will set ambitious air pollution reduction targets in the following way:

For $PM_{2.5}$

• **Meet** the current National Ambient Air Quality Standard of 20µg/m3 annual average by **2030** city wide.

• Ensure that the NAAQS is met and work **towards meeting the WHO Guideline interim target 3** by 2035 - which means a $PM_{2.5}$ ambient standard of 15µg/m3 annual average city wide.

• **Meet** the current National Ambient Air Quality Standard of 40µg/m3 annual average by **2030** city wide.

• Ensure that the NAAQS is met and work **towards meeting the WHO Guideline interim target 3** by 2035 - which means a $PM_{2.5}$ ambient standard of 30µg/m3 annual average city wide.

For NO_2

• **Mee**t the current National Ambient Air Quality Standard of 40µg/m3 annual average by **2030** city wide.

• Ensure that the NAAQS is met and work **towards meeting the WHO Guidelines interim target 2** by 2035 - which means a NO_2 ambient standard of 30µg/m3 annual average city wide.

For O_3

• **Meet** the current National Ambient Air Quality Standard and WHO Guideline Interim Target 2 of 120µg/m3 8-Hr average by **2030** city wide.

For SO_2

• **The City currently complies with the** National Ambient Air Quality Standard of 50µg/m3 annual average.

The targets listed above will be included in the city AQMP and other relevant policy documents that will be made publicly available within the 2023/24 Financial Year.

While the city aims to meet the WHO guidelines by 2035, the city will periodically revisit these timelines to determine whether these can be met sooner.

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

The City has numerous atmospheric emissions sources. These include, inter alia:

• household fuel combustion products,

• industrial releases,

• vehicle emissions,

• waste burning emissions,

• windblown dust from mine tailings (notably legacy Witwatersrand gold tailings),

• biomass burning emissions,

• fugitive dust emissions, agricultural activities, and many more.

By 2026, the city intends to focus emission reductions on the **identified main sources of air pollution:**

• Industrial

• Transport

• Waste

• Residential

Emission reduction policies, action plans, and prioritisation will be based on information from emission inventories and ambient monitoring for source apportionment. The first phase is to deal with industrial, followed by transport, waste and residential:

Industrial Emissions:

• Continue licensing of Listed Industrial Activities with strict emission reduction requirements; registration of Controlled Emitters requiring compulsory stack emission testing and reporting; requiring dust monitoring programmes and plans from dust generating facilities)

• For industrial emissions the city aims to pass new plant minimum emissions standards (MES) that would come into effect in **2023.**

• There are currently 201 licensed industries that are being monitored for compliance with air quality licensing requirements. It is envisioned that by 2025, the compliance profiles of all industries within the city will be known. Post 2025, inspection will be extended to include new industries in the city.

Transport:

• By 2025 the city will have in place a parking restrictions policy with accompanied transit-oriented development (TOD) and travel demand management (TDM) initiatives. The implementation of this policy would ensure that the City implements parking restrictions for new developments, placing a maximum on the number of parking spaces that can be constructed per square metre of gross leasable space. The City will further implement paid street parking in heavily congested areas, at a price that promotes vehicle turnover, carpooling, and public transportation.

• The city is introducing the Harambee Bus Rapid Transit (BRT) System, including a dedicated 286km within the city. This program will be rolled out by 2025.

• The City encourages and works with O.R. Tambo International Airport to pursue and achieve its goal of carbon neutrality by 2030. The possible impact of this measure assumes that the airport achieves its goal of carbon neutrality by 2030. Therefore, all energy used within operations and buildings in the airport is considered carbon neutral, either through replacement with renewable sources or through the purchasing of carbon offsets.

Waste:

• Proactively **rehabilitate 112 (1 per ward) illegal waste dumping sites** and any abandoned waste and improve in enforcement capacity **by 2023**. The aim of this programme is to ensure that waste is effectively managed in the city and that the Education and Awareness program centres on the informing communities to dispose of waste properly through the 240lt bin program of the city and move away from illegal waste burning and the fires set up by residents to burn garbage bags piled up in the street, that have contributed significantly to the increase in environmental pollution. Environmental pollution of waste dumping affects health through various effects such as, congenital anomalies, asthma and respiratory infection.

• By 2025, the City plans on developing and operating centralised composting facilities and would require large garden waste producers, such as golf courses and schools, to compost on site. The possible impact considers that 40% of garden waste is diverted from landfills, including from large garden waste producers, and composted. The reduction in organic waste stream to landfill sites would mean a significant decrease in the gases produced as a result of the decay of organic wastes by microorganisms.

Residential and Buildings:

• On an ongoing basis (annually), in line with the City's policy on informal settlements, the City will ensure that all declared informal settlements within the municipal area will have a 100% provision of life-sustaining minimum basic services (water, sanitation, waste & energy). This will ensure the reduction in the need for coal-based cooking and heating energy sources in these informal settlements.

• On an ongoing basis, the City will maintain a level of access of 87% to all formal households to electricity services within the municipal area on a yearly basis.

• The retrofitting of all municipal buildings for energy efficiency, this is reported on an annual basis and these energy saving alternatives reduce emissions and local pollution. Existing municipal buildings see a 40% reduction in their energy use on average annually. The City is already implementing streetlight and traffic signals upgraded with more efficient luminaires. The City has started the energy efficiency program in 2017 with all municipal buildings retrofitted with efficient lighting, solar PV installed at customer care centres (CCC) and upgrade of street/traffic lights in the City. To date 85% of all municipal buildings in the city have energy efficient lighting,4 CCC have had solar PV installed and 8,659 streetlights and 400+ traffic light intersections had already been upgraded with more efficient luminaires. The city plans to continue these priorities ensuring that by 2030 all municipal buildings, streetlights and traffic lights will have efficient lighting systems.

Energy:

• The Ekurhuleni Power Partners initiative has 30 Independent Power Producers (IPPs) provisionally appointed to develop approximately 300 MW in solar PV capacity for supply to the City. Through this program the city aims at conservatively developing 100 MW renewable energy capacity by 2030.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	The draft air quality management plan (AQMP) stipulations which still require Council ratification and the enforcement of Air Quality Management legislation, will assist in capacity and skills to achieve ambitious reduction in air pollution sources within our control. Implement the actions included in the Climate Change Response Strategy (2017), which focuses on mitigation and adaptation actions and support the just transition and green economy priorities of the city. Promote and support investment into implementation of the Green Cities Climate Action Plan (2021) that includes the city's ambitious 2030 climate change and emissions reduction targets. The Built Environment Performance Plan (2020) ensures that resilience building, effects and impacts of climate change are considered in the capital investment programmes of the city. The metropolitan and regional spatial development framework (M/RSDF) with specific priorities defined in the spatial planning landscape aims to increase densities in highly connected regions, improve traffic flows, designate regions for industrial activities and protect the natural resources of the city. Thus, ensuring that local air pollution levels are addressed and minimised.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The city will align all GCAP actions with air quality in the city to integrate and use funding and other resources efficiently in collaborative efforts to reduce GHG emissions. Aligned with the Green City Action Plan, the city aims to reduce GHGs by 20% by 2030. Within 5 years of joining this commitment, the city will ensure more monitoring and reporting for industries within the City of Ekurhuleni (CoE) through the CDM GHG inventory report as well as aligning air quality reporting with the city's GHG inventory report annually.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The City has an air quality monitoring network of ten (10) stations, five of which are part of the National Air Quality Index (NAQI) Station Network. Currently only the NAQI network is reporting to the South African Air Quality Information System (SAAQIS) which is available in the public domain. Tender process is underway to appoint a Service Provider to set up the non-operational stations to report to the SAAQIS. The City is a partner in a source apportionment study in the Highveld Priority Area (HPA) with the purpose to establish the contribution from all air pollution sources including particulate matter (PM10 and PM2.5), sulphur dioxide (SO2) and oxides of nitrogen (NOX) loading in the HPA of which the city forms part of. As part of the Study dichotomous samplers will be placed at certain existing reference monitoring stations in informal settlement and previously disadvantaged areas. The City currently has no lower-cost monitoring programme. The National Department of Forestry, Fisheries and the Environment (DFFE) is in the process of procuring lower-cost monitors to be distributed to municipalities.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The city is participating in the World Bank's Pollution Management and Environmental Health (PMEH) Program, which includes the assessment of health impacts in the larger Johannesburg-Ekurhuleni-Tshwane (JET) region.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The city has worked to raise awareness previously with vehicle emission testing campaigns, publishing of newspaper articles and joint environmental awareness in conjunction with provincial authority and our Education and Awareness Section. With the necessary financial and human resource allocations the city could continue this type of work.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The overarching aim of the World Bank Pollution Management and Environmental Health (PMEH) Program is to improve the evidence base for air quality management in the Johannesburg-Ekurhuleni-Tshwane (JET) region, in order to provide recommendations on the most effective control strategies to mitigate air pollution. This will support the city in developing properly informed air quality management plans in future, through the use of solid data and robust analytical underpinnings. As part of this work, an air pollutant emissions inventory was created for the region and comprehensive modelling was carried out. Project partners for the World Bank project include, the Council for Scientific and Industrial Research (CSIR), International Institute for Applied Systems Analysis (IIASA) and North-West University (NWU). These partners have been appointed in partnership with the Department of Environment, Forestry and Fisheries (DEFF).
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The City of Ekurhuleni is located in the eastern region of the Gauteng Province and comprises of a mixture of industrial, mining, commercial, agricultural and residential land use activities in close proximity to one another. The City is located on one of South Africa's nationally declared priority areas, the Highveld Priority Area and faces complex air quality management challenges. The City is also abutted by various other municipalities with significant emissions from similar sources, and significant human populations, and is also in proximity to the Vaal Triangle Airshed Priority Area. Atmospheric emissions from sources within the CoE thus have both local and regional scale impacts on human health and the environment, and the City is also impacted upon by regional sources in the HPA. The City collaborates with the DFFE and provincial and district municipalities in the Mpumalanga Highveld to address air pollution issues through the HPA Multi-stakeholder regional group (MSRG) & HPA implementation task team meetings and activities.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

OPEX budget is available for maintenance of existing ambient air quality monitoring network
-tender process in progress to appoint a service provider.

CAPEX budget will only be made available in the 2022/23 financial year for upgrading of the ambient air monitoring network.

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	**Action points by 2023:** • By end of 2022, derive from the business-as-usual (BAU), existing and planned (E&P), and ambitious scenarios of the Pathways model the resulting air pollutant estimates using the Pathways-AQ tool • By end of 2022, identify and initiate implementation of climate actions that help improve air quality (e.g. increasing mass public transport, improving waste management) as part of Freetown's Climate Action Plan • By 2023, initiate research, with the support of the District Health Authority and of other partners, on the impact of air quality on vulnerable communities in the City • By 2023, identify the most critical air pollutants and emission sources in terms of their magnitude and impact on residents' health, and set emission reduction targets against the 6 main pollutants in accordance with the WHO guidelines. **Longer-term action points (2023-2025):** • Extend the existing air quality assessment to cover all pollutants identified in the WHO guidelines (CO, PM10, O3), as well as emission sources so far excluded (including indoor pollution from cooking) • Establish baseline levels by setting up a system for air quality monitoring based around key locations deemed to be at risk of exceeding air quality thresholds.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The analysis based on Freetown's baseline GHG emissions inventory, combined with the relevant information collated from other sources, revealed that **on-road transport, grid electricity**, and **waste** emit the largest shares of PM2.5 concentration. Stationary energy, particularly **wood and charcoal burning for cooking**, is another significant contributor. Within the next five years, the objective is to implement measures that **reduce emissions from the identified sources of major air pollutants through targeted interventions** as outlined in this Accelerator. These interventions will leverage and build on the objectives of the Freetown City Council's policy agenda "Transform Freetown", and incorporate specific programmes and policy initiatives to be captured in Freetown's Climate Action Plan (2022), Freetown's Structure Plan (2023), and the Western Area Regional Spatial Plan (2023). Planning of these policy initiatives will include all relevant stakeholders – decision makers at the City and national level, the private sector, and communities – with the objective of working towards developing broader policies and programmes that address improvements in air quality. Interventions will be planned and implemented in an evidence-based manner, building on findings from existing and future research and data monitoring.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	**1. On-road transport** Interventions for on-road transport are underpinned by the objectives and targets set out in the Sierra Leone Medium Term National Development Plan (MTNDP; 2019-2023) and the "Transform Freetown" Agenda. Different projects are currently being developed to achieve the objectives set-out in the MTNDP, such as the World Bank funded Integrated Resilient Urban Mobility Project (IRUMP) and the Central Business District (CBD) Regeneration programme in cooperation with the City of Zurich. These projects will define interventions on air quality by providing for more sustainable and cleaner forms of transport, and will be developed by leveraging existing, context-specific research (such as the findings of the Transitions to Sustainable Urban Mobility project T-SUM, which classified potential interventions and projects in a priority-feasibility matrix[4]). **1.1 Planned interventions:** • **Develop a mass transit cable car network** which will reduce peak traffic volumes and congestion delays (queuing) by up to 30% in the City – Funding support has been requested from the Green Climate Fund to develop a feasibility study, which is to be completed by 2022 with proposals for the pilot route to be implemented by 2024 • **Establish a bus improvement corridor** along the most congested route connecting East to West Freetown – Relevant infrastructure improvements are being developed to reduce traffic congestion, and the project is expected to be completed by 2023 • **Introduce capacity policies in the inner City** by restricting the use of low-occupancy vehicles such as motorbikes and Kekehs (three-wheelers) – Among others, the CBD Regeneration programme will be leveraged to establish controlled parking zones, disincentivizing private car travel and diverting journeys to more sustainable forms of public transport. The capacity restraint for low occupancy public transport will be implemented in phases as the public transport improvement measures are implemented • **Support and promote safe walking** – Among other interventions, the CBD Regeneration programme will be leveraged to install street lighting and to implement wider footways to facilitate walking. **1.2 Additional options:** • **Identify Areas of Special Focus / 'Lower Emission Zones' in the CBD and Kolleh Town neighbourhood** (located close to the Kingtom landfill), by developing a series of policy interventions that not only address the reduction in air pollutants from traffic congestion and waste burning, but also include measures to reduce human exposure to high exceedance of air polluting substances (potential measures could include relocation of traffic queues and housing away

from areas close to waste burning and methane gas emissions)

• **Assess options to improve the vehicle fleet in the long run**, through measures such as renewal (including introduction of electric vehicles), maintenance, and fuel switch.

2. Grid electricity

• The national Government of Sierra Leone is planning to decrease the share of thermal electricity generation from 63% in 2020 to 20% in 2030, and to increase the share of large-scale hydro generation from 21% to 50% in the same time frame. A key step in reaching this objective is the replacement of the Heavy Fuel Oil power supply ship that is currently the major supplier of electricity to Freetown, which will also deliver the largest electricity-related improvement in air quality. Although it does not have formal jurisdiction over energy policy, the Freetown City Council is and will be working to **support the national Government in achieving its objectives**, for instance through advocacy and the sensitisation of communities and stakeholder groups on the importance of clean air policy.

3. Stationary energy

Providing cleaner and safer options for cooking is a key priority for the Freetown City Council, even more so after a catastrophic fire that in March 2021 destroyed over 200 houses and made more than 1,000 people homeless in the informal settlement of Susan's Bay.

3.1 Planned interventions:

• As a pilot in the context of the Enabling African Cities for Transformative Energy Access project (ENACT, implemented by ICLEI Africa), **support residents of Susan's Bay in shifting to using safe, reliable, clean and affordable cooking solutions**

- A collaboration has been initiated with a Community Based Organisation to engage residents on safer - ways of cooking, e.g. through infographics

A private service provider has been engaged to deliver gas and electricity-based cooking solutions.

3.2 Additional options:

• **Identify ways to scale** the Susan's Bay pilot to other parts of Freetown.

4. Waste

Interventions on waste are aligned with the commitment in the "Transform Freetown" Agenda to ensure that, by end of 2022, 60% of the City's solid and liquid waste is safely collected, managed, and disposed of, and 40% of all plastic waste is recycled.

4.1 Planned interventions:

• **Improve waste collection and transfer**

-Procure new vehicles and equipment
-Expand existing tricycle-based waste collection micro-enterprises

-Develop digital systems for collector and household registration for waste collection

-Improve waste collection in seven hard to reach communities and operation of four community waste sorting platforms

• **Clear 48 existing illegal dumpsites and transform them into green spaces**

• **Improve management of existing landfills**

- Build access roads as well as storage and maintenance facilities

- Manage fire risk (funding has been secured to build water holes, and requested to install pumps)

• **Enable and promote recycling and waste-to-energy solutions**

- Install materials recovery facilities (MRF) at the existing landfills: funding has been requested in the context of the WASH and Aquatic Environment Revamping Project (WASH-ERP, funded by the African Development Bank and eight other development partners); several collaborations with private sector stakeholder are being discussed

- Enable conversion of organic waste to energy and heat for commercial businesses – 40 bio-digesters will be installed city-wide

- Procure and promote recycling bins for large institutions and public spaces (e.g. streets, schools, offices)

• **Encourage behavioural change** (e.g. through education, engagement, strengthened enforcement and promotion of household-level recycling)
• In the long run, **replace Freetown's eastern dumpsite with a new sanitary landfill site,** and completely **re-engineer the western dumpsite**

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.

In its **Nationally Determined Contribution (NDC)** under the Paris Agreement, Sierra Leone committed to reducing its CO2 emissions by 5% by 2025, by 10% by 2030, and by 25% by 2050 against a business-as-usual trajectory. Freetown itself is currently developing its **Climate Action Plan** as part of its commitment to C40 Cities. Interventions to increase air quality outlined in this Accelerator will align with both of these commitments, in particular:

• **Sources of funding and technical expertise** available for climate change mitigation efforts will be leveraged to achieve air quality improvements wherever synergies are possible

• The expected **air quality impact** of delivering on Freetown's Climate Action Plan will be assessed in detail and leveraged as an incentive to increase ambition on climate change mitigation.

Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.

Currently, Freetown does not have an air quality monitoring system. The following interventions will aim to address this gap:

• **Purchase lower-cost monitoring equipmen**t (potentially leveraging funds from existing projects, such as the World Bank funded Integrated Resilient Urban Mobility Project IRUMP)

• Assess options to design, in the long run, a **permanent, end-to-end air quality monitoring system**, based around areas at risk of exceeding air quality thresholds, which collects data and aggregates it into figures accessible to the public in a manner as timely as possible.

Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.

Existing data and research on the health impacts of air pollution in Freetown is limited. The ambition by 2023 is to begin to fill this gap by **seeking collaborations** with the Ministry of Health and Sanitation, the District Health Authority, local hospitals (e.g. Connaught Hospital), universities (e.g. the University of Sierra Leone College Of Medicine and Allied Health Sciences), and other local and international research centres (Sierra Leone Urban Research Centre, University College London). New research projects will require additional funding.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The Freetown City Council has been working to increase public awareness of environmental issues, particularly through the intense community engagement process in the context of the **#FreetownTheTreetown campaign**. These existing efforts will be extended to more strongly link to health concerns, potentially leveraging projects already planned (e.g. stakeholder analysis within the CBD Regeneration programme could be leveraged to identify ways to raise awareness about the benefits of walking). Community champions, such as youth leaders on climate change or active community leaders involved in the #FreetownTheTreetown campaign, could be involved as advocates, helping maximise visibility and impact. In order to localise sensitisation efforts as strongly as possible, options will be assessed to run a pilot in the potential future Low Emissions Zone in the Kolleh Town neighbourhood.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The **air quality assessment** which has been done based on Freetown's GHG inventory, and extended through the triangulation with additional data points, will be further detailed out to include pollutants and emission sources so far excluded (e.g. fuels for cooking and water heating, small-scale industrial fuels). Additional funding and technical support will be required.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The Freetown City Council continues to work and is planning to strengthen its **collaboration with the relevant Ministries, Departments and Agencies of the national Government as well as subnational partners** (such as the neighbouring Western Area Rural District Council) to coordinate efforts to address climate change and environmental issues (e.g. on deforestation and engineered landfills).

