# Clean Air Zone Toolbox

**From Low Emission Zones to Zero Emission Areas: how cities can transform transport to create cleaner, greener and healthier streets**



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# About the Clean Air Zone Toolbox

Clean Air Zones are specific areas of a city in which measures have been introduced to reduce toxic air pollution, prioritise people over cars, and promote a shift to active travel including walking, cycling and public transport. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone, as they improve air quality and public health by restricting access for the most polluting vehicles. This also helps accelerate the transition to zero-emission transport and address the climate crisis. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Clean Air Zones can be referred to by different names in different cities, such as Environmental Zones, Ultra Low Emission Zones, and Limited Traffic Zones.

This toolbox is for all C40 and non-C40 cities planning, developing and implementing Clean Air Zone policies. It is informed by insights and learnings from leading C40 cities that have introduced Clean Air Zone policies, and are already seeing impressive benefits for residents. A total of 35 cities have signed the C40 Green and Healthy Streets Accelerator and committed to introduce a ZEA in their city by 2030.

In line with this and other ambitious climate commitments, this guide regularly refers to policy recommendations to help develop and implement ZEAs. In order to meet climate and air quality targets, we maintain that the most ambitious clean air measures will continue to be needed, and consider ZEAs as the ultimate goal.

The C40 Clean Air Zone Toolbox provides resources and insight from cities worldwide, to support the implementation of equitable Clean Air Zones with broad public and political support. It is designed to help create transformative change for thriving, inclusive and healthy cities worldwide.

## The Clean Air Zone Toolbox is made up of three parts which can be read individually or together:

**Part 1**
How to introduce a Clean Air Zone in your city

**Part 2**
How to create an inclusive and equitable Clean Air Zone

**Part 3**
How to build public and political support for Clean Air Zones

# Clean Air Zone Toolbox

**From Low Emission Zones to Zero Emission Areas: how cities can transform transport to create cleaner, greener and healthier streets**



## Part 1: How to introduce a Clean Air Zone in your city

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# Foreword

**C40 Co-Chair
Mayor of London Sadiq Khan**

When I promised to make London home to the largest Clean Air Zone in the world, I knew it was an ambitious commitment. But it was one I had to stand by, to tackle the dangers of toxic air and improve the lives of Londoners. For too long cities have been designed around polluting cars, rather than people. This results in traffic and congestion, unsafe streets, and limited public transport options for those who need it most. Polluting vehicles not only contribute to the climate crisis; they are also to blame for the fact that around the world, <u>99% of us</u> are breathing unhealthy air.

But it doesn't have to be this way. Clean Air Zone policies such as Low and Zero Emission Areas (LEZ and ZEAs) address these challenges and create cleaner, greener and healthier cities. Since I introduced the Ultra Low Emission Zone (ULEZ), toxic nitrogen dioxide pollution has <u>reduced by almost 50%</u>. Between 2016 and 2020, London reduced its pollution levels five times faster than the rest of the UK. Between the implementation of the ULEZ and February 2024, our polls show a seven point increase in support compared to before the introduction of the policy.

As C40 Co-Chair alongside Mayor of Freetown Yvonne Aki-Sawyerr, I am proud to represent the diverse and innovative cities around the world that are leading ambitious urban climate action. By introducing Clean Air Zone policies such as expanded public transport networks and pedestrianised streets, cities are drastically reducing air pollution, improving public health, and addressing the climate crisis.

Experience has shown that when people witness and feel the positive impact and tangible benefits of climate action – including cleaner air; reduced traffic congestion; safer streets; more walking and cycling options; more accessible, affordable public transport; green jobs and improved quality of life – they become advocates for change and catalysts for further action.

This toolbox is designed to help cities create and deliver inclusive, equitable policies that work for their residents. Informed by the work of leading C40 cities, it offers practical guidance, best practices, and case studies to assist cities at every stage of the implementation process, as well as guidance and inspiration for compelling communications and public engagement campaigns. By equipping cities with the necessary knowledge and tools, and inspiring city residents to become champions and change makers, together we can create healthier, more equitable, and more vibrant cities for everyone.

# Introduction

Around the world, cities are redesigning their streets to prioritise people over cars including in **Auckland**, New Zealand; **Bogotá**, Colombia; **Milan**, Italy; and **Seoul**, South Korea. These and other leading cities are driving a shift away from private polluting cars, and bringing people, public transport, walking and cycling to the heart of their city streets. They are delivering cleaner air, quieter and safer roads, economic prosperity, and healthier public spaces.