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Resources available:

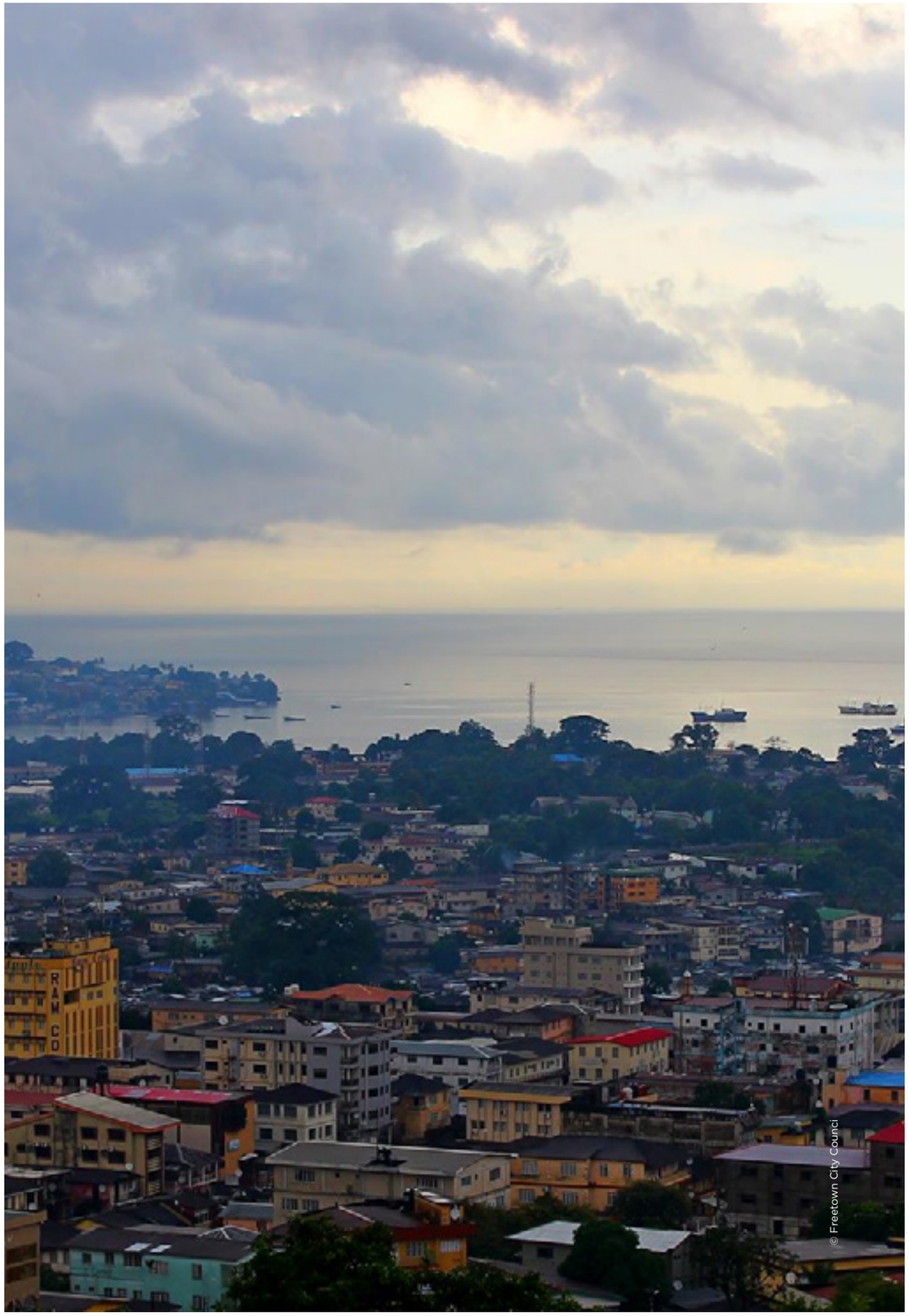
• **World Bank:** Sierra Leone Integrated Resilient Urban Mobility Project (program to improve road safety and public transport in Freetown, tackling congestion and poor air quality)

• **World Bank:** Resilient Urban Sierra Leone Project (program to strengthen the resilience of Freetown and other cities in Sierra Leone through improved urban planning, enhanced waste management, and disaster risk management)

• **ICLEI:** Enabling African Cities for Transformative Energy Access project (program working with local governments to provide safe, reliable, clean and affordable forms of energy to the residents of informal settlements in Freetown and Kampala)

Note: available resources are limited and most interventions on air quality, including on its monitoring, will require additional funding. Respective applications have been submitted to various organisations but have not yet been confirmed.

Apart from the resources available, the city is proactively seeking out and applying for additional funding sources.



Guadalajara

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Guadalajara intends to set ambitious air pollution reduction targets within two years, to put the city on a path toward meeting World Health Organisation Air Quality Guidelines. Baseline levels will be established as part of "JALISCO RESPIRA," which aims to achieve a healthy environment for all citizens of the state. The program objectives include correct measurement and interpretation of air quality data, contingency plans in case of poor air quality conditions, and work on mitigation and reduction of pollutant emissions.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The "JALISCO RESPIRA" program is being implemented as the first step to improve the current status of air quality. Guadalajara adds to the premise that the cities of the state are those that face the greatest problem of air pollution and related health effects. Sustainable Mobility: • Sustainable and low emission transport network. • School Transportation Program. • "Mi movilidad" Strengthening of the atmospheric monitoring network: • Expansion of the atmospheric monitoring network. • Implementation of technologies for dynamic collection of air quality data. • Predictive air quality system for AMG. Attention to fixed and mobile sources: • New vehicle verification program. • Technical changes and reconfiguration of the brick and ceramic manufacturing activity. Cooperation with national and municipal government agencies: • Development of PROAIRE 2020-2030. • Preparation of State Program for Response to Critical Events of Bad Air Quality. Healthy living: • Metropolitan Forest Agency • Epidemiological Surveillance System Implementation. In addition, Guadalajara works with "Ciudad Fresca," a reforestation program that seeks to reduce PM and CO concentrations, while lowering the temperature of the city.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Sustainable mobility projects (Guadalajara, metropolitan and state). Cooperate with the metropolitan institute on a future project around smart traffic lights. Cooperate with state environment agency to launch a program that measures car emissions before issuing a permit for use. The type of permit will be predicated on the emissions profile of the vehicle. The Integral Agency for the Regulation of Emissions (AIRE), a Decentralized Public Organization (OPD), will control the automobile verification centers. In addition to source reductions, Guadalajara will implement an urban reforestation program, with the goal of reducing PM as well as CO2.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS		
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Continuous improvement of the atmospheric monitoring network and of planned responses in the case of air quality emergencies.		
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	State collaboration with the municipalities and the metropolitan area.		
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	A communication plan is in place to explain the emergency response programs where social networks, parks and sports units are used.	We communicate via social media and in some parks and sport unit. We display some information about the risk of the high pollutant levels.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Guadalajara is working with C40 and with WRI as well as with other government organizations and institutions of different levels (federal, state, metropolitan and municipal) to create a metropolitan inventory of air pollutant emissions. A new air quality and health mea-	surement index is being developed in order to have more accurate measurements that really show the effect pollutants are having on the health of the city's population. The initiative focuses on generating a new index that include more health and environmental variables.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Collaborative work is done with all levels of government so that everyone acts within their jurisdiction. Some industrial emissions are generated outside of the city boundar-	ies. Also we generate a lot of vehicle emissions that go to other municipalities.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

83 million pesos as initial investment for Jalisco Respira Program actions.

Heidelberg

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT		SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	The priority indicator for air quality in Heidelberg is nitrogen dioxide. The nitrogen dioxide concentration is measured at a continuously measuring automatic station of the state measuring network (urban background value) as well as at the spot measuring point in the highly polluted road section (passive collector, annual mean value).	Heidelberg aims to reduce annual mean NO2 value by at least 20% by 2025 to ensure sustained compliance with EU limits and WHO guidelines.	**Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.**	- Decisions underway by the City Council on the procurement of emission-free buses. - Planning of the new Patrick Henry Village district as a local zero-emission, low-traffic district.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Key transportation related efforts to be implemented include: **Electrification of transport:** Conversion of the municipal service vehicle fleet and the public bus fleet to zero-emission vehicles milestone/progress metrics: 25% zero-emission vehicles by 2025 (municipal fleet); 10% zero-emission buses by 2025. **Expansion of the public charging infrastructure** milestone/ progress metrics: 150 charging points by 2020, 400 charging points by 2025. **Expansion of Heidelberg's funding programme "Environmentally Friendly Mobile":** campaign for zero-emission taxis milestone/ progress metrics: 10% share of low-emission/ zero-emission vehicles in the vehicle fleet in Heidelberg by 2025. In addition, air quality improvements will come from The Ministry of Transport Baden-Württemberg has the goal to reduce CO2 emissions by 40% until 2030 and the Green-City-Masterplan "Sustainable Mobility for the City" ("Nachhaltige Mobilität für die Stadt"). These initiatives are described in detail in later sections.		**Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.**	The Ministry of Transport Baden-Württemberg has the goal to reduce CO2 emissions by 40% by 2030. The targets to achieve this goal are: - doubling of public transport. - one third of cars carbon neutral with zero emission. - one third of freight transportation carbon neutral with zero emission. - every second journey self-active by Bicycle, E-Scooter or on foot. - car traffic in cities is reduced by one third. To realize the targets in Heidelberg, the Green-City-Masterplan "Sustainable Mobility for the City" ("Nachhaltige Mobilität für die Stadt") focuses on: - Digitalization of transport (e.g. Intelligent and environmentally oriented traffic control). - Connected public transport. - Promotion of cycling (better infrastructure e.g. bike freeways, bicycle parking stations, bicycle bridges; provide incentives (e.g. bicycle-map Heidelberg, bicycle-events, free bicycle inspections in municipal-bicycle network "Arbeitsgemeinschaft Fahrradfreundlicher Kommunen" AGFK-BW). - Electrification of transport: BEV-Buses already in use, FCEV-Buses if possible/available; electrified municipal Vehicles (BEV/FCEV, whenever possible).	- Urban logistics: Green-City-Logistics concept for inner-city freight traffic and a green last mile. Master Plan "100% Climate Protection" ("100% Klimaschutz"): Developing plans to reduce CO2 emissions by 95% and energy consumption by 50% until the year 2050
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.				

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	**Project "MeteoHD":** The collection, provision and use of environmental and meteorological data for the Heidelberg urban area serves as the basis for future modeling and emissions forecasting, providing information that includes concrete recommendations for the choice of transport mode and intelligent traffic control. The aim is to sensitize road users and motivate them to switch to the appropriate means of transport within the environmental network. The environmental and meteorological data are to be integrated into automated air pollutant dispersion models, on the basis of which intelligent traffic control will independently implement measures to reduce exhaust emissions on the main roads within the Heidelberg environmental zone. In addition, all meteorological real-time data will be freely available in accordance with the Open Data principles. Scientific studies on a broad spectrum of issues, including air pollution control, urban climate or climate change adaptation with a local and regional reference, are to be actively supported and a contribution made to networking regional real-time data. The State of Baden-Württemberg also operates monitors for NO2 and PM10.

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Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	As part of the MeteoHD project, the city cooperates with several institutes of the University of Heidelberg that work in the fields of air quality and health care.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Project MeteoHD will provide valuable data to road users on selecting more sustainable modes of travel.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Project MeteoHD includes new approaches to integrating meteorological and traffic data into air quality modeling platforms.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	In air pollution control planning, the City of Heidelberg works closely with partners in the Rhine-Neckar metropolitan region as well as with the State. Environmental Agency and the State Ministry of Transport.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Funding of different projects by the state government and the federal government, especially immediate action program "Clean air 2017-2020" ("Sofortprogramm Saubere Luft 2017-2020") of the federal government for municipalities with particularly high nitrogen dioxide pollution:

- Goal: development of sustainable and low-emission mobility.

- Funding of 10 projects in Heidelberg with a subsidy amount of 2.495.976,00 €.

Houston

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Preliminary baseline level analysis using 2018 data and monitors within 40 miles of Houston, indicate that WHO guidelines have been met for all but ozone and four of five pollutants already exhibit downward annual trends with rates between -0.029 and -0.88. Although ozone is above the WHO limit, the city is dedicated to reducing ozone concentrations and is implementing multiple new strategies to continue to reduce air pollution.

Pollutant	Metric	Value	WHO Gudeline	WHO Gudeline Met?	Percentage Over/Under WHO	Slope
PM_{10}	Annual Mean	18.6 $\mu g/m^3$	20 $\mu g/m^3$	Yes	-7%	-0.88
$PM_{2.5}$	Annual Mean	9.6 $\mu g/m^3$	10 $\mu g/m^3$	Yes	-4%	-0.029
Nitrogen Dioxide (NO_2)	Annual Mean	8.4 ppb	19.4 ppm	Yes	-57%	-0.122
Sulfur Dioxide (SO_2)	24-hour Mean (2^{nd} max)	3.9 ppb*	7 ppm	Yes	-44%	-0.15
Ozone (O_3)	8-hour Mean (4^{th} max)	100.6 ppb**	46.7 ppm	No	+54%	+2.3

* Clinton air monitor metric
** UH Moody Tower air monitor metric

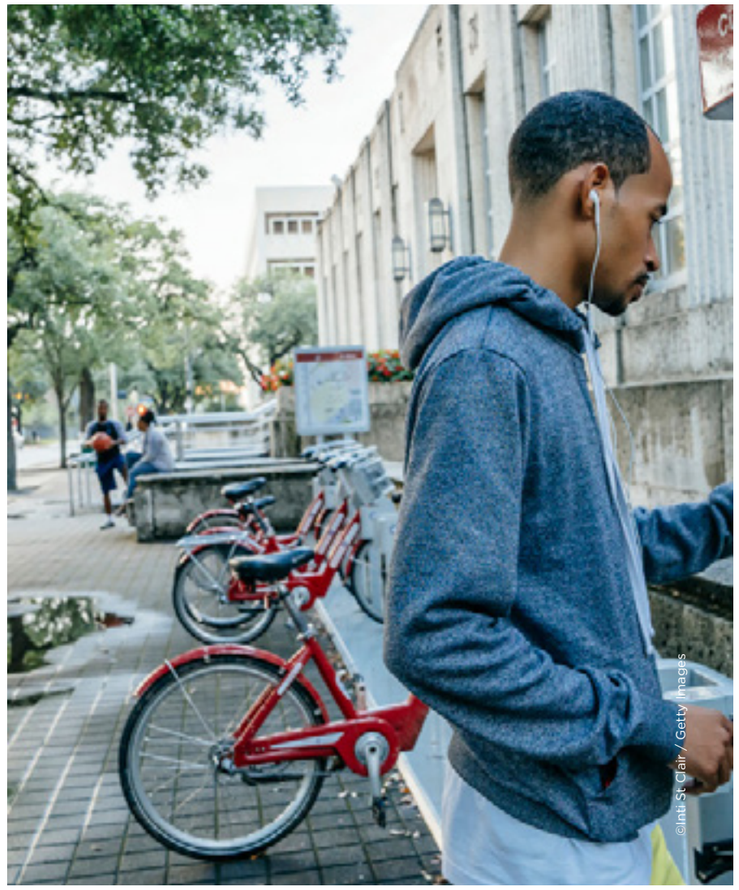
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The city plans to implement multiple new strategies to address the top causes of air pollution emissions within our city and under our control. In addition to city policies related to minimizing city-owned emission sources, the city is and will continue to support new substantive policies/ legislation that limit pollution (e.g., concrete batch plant siting restrictions) and implement new programs to detect emission events and enforce permit requirements (e.g., roll out of the Rapid Alert Benzene Information: Time Sensitive (RABITS) system; Collective Impact Project with Harris County DA to conduct surveillance outside of city limits/on weekends and during the night to document and take legal action on illegal events; municipal fleet mobile monitoring to continually passively assess permit violations).
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	The city plans to implement multiple new strategies to address the top causes of air pollution emissions within our city and under our control. In addition to city policies related to minimizing city-owned emission sources, the city is and will continue to support new substantive policies/ legislation that limit pollution (e.g., concrete batch plant siting restrictions) and implement new programs to detect emission events and enforce permit requirements (e.g., roll out of the Rapid Alert Benzene Information: Time Sensitive (RABITS) system; Collective Impact Project with Harris County DA to conduct surveillance outside of city limits/on weekends and during the night to document and take legal action on illegal events; municipal fleet mobile monitoring to continually passively assess permit violations).

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The city is currently developing the Climate Action Plan which will include the above.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The city will continue to run and manage the six TCEQ air pollution monitors in the city for TCEQ, and will post additional data on the city website, if possible, or through the Rice University Urban Data Platform (e.g., the formaldehyde data for the city's EPA community air toxic investigation, the mobile monitoring data, the RABITS analysis).
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The city will continue to partner with relevant institutions to conduct and publish research on health impacts of air pollution (e.g., the city-specific Asthma Air Aware Alerts partnering with Rice University, the metal recycler air pollution risk partnering with UT Health, the relationship between air pollution and cardiac arrest and costs partnering with Rice).
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The city will continue to raise awareness, including continued work with Environmental Defense Fund, Air Alliance Houston and Public Citizen to advocate for clean air, continued leadership on the Regional Air Quality Planning Advisory Committee, promoting the Asthma Air Aware Day Alerts on our new web-site design and on weather reports, working with METRO to provide a month of free rides for air pollution awareness and emission reductions, promoting the use of 311 to report events.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The city will continue to work with relevant institutions to ensure high quality emission inventories, models and analysis, including EPA, TCEQ and the Regional Air Quality Planning Advisory Committee (e.g., PM Path Forward Annual Report, Rice University Google Street View mobile monitoring data).
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The city will continue to work with and advocate for source control outside of our boundaries (e.g., EPA community air toxics formaldehyde grant, the Collective Impact Project with Harris County DA to conduct surveillance outside of city limits).

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The city of Houston funds portions of the investigations and scientist/engineers with the city general fund budget. Equipment to conduct surveillance is grant funded. The city currently has US Center for Disease Control funding and US EPA Community Air Toxics Funding.



Jakarta

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Jakarta is currently finalising an Air Quality Improvement Roadmap which will cover setting interim and ultimate targets to lower PM2.5 concentrations from its current level to meet WHO guidelines in 2030. This is then translated into Governor's Decree No. 1107/2019 on Air Quality Improvement Strategic Programme under which: - Dinas Lingkungan Hidup (Environment Department) will conduct a study to determine new PM2.5 standards for Jakarta before the end of 2019.	- The draft of Governor's Regulation on the Standardization of PM2.5 is expected to be done by the end of 2019. - Dinas Lingkungan Hidup (Environment Department) will install additional PM2.5 monitors at air quality monitoring stations, so all 5 monitoring sites in Jakarta will be measuring PM2.5 by the end of 2019. - Dinas Lingkungan Hidup (Environment Department) will also conduct a study on expansion and siting of additional monitoring sites to represent the entire area of DKI Jakarta by the end of 2019.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Jakarta's AQ Roadmap includes an immediate list of actions for priority under the Governor's Instruction No. 66/2019 which include the following: - To increase parking fees by 2020. - To implement a congestion pricing policy by 2021 . - To install rooftop solar panels on government-owned buildings by 2022.	- To limit vehicle age to 10 years for public buses with full implementation by end of 2019. - To limit private vehicle age to 15 years with full implementation by 2025. - To increase enforcement of industrial emissions standards.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Governor's Instruction No. 66/2019 on Air Quality Control: - To tighten emissions standards for public transportation and private vehicles by the end of year 2019. - To accelerate transition to public transportation (expansion of BRT and feeders) and the construction of pedestrian facilities by 2020. - To rejuvenate all public transportation by year 2020.	- To increase parking fees by 2020 To implement the congestion pricing policy by 2021. - To install rooftop solar panels on government-owned buildings by 2022. To implement a policy on age restriction for private vehicles above 10 years by 2025 To encourage the adoption of green building principles in all buildings in Jakarta.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Governor's Instruction No. 66/2019 on Air Quality Control describes several actions aimed at improving air quality and mitigating climate change. These policies are described in the prior section. In addition: Governor's Decree No. 1107/2019 on Regional Strategic Projects also includes measures to increase supervision and law enforcement of industrial sources. Jakarta will further refine the air quality roadmap to take into account climate mitigation actions.	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Governor's Decree No. 1107/2019 on Regional Strategic Projects: -To increase the number of air quality monitoring stations in Jakarta and to integrate 'real time' air quality monitoring system into publicly accessible application of Dinas Komunikasi, Informatika & Statistik (Comms, Informatics, and Statistics Department).	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Dinas Kesehatan (Public Health Department) will conduct a study on PM2.5 correlation and its impact on human's health in 2019.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Governor's Decree No. 1107/2019 on Regional Strategic Projects: - To provide and display public information related to air pollution control actions by year 2019.	- To form a community movement in villages that is environmentally friendly in 2019 - To prepare the development of environmentally friendly fuel supply for public transportation.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Governor's Decree No. 1107/2019 on Regional Strategic Projects: - Dinas Lingkungan Hidup (Environment Department) will conduct a study on inventory of emission profiles and make a report of GHG	emission reductions in DKI Jakarta in 2019. In 2020, Jakarta will begin development of GHG-AQ inventories.
Work with and advocate for regional, state, supranational, and national government to take action	To cooperate with the Governmental Affairs Bureau on coordination with the buffer regions government, for	example in terms of AQMS placement.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Financial resources from the city's budget (APBD DKI Jakarta).

Johannesburg

SIGNATORY SINCE 2022

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline levels

The City of Johannesburg has set baseline levels for air pollutants through the development of the 2019 AQMP, based on a 2016 air pollutant emissions inventory. Further work is being undertaken to update the data through the World Bank's Pollution Management and Environmental Health (PMEH) Study (currently in progress) that will be published by 2023.

Ensure that all eight regulatory level ambient air quality monitoring stations are operational and continue measuring all criteria pollutants per station and reporting measurements live to the South African Ambient Quality Information System (SAAQIS). Six stations are currently operational and measuring on average three pollutants PM_{10}/$PM_{2.5}$, O_3 and SO_2.

Ambitious Reduction Targets for Air Pollution

The South African National Ambient Air Quality Standards, set in 2009 were aimed at protecting the health and wellbeing of the citizenry, from the impact of poor air quality. The City has seen improvements over years; however, the current ambient air quality is still in non-compliance with the standards mainly for PM_{10}, $PM_{2.5}$, NO_2 and O_3. Therefore, the city has set the targets below to meet the national standards, while working towards meeting WHO interim targets and guidelines.

For $PM_{2.5}$

• By 2025, meet the current National Ambient Air Quality Standard of 20µg/m3 annual average city wide.

• By 2030, the country's NAAQS, as well as WHO Guidelines interim target 3 are met - which means a $PM_{2.5}$ ambient standard of 15µg/m3 annual average city wide.

For PM_{10}

• **By 2025**, meet the current National Ambient Air Quality Standard of 40µg/m3 annual average city wide.

• **By 2030**, the country's **NAAQS, as well as WHO Guidelines interim target 3 are met** - which means a PM10 ambient standard of 30µg/m3 annual average city wide.

For NO_2

• **By 2025**, meet the current National Ambient Air Quality Standard of 40µg/m3 (21 ppb) annual average city wide.

• By 2030, the country's NAAQS, as well as WHO Guidelines interim target 2 are met - which means a NO2 ambient standard of 30µg/m3 (15 ppb) annual average city wide.

For O_3

• By 2025, meet the current National Ambient Air Quality Standard of 120µg/m3 (61 ppb) 8-hour running average city wide, where the limit value of 120µg/m3 should not be exceeded more than 11 times, in order to achieve compliance.

• By 2030, the country's National Ambient Air Quality Standard is met and work towards achieving WHO Guideline level of 100 µg/m3 8-hour average city wide.

For SO_2

The City does not have a SO2 problem, the monitoring over the years has shown that levels are below the standards for daily and annual standards. The City will continue tracking the SO2 trends.

These national targets have been included in the city's 2019 AQMP that is publicly available here: https://saaqis.environment.gov.za/

While the city aims to work towards WHO guidelines by 2035 and meet various WHO guideline interim targets, as listed below, the city will periodically revisit these timelines to determine whether these can be met sooner.

$PM_{2.5}$ (µg/m^3)	Annual	10 (IT4)
PM_{10} (µg/m^3)	Annual	30 (IT3)
O_3 (µg/m^3)	8-hr	120 (IT2 & SA NAAQS)
NO_2 (µg/m^3)	Annual	30 (IT2)
SO_2 (µg/m^3)	24-hr	50 (IT3)

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

By 2027, the city intends to focus emission reductions on the **identified main sources of air pollution** as identified in the City's AQMP and will soon be confirmed through the source apportionment work done for the (PMEH programme) that is funded by the World Bank. In addition, these selected actions and interventions, intended to reduce air pollutant emissions, align with many actions stipulated in the city's CAP.

- Industrial sources,

-Domestic fuel burning,

- Vehicle emissions,

- Dust from mine tailing storage facilities

Emission reduction policies, action plans, and prioritisation will be based on information from emission inventories and ambient monitoring for source apportionment. The first phase is to deal with vehicle emissions, followed by domestic fuel burning and mine dust:

By 2027, the AQMP will be updated with clear emission reduction targets for criteria pollutants. The review will include a health risk assessment and cost effectiveness assessment of proposed intervention. This will be done in the context of the Climate Action Plan - Air Quality integration.

The City identified vehicle emissions as a source of concern and as such a Vehicle emissions Control Strategy and Action plan has been completed. The strategy provided for some actions which will result in improved emissions from vehicles. The actions mentioned below are informed by the strategy for implementation both in the short term and long term.

- Establish by **2025** a **Diesel Vehicle emissions testing programme** to test compliance of diesel vehicle emissions with the opacity test as per the Air Pollution Control By-laws.

- Conduct a feasibility study for low emission zone by 2025 and develop a **low emission zone concept policy by end of 2027** for the inner city for implementation in 2030. In addition, the city is working to initiate

lower-cost monitoring programmes and traffic counting for Johannesburg CBD and Sandton CBD to establish baseline levels of O3, PM2.5, SO2 and NOX by 2025. Targeted areas for (Low Emission Zone pilot).

- Dust from mine storage facilities to be tackled by developing a mine register and ensuring that every mine implements the environmental management plan and **Dust Management Programme by 2025 (Collaboration with Department of Mineral Resources and Energy (DMRE))**

- Household solid fuel use will be tackled by expansion of electrification households to ensure improved access to electricity. 3000 sites provided with electricity connection by 2025.

- Introduction of safe, affordable and net zero emissions energy so that 100% of homes have access **by 2050**. Other main actions that will be implemented are:

• Ensure that **all listed industrial activities comply with their minimum emissions standards** by 2027

• Improve walking and cycling capacity within the city through the deployment of expanded walkways, public transport (Bus Rapid Transit (BRT) System) and cycling lanes by **2027**. By 2030, 70% of commuters use public transport, walk or cycle as per the commitments of the city's CAP.

- design and implementation of complete streets projects at identified areas in line with program schedule (Orange Farm, Chiawelo and Turfontein) by 2027.

- Promotion of cycling as preferred mode of transport in the city, through education and awareness campaigns.

- Completion of Rea Vaya Phase 1C (a) services.

- Completion of nodal Transport Master Plans.

• Proactively **rehabilitate 2 illegal waste dumping sites (Kya Sands and Goudkoppies)** and any abandoned waste and improve enforcement capacity **by 2025.**

• 98% of all City recognised informal settlements provided with integrated waste management services **by 2027.**

• 85% of formal settlements/areas receiving weekly waste removal services **2025.**

• Optimise waste collection and treatment by 2030. 30% of waste is diverted away from landfill and incineration compared to 2016.

The City committed to the following additional actions as part of the CAP;

• By 2030 , 35% of electricity consumed will be generated from renewable energy sources

• By 2050, 90% of commuters use public transport, walk or cycle and all residents have access to safe, affordable and net-zero emissions transport

• By 2030, the City is compliant with the National Ambient Air Quality Standards (NAAQS) and aspires towards compliance with WHO standards.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Build the necessary capacity within the department for the implementation and enforcement of Air Pollution Control By-laws- the capacity to include the dedicated Diesel Emission Testing Team and tools. • Ensure that a forum is in place to track the implementation of the identified programs. • Provide training for the AQ team in advanced air quality management and project implementation
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The goals of the city's 2019 AQMP are: • Collaborate with stakeholders in developing and implementing emission reduction strategies designed towards achieving ambient air quality standards and international and domestic greenhouse gas commitments and targets. • Regulate emission sources within the City to achieve compliance with air quality requirements. • Develop and maintain a comprehensive air quality management system. Provide the appropriate capacity to deliver Air Quality Management services in a cost effective and efficient manner. • Empower and inform City of Johannesburg citizens about air quality through education, awareness and communication programs. • Support innovation and research that informs air quality improvement and decision making. Through these goals, the trajectory to improve air quality and to meet the vision of clean air will become a reality. As the AQMP is implemented, this trajectory and progress towards this mission and vision will continue to be quantified. The improvement of air quality will be supported through implementing the ambitious actions as part of the climate change agenda and will improve air quality by reducing GHG inventory-modelled emissions by 54% by year 2050, resulting in 14% less deaths from exposure to air pollution generated by sources in the city. On-road transportation actions will be particularly helpful in reducing $PM_{2.5}$ under this scenario, including both actions related to vehicle mode shift and fuel switching. As mentioned above, the city is delivering actions committed as part of the city's Climate Action Plan. This includes expanding renewables, zero-emissions energy production, expanding net-zero emissions public and active transport and achieving compliance with the National Ambient Air Quality Standards (NAAQS), with an aspiration towards compliance with WHO guidelines.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• Develop an Air Quality Management System for ambient air quality monitoring: SAAQIS Envista and Maintain View will ensure compliance with ISO standards and improve the credibility of data. Monitoring activities are standardised by the system not only in the City of Johannesburg but nationally. • Procure new instruments for existing air quality monitoring stations. The following instruments are planned to be procured in the next 3 years until 2025 to stabilise and improve the monitoring network: 3 x PM_{10} 4 x $PM_{2.5}$ 4 x SO_2 3 x NO_X 6 x O_3	• There are currently 8 reference grade monitoring stations. Six are operational, while two are non-operational due to vandalism and other security threats. By 2025, all 8 reference grade stations will be operational to improve monitoring across the City. • In addition, initiate a lower-cost monitoring program to fill in gaps and ensure adequate spatial and temporal coverage of Air Quality Management Network for O_3, $PM_{2.5}$, SO_2 and NO_X. Procure 3 lower-cost monitors in the next three years to monitor O_3, $PM_{2.5}$, SO2 and NO_X and establish baseline levels for three-year periods by 2027 for these.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• The City is currently participating in the Pollution Management and Environmental Health (PMEH) Program, project that is funded by the World Bank which includes the assessment of health impacts in the larger region that covers the City of **J**ohannesburg, the City of **E**kurhuleni and the City of **T**shwane (JET). This will shed more light on the health impacts in the region. There will be further collaboration with the national and provincial departments including research institutions to conduct further detailed studies in this space.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• The City has adopted the International Day of Clean Air for Blue Skies as a commemoration day to drive air quality awareness annually, including during the Transport month.	

Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The City will consolidate work that has been completed and further work that is currently underway; • The city developed an air pollutant emissions inventory in 2016 in preparation for the review of the city's AQMP. This was supplemented by the GHG emissions inventory developed in 2016 in preparation for the development of the city's Climate Action Plan (CAP). • There was extensive modelling done using CAMx as part of the review of the city's 2019 AQMP	• Additional modelling work, using the Greenhouse gas - Air pollution Interactions and Synergies (GAINS) model is underway as part of PMEH World Bank project. • The World Bank project includes source apportionment in addition to the source apportionment work done as part of the review of the Vaal Triangle Airshed Priority Area (VTAPA) Air Quality Management Plan.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• The city is part of a project that seeks to develop a regional AQMP for the City of Johannesburg, City of Ekurhuleni and City of Tshwane. • The city participates in the national and provincial intergovernmental structures for management of air quality which include the Working Groups, Air Quality Officers Forum and the Vaal Airshed Triangle Priority Area Multi-Stakeholder Reference Group.	• The City's air quality is influenced by cross-boundary emissions which also include two nationally declared priority areas, the Highveld Priority area and the Vaal Triangle Airshed Priority Area which includes the Southern part of City of Johannesburg. There is alignment between the City of Johannesburg's AQMP and the VTAPA AQMP to the extent that both have the same objectives and the same sources are managed by these AQMPs.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

- R 10 million CAPEX for upgrading of air quality monitoring stations
- R1,57 million OPEX for Repairs and maintenance
- R 1 million Contracted services budget for program implementation

Lagos

SIGNATORY SINCE 2022

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

By 2023, Lagos will establish city-wide baseline levels for air quality and reduction targets for air pollutants. Lagos will also aim to meet the Nigeria National Ambient Air Quality Standards (NAAQS)[5] and WHO guidelines which are set for priority pollutants, to protect public health and the environment. To do so, the city will take action to manage priority pollutants i.e. particulate matter (PM), ozone (O_3), nitrogen dioxide (NO_2) sulphur dioxide (SO_2) and carbon monoxide (CO), which also have health impacts on the residents. The following table illustrates the ambient air quality standards in Nigeria.

Pollutant	Standard Limit	Averaging Time
Particulates	250 $\mu g/m^3$	1- hour
Sulfur oxides (Sulfur dioxide)	0.01ppm (26$\mu g/m^3$)	1- hour
Non-methane Hydrocarbon	160 $\mu g/m^3$	3- hour
Carbon monoxide	10 ppm - 20 ppm (11.4 $\mu g/m^3$ - 22.8 $\mu g/m^3$)	8- hour
Nitrogn oxides (NitrogenDioxide)	0.04 ppm - 0.06 ppm (75 $\mu g/m^3$ - 113 $\mu g/m^3$)	1- hour
Photochemical oxidant	0.06 ppm	1- hour

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

To tackle emissions and related air pollutants, the city commits to address the top causes as follows.

By 2026:

The city intends to focus emission reduction on the main sources of air pollution identified based on the 2015's GHG inventory including vehicular emissions, industrial sources and power generation (stationary sources), landfills, and cooking fuels (kerosene, firewood and charcoal).
The city will develop emission reduction policies, action plans and prioritisation which will be based on information from emission inventories and air monitoring, as well as source apportionment.
The first phase is to deal with transport (vehiculars) followed by stationary energy (industrial and residential) and waste (landfills) emissions.

• For vehicular emissions:

- Expansion of the BRT network by 2026 with secondary axis and additional lines,

- Construction of four bus terminal gateway hubs,

- Deployment of low-emission buses as a pilot by 2025,

- Encouragement of the shift of freight from road to rail (Non-Electric Rail),

- Replacement of old vehicles with more energy efficient ones by 2025,

- Improvement of fuel quality to align with applicable standards and regulations,

- By 2025 tightening the regulations on vehicle emission technology.

- Improve the walking and cycling infrastructure by 2025 and increase the share of cycling in order to bring about reduction in the demand for personal motorised vehicle travel and help to alleviate the critical traffic challenges the State faces. (Non-Motorized Transport Policy).

- The city will plan a pilot for introduction of low or zero emission public transport by 2026.

- Develop a low emission zone concept policy for inner city implementation in 2030.

• For industrial and residential stationary emissions:

- The city will by 2026 enforce a campaign to install solar photovoltaic (PV) systems on buildings,

- By 2024 campaign to install Solar PVs in schools, hospitals and continue working towards an effective installation in residential buildings.

- Develop policies that promote decentralised renewable energy generation to improve grid stability,

- Reduce emissions in the residential sector by promoting the development and massive use of energy storage technologies and incentivizing the deployment of micro-grids in off-grid urban communities.

- By 2026, increase uptake of gas (LPG) for cooking to reduce the use of biomass while continuing to sensitise residents on clean cooking technologies

Other main actions that will be implemented are:

• For landfills:

- Proactively rehabilitate three illegal waste dumping sites and any abandoned waste and improve in enforcement capacity by 2025.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Data from Lagos' GHG emission inventory imply that the stationary energy, transport and waste sectors contribute 55%, 25% and 20% of total emissions (26,443,657 t.CO2e) respectively. These emissions likely account for a significant portion of air pollution and have been linked to respiratory disease, in addition to the actions described above, the city is determined to implement bold supportive actions: • The Lagos Computerised Vehicle Inspection (LACVIS) will introduce vehicle testing technologies and undertake computerised vehicle inspection services in the city. • Enforce vehicle emission testing in compliance with international best practices and standards. • Develop policies that promote the use of decentralised renewable energy in collaboration with the Federal Government to improve grid stability. Lagos State Tree Planting Policy for carbon sink. The implementation of this policy will help to improve climate, air quality, health as well as strengthen adaptation capacity of residents to urban heat in vulnerable locations of the city.	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The State has embarked on; • Integrated intermodal transport system comprises Mass Transit, Light Rails and Ferries. • Computerised Vehicle Inspection Services through the Ministry of Transportation with Lagos State Environmental Protection Agency (LASEPA) commenced Vehicle Emission Test in 2017 in compliance with international best standard practice to control vehicular emissions. • Implementing E-Government to reduce traffic, through minimising daily commutes. • Increase green parks to mitigate the urban heat island effect. Indeed, the shade provided by urban trees reduces energy demand and indirectly contributes to improved air quality. In addition, increasing green spaces will help address air pollution by acting as a barrier against dust waves.	

Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• The city will continue to work with strategic partners including World Bank, PMEH, C40, etc. to maintain monitoring throughout the city and surrounding regions as needed and make air quality data available for residents on accessible platforms.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• The State will design a framework for data reporting and collection in conjunction with the Federal Ministry of Health, Lagos State Ministry of Health and relevant stakeholders to ensure the data collected can serve multiple purposes and have a greater potential for wider use and benefit on the health impacts and air quality improvements.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• Introduction of educational programs through all media, TV, radio, and social media channels and translation into local dialects. • Introduction of air quality issues in environmental clubs in schools and as part of the educational curriculum.	• The city will improve the use of 5Rs (reduce, reuse, recycle, recover and refuse) for a better waste management system.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• Collaboration between state, academia, NGOs/CSO and developmental partners around pilot schemes with the intention of scaling up to have air quality emission inventories.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Currently working with the Economic Community of West African States (ECOWAS) to create a regional plan to take actions to reduce sources of pollution. This builds on previous discussions about harmonisation of fuel and vehicle standards at a technical workshop co-organized by UNEP.	• Working with the Federal Ministry of Environment/ NESREA on SON (Standard Organisation of Nigeria) standardisation. • Working in collaboration with the Ministry of Energy & Mineral Resources/IBILE to advocate on the switch to gas initiative for community in the household/residential sub-sector.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Lagos State Budget, counterpart funding models, private sector donation and social impact schemes.

Lima

SIGNATORY SINCE 2019

Myriam Borzee / Getty Images

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Peru's National Air Quality Standards are defined in the "Decreto Supremo N° 003-2017-MINAM". Pollution levels in Lima and Callao are set in the "Diagnosis of Environmental Air Quality Management of Lima and Callao" developed by the Ministry of Environment. Lima aims to meet the National Air Quality Standards. While the Ministry of Environment, which is responsible for establishing the National Air Quality Standard, periodically re-evaluates regulations to modify air pollution limits, Lima will continue to work to reduce air pollution emissions to meet, and have cleaner air than required by, these national guidelines, setting the city on a path toward meeting WHO guidelines. Baseline pollution levels have already been set.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The actions that the Metropolitan Municipality of Lima will take to address the main causes of air pollution emissions are: - We will implement a low-cost monitoring network to assess the state of air quality in the Cercado de Lima. - Add catalytic converters to some of the vehicles in the Municipality of Lima's fleet, to reduce emissions from diesel combustion. - Establish policies to regulate and reduce emissions from restaurants and other commercial cooking-related chimneys, while also working with entrepreneurs to ensure compliance. - Reduce transportation emissions through work with the public transport sector, fuel switching, and emission controls. - Continue to implement the Sustainable Mobility Plan in the "Damero de Pizarro", which aims to improve pedestrian use of Lima's Historic Center. The program has actions as: • Restrict motor vehicles in some streets of the historic Center for pedestrian use only. The closure will expand year by year. • Promote sustainable mobility, implement bike path connections and install bicycle parking. - The Municipality of Lima has removed 3,715 vehicles from the streets, between 2012 - July 2019, through the PROTRANSPORTE management "Scrap Program", resulting in an estimated reduction of 111,022 tons CO2 eq. In the coming months, this program will be transferred to the new Transportation Authority for Lima and Callao (ATU).

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Prepare and enforce the implementation of a municipal ordinance that regulates chimney emissions generated by restaurants and other food businesses in the Cercado de Lima. Work together with the Ministry of Environment and the Ministry of Energy and Mines to promote the use of cleaner fuels and renewable energy and the regulation of the use of charcoal. Establish a relationship with entrepreneurs in the food preparation sector to train them and encourage compliance with the forthcoming Ordinance. Continue training operators in the public transport sector to promote the proper maintenance of their vehicles, implementation of emission control technologies and a switch to cleaner fuels. Enforce the sanction of vehicles for exceeding the maximum permissible air pollution limits, through coordination with the Ministry of Transportation and Communications and the National Police of Peru. Vehicles that emit gas and particle pollutants above the maximum allowable levels will be fined 10% of the UIT (Unidad de Imposición Tributaria). Work together with the Ministry of Transportation and Communications and the National Police of Peru to limit transport emissions.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Currently, the city of Lima is preparing its Climate Action Plan, which will describe the city's mitigation, adaptation and inclusion activities, programs and projects that will align with the Paris Agreement and local regulations.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	A low-cost monitoring network, which will include ten stations around Lima district, will be established in the Cercado de Lima, with the objective of evaluating air quality in real time. Particulate matter, gases, noise and meteorological parameters will be measured. Citizens will have easy access to this information through a web platform. The network will seek to integrate the information currently provided by different entities that have air quality stations. Additional monitoring stations may be added in the future.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	We will continue to establish and renew inter-institutional collaboration agreements with universities and companies that conduct research and innovate in the field of low-cost remote air quality sensors and emission control technologies. We are currently working with National Agrarian University La Molina, National University of Engineering and Pontifical Catholic University of Peru on low cost sensors to monitor air quality.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Continue carrying out awareness campaigns, accompanied by health campaigns with the purpose of making visible the impact of air pollution on health. Disseminate studies on the impact of air pollution on health and its associated economic cost. Disseminate and make visible the state of air quality, through the real-time air quality data of the sensors.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Continue participation in the Multisectoral Commission for the Management of the Clean Air Initiative for Lima and Callao, which is responsible for developing action plans to improve air quality in Lima and Callao. Continue coordinating with the Ministry of Environment and its attached entity, the National Meteorology and Hydrology Service (SENAMHI by its acronym in Spanish) to integrate the available information on air quality, conduct studies and disseminate them. The Ministry of Environment develops an annual greenhouse gas report, which is located on a platform called INFOCARBONO. Information on the emission and mitigation of greenhouse gases is collected and systematized here.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Financial resource established annually for the Metropolitan Municipality of Lima.

Most of the programs and projects mentioned in the Accelerator are part of the municipality's current budget. Implementation of the low-cost monitoring network is supported by C40's "Empowering Cities with data" program and the Union of Ibero-American Capital Cities (UCCI).

Lisbon

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Under the Regional Air Quality Improvement Plan, which is currently in force (published recently in February 2019), Lisbon will make the following significant reductions in concentrations starting in 2020: • PM10 ≈ 14% in annual and daily indicators (base year 2014). • NO2 ≈ 21% on the annual indicator and ≈ 16% on the hourly indicator. (base year 2014). During 2019, we also intend to update the Municipal Air Quality Improvement Plan which will reflect the same air quality goals and indicators as outlined above. The Lisbon Municipal Air Quality Improvement Plan supports fulfilment of the goals set in the National Air Strategy (ENAR 2020), including: • improvement of air quality, such as the Green Growth Commitment for 2020 and 2030; • meeting the recommendations of the World Health Organization by 2030. • aligned with the Paris Agreement, the Climate Policy that address both air pollutants and greenhouse gases (GHG) with co-benefit for air quality and climate change.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Lisbon is now in the process of developing the Sustainable Urban Mobility Plan, which aims to reduce the number of vehicles entering the city daily by 150,000. Vehicles are one of the main causes of air pollution in the city. The Air Quality Improvement Plan currently in force advocates the following measures to achieve the above goals: • Increased enforcement of the low emission zone (LEZ) in Lisbon. • Regulation of Vehicle Movement Affecting tourist entertainment vehicles in the city of Lisbon. • Relevant infrastructure changes in the city of Lisbon on offer associated with inner-city mobility.. • Improving environmental performance of captive and publicly managed fleets Measures to promote electric vehicles. • Measures to promote modal shift for public transport, including price-based changes for goods and services.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Because car traffic is one of the main contributors to air pollution in Lisbon, policies that encourage sustainable mobility will have a direct impact in the reduction of air pollution. Examples of new policies are: - New parking regulation: aims to increase parking prices in those areas well served by mobility alternatives, while providing parking for residents. With the increase in alternative mobility systems, the goal is to reduce the need of parking spaces, due to a reduction in car ownership. - Improve public transport service: greater number of public transport vehicles and drivers, and more efficient vehicles; - Reformulation of the public transport ticketing system in the Lisbon Metropolitan Area, making it much simpler and affordable for those who live in the outskirts. - Awareness campaigns: European Mobility Week, “A Rua é Sua” (on the last Sunday of each month, one of the major avenues is the city centre is close for traffic and opened for pedestrians). - The municipality welcomes and facilitates the introduction of new sharing systems that will cover the last mile of public transport, making it more attractive and competitive. - Lisbon Intelligent Traffic Control monitors the traffic in the central area of the city, aiming to improve traffic management and safety, by implementing several subsystems (centralized traffic light systems, TV cameras, radar gauges, traffic lights triggered by speed controllers and message boards). Other objectives of this system are to improve traffic conditions, speed up the maintenance of traffic lights with the activation of alarms in case of failure of equipment, improve environmental conditions and reduce energy consumption. Lisbon is also implementing a network of environmental sensors that will monitor air quality, noise, traffic and weather data, in a total of around 80 spots distributed in road sections and intersections.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Sustainable Energy Climate Action Plan (SECAP2030) has been approved by local assembly and submitted to the New Covenant of Mayors for Climate and Energy (NCoM). - Ambitious expansion of green infrastructure with up to 20% increase in 10 years (starting from 2012), 10% of new green parks already achieved (235 hectares of new green) resulting in biologically active areas for filtering and removing air pollution. - Changes in tree planting to encourage air pollution removal in the canopy. - Development of a cycling network: goal of creating 200 km of cycle lanes by 2021. - Expansion of Zero Emission Zones: it is not intended to increase the area of restrictions but rather the environmental requirements. The Reduced Emission Zone (ZER) Phase IV implementation proposal provides for tightening the type of EURO emission standards allowed and is expected to be operational by January 2020. - Work is also underway to monitor the ZER using automatic enforcement. - Pedestrian accessibility plan, to promote walking, which includes removing obstacles in the city and lowering sidewalks near pedestrian crossings. - Municipalization of bus operator Carris and improvement of fleet with acquisition of 165 natural gas buses, 15 electric buses and 30 trams. Optimization of brand (one brand for the metropolitan area), ticketing (one ticket for bus, tram, boat and train) and monthly passes (30€/ month for Lisbon; 40€/month for metropolitan area). - City Council light vehicle fleet nearly 100% electrical (>200 EVs) and 10 heavy duty electric vehicles.