**C40 Clean Air Zone Toolbox Part 1: How to introduce a Clean Air Zone in your city** is a technical guide for city officials working to deliver these policy measures, and in particular, how to work towards implementing inclusive, equitable and effective Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) that are tailored to the specific needs of your city. It covers what Clean Air Zone policies are, and the many and varied benefits they bring to cities and their residents.

This guide has been developed using insight and experience from the cities around the world leading the way by introducing Clean Air Zone policies such as LEZs, and developing plans to implement ZEAs to address the climate crisis, tackle air pollution and congestion, and improve public health, green jobs, safety and wellbeing.

This guide provides a three-step process to successfully implement Clean Air Zone policies, including start stage, development stage and going live stage, as well as how to overcome any challenges. There are tips and advice at every stage of the process, informed by learning from the leading C40 cities across every region that are implementing Clean Air Zone policies and measures to transform residents' lives for the better.

To ensure your Clean Air Zone policies are equitable and inclusive, read **Part 2: How to create an inclusive and equitable Clean Air Zone.**

To build an impactful public engagement and communications campaign, read **Part 3: How to build public and political support for Clean Air Zones.**

# What is a Clean Air Zone?

Clean Air Zones improve public health by cleaning up toxic air and promoting a shift to active travel. They also address the climate crisis by reducing the number of vehicles on the road and accelerating the transition to zero-emission transport. Clean Air Zones aim to tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone.

Rather than a single policy, Clean Air Zones should be seen as a suite of measures that can be gradually implemented to transform the way residents and visitors experience and get around the city. Combined, they create long-lasting, systemic change for the better. Cities around the world are taking action to achieve these transformative benefits for their residents.

Clean Air Zones can have different names in different cities. In **Bogotá**, Colombia, people refer to the Urban Clean Air Zone, or Zonas Urbanas por un Mejor Aire (ZUMA). In **Berlin**, Germany, the city has an Environmental Zone or Umweltzone.

Urban vehicle access regulations (UVARs) such as LEZs and ZEAs are an important part of a Clean Air Zone.

LEZs and ZEAs should be introduced alongside other Clean Air Zone policies that make it easier for people to shift away from polluting cars. It is vital for cities to help minimise the need for travel and ensure that the right infrastructure and alternative modes of efficient, accessible and affordable transport options are available before restricting polluting vehicle use. Clean Air Zone policies include:

- building cycle infrastructure
- improving pedestrian infrastructure and access
- greening streets and creating more space for nature
- redesigning public space and implementing tactical urbanism projects
- expanding and electrifying the public transport network
- providing electric vehicle (EV) charging
- incentivising EV uptake with grants and rebates
- implementing more sustainable approaches to urban planning, such as 15-minute cities, to reduce trip times
- promoting bike and car sharing
- launching communications or resident engagement campaigns (for more detail, read **Part 3: How to build public and political support for Clean Air Zones).**

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### What are Zero Emission Areas (ZEAs) and Low Emission Zones (LEZs)?

ZEAs are people-centred measures which improve air quality and reduce emissions by promoting walking, cycling and public transport, reducing the overall number of vehicles, and ensuring all remaining vehicle trips are zero emission through emissions-based regulations.

LEZs are a stepping stone to a ZEA. These policies focus on emissions-based access regulation, where vehicles below a specified emissions standard are either banned from or charged a fee to enter a specified zone within the city.

# Clean Air Zones are transformative policies to deliver systemic change in cities

# What are Clean Air Zone policies?

Clean Air Zone policies are measures cities introduce to address the interconnected climate, air quality, congestion and health crises. Many cities introduce a combination of measures, which become more ambitious and impactful over time to achieve a full and permanent ZEA. Clean Air Zone policies can include LEZs, Zero Emission Delivery Zones (ZEDZs) and large-scale pedestrianisation projects.

This map illustrates the variety of policies that different cities are using, in different combinations, to improve streets for residents.

Many cities are already implementing the Clean Air Zone policies mentioned above. However, moving from these policies towards a full and permanent ZEA that covers a significant area of the city is a large step which can be a challenge for cities.

**Managed parking zones** ●
As most cities have a high level of power over parking management, they can remove, reduce or greatly increase the cost of parking to reduce car usage. This can be done as part of broader parking policies like abolishing parking minimums and a workplace parking levy.

Many cities are also beginning to explore parking costs which are staggered and linked to various factors such as how polluting the vehicle is, its size or weight, or the income of the driver.
Tokyo, Melbourne, Paris

**Temporary, regular interventions** ●
Measures such as school streets, car-free days and open street events target pollution and emissions reduction and improve safety in specific settings, for example around schools. This can help build public support for larger interventions.