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Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	To monitor and evaluate the air quality of Lisbon city and increase the quality of local data, the principal measures ongoing are: 1- Development of the Intelligent Platform for Lisbon City Management, created to share open data, evaluate air quality, monitor environmental parameters and the evolution of air pollution events. This platform combines different models, including one from operational services and other for analytics experts. http://www.cm-lisboa.pt/municipio/noticias/detalhe-da-noticia/article/plataforma-de-gestao-inteligente-da-cidade-de-lisboa (in Portuguese) https://vimeo.com/225549986 (Portuguese version)	2- An international tender is currently underway to install a sensor network to complement the existing national air quality monitoring network. A network with 80 sensors is being developed through a data supply project for monitoring Lisbon city environmental parameters. This sensor network will aid: • municipality decision makers, managers and politicians, operational force (Civil Protection, Police, Fire Brigade), experts, private and public service . • general public and volunteers. The strategy for this issue is based on the SDGs 17 goal: Global partnership for sustainable development.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Lisbon City Council (CML) participates in several consortium projects as a partner or stakeholder, face-to-face meetings, conferences, workshops, and other activities to learn, share knowledge and the work done, ongoing, planned to build back a better city related with air quality and good health and well-being. The municipality also support research and training related with the health impacts of air pollution and the benefits of air quality improvements.	Another ongoing priority is the improvement of early warning systems related to the air quality, noise, traffic and meteorological parameters relevant to global health risks. CML has been establishing partnerships with the Portuguese Society of Pulmonology to disseminate information on air quality, sources and effects of pollutants on human health. Lisbon policy is aligned with SDG Goal 11: Sustainable Cities and Communities and Goal 3: Good health and well-being.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Lisbon Municipality joined the National Air Quality Campaign “For a Country with Good Air” promoted by the Portuguese Environment Agency. This is an ongoing awareness campaign, during 2019 and 2020, focusing on 3 goals: a) “Know the air you breathe” where it seeks to provide information on how to access air quality information. b) “Choose the air you breathe” where information is sought on how we can change behaviors that lead to improved air quality; c) “Protect yourself” where information is sought on how to take action to reduce exposure to polluted air. https://por1bom-ar.apambiente.pt/ (Portuguese version)	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	At local, regional and national level, the most relevant entities already involved in this process are: APA, IPMA, CCDR LVT, AML, ANPC, DGS, Instituto Ricardo Jorge, UN-FCT, Universidade Aveiro, LNEC, IST, sectorial services of Lisbon Municipality (Environmental, Energy, Mobility, Civil Protection, Fire Brigade, Innovation, Urban Planning), Parishes, Lisboa E-Nova.	CML has been collaborating with University FCT-UNL, one of the Portuguese leading universities in air quality monitoring and management. FCT-UNL worked together with Regional Administration CCDR-LVT on the emissions inventory and the Air Quality Improvement Plan for the Lisbon and Tagus Valley Region.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	To promote a stronger policy, Lisbon municipality focus is aligning its goals, strategy, indicators and targets with other local, regional, national, EU and other international organizations, stakeholders.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

400.000EUR sub-contracting for sensors implementation.

33.000EUR/Year for sub-contracting consulting for ZER (Low Emission Zones)

55M.EUR in 2019 directly in new bus and tram fleet for CARRIS Municipal transport company in 2019 and more 65M. EUR to come in 2020-22

Municipalization of the BUS Operator – 30M€/ year (during 10 years).

Cycling Network 43M€ (until 2021)
Bike sharing 17,5M€ (until 2021)
Pedestrian Access Plan 2015-2021 – 35M€

Los Angeles

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	As part of L.A's Green New Deal (GND), the City has set a target to reach the U.S. EPA 80 ppb standard by 2025 and to meet all future compliance standards (2031 and beyond). Within two years, further consultation with C40, academic partners, and SCAQMD/CARB will inform: The development of a local, city-wide air pollution inventory, and the potential for more stringent and applicable targets the City may establish that will go further than the federally mandated thresholds.	Reviewing analysis of local air quality improvements associated with climate actions can help inform these targets
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Transportation Commitments (1) The largest source of air pollution in Los Angeles comes from the transportation sector. That's why we've set ambitious goals around transportation electrification and sustainable mode share including: • Electrifying 100% of Metro and LADOT buses by 2030. • Implementing the Los Angeles World Airports Sustainability Plan (100% zero-emission buses by 2030 and 100% clean fleets by 2031). • Implementing the Port of LA's Clean Air Action Plan (100% zero emissions cargo-handling equipment by 2030 and 100% zero emission drayage trucks by 2035) • Increasing trips made by walking, biking, micro-mobility/matched rides, and transit to 50% by 2035.	• Reducing Vehicle Miles Travelled (VMT) per capita by 45% by 2050. Deploying 100% zero emission vehicles by 2050 Over the next five years, we will be developing and implementing policies and programs that meet our targets and will make significant contributions to improving air quality in the city. These actions include: • Developing a roadmap for a Fossil Fuel Free Zone by 2021. • Adopting a citywide Mobility First Policy by 2021. • Installing 10,000 publicly available EV chargers by 2022. • Launch new iterations of the Climate Mayors EV Purchasing.

	Collaborative for transitioning city vehicle fleets to electric, including transit and school bus fleets. Industrial Commitments (2) In addition to taking on our greatest source of pollution - transportation emissions - we have set ambitious goals to reduce industrial emissions, including: • Reducing industrial emissions by 82% by 2050. • Reducing methane leak emissions by 80% by 2050 Over the next five years, key actions that will be developed and implemented include:	• Developing a sunset strategy for oil and gas extraction by 2021. • Deploying community air monitoring by 2021. • Implementing Best Available Retrofit Control Technology.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note and report on GND progress in L.A.'s annual sustainability update report.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Light-duty on-road emissions make-up the largest portion of transportation pollution in Los Angeles. In order to tackle passenger vehicle emissions, our Green New Deal advances a comprehensive plan for reducing pollution through the electrification of vehicles. A key strategy in advancing our ambitious EV goals centers on prioritizing EV infrastructure across the city, devoting over $2 million in the Mayor's budget to cover the cost of equipment and installation services. To that end: • LADWP -- LA's municipal utility -- is expanding its rebate program for residential and commercial chargers for ratepayers. • LADWP is increasing its pre-owned EV rebate program, providing $1,500 for each car applicant.	• Additional funding has also been allocated for the purchase of electric buses and charging infrastructure by LADOT and Metro. • Following its successful launch, the City is expanding the BlueLA EV car-sharing program for low-income residents. Additionally, the City is currently updating the municipal building code to require installation of EV chargers for new constructions and major re-developments, and is in the process of creating a legal mechanism that enables the installation of EV charging stations in the public right-of-way citywide, prioritizing installations in disadvantaged communities.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	L.A's Green New Deal has committed L.A. to a variety of ambitious actions intended to reduce both greenhouse gas emissions and air pollution, with a particular focus on equity. These include the expansion of our public transit system through Measure M investments (a permanent transportation half-cent sales tax), electrifying all on-road vehicles, cleaning up port emissions through an ambitious Clean Air Action Plan, reducing fossil fuel extraction and transitioning to a zero-carbon electricity grid.	Throughout the plan, actions are prioritized in disadvantaged communities, and health benefits associated with air quality improvements of key actions are quantified, demonstrating savings in terms of human health, life, and financial costs. In addition to evaluating air quality benefits in the GND, LADWP is in the process of quantifying health benefits associated with getting the city's grid to run on 100% renewable energy (results will be released in 2020).

Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	South Coast Air Quality Management District (SCAQMD) maintains four monitoring stations that track primary and secondary criteria air pollutants within the boundaries of Los Angeles city. Through additional deployments of low and medium-cost stationary monitors and mobile sensing, Los Angeles is expanding its hyperlocal air quality monitoring network, helping better understand exposure at the community levels. Regulations around petroleum extraction and refineries have also launched programs to better track emissions at these toxic point sources. Monitoring programs in Los Angeles include: • Four air quality monitoring stations (West Los Angeles, Reseda, Downtown and LAX). • Stationary and mobile monitoring in Wilmington and Boyle Heights - two low-income communities in Los Angeles, heavily burdened by poor air quality from trucks, railyards, and heavy industry (funded and mandated through state Assembly Bill 617) • Ten hyperlocal, low-cost sensors in low-income neighborhoods (Pacoima, South LA, and Boyle Heights)	• Air toxics monitoring program (led by SCAQMD) • Fence-line air quality monitors at oil refineries in Wilmington • Air monitoring of toxic air contaminants, volatile organic compounds, particulate matter, metals, and criteria pollutants at South Los Angeles oil and gas extraction facilities to characterize exposure to measured pollutants (led by CARB) The air quality data from AB 617 will be made public online by early 2020. Before the end of 2019, additional deployments will take place in the community of Watts. The goal of LA's community monitoring program is to promote community awareness and engagement around local air quality, and improve public knowledge and transparency of air quality challenges and improvements.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Health Benefits Analysis The City's own analysis, carried out in collaboration with SCAQMD and published in L.A.'s Green New Deal, looked at the mortality and morbidity benefits of key actions including 100% zero emission vehicles, 100% building electrification, and an 82% reduction in industrial emissions. In total, achieving these targets will: • Prevent 1,650 premature deaths • Prevent 660 respiratory and cardiovascular disease, and will save Angelinos $16 billion in health costs. LADWP -- the City's municipal utility -- is in the process of carrying out analysis of the health benefits of not	repowering three major natural gas generating facilities, utilizing EPA's BenMAP tool in partnership with UCLA (results expected in 2020). Oil and Gas Health and Safety Report In the summer of 2019, L.A.'s petroleum administrator released a comprehensive report examining available health literature on impacts of oil and gas emissions on nearby people. The report also includes a summary of disclosed chemicals used in the petroleum extraction process, and outlines a set of recommendations to minimize health impacts and better manage oil and gas drill sites in Los Angeles.

Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	L.A. City collaborates with SCAQMD to raise awareness of air quality through monitoring initiatives and engagements with community-based organizations to disseminate resulting data. Engagement in social media campaigns like partnering with the Coalition for Clean Air on Clean Air Day (a statewide campaign to encourage Californians to clean the air) help further push for air quality improvements such as taking alternative transportation options, planting trees and installing air filters. A developing mobility campaign will also encourage residents to take trips by transit, walking, or cycling, and the City is working to build a foundation for the development of a Zero Emissions Area.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	In partnership with SCAQMD, the City provides input into the updated regional emissions inventory through direct collaboration. Through the AB 617 process, the City has also partnered to get emissions inventories for the communities of Wilmington and Boyle Heights, and plans to carry out a citywide pollution inventory for the City of Los Angeles.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Close collaboration with SCAQMD, the California Air Resources Board, the California Department of Conservation, and the state legislature continues to be a strategy for supporting actions that reduce air pollution from sources outside of the City's control, specifically by applying for programs that provide funding for zero emission vehicles. The City also looks for opportunities outside of California to further develop its climate and air quality programs. Recently, for example, Los Angeles received an award from the Bloomberg Philanthropies' American Climate Cities Challenge. As part of that award, funds were allocated to hire a full-time staff position to carry out the Zero Emission Area pilot in Los Angeles.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Financial resources devoted to carrying out LA's commitments include:

- The Mayor's budget (for EV charging infrastructure, low-income EV car-sharing program expansion and city-fleet EV vehicle purchase)

- Measure M (a permanent sales tax for the expansion of LA's public transportation system)

- State funding (the California Air Resources Board funds investments in vehicle electrification - HVIP - and community air monitoring programs in Los Angeles - AB 617)

- Funding from grants and foundations such as Bloomberg Philanthropies

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	In September 2017, the Municipality of Madrid published Plan A for Air Quality and Climate Change. The Plan defines a roadmap for the reduction of emissions of the main pollutants and sets targets for mitigation and adaptation to climate change. The air quality targets that Madrid will work towards, include: • Complying with European and national air quality standards by 2020. • Achieve World Health Organization (WHO) guidelines for PM10, PM2.5, and NO2 by 2020
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Madrid's Plan A for Air Quality and Climate Change defines a 2017-2020 time frame for air quality related policies and a longer term (2030) timeframe for the necessary energy transition and creation of a low-emission city. It includes 30 measures focused on reducing pollutant emissions and mitigating and adapting to climate change. Road traffic is an important source of air pollution in Madrid. Plan A includes 21 measures focused on the design of a new urban mobility trajectory for the city of Madrid with 3 priority objectives: • Recover public space for citizens by reducing the presence of the private vehicles. • Promote the use of public transport and alternative, sustainable means of transport (bicycle, personal mobility vehicles, etc.) • Renovation of private and public vehicles circulating in Madrid (We take into account all typologies of private and public vehicles) primarily with Zero Emissions and ECO labelled vehicles) In the last quarter of 2019, new strategies will be developed to reduce pollutant emissions, including new measures in the mobility and residential sectors. Thus, the city is committed to developing and implementing new policies in the coming years as part of a renewed Plan A program. In the area of urban regeneration, 7 measures are aimed at minimizing the impact of the residential sector, municipal buildings, and facilities on air quality and greenhouse gas emissions, with a focus on energy efficiency and the expansion of renewable energy.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Every year the "Annual Report of the Air Quality of the City of Madrid" is published, which describes trends in air quality as measured by the city's monitoring network. In parallel, the Inventory of Pollutant Emissions from the atmosphere of the city of Madrid is also published, providing estimated emissions of pollutants from city activity. The inventory is developed using the European Environment Agency's EMEP/CORNAIR methodology. Madrid will also work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Madrid aims to implement a set of policies to improve air quality and reduce emissions from predominant sources to meet its air quality objectives. These are included in different planning documents approved by the Municipal Plenary, such as the Madrid Air Quality and Climate Change Plan (Plan A), the Sustainable Mobility Ordinance, the Protocol for Action against High Pollution Episodes by NO2 , the Taxi Ordinance, the Sustainable Urban Mobility Plan and various tax ordinances that encourage the adoption of measures aimed at improving air quality (parking with environmental criteria, tax credits for less polluting vehicles ... etc). Measures to improve air quality in Madrid can be found in: www.madrid.es/PlanA www.madrid.es/movilidad
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Through the Air Quality and Climate Change Plan of Madrid, different measures have been put in place to reduce emissions of air pollutants and greenhouse gases. These include: - The approval of the Sustainable Mobility Ordinance, a legislative key document with the aim of creating a new approach for sustainable mobility. - Creation of the low emission zone "Madrid Central.", currently under review with the objective of improving its operation. - Renovation of the municipal bus fleet (Public Transport Company EMT). During the years 2016-2019 the municipal bus company has replaced more than 1.200 existing buses with 1,149 ECO buses and 73 electric buses. In the following years, Madrid expects to incorporate at least 20 new electric buses each year. In addition, Madrid plans to open a new specific Operations Center for specifically designed for charging and repairing electric buses. - Incentives for the renewal of the taxi fleet. A new taxi service ordinance requires, as of January 1, 2018, that all autotaxi vehicles incorporated into the fleet be of the ZERO or ECO category and as of January 2025 a prohibition of the use of vehicles that are not Zero Emissions or ECO. In parallel, an annual subsidy program for the renewal fleet has been launched. - Renewal of the Municipal Fleet through the incorporation of low emission vehicles, primarily Zero Emissions. In September 2019, more than 300 electric vehicles have been incorporated to replace combustion vehicles, which cover the different municipal services. - Promotion of cycling and pedestrian mobility, electric shared vehicles, expansion of bike share and charging

	infrastructure - Increase of photovoltaic solar energy in municipal buildings - Actions to improve energy efficiency in municipal buildings	Rehabilitation of buildings, including public investments in energy efficiency and equipment improvement as part of property rehabilitation (PLAN MADRE 2016, 2017 and 2018).
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The Air Quality Surveillance Network of the Municipality of Madrid has 24 fixed stations and 2 mobile units to carry out specific measurement campaigns. Madrid routinely updates and renews the equipment and facilities of the Comprehensive Air Quality Surveillance, Prediction and Information System to ensure its highest quality. In recent year, Madrid has renovated and acquired new products (gas and particle analyzers, weather sensors, weather cabs, etc.) to ensure reliable	air quality monitoring throughout the city. The Data is recorded in real time and published on the municipal website, either in “open data” or on the Web of the Air Quality Service: http://www.mambiente.madrid.es/sica/scripts/index.php https://datos.madrid.es/portal/site/egob
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Madrid participates in different projects with the Higher Spanish National Research Council (CSIC), Polytechnic University of Madrid (UPM), Carlos III Health Institute, and others. Some examples of other projects include the Tecnaire Project, the Global Urban Air Pollution Observatory,	the H2020 CIVITAS ECCENTRIC project for sustainable mobility, the LIFE VEG-GAP, European Project H2020 - AVIATOR, and the Liquencity project
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The city of Madrid implements various actions to raise public awareness about air pollution and its possible solutions. In particular, the Department of Environmental Education develops awareness programs in schools. Examples of projects include “Educate today for a Madrid more sustainable” (Educar hoy por un Madrid más sostenible) and the “Project 50x50 of energy efficiency in schools” (Proyecto 50x50 de eficiencia energética en la escuela), STARS program aimed at promoting	the active mobility of schoolchildren. The Plan A includes an air quality awareness campaign including announcements in the media, social networks and municipal advertising circuits. The MADRID SALUD agency has also developed campaigns and action protocols aimed at the most vulnerable groups to reduce their exposure in episodes of high pollution.

Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The Madrid City Council collaborates with a team of experts from the Polytechnic University of Madrid (UPM) in the methodological review and development of an annual inventory of air pollutants and greenhouse gases in the city of Madrid, including conducting specific studies from sources such as emissions from the circulating fleet or residential air conditioning systems. The Madrid City Council also collaborates with institutions such as the Carlos III Health Institute, the State	Meteorological Agency (AEMET) or the Higher Council for Scientific Research (CSIC), Center for Research in Environmental and Technological Energies (CIEMAT). The air quality impact of the different emissions reduction measures is modeled and evaluated by a team of experts from the Polytechnic University of Madrid.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	The Madrid City Council encourages collaboration with other administrations and relevant entities through: - The Madrid City Air Quality Commission, whose main function is to coordinate actions and the exchange of information between relevant administrations - Participation in various tables and coordination forums with the Autonomous Community of Madrid, Ministry of Ecological Transition, General Directorate and Ministry of Industry, Tourism and Commerce, among others.	- Active participation in the Spanish Federation of Municipalities and Provinces. - An Agreement has been signed with the State Meteorological Agency (AEMET). for the development of joint activities that contribute to improvements in the observation and prediction of meteorological phenomena that influence the air quality and climate in the city of Madrid.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

- Municipal budgets
- European funds (LIFE Programmes, H2020)

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Medellin's air quality goals are set through its Comprehensive Air Quality Management Plan in the Aburra Valley – PIGECA (Plan Integral de Gestión de la Calidad del Aire del Valle de Aburrá), which is part of Metropolitan Agreement No. 16. These goals are established based on measurements from air quality monitoring stations, which set baseline levels for the city. The goals are as follows: **Goal** / **$PM_{2.5}$ - Annual** / **PM_{10} - Annual** / **O_3 - 8 hours** 2023 / 31 μ/m^3 / 53 μ/m^3 / 85 μ/m^3 2027 / 26 μ/m^3 / 48 μ/m^3 / 78 μ/m^3 2030 / 23 μ/m^3 / 45 μ/m^3 / 72 μ/m^3 We have set air quality goals that meet or exceed WHO interim target 2, which will set us on a path to meeting WHO air quality guideline levels as soon as possible. Medellin aims, through actions the city is taking, to meet these guidelines by the dates specified, but will also endeavor to meet full WHO guidelines by working with national and subnational agencies and local authorities, as well as the Intersectoral Commission of Air Quality (formed by Law 1972 of 2019), to address sources that are out of direct city control.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	• Metropolitan Agreement No. 16 of 2017 - By which the comprehensive air quality management plan in the Aburra Valley - PIGECA is adopted, and other determinations are made. • CONPES 3934 of 2018 "Green Growth Policy" – Whose objective is to boost the country´s productivity and economic competitiveness by 2030, while ensuring the sustainable use of natural capital and social inclusion remain compatible with climate • CONPES 3943 of 2018 "Policy for the improvement of air quality" – Whose objective is to reduce the air pollutants concentration that affects the health and environment. • Law 1972 of 2019 – By which the protection of the rights to health and healthy environment is established, setting up measures aimed at reducing pollutant emissions from mobile sources. • Municipal Agreement 58 of 2017 - Through which public electric transport is promoted and encouraged in the Municipality of Medellín • Law 1931 of 2018 – By which guidelines for climate change management are established
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Currently, the Municipality of Medellín is working on actions such as: 1) Soot-free buses, trucks and passenger vehicles. We have a massive electric transport system, with 64 buses, 12 trams, 80 trains, 5 built cable cars and one in construction; as well as 200 electric taxis and 77 natural gas buses. 2) Import standards for cleaner vehicles. 3) Production standards for, and import of, cleaner fuels. Ecopetrol currently distributes a diesel of 8 ppm of sulfur when the norm establishes that it must be below 50 ppm. For gasoline, we have 95 ppm of sulfur when the standard establishes less than 300 ppm. 4) Improvement in public transit systems, dedicated transit and rapid bus transit. We have converted 36% of the city's public transport bus fleet to vehicles with clean technologies (1319 vehicles). 5) Emission standards for vehicles and fuels. 6) Creation and expansion of pedestrian and cycling systems. We will deliver an additional 80 km of built bike paths, plus 2000 bicycle parking lots. 7) Creation of urban gardens and green spaces. We have developed 30 green corridors (winner of the 2019 Ashden Award).
	All of these actions are based on the following regulations: Metropolitan Agreement No. 16 of 2017 - PIGECA, 2) Conpes 3934 of 2018 "Green Growth Policy", 3) Law 1972 of July 18, 2019, 4) Municipal Agreement 58 of 2017.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The city is currently in the formulation of the Climate Action Plan, which will include all pollution reduction actions that are within the city and under our control.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The Mayor's Office of Medellín and the Metropolitan Area of the Aburra Valley, with support from EPM (Empresas Públicas de Medellín) and ISAGEN , has the SIATA project - Early Warning System of Medellín and the Aburrá Valley, which is a regional strategy for risk management responsible for monitoring the city's environmental conditions, to strengthen data-based decision-making. Data from the monitoring stations has been available since 2016 and can be viewed at the following link - https://siata.gov.co/siata_nuevo/.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Headed by the Secretariat of Health, four projects on the environmental burden of air pollution, its economic costs, its determinants and other related aspects, have been underway since 2017. The projects are financed by Colciencias, and conducted in collaboration with universities and research groups. Another program, REDAIRE, brings together academic and government entities, to monitor health effects of air pollution. There is also an environmental health surveillance protocol, focused on the effects of air pollution on human health, which began as a pilot in 2018, and is now being implemented as part of health surveillance efforts in 2019. This protocol aims to "Establish the guidelines for environmental health surveillance of health effects related to air pollution, through the process of collection, notification, analysis and dissemination of data to guide the promotion, prevention, mitigation, correction and adaptation measures for the municipality of Medellín ".
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The Secretary of Environment of the Mayor's Office of Medellín, through the Under secretariat of Environmental Management (Decree 0883 of 2015), has as its function: "Establish the guidelines that guide the management of environmental education through joint and coordinated actions with the different actors who have responsibilities and competencies in education and environmental culture". To achieve this, the Secretary campaigns in educational institutions to promote the care of
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The Metropolitan Area of Aburra Valley periodically produces Atmospheric Emissions Inventories, which can be found here: https://www.metropol.gov.co/ambiental/calidad-del-aire/Paginas/Herramientas-de-gestion/Inventario-de-emisiones-atmosfericas.aspx The climate action planning process that the city is undertaking with C40 will produce an Inventory of Emissions of Basic+ Greenhouse Gas Emissions (base year 2015).
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Law 1972 of 2019 establishes measures aimed at reducing air pollutant emissions from mobile sources that affect the country as a while, with the goal of protecting life, health, and the ability to enjoy a healthy environment. This law creates an Intersectoral Commission of Air Quality, in all municipalities and districts, which must be chaired by the highest local or departmental authority. The commission must be composed of the authorities of transport, environment, health, mines and energy, and planning, or other relevant agencies.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Currently, the Municipality of Medellín is in the process of a change in administration. More information about the resources needed to fulfill the commitments of the Clean Air Accelerator will be available in 2020.

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Approval of the "Air Quality and Climate Plan (AQCP)" as a tool to reduce air pollution, contribute to climate change prevention and define adaptation strategies. The AQCP will be submitted to the approval of the City Council in 2019. The approval process is expected to finish by the end of 2020. Based on current levels, the Plan will establish reduction targets for the main air pollutants, with reference to the national/EU Limit Values and WHO AQ Guidelines, and of CO_2.	The 'Air Quality' part of the Plan will set as a deadline the year 2025, in order to meet the national/EU Limit Values in the shortest possible time and put Milan on a path towards meeting WHO Air Quality Guidelines. The AQCP's vision is to make Milan a carbon neutral city by 2050, but the plan also sets intermediary targets aiming to reduce CO2 emissions of 45% by 2030.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	With the approval of the "Air Quality and Climate Plan", planned actions will continue to be implemented and new actions identified in the Plan for the achievement of 'Air Quality' objectives will be realized. The AQCP will build on existing local and regional regulations and plans, such as the "Sustainable Urban Mobility Plan" and the "Regional Air Quality Plan", and will establish bans for major local polluting activities with the introduction of the "Air Quality Regulation". The "Air Quality Regulation", for instance, will prohibit the use of the most polluting heating fuels in the oldest heating systems by 2023 and will progressively ban the utilization of the most polluting construction machinery in the city.	Examples of other planned actions included in the AQCP are: • Reduction of 50% of personal motorized mobility by 2030 through the incentivization of active mobility and use of public transport; disincentive of use of private vehicles (reduction of more than 15% of personal motorized mobility by 2025); • Creation of a pilot Carbon Neutral Area with active personal mobility. At present, the City of Milan is providing financial support to the replacement of high-polluting vehicles, old heating plants and the adoption of renewable energy systems for a total amount of 32 million Euros.

	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	The City of Milan will work with C40 to complete the requested information as part of the Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	By 2020, the "Air Quality and Climate Plan" will identify strategies and priority actions for the achievement of its objectives, also through the revision of the existing planning tools/regulations/traffic provisions, the issuance of new regulations introducing obligations and bans for polluting activities ("Air Quality Regulation"), and new incentives tools. The Plan will be consistent with all other city planning instruments, especially with regard to the assignment of economic resources for the implementation of the Plan's actions.	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	In 2019, the City of Milan has created a Low Emission Zone covering almost the whole city territory and limiting the access of the most polluting vehicles. The "Air Quality and Climate Plan" will prioritize actions tackling simultaneously the emission sources of both air pollutants and GHG gases. The actions for the achievement of the Plan's objectives by 2030 will include: • Halving of personal motorized mobility through the incentivization of active mobility and use of public transport; disincentive of use of private vehicles; • Creation of a Zero Emission Zone; • Creation of a pilot Carbon Neutral Area with active personal mobility; • Reduction of surface of parkings in direct sunlight through the transformation of grey areas into green areas, paying attention to selected vegetal species;	• Introduction of supporting measures for the transformation of private heating systems into renewable energy systems, regulating biomass fuel combustion; • Introduction of bans for major polluting activities.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	According to national law, the Regional Agency for Environmental Protection (Agenzia Regionale per la Protezione dell'Ambiente - ARPA) is responsible for air quality monitoring through the management of 85 fixed continuous stations in the regional territory (5 inside the City of Milan boundaries). Through automatic analyzers, the stations provide data continuously at regular intervals (usually once an hour). The pollutants monitored on a continuous basis are NO2, SO_2, CO, O_3, PM_{10}, $PM_{2.5}$, benzene, benzo(a)pyrene, black carbon. Every day, the City of Milan publishes on its website a Daily Report on Air Quality, referred to the day before data and produced by the municipal technical agency AMAT processing	validated data published by ARPA. Through the municipal technical agency AMAT and in cooperation with relevant institutions and research institutes, the City of Milan will include in the Plan the possibility to develop other real-time monitoring systems for pollutants to integrate the official network.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Through the municipal technical agency AMAT and in cooperation with relevant institutions and research institutes, the City of Milan will develop studies and impact assessments of air pollution on citizens' health and associated external	costs, examining the assessments included in the "Air Quality and Climate Plan" in depth, in order to make them as representative as possible of the local situation. Results will be published.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The protection of vulnerable environments, residents and city users groups from air pollution is one of the AQCP's objectives. Planned actions include: drafting of the Protection Plan of existing vulnerable environments/groups exposed to traffic proximity, introduction of minimum distance of residences from road axis for new buildings.	Additionally, one of the priority areas of the AQCP is the sharing of the plan's objectives with citizens through an awareness-raising process and wide dissemination.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Through the municipal technical agency AMAT and in cooperation with relevant institutions and research institutes, the City of Milan will develop studies and assessments on emissions inventory, modeling and territorial analysis and measure-	ments of air quality, with the aim to identify the hot spot areas where to implement control measures of air pollution.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	In the framework of its main actions and related operational tools, the AQCP includes the negotiation of agreements at a supra-municipal scale with the railways managing authorities and at a metropolitan scale with the local transports companies,	to increase public transport services, in line with local strategies, and to implement measures for a low air quality impact agriculture.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

30 million Euros have been allocated to calls for bid promoting the elimination of heating fuels with a high impact on air quality and of polluting vehicles.

Through the participation in the initiative Climate-KIC, 370.000 Euros (340,000 € in 2020 and 30,000 € in 2019) have been allocated to the development of an Awareness-Raising Plan on AQCP's objectives targeting citizens.

The City of Milan has recently created an Environmental Transition Department, comprising of the Energy and Climate Office, which includes a specific Air and Climate Unit, currently composed of 3 people (corresponding to a financial commitment of 80,000 Euros), but planned to be enlarged.

The City Administration is supported by the technical and scientific expertise of AMAT, the municipal agency for mobility, environment and urban planning; 252,474 Euros have been allocated in 2019 for works/studies related to air pollution. AMAT is partner, on the behalf of the City of Milan, in the 'CARES' H2020 project for which European Commission funds research activities about on-road vehicle emissions and for the development of innovative remote sensing instruments and techniques with 41,874.36 Euros in total (three years project, start May 2019 - end April 2022).

Nairobi

SIGNATORY SINCE 2022

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

AQ Bassline Levels

• By 2024 Nairobi city will establish baseline levels of air pollution.

In order to achieve this, the city will undertake the following activities:

• By end of May, 2022 the development of a research plan based on the identified gaps would be done

• By 2023 Nairobi City County will increase installation of air quality monitoring stations to improve air quality monitoring and ensure continuous monitoring of air quality in Nairobi County.

• City wide mounting of air quality onitoring stations by 2023 to establish baseline levels of air pollution in Nairobi County

• Report publicly on the status of air pollution in the city by 2024.

Ambitious Reduction Targets for Air Pollution

• By May 2022 Nairobi City County will pass an Air Quality Act . The act will pro vide a legislative framework on air quality in order to protect the right to a clean and healthy environment by providing reasonable measures for the prevention of air pollution. By 2023, the city will have air quality regulations that set up ambitious reduction targets. These targets will be aligned with the national air quality standard which guides the AQ tolerance limits for industrial, residential and control areas . The national ambient air quality tolerance limits puts the city in the path to achieve the
interim targets of WHO air quality guideline (see below table).

Pollutant	Averaging	National Guideline Value		
		Industrial Area	Residential, Rural & Other Area	Controlled Areas
PM_{10}	Annual	70 ($\mu g/m^3$) (IT-1)*	50 ($\mu g/m^3$) (IT-2)*	50 ($\mu g/m^3$) (IT-2)*
$PM_{2.5}$	Annual	35 ($\mu g/m^3$) (IT-1)*		
Oxides of Sulphur – SOx	Annual	80 ($\mu g/m^3$)	60 ($\mu g/m^3$)	15 ($\mu g/m^3$)
Nitrogen Dioxide – NO_2	Annual	150 ($\mu g/m^3$)		
Carbon Monoxide – CO	8 - hour	5 ($\mu g/m^3$)	2 ($\mu g/m^3$)	1 ($\mu g/m^3$)
Ozone –O^3	8 - hour	120 ($\mu g/m^3$) (IT-2)*		

*Alignment with WHO air quality guidelines

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	In order to address the sources of emissions in the city, Nairobi will: • By 2022 the city will relocate the bus terminal from central business district streets to Green Park and Desai Bus Parks; newly established bus parks to encourage use of Non-Motorized Transport, thus reducing emissions. The BRT system will be used to move passengers across the Central Business District, reducing the number of vehicles and mobile air pollution sources. • By 2024, increase of pedestrian walkways and cycling lanes by 100 Kilometres to promote non-Motorized modes of transport. • By 2024 the city will conduct an emission inventory. • By 2025, Encourage use of Electric Public transport by deploying electric buses in the BRT lines and include charging stations points. Nairobi has joined the Transformative Urban Mobility Initiative (TUMI) E-Bus Mission, which will support the city in setting e-bus targets and eventually rolling out e-buses. The City Climate Action Plan will support the implementation of emission reduction actions: • Improvement of non-motorised transport (NMT) facilities (within 2 years, on-going) • Development and improvement of mass transit options and mode switching; improvement of public transport. (within five years) • Development of new master plan to decentralise services away from the CBD (2 to 5 years) • Implementation of a circular economy solid waste management approach (2 to 5 years)	• Increase adoption of renewable energy (2 to 5 years) • Develop Minimum Energy Performance Standards (MEPs) for more appliances (less than two years) • Revision of building codes for Enhanced Energy Efficiency in buildings (2 to 5 years) • Invest in Solid Waste Management, including material recovery facilities and transfer stations. (2 to 5 years) • Wastewater management (2 to 5 years) • Reduce the amount of solid waste in stormwater systems through city-wide solid waste collection initiatives (2 to 5 years)

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note. Report on the implementation of the Air Quality Control forum activities.
SUPPORTIVE ACTIONS	**EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS**
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• By May 2022 Nairobi City County will pass an Air Quality Act • Develop training manual/ toolkit/ handbook for implementation and enforcement of air quality legislation. • Nairobi City County Air Regulations will be used to enforce air pollution offences. • Develop communication strategy to aid in implementing this action,
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	• The actions in this template are aligned with the city Climate Action Plan. • Enforce the Nairobi City County Nuisance Act that captures aspects of air pollution which regulates air emission from the factories which has a heavy punitive charge to deter them from unregulated air emission. • Implementing sustainable action planning. • Greening of open spaces. • Risk assessment to identify cities

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• Establishment of Nairobi City Air Quality Data centre to make available real-time information, develop an air quality baseline, monitor the air quality progress and impact on health. • Increase Air Quality Network through mounting of air quality monitoring stations across the city for air monitoring.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• Nairobi City County is in collaboration with other relevant institutions such as Stockholm Environment Institute (SEI) in Increasing air quality network through installation of Air quality kits across City. • Strengthening the Air Quality monitoring stations relay real time data by making accessible by the airqual app such as Air Visual • Nairobi City County in collaboration with UNEP - UN Environment Programme is working to develop a common data centre to centralise and share air pollution data i.e., assessing data through mobile app	• Conduct mapping of relevant air quality stakeholders in the city • Conduct an air pollution ecosystem information analysis of the city • Identification of vulnerable communities and localities affected by air pollution • Collecting health data in relation to air quality monitoring data
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• Develop communication strategy to facilitate information sharing either through mobile app	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• Working with relevant stakeholders i.e., Safaricom and Universities in mounting air quality monitoring stations and data analysis. • Working with stakeholders in implementing Air Quality action plan for Nairobi.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Use vertical integration in the implementation of climate action plan and air quality action plan.	

Oslo

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Oslo has the goal to meet the EU limit values and thereby also the WHO guideline levels for NO2. In addition, the city government has a goal to reduce particulate matter to levels recommended by the national health institute. These levels are equal or more stringent than WHO guidelines. Detailed reference: https://www.fhi.no/nettpub/luftkvalitet/sammendrag/sammendrag	Oslo has already established baseline levels, as mandated by law/regulation. Oslo currently meets WHO air quality guidelines for ozone and SO2.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Wood burning during winter months is the chief cause of PM2.5 in the city and under the city's control; traffic dust is another contributor to PM10. Traffic, especially diesel vehicles, is the main contributor to NO2. • Programmes under implementation include:	• Car free city life • Action plan for zero emissions from the Oslo port • Electrifying commercial transport • Financial support mechanisms for cleaner wood-burning stoves
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Abatement measures for better air quality are stated in the City Council Decision 42 at the meeting of 28.02.2018: Revised Air Quality Action Plan for Oslo 2017-2020. Fees scaled by environmental impact, for cars passing through the city's toll ring • Restrictive parking policies in the city – reduced parking space, tenants/residents parking on public streets	• Fees for use of studded tyres • Provisional bans for diesel cars • Increased frequency of cleaning of municipal roads • Shore power availability for international ferries • Electrifying passenger ferries in the Oslofjord • Financial support mechanisms for electrifying commercial fleets
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	The most relevant air pollution reducing actions included in Oslo's climate strategy are: - increased efficiency in commercial transport and secure change to renewable fuels (this is only improving air quality if the choice is zero emission) - Zero emission modes of transport like walking, biking and public transport should be the first choice - Car free city life - zero emissions solutions for the port and more commercial transport from the roads to shipping. -zero emission construction zones	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	There are 13 air quality monitoring stations in Oslo. Data is available hourly on the national website www.luftkvalitet.info. The monitoring network and distribution of data is a collaboration between the city of Oslo and national administrations for environment, health and roads, the Meteorological Institute and the Norwegian Institute for Air Research.	Oslo is also testing and exploring the use of microsensors to monitor air quality in collaboration with other cities and the Norwegian Institute for Air Research.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The city of Oslo has a general collaboration with health institutes in Norway.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The main action regarding awareness and exposure reduction is air quality forecasting. Last year there has been established a national service called “Air Quality in Norway” (https://luftkvalitet.miljostatus.no/) which provides an automatically generated air quality forecast for the whole country. For Oslo this is quality controlled manually and commented to ensure best possible information for the public.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	This is a continual field of work where the city of Oslo contributes. This is Oslo’s part of the service “Air Quality in Norway”. The data for Oslo is generally well up to date and we will continue to work on this issue with the goal to improve data as best as possible.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	At the moment, we are mainly working with the Norwegian Public Roads Administration in order to ensure obligations for abatement measures along national roads in the city.	

Paris

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Paris has committed to meeting World Health Organization Guidelines for PM2.5 by 2030, exceeding European Commission Air Quality Standards. Paris also intends to meet European Commission standards for PM10 and NO2 (also WHO guidelines) by 2024.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Paris intends to take actions in transport and buildings sector to improve air quality, some examples include: - Low Emissions Zone of Paris and Grand Paris Metropolis:	- Allowing only Crit'air 1&2 in 2022 (only Euro5 & Euro6 diesel) - Only Crti'air 1 in 2024 (no diesel) - Eradication of oil boilers by 2024
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	See sections above and below.

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Paris is integrating its air quality actions into its climate agenda as part of the Paris Climate, Air, and Energy Plan: By 2030 : - Reduce energy consumption by 35% (an important part of the decline is related to the improvement of thermal insulation of buildings, which also reduces PM and NO2 emissions from boilers) - 45% renewable energy - 0% fossil fuel for mobility (meaning development plans of electric and biogas stations) - 6 intermodal logistic platforms at Paris entrances, connected to railways or highways and permitting to develop electrical fleets for the last kilometers - Kilometric pricing for HGV in transit (in favor of river and rail logistics) By 2025 : - Eradication of oil boilers -Decarbonized public transport, working to renew the Parisian bus fleet by 2025, replacing all diesel buses with electric or biogas vehicles. By 2020 : - Bike Plan (bicycle paths and parks, to include 100km of new bike paths): "100% cyclable city" - 30 km/h across the city (except heaviest traffic roads) - Zero diesel vehicle in the city's fleet - 20 ha new gardens ; 100 ha new green roofs and walls ; 20 000 new trees In Progress : - LEZ Crit'air3 (only Euro4 to 6 diesel vehicles ; Euro2 to 6 gasoline vehicles) - Grants for - electric bikes and moped - electric light commercial vehi cles and trucks - gas trucks
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Paris is part of AIRPARIF, regional air quality observatory, in charge of: - City wide monitoring (12 stations in Paris) and modeling (city map 12.5 meters pixel renewed every hour; prevision for next day)	- Emissions inventory Information is provided, on demand, in real time.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Studies conducted by ORS (regional health observatory), assessing the Parisian et Metropolitan LEZ. Environmental Health Paris Plan: - Health Impact Assessments for main urban projects	- Social & environmental diagnostic of the city, directing focused actions on fragile sectors - Addressing indoor air quality in the city's schools and nurseries.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Studies on real life vehicle emissions with ICCT: showing the real impact of traffic and propose alternatives. Studies and communications on wood burning : explaining the impact of fireplaces on health and climate
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Work with Airparif and ORS on LEZ impacts. Work with CEREA (modeling research laboratory) for modeling including local and background exchanges and gas and particle chemistry, in order to assess regulation scenarios.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Legal action, with Madrid and Brussel against European Regulation on vehicle emissions. Work with French State on automatic enforcement of LEZ. Advocate for regional authority and national operators to take action on air quality in the underground public transport network. Advocate for organic agriculture development and control of massive ammonium nitrate spreading on the fields in springtime.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Plan vélo – 100 M€, supporting road and utility infrastructure.

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Ambitious reduction targets for air pollutants:

MAG and Maricopa County conduct emissions inventories for the Maricopa County area which includes Phoenix. These inventories are conducted in accordance with federal requirements and include particulate matter, nitrogen dioxide, ozone, and sulphur dioxide. In addition, the County has a 2021-2025 Strategic Plan for Air Quality. This plan provides the goals and immediate actions to comply with the Clean Air Act (CAA) and to address air quality issues in Maricopa County. Goals include reducing PM 2.5 by 3%, PM 10 by 5%, and ozone by 0.5% by 2025, which are all on track. If these goals are met the season and annual averages of each pollutant would meet EPA standards. There are no current goals to reduce NO2 and SO2 as Phoenix meets and exceeds the EPA standards. Phoenix is an active partner with both the county and MAG to improve regional air quality and meet their air quality goals.