'School streets' close streets outside schools to traffic at the beginning and end of the school day, or permanently pacify schools' surroundings. Open street measures close a specific street, for example a high street or market street, to traffic on a specific day.
Milan, Boston, Paris, Bogotá

**Zero Emission Areas (ZEAs)** ●
ZEAs are people-centred measures which improve air quality and reduce emissions by promoting walking, cycling and public transport, reducing the overall number of vehicles and ensuring all remaining trips are zero emission, by banning all polluting vehicles from the zone.
Stockholm, (from 2025)

**Low traffic zones or neighbourhoods** ●
These zones reduce traffic by limiting some access to the zone – certain streets may only be open to residents, or there may be no through-traffic allowed and journeys must end in the zone to avoid a fine.
Paris, Barcelona, Berlin, Oxford

**Zero Emission Delivery Zone (ZEDZ)** ●
An area in which zero-emission delivery vehicles are prioritised at the curb, for example through access to additional designated loading spaces. In some cases, only zero-emission freight vehicles are allowed to stop and deliver in the zone, but other types of vehicles are still able to access and drive through the area.
Los Angeles, Portland (from 2024)

**Holistic neighbourhood interventions** ●
A range of pollution reduction measures introduced in selected small areas, such as a neighbourhood or several blocks:
• improve active travel infrastructure such as cycling lanes and expanded paths
• work with residents to reallocate, redesign and introduce more greenery to public space
• implement sustainable urban planning approaches such as 15-minute cities
• promote bike and car sharing.
Bogotá, Seattle (by 2028)

**Zero Emission Zone for Freight (ZEZ-F)** ●
Areas in cities where fossil fuel freight vehicles' access is strictly limited or only zero-emission freight vehicles may enter. This measure targets high-mileage and highly polluting freight vehicles, including vans, trucks and waste collection vehicles.
Amsterdam and Rotterdam (from 2025)

**Large pedestrian zones** ●
A zone where pedestrians are prioritised and vehicle access is greatly restricted. Cycles may or may not be allowed. Some freight may be permitted, usually with time restrictions.
Bogotá, Heidelberg, Bordeaux

**Congestion charge** ●
All, or most, vehicles are charged a fee to enter the city boundary or a zone within the city. Drivers may be charged at all times or only during peak hours.
London, Stockholm, Singapore

**Low Emission Zones (LEZs)** ●
An emissions-based access regulation policy where vehicles below a specified emissions standard are either banned from or charged a fee to enter a specified zone within the city. This may cover the whole city boundary or only part of the city.

LEZs may also only target, or have different restrictions for, different vehicle classes, such as trucks and buses.
London, Milan, Brussels, Paris, Seoul

## Map labels

Amsterdam
Stockholm
Rotterdam
Paris
Oxford
London
Berlin
Bordeaux
Milan
Barcelona
Heidelberg
Brussels
Seoul
Tokyo
Singapore
Seattle
Portland
Boston
Los Angeles
Bogotá
Melbourne

**North America** · **South America** · **Europe** · **Africa** · **Asia** · **Australia**

# City spotlight: Amsterdam, the Netherlands, targets freight first

The city of Amsterdam is taking a staggered approach towards a 2030 ZEA which focuses on the most polluting vehicles first to improve air quality. The city implemented its Milieuzone LEZ in 2020, restricting entry for the most polluting passenger and commercial vehicles

To complement existing environmental zones in the Netherlands, the national government passed legislation that enables cities to introduce zero-emission zones for logistics as part of its Urban Logistics Implementation Agenda, which will focus on improving air quality by reducing, changing and making the traffic movements of vans and trucks more sustainable.

From 2025, all new vans and trucks driving within Amsterdam's ring road must be zero emission, with transitional arrangements for newer vehicles. The restrictions for passenger diesel vehicles and mopeds will tighten to exclude more polluting vehicles. Amsterdam has committed to be completely emissions-free from January 1, 2030. There are currently no national regulations for passenger cars, so the city is considering a later date or transitional arrangement. This is one approach that targets certain fleets first, while giving residents more time to transition.

**Amsterdam**
Low Emission Zone active since 2020

# City spotlight: Access for everyone in Auckland, New Zealand

The city of Auckland has developed a comprehensive and coordinated Access for Everyone (A4E) plan, outlining how it will move towards a ZEA within the city centre.

This plan aims to reallocate road space within the city centre to prioritise spatially efficient transport modes and fulfil the vision set out in the city centre master plan, with the aim to create a ZEA in Auckland's city centre by 2030. This action is supported by the city's Transport Emission Reduction Pathway (TERP).