In the United States, the federal government regulates some aspects of air quality control issues. Those issues that the federal government does not address are left to the states to determine how to regulate. The State of Arizona has retained control over these issues, preempting regulation by cities and towns, under the state law A.R.S. 49-401(A). In addition, in Arizona, the state cannot be more stringent than the federal regulations. A.R.S. § 49-104(A)(17) Counties are given some specific areas of control under A.R.S. 49-402. Phoenix does not have legal authority to set air quality standards.

Phoenix has set the air quality baseline levels with the data collected through the Maricopa County monitoring stations.

MAG 8-Hour Ozone Plan:
https://www.azmag.gov/Portals/0/Documents-Ext/Air-Quality/2020-Eight-Hour-Ozone-Plan_Submittal-of-Marginal-Area-Requirements-for-the-Maricopa-Nonattainment-Area.pdf

National Ambient Air Quality Standards, as established by the EPA:

https://www.epa.gov/criteria-air-pollutants/naaqs-table

Pollutant	Standard Type	Averaging Time	Level	Form
Carbon Monoxide (CO)	Primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	Primaryand Secondary	Rolling 3 month average	0.15 $\mu g/m^3$	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary	1 hour	10 ppm	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primaryand Secondary	1 hour	53 ppm	Annual Mean
Ozone (O_3)	Primaryand Secondary	8 hours	0.070 ppm	Annual Fourft-highest daily maximum 8-hour concentration, averaged over 3 years
$PM_{2.5}$	Primary	Annual	12 $\mu g/m^3$	Annual mean, averaged over 3 years
	Secondary	Annual	15 $\mu g/m^3$	Annual mean, averaged over 3 years
PM_{10}	Primaryand Secondary	24 hours	35 $\mu g/m^3$	98th percentile , averaged over 3 years
	Primaryand Secondary	24 hours	150 $\mu g/m^3$	Not to be exceeded more than once per year on averaged over 3 years
Sulfur Dioxide (SO_2)	Primary	1 hour	75 ppm	99th percentile of 1 hour-daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0,5 ppm	Not to be exceeded more than once per year

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	In order to address the main sources of air pollution: - The 2021 Phoenix Climate Action Plan outlines several goals and actions that will improve air quality. Stationary Energy goals include achieving net-zero GHG emissions for municipal operations electricity use by 2030, promoting the development of community-wide energy projects that improve the sustainability and resilience of the surrounding community's electricity grid, requiring all new city buildings to be net-zero by 2050, and supporting policies and projects that help shape an electricity grid that is net-zero GHG emissions by 2050. Transportation Goals include implementing the city's Complete Streets Policy and Active Transportation program to encourage multiple modes of transportation, increasing community-wide use of low carbon fuels, rapidly accelerate electric vehicle adoption in the community and expand publicly accessible charging infrastructure throughout the city to result in 50% of all vehicle sales being electric vehicles by 2030, and reducing the percentage of single occupant vehicle trips taken to 60% of all trips. Waste Goals include reduce GHG emissions resulting from the degradation of waste by capturing landfill gas and converting 100% of the methane (up to 1,500 SCFM) from the SR 85 landfill into renewable natural gas as a substitute for fossil natural gas and reduce GHG emissions from water and wastewater treatment by capturing biogas from treatment processes and increasing renewable sources of energy. - Phoenix promotes the Maricopa County Travel Reduction Program by providing bike lockers, providing bus and rail passes, guaranteeing emergency rides home for car-poolers, providing electric vehicle charging stations, providing preferential car-pooling parking, and offering alternative work schedules and telework options. The TRP aims to reduce employee commutes via single-occupancy vehicle trips below 60% for all employers in Maricopa County with more than 50 employees. 3 out of 26 of City of Phoenix's worksites currently meet this goal. Phoenix City Hall, the city's largest worksite location, has met this goal for over 10 years. - Phoenix will be exploring converting its city-owned fleet to electric and expanding infrastructure supporting electrification. An ad hoc committee was formed in 2021 to provide recommendations toward increased electrification of transportation in Phoenix. This guidance will build upon Phoenix's efforts to transition vehicles in its fleet to electric or cleaner fuels such as compressed natural gas. - Other policies that will help in combating air pollution include green infrastructure promotion in private as well as public development, and investing in tree planting and maintenance throughout the city, especially in those areas where people walk and play. Trees and green infrastructure have many benefits and when choosing the right tree can remove pollution, primarily particulate matter and VOCs, from the air and reduce energy demand.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note. Phoenix will report our progress on the Office of Environmental Programs web page. The city will also promote communications regarding air quality such as assessments and reports produced by Maricopa County, ADEQ and MAG through our communication platforms. https://www.phoenix.gov/oep

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Support electrification and clean fuel fleets, implement green infrastructure on a widespread basis, increase education on pollution reduction programs at the county level. Phoenix will also encourage the use of active and/or mass transit. Examples include adding 75 miles of new RAPID bus routes, 42 miles of new light rail and addition of a new light rail stations, 1,080 miles of bicycle lanes, and 135 miles of new sidewalks as a part of the T2050 Project. City Council approved $1.5M funding for the Streets Transportation Department Cool Corridors Program in the 2021-22 City Budget. Cool Corridors will be one-mile segments of increased shade and amenities to cool the paths most used to encourage walking, biking, and access to public transit.	T2050 Elements: https://www.phoenix.gov/T2050/Elements T2050 Progress: https://www.phoenix.gov/streetssite/Documents/T2050_FY2021_Interactive%20Annual%20Report_English%20Final.pdf
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Phoenix has a goal of 100 cool corridors by 2030 to promote walking and biking. The first 9 miles of cool corridors will be developed in early 2022 as a part of the 2021-2022 fiscal year budget. Phoenix also partners with a third party to capture biogas from the 91st Ave WWTP, Phoenix is in the process of installing a gas capture system at the SR85 Landfill. Phoenix is one of the largest employers in Maricopa County and participates in the Maricopa County Trip Reduction Program (TRP). The TRP is designed to discourage single vehicle trips and promote mass transit use, carpooling and other 'greener' transportation choices. Phoenix is also one of the few U.S. cities expanding mass transit. Light rail expansion projects are underway in Phoenix and surrounding cities, as well as Bus Rapid Transit.	https://www.valleymetro.org/project https://www.phoenix.gov/publictransit/brt

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	ADEQ and Maricopa County have established and maintain air quality monitoring in the County. This data is publicly available as follows: Maricopa County: https://alert.fcd.maricopa.gov/alert/Google/v3/airnow.html ADEQ: https://azdeq.gov/node/5820 State of AZ air Monitoring Network Plan for 2021	https://static.azdeq.gov/aqd/air_monitoring_network_plan2021.pdf 2020 Air Monitoring Network Review and 2021 Plan MCAQD https://www.maricopa.gov/DocumentCenter/View/68917/Final-Air-Monitoring-Network-Plan-2020-PDF?bidId= Air Quality Presentation to the South Central TOD. January 5, 2022, notice to city employees on emissions testing.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Phoenix, as well as Maricopa County, regularly collaborate with others including Arizona State University on research involving air quality.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Phoenix will continue to communicate high pollution advisory (HPA) days on its platforms and through other means. Phoenix works with the county and state to provide effective communication on HPA in the area. HPA Notifications: https://cleanairmakemore.com/make-the-commitment/sign-up-for-email-text-alerts/ Maricopa County Air Quality Education and Restrictions: https://cleanairmakemore.com/our-air/restrictions/	Maricopa County Air Quality Department Annual Report 2021 that includes types of outreach and programs to raise awareness, etc., for all Maricopa County https://www.maricopa.gov/DocumentCenter/View/72335/FY2021-Annual-Report Air Quality Presentation to the South Central TOD. January 5, 2022, notice to city employees on emissions testing.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	The City of Phoenix, Maricopa County, MAG, and ADEQ work in collaboration with EPA and various nonprofits as well as universities to study air pollution. Maricopa County Periodic Emission Inventories are conducted every three years. These inventories are conducted according to the CAA and are updated as the Act is. https://www.maricopa.gov/2652/Periodic-Emissions-Inventory-Reports City of Phoenix 2018 GHG Inventory in collaboration with Arizona universities: https://www.phoenix.gov/oep/2018GHG	Maricopa County 2018 GHG Inventory: https://www.maricopa.gov/DocumentCenter/View/62545/GHG_Inventory_Report_Draft_v9-PDF Maricopa County inventory of non-attainment pollutants: https://www.maricopa.gov/2652/Periodic-Emissions-Inventory-Reports State of AZ air Monitoring Network Plan for 2021 https://static.azdeq.gov/aqd/air_monitoring_network_plan2021.pdf
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Phoenix continues to work with regional partners including MAG, ADEQ and Maricopa County. Phoenix is also active with Arizona Forward and is assisting in that organisation's Clean Air Roadmap effort. Other organisations include Phoenix Sister Cities in North America, regional power providers APS and SRP, as well as institutions such as Arizona State University.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Phoenix promotes the TRP program by providing bike lockers, providing bus and rail passes, guaranteeing emergency rides home for car-poolers, providing electric vehicle charging stations, providing preferential car-pooling parking, and offering alternative work schedule and telework options. The budget for 2020 for these actions was approximately $656,600.

The goals of the TRP program are that "Employers and schools are asked to reduce single occupant vehicle (SOV) trips and/or miles travelled to the work site by 10 percent each year for a total of five years, and then five percent for three additional years, or until a 60 percent rate of SOV travel is reached. Progress is tracked through an annual commute survey of employer/school sites. The results of the survey are used to develop an annual travel reduction plan that commits the employer/school to implementing and documenting various strategies to reduce SOV trips or miles." The actions taken by each organisation will vary to reach these goals. https://www.maricopa.gov/2388/Travel-Reduction-Program

In the 2021-2022 city budget, $2.8 million is allocated for heat and climate actions in Phoenix including additional tree plantings and staff to maintain trees, and promotion of the cool corridors program.

https://www.phoenix.gov/budgetsite/budget-books/2021-22_City_Council_Budget_Decision.pdf

Portland

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

We will use existing and new monitoring technology and research to better understand the sources and locations of high pollution and increased health risk. Targeting local policies and programs to improve and protect Portlanders' health, especially the most underserved populations will guide our actions.

Conduct health risk and distributional analyses using EPA's BenMap framework to document health impacts and health inequality metrics of current air quality levels.

Work with Oregon Department of Environmental Quality (DEQ) to report baseline levels from regulatory monitoring networks. Work with DEQ and other partners to understand how low-cost sensors and other research can contribute to improved understanding of within-city variation of air pollution levels.

Reduction targets will be focused on reducing sources and exposures to ozone precursors to meet EPA NAAQS standards and maintain nonattainment status for all criteria pollutants. Portland's current ozone levels do not meet WHO guidelines. Current levels of NO2, PM2.5, and SO2 are below WHO guidelines and we aim to maintain those goals through continued action to reduce emissions and exposures as Portland's population continues to increase.

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

Non-road and on-road mobile diesel and gasoline emissions are the top causes of air pollution- diesel and ozone- in the City of Portland. These are also emissions that the City can influence.

Modelling findings have shown that to achieve Oregon's diesel particulate matter (DPM) health-based standard, Portland on average must reduce DPM emissions by 86% to achieve the standard (Portland Air Toxics Solutions Report 2012). Areas near high volume roadways and construction activity and hence higher diesel pollution need even further reductions. Follow-up monitoring by researchers has found sites with DPM levels 20 times above the state's benchmark.

Regulatory monitoring networks have documented increasing ozone concentrations in Porltand for the past three years. The major sources for ozone precursors (NO2 and VOCs) are non-road and on-road diesel and gasoline emissions. These emissions are also not spatially homogenous leading to increased health risk for those in closer proximity to sources.

Within this Accelerator time period, we will be implementing a new Clean Air Contracting Standard to address diesel exhaust pollution. Work to support other regional partners to be able to adopt and implement this same standard and share resources to help support compliance and program implementation. Work with state partners to facilitate funding to prioritize supporting certified women owned, minority owned, or emerging small business contractors to upgrade or retrofit diesel equipment.

We will also support a variety of actions to reduce vehicle emissions contributing to ozone paired with actions to reduce travel times to decrease personal exposures. These actions include electrifying our own City fleet when possible, finish upgrading and retrofitting the City's own diesel engine vehicles and equipment, work with partners across the City and TriMet to make our public transit systems faster and more convenient, and develop shared electric vehicle options for people with less access to transit, biking, walking, and ability.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.

Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS

EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS

Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.

mplement Clean Air Construction Standard amendment to City's Sustainable Procurement Policy to reduce emissions from off-road construction equipment and on-road cement and dump trucks for construction contracts > $1 million. Goals:

- Reduce diesel PM on City construction sites – Support diverse contractor pool – Mitigate cost and administrative impacts – Foster regional adoption to further reduce diesel PM pollution

Participate in state's rulemaking to pilot a program to evaluate and control health risks from air toxics emissions from multiple stationary sources, estimated 2020-2021 to begin.

Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.

- Implement Clean Air Contracting standard.

- Finish upgrading and retrofitting the City's own diesel engine vehicles and equipment, prioritizing electric when possible.

- Prioritize transit and reduction in travel times to reduce exposures and emissions. Work across the City and TriMet to make our public transit systems faster, more convenient, and run on clean fuels or renewable energy.

- Explore options and strategies for pricing for equitable mobility including tiered prices on vehicle carbon emissions.

- Develop shared electric vehicle options for people with less access to transit, biking, walking, and ability.

- Explore opportunities for low or zero emission zones for future development projects and investigate emission free construction possibilities.

- Explore strategies to reduce impacts from freight and increased exposures in densely populated areas.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Continue with low-cost sensor deployment along a major urban arterial and work to make data publicly accessible. DEQ will be implementing an increase in PM2.5 monitors across the Portland region including sensors. Continue to seek collaboration with DEQ, communities, and research partners to bring together sensor data sets and integrate with other existing data sources.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Conduct health risk and distributional analyses using EPA's BenMap framework to document health impacts and health inequality metrics of current air quality levels. Share results with regional government and research partners to explore additional analysis steps and how others can use the data. Studies modeling health risk are limited in the Portland area. Existing reports have used the Portland Air Toxics Solutions DPM model results to calculate geographic disparity ratios.	The 2014 Multnomah County Report Card on Racial and Ethnic Disparities found that Multnomah County census tracts with greater than 15% of Black/African American, Asian/Pacific Islander, of Latino had an estimated 2-3 higher median levels of DPM than census tracts with 90% or more non-Latino White population. Other health risk analyses conducted by researchers have focused on using BenMap to understand the impacts of Portland's tree canopy on health risks and benefits.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Partner with local university communications researchers to assess air quality engagement strategies with a focus on sensor data usage, public perception and understanding of air quality, and engagement preferences in Portland. Understand how sensors can help increase awareness and foster action while also communicating clearly the limitations of sensors. The goal of this project is to create air quality engagement strategies that are responsive to community perspectives.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Participate in quarterly stakeholder meetings with DEQ Air Quality Administrator where next steps on emissions inventories and modeling analyses are discussed and advocate for incorporating photochemical modeling into DEQ's future steps for use of most recent emissions inventory data and understanding Portland area impacts. Help support research when possible by providing access to permit data, spatial data, and letters of support.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Office of Government Relations team will help advocate with other governments. State and federal legislative agendas focus on carbon and airborne toxics reductions.	Participate in regional quarterly stakeholder meetings with DEQ Air Quality Administrator to discuss support for state and federal actions and comments.

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EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Staff FTE in Bureau of Planning and Sustainability specializing in air quality and climate action and Portland Bureau of Transportation to implement climate and health related actions. Staff FTE in Office of Government Relations and Mayor and Commissioner's Offices to implement actions, engagement, and partnerships.

2019/2020 Budget commitment $458,000 (1 time General Fund) to Office of Management & Finance for implementation of the Clean Air Construction Standard. Funds are to support program administrator and database. Future program resources will come from regional partner contributions/commitments as well and registration fees.

HB 2007 passed in 2019 Oregon state legislative session- This bill included a component to expand use and distribute the remaining VW settlement funds to support grants for cleaning up trucks and equipment on large state contracts, trucks with three years of remaining useful life, and small businesses, disadvantaged business enterprises, minority-owned businesses, women-owned businesses, and service-disabled owned-businesses. Another component of this bill is new vehicle and equipment requirements for state-funded construction projects in Multnomah, Clackamas and Washington counties.

Quezon City

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	• Establish baseline air pollution levels, in part by procuring and installing ten (10) air quality monitoring systems within the City boundary as an addition to the three (3) monitoring stations managed by the national agency Department of Environment and Natural Resources-Environmental Management Bureau (DENR-EMB). Quezon City's Environmental Protection and Waste Management Department (EPWMD) is currently undertaking efforts to procure Continuous Ambient Air Monitoring Stations as there is a need to establish the City's own air quality monitoring and management system that will facilitate the setting of objectives and formulate sound, scientific, and accurate programs, projects and activities that will effectively minimize the adverse impact of air pollution through provision of scientific facts and data. • Improve enforcement of roadside testing by increasing the number of personnel and the Anti-Smoke Belching Unit Teams to accommodate more areas and vehicles to be checked. In addition, the City will review, innovate and improve systems and procedures of environmental enforcement such as by strengthening institutional arrangements specifically among the QCPD Police Clearance, NBI and MTC-DOJ, which shall be pursued in the next two years. • Create a Resolution or City Ordinance towards meeting National Ambient Air Quality Guideline Values under the Philippine Clean Air Act of 1999 and World Health Organization (WHO) Air Quality Guidelines by 2030 as a mechanism to implement the City's air quality management framework, set targets to meet the national standards and WHO guidelines, and impose set of regulations contributing to the reduction of air pollutants as well as GHG emissions within City boundary.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	• Create strong linkage with relevant stakeholders particularly with policymakers and national government agencies to harmonize and other Local Government Units (LGUs) in Metro Manila to harmonize and develop concrete actions for sustainable air quality management • Establishing a Monitoring and Information System (MIS) that will allow consistent data inputs on a daily basis as well as real time information for the public alongside with the conduct of the continuous roadside testing • Strengthen roadside mobile and ambient sources apprehension • Expansion and promotion of electric vehicles for tricycles for public transportation in coordination with the Quezon City Department of Public Order and Safety – Green Transport Office as well as expansion and promotion of the City's green vehicle fleet (e.g. electric jeepneys, vehicles and buses) in line with the City's Green Procurement Program • Develop strong partnership with the Academe for the information processing	
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	• Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note • Regular and real-time information dissemination to the public • Information drive on social media platforms such as Facebook and the Quezon City Website	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	• Strengthen enforcement mechanism for both mobile and stationary sources of air pollution • Linkages with the National Government and Academe for policy interventions and researches	• Technical Capacity development and training for personnel of the City Government particularly the EPWMD who handles mobile and ambient air quality management
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	• Expansion and promotion of electric vehicles for tricycles for public transportation in coordination with the Quezon City Department of Public Order and Safety – Green Transport Office. Over the last year, the City has procured more than 300 electric tricycles for city government services (e.g. for distribution to barangays*) • Expansion and procurement of city-owned green vehicle fleet (e.g. electric jeepneys and vehicles) • Expand the City's existing green bike lanes and linear parks in the development of infrastructure projects. Currently, the City has developed 55-km of bike lanes and is currently working on an additional 60-km of bike lanes. • Monitoring the emissions of stationary sources of air pollution • Advocate car-less activities and other low-emission initiatives • Possible Clean fuel mechanism as an alternative source of energy • Improve and establish traffic flow management in partnership with Academe • Real-time information dissemination to the public	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• Develop a centralized data management system having a day-to-day input of air quality managed by the Environmental Protection and Waste Management Department (EPWMD) and the Information Technology and Development Office (ITDO) in partnership with academe	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• Collaboration with International Partners and Non-Governmental Organizations such as Clean Air Asia and GIZ • Partnership and data collaboration/ linkage with the academe (University of the Philippines- IESM and Ateneo de Manila University) for capacity building on air quality monitoring and consider them as consultants for policy formulations on AQM.	• Cooperation agreement with various international non-governmental organizations, national government agencies, and the academe under the project, "Clean Air for a Sustainable Future: A Transdisciplinary Approach to Mitigate Emissions of Black Carbon in Metro Manila, Philippines (TAME-BC) as a step to assess the Metro's air pollution crisis."

Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• Conduct and hosting of Transport and Air Quality Summit in order to encourage the participation of relevant stakeholders to join and be part of the City's solution on addressing air pollution. • Conduct series of seminars to Quezon City's barangays* to encourage citizens to participate.	• Establishment of Air Quality Index boards in critical areas in the City (ex. Schools, places of congregation) and integration of AQI data into mobile application for the benefit of Quezon City residents • Real-time information dissemination to the public
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• Tie-up with an Academe such as the University of the Philippines-National Center for Transportation Studies (UP-NCTS) for conducting research and feasibility studies on road networks and Transport management models • Enhanced partnership with international organizations such as C40 Cities Climate Leadership Group, Clean	Air Asia, and ICLEI-Local Government for Sustainability for enhanced city-to-city knowledge transfer and technical assistance
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Cooperation with National Government Agencies (NGAs) like the Department of Health (DoH), Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB), Department of Transport, Department of Education (DOE), and the Department of Energy (DOE) to maximize partnerships on national programs on awareness-raising and capacity-building in the area of improve-	ment of fuel standards, promotion of electric vehicles, jeepney modernization, and public information and education.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

• City's General Fund

• Joint Ventures or Public-Private Partnership (PPP) through the support of the Philippines' PPP Center

• Funding sources from the national government (Department of Environment and Natural Resources-Environmental Management Bureau)

• International grants and technical assistance

Quito

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Quito currently maintains a network of continuous monitors and passive monitors that are used to assess baseline air quality levels. Quito aims to meet Ecuadorian standards, which are the same as WHO guidelines for ozone, NO2, and CO. A study is being carried out to identify how local targets for PM10, PM2.5, and SO2 can be adjusted towards meeting WHO guidelines and interim guidelines that are more stringent than national guidelines. This study includes assessment of actions that can be taken to exceed national Ecuadorian limits and put Quito on a path towards meeting these new targets in line with WHO guidelines and interim guidelines.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	To assess how local actions can improve air quality within Quito beyond national standards and move towards meeting WHO guidelines and interim guidelines for PM2.5 and PM10, Quito will: • Analyze the effect of the new Metro system and the electrification of buses • To assess the effect of the remediation actions of the quarry zones in San Antonio de Pichincha, Guayllabamba Additional policies Quito intends to implement include: Put in place local regulations that promote the transition from fossil fuel vehicles to clean technologies such as electric vehicles. By 2025, in compliance with the national regulations established in the Energy Efficiency Law, it is proposed that public transport buses and taxis gradually renew both public and private operators fleets with zero emission vehicles. The Municipality aims to create incentives such as parking and technical vehicle review fare costs discounts, tax reduction for charging station installations and is proposed that public transportation operators (taxis, buses) need to submit fleet renewal plans to the Municipality in order to accelerate the transition to cleaner vehicles technologies. Carry out a pilot project for the comprehensive remediation of mining environmental liabilities. The proposal includes landscape restoration of abandoned mines through local species that prevent soil erosion and dust storms that increase PM10 and PM2.5 concentrations. This pilot project will estimate costs and the feasibility of planting local species in severe conditions for vegetation growth. This research will help assess the replicability of the project in other degraded areas. Execute the Metropolitan District of Quito Vegetation Recovery Plan 2019-2023 which applies an integral approach comprehending forestation, reforestation, agroforestry, water harvesting, soil recovery, forest fires prevention and natural regeneration management. This plan aims to generate not only a positive impact on the environment by preventing soil degradation that might increase particles being dispersed on the air but also to attend social and economic issues on local population. Moreover, citizen participation is a strong feature of the plan and a key leverage for its success. Implementation of measures to reduce vehicular traffic, such as the “Hoy no circula” initiative, beginning in September 2019. It will be evaluated over the next eight months, including taking measurement to prioritize exclusive lanes of mass public transport circulation and cycle path maintenance. Evaluations will be carried out regarding the pedestrianization of various sectors of the Historic Center and the effect of the Quito Metro’s entry into operation. Strengthen compliance with the active mobility sections of the 2019 Municipal Code.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in 40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Put in place local regulations that promote the transition from fossil fuel vehicles to clean technologies such as electric vehicles. Strengthen compliance with the active mobility sections of the 2019 Municipal Code. Implementation of measures to reduce vehicular traffic, such as the “Hoy no circula” initiative, beginning in September 2019. It be evaluated over the next eight months, including taking measurements to prioritize exclusive lanes of mass public transport circulation and cycle path maintenance. Evaluations will be carried out regarding the pedestrianization of various sectors of the Historic Center and the effect of the Quito Metro’s entry into operation.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Quito will undertake a process to evaluate and modify the emission standard for fixed combustion sources. Quito will continue the current system of Vehicle Technical Review, under which private vehicles are subject to mandatory control once a year and twice per year for public vehicles such as public transport buses (municipal and private owned) and cabs. This control implies car parts check under current local regulations regarding passenger safety and engine emissions (CO, non-combustion hydrocarbons and opacity). Additionally, public and private vehicles are subject to randomized on-road control operations. This on-road operation is complementary for the Technical Vehicle Review mandatory control and aims to reassure that vehicles are legally circulating. In addition, the on-road check includes opacity measurements. As stated above, the “hoy no circula” initiative will begin its application in September 2019 and will be evaluated in the next eight months.

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Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Maintain continuous monitoring and reporting of air quality in the city of Quito, through the 9 automatic stations of the Metropolitan Network of Atmospheric Monitoring of Quito (REMMAQ) of the Secretariat of Environment. Currently the information is public and is shown an online report and through weekly and annual reports. In the coming months Quito will develop a data platform that will allow increased data use and better visibility It is planned to improve the San Antonio de Pichincha station that currently measures PM2.5 and PM10, incorporating ozone. The incorporation of low-cost sensors in rural sectors and high population exposure is also planned. Quito also aims to improve the equipment and technology of these stations.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Using USEPA BenMAP-CE (a health benefits analysis tool), analyze and estimate the health benefits that Quito’s citizens will gain by improving the air quality of the city. Quito aims to run different scenarios with PM2.5 data from REMMAQ stations, health and population data available for the Quito Metropolitan District (DMQ by its acronym in Spanish) and its urban and rural parishes and disseminate the results to authorities and stakeholders.	The results of the analysis carried out with BenMAP may be used to justify adjustment of the air quality standards, as well as create justification for increased continuous monitoring in some sectors of the Metropolitan District of Quito. Disseminate the results to the authorities and parties involved.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Keep the population informed through social media of the state of air quality, its effects and actions to take for health protection and reduction of traffic effects.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Currently working to compile information to update the Inventory of Gas Emissions Criteria of the Environment Secretariat. The most recent available inventory was for base year 2011. A source apportionment analysis for PM2.5 will be conducted in 2022.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Insist on improving the quality of fuels for both vehicles and thermoelectric power plants that are under National level control, and located within the territory of the DMQ.	Quito also plans to conduct monitoring in nearby counties, in locations with high industrial activity and thus large contributions to ozone precursor emissions.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The proposed actions will be carried out with financing from the Municipality of Quito. External financing is available for some mobility projects. However, external financing is required to strengthen and improve the equipment of the Air Quality Monitoring Network.

Rio de Janeiro

SIGNATORY SINCE 2020

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	As of 2018, air quality standards in Brazil are established under Resolution number 491/18 by CONAMA (Environment National Council). The agency uses the World Health Organization (WHO) Ambient Air Quality Guidelines (2005) as a reference. CONAMA set three intermediate standards for air quality and a final air quality standard, all based on WHO values. The CONAMA Intermediate Standard PI-1 was established in 2018 as the initial national standard. The City of Rio de Janeiro aims to achieve annual average levels of PM10 consistent with the Intermediate Standard PI-2 in the CONAMA (Environment National Council) Resolution number 491/18 in the next 2 years. Over the next 2 years, Rio de Janeiro City Hall aims to manage air quality using its eight fixed and one mobile stations and add more PM2.5, VOCs and NOx monitors, to improve the air quality monitoring network capacity.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	- Implement Carbon Neutral District phases 1 and 2 by 2025, upon implementing complete urban area programs and other programs. - Produce a Health Risk Map concerning the consequences of air pollution by 2021. – Keep the Rio de Janeiro Air Quality Monitoring Network and expand capacity for measuring hydrocarbons, particulate material (PM2.5), and nitrogen oxides (NOx) by 2022. - Implement a training program for civil servants to act as peer educators in communicating problems related to air pollution by 2022. - Publish a municipal inventory of air pollutant emissions from fixed sources by 2022.	- Publish a municipal plan to cut down on air pollutant emissions from fixed sources and local plans to reduce emissions by 2023. - Implement an air quality model for the municipality of Rio de Janeiro by 2025.

	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.		Rio de Janeiro City Hall is going to publish a Rio de Janeiro City Air Quality Report yearly. The document is expected to convey the most updated information on air quality monitoring outcomes and emission sources results. Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.		- Implement regulations enforcing mandatory registration for air emissions from businesses linked to the main source categories, which may be subjected to environmental licensing by Rio de Janeiro City Hall. - Set up a Technical Committee aimed at fighting air pollution by establishing partnerships with other public institutions, scholars, and civil society representatives. - Implement green corridors in the city by means of prioritising areas with high need for public areas, as highlighted in the Sustainable Development Plan.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.		Based on city decrees 46078, 46079, 46081 of June 11, 2019, and on the Sustainable Urban Mobility Plan, the Urban Tree Planting Plan, and other legal instruments, the city is adopting practices and projects on: - Implementing Green and Healthy Streets, and the Carbon Neutral District which includes Urban Renewal Intervention focusing on the improvement of pedestrian areas, and new bike lanes, promoting active mobility, electric vehicles and means of transportation, greening, educational programs, urban sustainable solutions and other complementary actions.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Keeping and complementing the Municipal Air Quality Monitoring Network (MonitorAr-Rio) currently consisting of eight fixed stations and one mobile station. All stations are automatic. Installed analysers monitor one or more of the following pollutants: SO2, CO, O3, HC, PM10, PM2,5, NOx.. The network is also equipped with meteorological sensors to help understand air quality outcomes. Rio de Janeiro City Hall has signed an Agreement for Technical Cooperation with Rio de Janeiro State Institute for the Environment - INEA. The document describes the integration of Municipal and State Air Monitoring Networks within the city's territory. Also, it provides for setting up an environmental indicator for the State of Rio de Janeiro.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The Rio de Janeiro City Hall Air Monitoring Department has established partnerships with research institutes that draft projects on air quality and health. Thus, the department shares information and seeks answers to solve problems related to those issues. Some papers based on monitoring data from the MonitorAr-Rio Program have already been published in international scientific journals. Also, lectures and visits for undergraduates and graduate students are held in air monitoring stations. The city intends to create a repository for scientific papers on air quality in the municipality of Rio de Janeiro and Rio de Janeiro Metropolitan Region and set up a workshop in 2021. Currently, a case study on the health effects of reducing air pollutant emissions from replacing fuel vehicles with electric public transportation buses is being drafted. The case study is entitled Benefits of Urban Climate Action - Climate, Air Quality and Health. C40 provides support for drafting the document.	To draft the Health Risk Map, on the consequences of air pollution, the city will set up partnerships between the Municipal Secretariat for the Environment and research institutes, and will endeavour to secure further support from the Health Municipal Secretariat. After that partnership is established, other ones may follow suit. The partnerships will allow for a better understanding of the impact of air pollution in city residents.

Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Rio de Janeiro City Hall has already implemented InspirAr, an Environment Education Program, seeking to raise the population's awareness on the importance of air quality. The program offers activities targeted at children, youth, and adults in public areas and city-run schools. To expand capacity on raising awareness, the city will create training programs for civil servants who can act as peer educators on air quality.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Rio de Janeiro City Hall shares all data generated by its Air Quality Monitoring Network online. Such data is used by researchers in papers on air quality. Implementing policies rendering mandatory registration for air emissions, proposals on drafting the inventory on fixed sources, and the plan for reducing emissions are meant to address the issue.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Rio de Janeiro City Hall is willing to act, by means of the Rio de Janeiro Metropolitan Council House, by establishing partnerships with neighbouring cities to pursue integrated action planning in order to allow for better air quality in the region, as well as, in partnership with the State of Rio de Janeiro.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Currently, Rio de Janeiro City Hall keeps air quality monitoring services with funding from the Environmental Conservation Fund.

Some sources of funding: Federal Government Public Bids, Public Bids to Foster Research, Parliamentary Amendments, resources of the very Municipal Secretariat for the Environment.

Rotterdam

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Rotterdam is committed to improving air quality in order to achieve the following ambitions: 1. All streets in Rotterdam will meet European standards in 2020. In 2020 we will have solved all the bottlenecks in the field of air quality; no European standard is exceeded in any street. 2. Improving the average air quality throughout Rotterdam by 2022. Not only the concentration of nitrogen (NO2) must be reduced, but also the concentrated particulate matter (PM10, PM2.5). 3. By 2025 we aim to meet the World Health Organization (WHO) recommended exposure limits for NO2 and PM10. We also want to meet the informal local guideline for soot (based on WHO for PM2.5.)	**Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.**	Urban road traffic has a major impact on the air quality in our city. We focus on an integrated approach that focuses on clean transport (sustainable transport) changing (cycling, walking and stimulating public transport) and reducing traffic that drives through the city; this approach is part of the Rotterdam mobility approach. In addition, we are working on reducing emissions from the construction sector to both reduce the number of vehicle kilometers and reduce emissions. We are also investigating the possibilities of offering shore-based power for sea shipping through a pilot. Shore power facilities have already been realized for inland shipping.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	The clean air exchange rate policy document adopted by the city council in July 2019 describes the approach to achieving the ambitions in the field of air quality. • Investments in sustainable transport activities • Reducing emissions from construction equipment • Exploring implementation of shore power for ocean going vessels. • Zero emissions zone	**Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.**	Rotterdam has strong ambitions to further reduce CO2 emissions. Wherever possible, we focus on measures that both improve air quality and reduce CO2 emissions. Some examples: • Emission-free public transport in 2030 • Environmental zone for freight traffic • Zero-emission zone for delivery traffic in the city center • Create connections to district heating networks to replace natural gas combustion" • Expand shore power for ships beyond inland shipping. For inland shipping these provisions are largely present in the port of Rotterdam
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	**Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.**	In Rotterdam and the Rijnmond region air quality is monitored with monitoring stations measuring all regulated air pollutants. The information is available via a publicly accessible website. We collaborate with RIVM on this monitoring network.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Improving air quality is necessary for better health. For our approach we will work closely with public health organisations and other parties.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	We are involved in a variety of project in measurement of air quality by citizens. New initiatives will be supported.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Rotterdam is working closely with TNO and other relevant parties in developing emissions inventories and models.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Rotterdam will sign the national Clean Air agreement and thereby endorses the ambitions of the national government.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

An amount of approximately € 14 million is available for the improvement of air quality in the coming period; these resources have been made available by the municipality and the national government.

Seoul

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Seoul aims to meet the national environmental standard (an annual average level of PM2.5 : 15 $\mu g/m^3$) and put in place various initiatives to reach the target by tackling emissions by each source such as heating, power generation, vehicles, fugitive dust, construction etc. Meeting WHO's guidelines for PM2.5 will be challenging, due to the geographical and climate conditions, but Seoul is committed to do our best to reach our targets of cutting PM2.5 to 15 $\mu g/m^3$ by 2022, 13 $\mu g/m^3$ by 2025, and 10 $\mu g/m^3$by 2030. SO2 levels in Seoul are on average below the WHO guidelines.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	We will introduce a particulate matter season to take focused measures during the months (December through March) when the levels of particulate matter routinely increase. We plan to develop a 2020-2024 action plan on particulate matter reduction and control, and report our progress on the implementation of the action plant to the Seoul Metropolitan Council. The plan will include specific measures by each pollution source, such as deployment of eco-friendly boilers as well as driving ban on old dirty diesel vehicles.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Our goal is to enforce the particulate matter season (December to March) starting this year to overcome the limitations of the existing short-term emergency fine dust reduction measures and increase the impacts of our air quality control initiatives. We are going to evaluate the effects of the particulate matter season measures every April to continuously improve the policy.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Seoul's pilot enforcement of driving ban on grade-five vehicles (petrol cars: manufactured before 1987, diesel cars: manufactured before 2002) in the city center (Green Transport Area), which began on 1 July 2019, will officially come into effect from December 2019, meaning non-compliant cars will face a fine of 250,000 KRW(206 USD). Seoul will integrate our air quality policies in the 1.5 compliant climate action plan by 2020.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Seoul publicly provides data collected from the particulate matter monitoring equipment on our website and bus signboards among other places. We are planning to add low-cost censors to expand the existing air quality monitoring network. Link to Seoul's Air Environment Information: http://cleanair.seoul.go.kr/main.htm	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Seoul established a research institute dedicated to Seoul's particulate matter pollution on 20 May 2019. With the particulate matter research institute in the lead, Seoul will work closely with other exisiting municipal research centers. The Seoul Research Institute for Public Health and Environment studies	health impacts of particulate pollution, while the Seoul Institute studies emissions sources by using data collected from air quality monitoring network among others. The Seoul Institute of Technology researches the feasibility of cutting particulate matter in the subway stations using air ventilating and heating systems.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	We will include in the "action plan on fine dust reduction and control" how we are going to help vulnerable citizens reduce their exposure to raise public awareness on air pollution.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• Tie-up with an Academe such as the University of the Philippines-National Center for Transportation Studies (UP-NCTS) for conducting research and feasibility studies on road networks and Transport management models	• Enhanced partnership with international organizations such as C40 Cities Climate Leadership Group, Clean Air Asia, and ICLEI-Local Government for Sustainability for enhanced city-to-city knowledge transfer and technical assistance
Work with and advocate for regional, state, supranational, and national government to take action	We are going to improve the accuracy of air quality models by complementing the national inventory (emissions statistics by the Ministry	of Environment) through cooperation with research institutes. We will decide whether we will publicly open the modeling data after verification.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The 2019 budget allocated for Seoul's air quality control initiatives is 551.9billion KRW(456 million USD).

Stockholm

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Stockholm aims to fully meet the EU Air Quality Directive (2008/50/EC). We already meet the Directive's limit values for $PM_{2.5}$, PM_{10}, SO_2 and NO_2. We also meet the WHO-guidelines for NO_2 and $PM_{2.5}$. Stockholm aims to meet our additional national limit value for NO2 which is stricter that the EU Air quality directive Daily average (NO2) — 60 µg/m3 (max 7 days exceedance annually) Stockholm also aims to meet the following Swedish Clean Air goal for NO_2 and PM_{10}, which for some values are even stricter than the WHO guidelines. NO_2 — Hourly average — 60 µg/m3 (max 175 hours per year) Yearly average — 20 µg/m3 PM_{10} — Daily average — 30 µg/m3 (max 35 day) Yearly average — 15 µg/m3

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Currently there is a broad spectrum of actions in place in Stockholm to increase air quality, such as; an environmental zone for heavy-duty vehicles, a congestion tax, dust binding efforts, a studded tire ban on 3 streets, and speed regulations. For the coming years this work will be extended with new policies and actions such as the following: • Stockholm is implementing a low emission zone for personal cars in early 2020. Only vehicles meeting the Euro 5 and 6 standards will be allowed to drive within the zone. For buses and trucks, only Euro 5 or higher vehicles are allowed up until 2020; after that, only Euro 6 (with some exemptions.) All Stockholm city buses are fossil fuel free and meet the Euro 5 or 6 standards already. • Currently 70% of all trips in Stockholm city are made by public transport. To increase this number even further, the city--together with the Stockholm region--is expanding its metro. New lines will enter into service between 2025-2028. • New bypass under construction (to reduce vehicle emissions in the city centre) • Continued work with developing the ways for cycling and walking (more info below). Continued development of facilities for charging electric vehicles Stockholm will reach the EU Air Quality directive and national goals through concerted actions to be fully outlined in the new, not yet finished, environment programme for Stockholm.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	Stockholm has adopted a pedestrian plan, the first of its kind in the city, aiming and planning for a more pedestrian-friendly city. By 2030, at least 60% of local journeys should be made on foot in the inner city and 50% in the outer districts. During the current political mandate, the city will spend 1 billion SEK on developing biking infrastructure. The city's bike plan commits to development and investments with the goal of having 15% of all rush hour trips in the city be made by bike. There will continue to be a road tax on all major roads leading into Stockholm city. To reduce particles (PM10) Stockholm shall continue dust-binding streets during winter-spring when studded winter tires are allowed, will decrease the amount of traction sand applied to traffic roads, and will conduct early street cleaning to decrease the amount of road dust on streets. There will continue to be a ban on studded winter tires on three major inner city streets of Stockholm. https://www.lansstyrelsen.se/download/18.2e0f9f621636c844027102a0/1527525456631/Rapport%202012-34%20%C3%85tg%C3%A4rdsprogram%20f%C3%B6r%20kv%C3%A4vedioxid%20och%20partiklar.pdf

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Stockholm have several other action plans and strategies with actions and goals that are relevant to top pollution reducing actions. For example: Integrated measures for a fossil fuel free city in 2040, with the city's own operations being fossil fuel free in 2030. Strategy for a fossil-fuel free Stockholm by 2040. Reducing heavy traffic through emission regulations and time of day driving rules. Stockholm Urban mobility plan	Continuously improving waste management, focusing on climate smart choices and efficient logistics. This needs to be integrated and shared with other activities where new housing, business premises, schools and roads are being built and reuse and recovery must be encouraged. Stockholm waste management plan
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Air pollution and meteorology measurements in the city are carried out by SLB·analys, a department of the city's Environment and Health Administration; all data are available online. The air quality management is carried out in collaboration with other municipalities of the Eastern Sweden air quality association. This association has 60 member organizations, of which 50 are municipalities. Other members are the Swedish Transport Administration, two county councils, energy production companies and two academic departments (Department of Environmental Science and Analytical Chemistry at Stockholm's	university and the Institute of Environmental Medicine at Karolinska Institute, Stockholm). This collaboration has made it possible to effectively supervise the region's air quality. The system includes air quality monitoring, modelling and maintaining detailed emissions information. SLB analys is contracted for day-to-day operation of the various systems involved in the association. If new, reliable, validated low cost sensors become available, there are plans to expand the network in order to achieve better spatial- temporal resolution in air pollution monitoring.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	The city collaborates closely with several different research organisations in both national and international research programmes. Recent national research projects analysing health impacts of air pollution are the "Swedish Clean Air and Climate Research Programme" (SCAC) and "Etiological Mechanisms of air pollution effects in the Infant Lung"	(EMIL). Recent EU projects are SMart URBan Solutions for air quality, disasters and city growth (SURBS/ ERA-Planet) and CLARITY (Integrated Climate Adaptation Service Tools for Improving Resilience Measure Efficiency).

Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Apart from the continuous publication of air pollution concentrations on the web and in annual reports, Stockholm is now developing a multipollutant Air Quality Health Risk Index (AQHI) to be used especially by sensitive groups of the population, like people with asthma or other respiratory problems. The AQHI is based on prognoses of the health risks associated with exposure to PM10, NO2, ozone and pollen for	Stockholm. European-wide dispersion calculations for non-local sources are taken from CAMS (Copernicus Atmosphere Monitoring Service). Local pollution sources are based on high-resolution air quality dispersion modelling using local emission inventories. Maps for the upcoming 4 days will be presented on the web for public use. The work will be done in close cooperation with health experts at Umeå university. Citizens
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Very detailed emission inventories have been developed and maintained in collaboration with the framework of the Eastern Sweden Air Quality Association (described above). The emission inventories are used to assess the impact of different source sectors on concentrations, population exposures and health impacts, today and in the future. The concen-	trations are calculated using a meteorological wind model and air quality dispersion models. The system has been used in Stockholm for more than 20 years and has provided exposure estimates for several epidemiological studies and health impact assessments.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	On a regional level Stockholm collaborates closely with local and regional authorities as part of the Eastern Sweden air quality association. As president of Eurocities, Stockholm has made strengthening the organization's climate work one of the three priorities for the presidency. We are working actively to ensure	a more vocal role on these issue at EU-level as well as to encourage more ambitious commitments among the members. On a more technical level, Stockholm is actively taking part in the Eurocities working group for Air Quality, sharing experiences and best practice.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Forecasting projects are mainly financed via the the city's main budget (existing Stockholm citizen's taxes). In addition, there is also the congestion tax, tickets, national funding etc. (LEZ, subways, bypass Stockholm).

Sydney

SIGNATORY SINCE 2019

ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Monitoring • New ambient regulatory stations (currently zero) and multiple low cost sensors installed and operated by NSW Government. • Google AirView street level mapping. • Continuation/expansion low cost sensors (currently 9) installed by the City in partnership with the University of Technology Sydney. Targets • City is presently updating its strategic vision, Sustainable Sydney 2050, which will meet C40 Climate Action Plan requirements and should make reference to WHO guidelines.	
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Transport is major source of air pollution for our area. By 2025 the City may expand upon and implement new policies and programs such as: • Continued focus on active and public transport programs. • Continued expansion of urban greening and canopy. • Advocacy for low emissions vehicles and better fuel and vehicle emissions standards. • Using existing channels to communicate air quality information to the public.	• Land-use planning that avoids certain developments such as child care facilities in high pollution areas. • New staff resources to monitor and communicate air quality information and coordinate advocacy.

	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	As the third tier of Government in Australia the City has limited direct control to reduce air pollution from transport. As outlined by the Accelerator commitment, the City will focus on active and public transport; urban greening, appropriate land-use planning, communications and advocacy.	
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Sustainable Sydney 2050 to include reference to air quality guidelines and priority focus areas while meeting C40 Climate Action Plan requirements.	

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	The City recently installed nine low cost sensors and is working with the NSW Government to identify sites for one or more regulatory standard ambient stations in our area. In August 2019 a Mayoral Minute was endorsed to develop options (including staffing and equipment costs) associated with implementing an integrated, publicly accessible 'Breathable Sydney' air quality monitoring network, that displays data in an intuitive way and which has	enough sensors to enable the City to: • Monitor high traffic areas in all of the City's villages. • Have a number of portable units, so that the City can respond to community concern about air pollution sources in an ongoing way. • Monitor city assets that cater to vulnerable members of the community, such as child care centres.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Sydney may contribute to and access information on the health impacts of air pollution generated through the work of the C40 Air Quality Network.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	The City has well established channels and resources for communications once access to reliable information becomes available.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	Further studies, inventories and segmentation into the transport emissions (the major pollution source) will be valuable to inform specific actions and priorities. It may identify that the major source of transport	emissions is due to through traffic, or diesel busses for example. Once monitoring systems are in place the City would look to partner will local universities to develop these inventories and models.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Advocacy will continue to be a major priority for the City, strengthened by local data once available, and precedent actions by other C40 cities.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

City will determine funding and resource applications over the 2019/20 financial year which will be used to inform future budgets.

Tel Aviv-Yafo

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	By the end of 2022, Tel Aviv-Yafo will set baseline air pollution levels. The baseline will be based on the monitoring stations, owned by the ministry of environment, that are spread all over the city. We are considering adding more monitoring stations to make the baseline more accurate. Tel Aviv will aim to set an ambitious air quality target below the national standards according to the strategies planned for the city in the near future. By 2025 Tel Aviv-Yafo will identify and implement actions that will reduce air pollutants (nitrogen dioxide, ozone, and sulphur dioxide). While the city has not set a date by which it will aim to meet WHO guidelines, it will set milestones according to its future plans. (According to city predictions, construction sites (hotels, commercial and residential) are estimated to increase in 40-45% in major parts of the city and the estimation of additional 2000 vehicles each and every year.)
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	Before 2025, Tel Aviv will: • Add new bicycle lanes • Transform parking spaces into bicycle lanes • Launch ‘Low Emission City’ - Tel Aviv will limit specific polluting vehicles from entering the whole city. Moreover, Tel Aviv will ban polluting ‘off-road heavy duty machines’ working in construction sites all over the city.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	One of the main sources of air pollution is transportation, especially public transportation that is owned by the government. Thus the city’s government is creating regulations for public transportation emissions.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Some of the pollution-reducing actions that Tel Aviv will take include: • Adding infrastructure for charging electric buses in terminals across the city. • New bicycle lanes: our target is to add 180,000 bicycle rides per day. • Closing streets to vehicles: A pilot of closing 13 streets to vehicles was conducted. We are also considering closing some streets and junctions to vehicles during weekends. • Shared transportation: encouraging carpooling (more than 2 people) with special lanes, using Auto-Tel (shared private car), using mobile apps for sharing rides, and more. • Parking management: transforming parking places along the streets into bicycle lanes, raising prices for parking in the city, and more. • Promoting smart mobility technologies • Walkability plans • Bicycle global city: encouraging bicycle use as the main form of transportation in the city and into the city, to make it possible to ride anywhere and everywhere in the city, by adding accessible lanes, bike parking areas, and increasing integration with public transportation.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	During 2021, more monitoring stations will be added to the 13 stations that are already measuring and monitoring air quality.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	Publishing real time air quality data from sensors to the citizens, promoting low emission day events within the community (such as human bus to school, walking to school instead of driving to school, using public transportation to get to work instead of using private cars, banning vehicles along the street as part of a community event).
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	2017 GHG inventory has been certified by C40.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Shared committees with the ministry of environment and ministry of transportation to promote actions to reduce emissions from transportation.

Tokyo

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	• Aiming to achieve environmental standards for photochemical oxidants (ozone), and an early decrease in concentration, Tokyo became the first Japanese city to implement an intermediate target using the internationally adopted 8-hour mean. • Tokyo Metropolitan Government (TMG) currently has PM2.5 concentrations below the national environmental standards, according to ambient air monitoring stations. Heading towards the Olympics, Tokyo is aiming for further improvements in PM2.5 levels. • TMG has achieved the national standards for Nitrogen Dioxide (NO^2) and Sulfur Dioxide (SO^2), and is also fulfilling the WHO air quality guidelines.	**Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.**	• Working towards goals in reductions of PM2.5 and photochemical oxidants, through the establishment of the "Conference on Fine Particulate Matter in the Atmosphere" in 2017 and 2018, TMG has furthered understanding of the generation process from a technical perspective, and examined reduction policies. • Based on the results of these examinations, TMG will continue to work on measures aiming for reduction of PM2.5 and photochemical oxidants.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	• Working towards goals in the reduction of PM2.5 and ozone, through the establishment of the "Conference on Fine Particulate Matter in the Atmosphere" in 2017 and 2018, TMG has furthered understanding of the generation process from a technical perspective, and examined reduction policies. • Based on this research, TMG will continue to work on measures aiming to reduce PM2.5 and photochemical oxidants.	**Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.**	• TMG plans to incorporate related policies into a new environmental strategy, scheduled to be established in December 2019.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.			Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	• To measure particulate matter air pollution, TMG has established 47 ambient air monitoring stations in residential areas, and 35 roadside air pollution monitoring stations. Tokyo is continuously observing air pollution levels. • In addition to posting measurement data on the city's homepage, hourly mean data from each monitoring station is uploaded in real time.	
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	• Working towards the goal of reducing PM2.5 and ozone, through the establishment of the "Conference on Fine Particulate Matter in the Atmosphere" in 2017 and 2018, TMG has furthered understanding of the generation process from a technical perspective, and examined reduction policies.	• While cooperating with environmental research institutions and local governments, TMG will continue surveys and research aimed towards improvement of air quality.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	• Aiming for further improvement in air quality, TMG will improve public awareness and the supply of information about air quality.	
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	• While working with related institutions, TMG will continue to update the emissions inventory, while considering further improvements to the inventory's accuracy.	
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	• Aiming for further reductions in PM2.5 and ozone, TMG, cooperating with a conference between 9 prefectures and cities, will examine and promote cross-jurisdictional reduction policies. Additionally, TMG will request that the national government implement comprehensive policies that transcend administrative district boundaries.	

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Measures are being enforced using TMG's budget.

Warsaw

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT

Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.

INTENDED ACTION/APPROACH TO MEET COMMITMENT

Baseline levels have been established on the basis of Chief Inspectorate of Environmental Protection data (2018):

PM 2.5	Annual Mean	22 μg/m3 10 μg/m3 – WHO guidelines
PM10	Annual Mean	34 μg/m3 20 μg/m3 – WHO guidelines
O3	Contravention days	10 0 – WHO guidelines
NO2	Annual Mean	34 μg/m3 40 μg/m3 – WHO guidelines
SO2	Contravention days	0 0 – WHO guidelines

Our ambitious target is reduction of PM concentration in Warsaw in 2020-2021:

PM2.5	Annual Mean	from 22 to 19 μg/m3
PM10	Annual Mean	from 34 to 30 μg/m3
O3	Contravention days	from 10 to 6

Our next ambitious target, which will put us on a path toward meeting WHO Air Quality Guidelines, is to further reduce particulate matter concentrations by 2025:

PM2.5	Annual Mean	from 22 to 15 μg/m3
PM10	Annual Mean	from 34 to 25 μg/m3
O3	Contravention days	from 6 to 3

Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.

The main PM emission sources in Warsaw, not counting contributions generated outside of the city, are households (52%) and transport (22%).

Households heating

The Mazowieckie Voivodeship Council enacted an anti-smog resolution which introduces a ban on using low-class stoves from 01.01.2023. There are about 15,000 low-class stoves in Warsaw.

In October 2019, the Warsaw City Council adopted a new, very attractive system of subsidies to co-finance exchange of coal stoves for more ecological sources of heat.

In 2020-2021 our reduction target will grant a subsidy for replacement of about 7,500 stoves (50% of all stoves in Warsaw) while the ambitious longer-term goal is to remove the majority of the coal furnaces by the end of 2022 and the remaining stoves by the end of 2023.

In 2018, the Mayor of Warsaw announced another reduction target: the elimination of 1,446 fossil fuel boilers in municipal buildings by the end of 2021. In 2019, the City of Warsaw removed 540 fossil fuels stoves. In 2020-2021 City of Warsaw is going to eliminate the remaining 906 stoves in the municipal system.

Transport

The Electromobility Act implemented in 2018 imposes an obligation to electrify the bus fleet (20% up to a year 2025), to install 1000 charging points up to the end of 2020 and enables local authorities to introduce clean transport zones. So far, Warsaw's fleet contains 31 electric buses and by 2021 this number will increase to 161, which represents 9% of the entire fleet.
The total number of public-access charging points for passenger cars has reached 103 (206 charging points). 410 other locations have already been selected for installation of at least 820 charging points.

In November 2019 Mayor of Warsaw announced new targets in transport policy:

- establishment of the first restricted and clean transport zone,
- extension of the paid parking zones,
- increase in parking fees and introduction of a central zone with higher parking fees,
- construction and modernisation of parking lots on the suburbs – Park&Ride, and
establishment of new bus lanes along the streets with the highest traffic.

Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.

Warsaw will cooperate with C40 to complete requested information as part of Accelerator reporting process.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS	
Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.	n 2019 Warsaw assigned unprecedented resources (70 million Euros) for the exchange of coal furnaces within 3 years. A newly-established Office of Air Protection and Climate Policy created an entirely new system of funds distribution. It is based on priority for renewable energy sources and digressive in character. After finishing a detailed inventory of sources of air pollution, we will be able to establish concrete targets and budgeting in the context of stoves removal.	Warsaw authorities intend to share their know-how on exchange of coal furnaces for the ecological systems of heating with neighbouring municipalities. Warsaw already co-operates on issues of both regulatory initiatives and practical policy solutions with regional and local authorities of the Mazovian region.
Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.	Warsaw authorities are intensively expanding infrastructure for bicycles (about 591 km bike lanes in Warsaw). The effect is an increase in bicycle trips in the travel mix from 3.8% (2015) to 7% (2018) on average. The Municipal Police force was equipped with drones and other necessary equipment to effectively track and deter pollution caused by burning illegal materials. Replacement of city buses for low-emission buses or electric buses (in 2019-2022): - 2019: 152 (EURO II i EURO III) - 2020: 185 (EURO III i EURO IV) - 2021: 73 (EURO IV) - 2022: 9 (EURO IV)	In 2020-2021 we will develop bus lanes on streets (Bitwy Warszawskiej, Radzymińska, Puławska, Sikorskiego, św. Bonifacego). In 2020-2021 will be built 8 metro stations and new tram investment (Nowodwory-Winnica; Kasprzaka; Plac Unii Lubelskiej-Wilanów). The Office of Mobility anticipates extension of paid parking zones by 125% by 2023 and rise of parking fees by 20% from 2019.
Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.	Warsaw procured an instalment of a network of about 170 air quality sensors. The network will cover not only Warsaw but also the 20 surrounding municipalities. In addition to that, in cooperation with the Chief Inspectorate of Environmental Protection,	2 reference stations will be installed. Data from all devices will be available online in real time and connected into one system.
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	Warsaw cooperates with the Warsaw University of Technology, University of Warsaw – Interdisciplinary Centre of Mathematical and Computational Modelling, National Health Fund on a project aimed at determining the impact of air quality on health. The technological platform, Climate Partnership, established by Warsaw authorities gathers social partners from various sectors: NGOs,	academia and business. One of the 6 working groups is devoted to air quality. Its members, together with city of Warsaw specialists, analyse available solutions and promote best practices in the context of air quality. The platform also links partners from different sectors to co-operate on joint projects in the field of air quality.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	A working group on education has been established within the framework of the Climate Partnership, aimed at developing an ecological education strategy for Warsaw.	An educational programme for schools devoted to climate change and air quality was prepared. A pilot will be implemented in 2020.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	In Poland, Chief Inspectorate of Environmental Protection is a country-wide institution in charge of air quality. It publishes an "Annual Air Quality Assessment" containing detailed sources of emission, share of different types of emitters, and concentration of pollutants. The data	sources are both measurements and mathematical models. This is the key source of knowledge on air quality for local governments. The system of sensors mentioned above, which will be established in 2020, will complement the governmental reports.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	Warsaw co-operates with neighbouring municipalities in building an air quality measurement network and analyses possibilities to extend this into the field of waste incineration. Warsaw co-operates with the Ministry of Entrepreneurship and Technology in the ZONE Project (inventory of emission sources) as well as the voivodeship government on stricter	measures in the context of air quality. Our intention is to set up a cooperation with the newly-established Ministry of Climate on issues of air quality, in particular we are interested in obtaining governmental support for retrofit of the buildings for the less affluent members of the society.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

The Warsaw City Council assigned for actions related to smog reduction 300 million PLN (70 million EUR). In 2019, we will spend 30 million PLN (7 million euro); in 2020 – 60 million PLN (14 million EUR); in 2021 -

100 million PLN (23 million EUR); in 2022 – 110 million PLN (26 million EUR).

Total budget of The Warsaw Air Index (WIP) project (covering 2 reference stations and about 170 air quality sensors) is approx. 18 million PLN (the share of EU founds is 80% - 14.4 mln

Washington D.C.

SIGNATORY SINCE 2019

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ACCELERATOR COMMITMENT	INTENDED ACTION/APPROACH TO MEET COMMITMENT	SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Within two years, establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide.	Air quality in Washington, DC (DC) is in compliance with the United States (US) National Ambient Air Quality Standards (NAAQS) for five of the six criteria air pollutants. DC has various control programs in place to maintain and sustain the air quality improvements made for those five criteria air pollutants- carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), lead (Pb), and particulate matter (PM2.5 & PM10). The sixth pollutant- ground-level ozone (ozone, O3), continues to be a concern. It is a regional pollutant with significant contributions coming from outside DC through transported air pollution emissions. DC cannot impose pollution controls on the sources that contribute to the transported emissions. Hence, DC has to largely depend on the federal national and regional control programs for mitigating the transport of ozone precursor pollutants. While pursuing additional local controls on sources within the jurisdictional boundary, DC will continue to work with the federal and regional partners to improve ambient ozone air quality. DC's current ambient air quality also complies with the World Health Organization guidelines for SO2, NO2, and particulate matter PM2.5. DC will report annual emission inventories to keep track of emissions and establish a baseline following the standards required by the US National Emissions Inventory (NEI) program.	**Implement new policies, enforce strong regulations, prioritise resources, and build necessary capacity and skills to achieve ambitious reductions in air pollution source sectors that are within our control.**	As required under the US Clean Air Act, DC must adhere to its SIP to demonstrate its plan and goals for achieving NAAQS. DC's SIP outlines emission inventories, modelling, and regulations, and control programs to reduce pollution. DC is also implementing new regulations such as the Carbon Intensity Rule, the Demand Response Generating Sources Rule, California Low Emissions Vehicle (LEV) III adoption, and Reasonably Available Control Technologies (RACT) for the 2008 Ozone NAAQS. DC is examining other measures needed to meet requirements for the 2015 Ozone NAAQS, including updated RACT requirements. DC is also implementing strong enforcement protocols, in particular towards the enforcement of existing anti-idling regulations.
Before 2025 or within 5 years of joining this commitment, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control.	DC will implement new policies and programs as outlined in its State Implementation Plan (SIP) to reduce ozone concentrations and achieve NAAQS. DC will also coordinate with the US Environmental Protection Agency and other state agencies on strategies and control programs to reduce pollution. DC received an allocation from the Volkswagen Clean Air Act Civil Settlement (Volkswagen Settlement) to mitigate diesel emissions. DC has assigned these funds to replace heavy duty diesel vehicles with zero or near-zero emission vehicles. These projects will help further reduce mobile source sector emissions in DC.	**Integrate the relevant top pollution-reducing actions -- that are within our city and under our control -- into our Climate Action Plans, such as: rapidly expanding zero emission public transport, creating low or zero emission areas, supporting walking/cycling, implementing vehicle restrictions or financial incentives/disincentives (e.g. road or parking charging), reducing truck, non-road machinery and city owned vehicle emissions, cleaning up construction sites and equipment, reducing industrial emissions, reducing emissions from wood burning, expanding affordable access to clean energy for cooking and heating, restricting pollution from solid waste burning and expanding greening.**	DC is currently developing a Carbon Neutrality Strategy to achieve its goal to become carbon neutral and climate resilient by 2050. The plan will include a number of air pollution-reducing actions, including requirements from the Clean Energy DC Omnibus Amendment Act of 2018 around vehicle electrification, which requires all public buses, private fleets with a capacity of 50+, and taxis to be zero-emission vehicles by 2045. The plan will also include DC's overarching transportation mode shift goals, to reduce the number of commuter trips made by car to 25% by 2032, with 75% of trips made using active and public transportation options by that date.
Publicly report annually on our progress in reducing pollution levels relative to targets and achieving the commitments in this Accelerator.	Work with C40 to complete requested information as part of Accelerator reporting process, as outlined in the C40 Clean Air Technical Note.	**Establish, maintain, increase, or contribute to reliable city-wide air quality monitoring, making data publicly available in a timely manner or as close to real-time as possible and in an accessible format, in coordination with relevant departments and institutions.**	DC maintains an ambient air monitoring network that consists of five monitoring sites throughout the city. Near real-time data, air quality forecasts, and alerts are made available through various resources, including https://aqs.epa.gov/api, https://www.airnow.gov/, https://www.epa.gov/outdoor-air-quality-data/download-daily-data, https://www.cleanairpartners.net/current-and-forecasted-air-quality, and http://www.enviroflash.info/.

SUPPORTIVE ACTIONS	EXAMPLES OF INTENDED ACTIONS AND APPROACHES TO DELIVER THESE ACTIONS
Conduct, expand, or collaborate with relevant institutions to increase research on the health impacts of air pollution, the benefits of air quality improvements, and associated economic implications, and publish the results.	DC's air program collaborates with local universities such as The George Washington University on research about air quality health impacts. George Washington University's NASA-funded research project "Using remote sensing and Earth system models to improve air quality and public health in megacities" will involve working with the Department of Energy and Environment (DOEE) on DC air monitoring data and improving air quality in areas disproportionally affected by air pollution.
Raise awareness of air quality to help vulnerable citizens reduce their exposure, and to reduce the causes of air pollution, such as traffic.	As part of the Volkswagen Settlement, DC will replace a number of public transit diesel buses to fully electric vehicles. The new electric buses will have signage displaying health benefits of the vehicle and will raise awareness on air pollution in the city. This will benefit the public transport routes in disadvantaged Environmental Justice communities. Another avenue of raising awareness is the Green Zone Environmental Program (GZEP). GZEP is a summer program for DC youth to get hands-on experience in the environmental field. Every week of the summer, DOEE presents to different groups about the program on air quality in DC. DOEE also participates in numerous presentations to schools around DC on air quality and health.
Create, update, or work with relevant institutions to ensure high quality emissions inventories, models, and analysis are available to describe where and how outdoor air pollution is formed in our city, both today and in the future.	DOEE collaborates with various regional and national organizations to help reduce regional pollution. These include the Ozone Transport Commission, the Mid-Atlantic/Northeast Visibility Union, the National Association of Clean Air Agencies, the Mid-Atlantic Air Regional Air Management Association, Metropolitan Washington Air Quality Committee, and state agency coordination. DC is involved with these entities in developing emission inventories, modelling, air quality improvement strategies and policy work.
Work with and advocate for regional, state, supranational, and national government to take action on sources outside our boundaries or our control.	In addition to DC's work on regional air quality and transportation planning, DC is participating in the Transportation Climate Initiative (TCI) with 12 Mid-Atlantic and Northeastern states to design a regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels and allow DC to invest proceeds into low-carbon and more resilient transportation infrastructure.

EXAMPLE OF FINANCIAL RESOURCES AVAILABLE TO DELIVER THE COMMITMENTS

Federal Air Pollution Control Grant and DC's required Local match, Federal grants for ambient monitoring programs, National Volkswagen Settlement Funds, Federal Diesel Emissions Reduction Act (DERA) Funds.

C40
CITIES