The city has started implementing the plan with the launch of an Essential Vehicle Area (EVA) in the centre of the city. Along Queen Street, priority is given to public transport, walking, and cycling, while motorised through-traffic, including private cars, taxis, and car-sharing services, is restricted. In the future, this zone will be focused on active modes and public transport will extend to the surrounding streets of the Waihorotiu Valley, serving as the foundation of the ZEA in the city centre.

This incremental approach allows the city to move forward with an innovative policy while also introducing the idea of a ZEA which is both emissions-free and promotes shared and public transport options for residents.



**Auckland**
Essential Vehicle Area
implemented in 2022

# How to create a Clean Air Zone that works for your city

All cities have unique needs and challenges. To implement a successful Clean Air Zone, cities must create tailored policies to suit their own specific context. It is vital that the Clean Air Zone is designed to prioritise residents' needs, particularly those most impacted by the policy, including marginalised groups, children, the elderly, and people living with disabilities and long-term health conditions.

Ultimately, a Clean Air Zone will produce cleaner air, safer streets, more sustainable travel, fewer greenhouse gas emissions, and less congestion. Depending on the context of each individual city, different measures may be more or less effective. To help determine the interventions that will work for them, cities should consider the challenges they are facing, their sociopolitical context, and the benefits and changes they are aiming to achieve.

Here are some actions cities can take to ensure Clean Air Zone policies are tailored to their context:

**Gather the right data** to define the Clean Air Zone size, scope and framing, based on concrete evidence of the local problem.

- In **Bogotá**, Colombia, for the Urban Clean Air Zone or Zonas Urbanas por un Mejor Aire (ZUMA) programme, the city gathered data on pollution and socio-economic indicators to shape the interventions that would have the most valuable impact in the proposed zone. Mapping in detail both air quality and other indicators – including locations of schools and hospitals, population demographics and health risks – allowed Bogotá to build a detailed picture of what was needed in the zone.

**Engage in an in-depth participatory process** at the very start of the Clean Air Zone journey and throughout implementation, to help **embed equity and inclusivity** at every stage. This will provide insight into the challenges residents face, and what interventions will be most impactful. A Clean Air Zone developed for and by the community will be more equitable, effective, and resilient to political changes and potential backlashes.

- The city of **Seattle**, United States is designing an approach to transform neighbourhoods for historically marginalised communities. The city is centring the voices of those most impacted by pollution and the climate crisis from the very start of the design process. This will allow the development of context-sensitive projects with strong community support.

Public participatory processes can take many forms, including surveying or polling residents, organising focus groups, facilitating discussion forums, e-voting systems, local workshops, interactive events, or public debates. Find out more about developing the right public participatory process for your city in **Part 3: How to build public and political support for Clean Air Zones.**

**Introduce measures to provide for those most impacted by the policy** ahead of implementation, particularly any residents who are already marginalised. This can be informed by the data collected and the public participatory process engaged in with residents.

- **Stockholm**, Sweden invested in additional bus services ahead of the introduction of congestion charges in the cities, to ensure more residents had access to sustainable and affordable transport options.

**Understand the legal basis** for establishing and enforcing Clean Air Zone policies such as LEZs and ZEAs in your city. Seek legal advice to understand what is feasible and how to make the case for it.

Legal interventions offer cities a powerful tool for unlocking climate action. It can particularly help by challenging or removing barriers to ambitious policies. In **Paris**, France the city pedestrianised a stretch of the Right Bank of the river Seine and defeated a court challenge against it.

**Develop a public engagement strategy and communications campaign** to involve and win support from residents, partners and stakeholders across the social and political spectrum.

- The city of **Rio de Janeiro**, Brazil had a clear strategy to communicate the city's new LEZ, Distrito de Baixa Emissão (DBE). Collaborating with communications experts and C40, the city employed a consultation-first strategy and designed a campaign tailored to identified audiences. The campaign highlights the importance of Rio's city centre, showing how the DBE will preserve its value and culture, while also improving air quality, mobility options, and safety, all while addressing the climate crisis.

For insight into building communications and resident engagement campaigns, explore **Part 3: How to build public and political support for Clean Air Zones.**

For a more in-depth look at how to tailor your Clean Air Zone to your city's specific needs read **Chapter 4: How to effectively implement a Clean Air Zone.**



**Rio de Janeiro**
Phased Distrito de Baixa Emissão announced in 2022

# The benefits of Clean Air Zones

Clean Air Zones can provide an effective solution to intersecting crises faced by cities: global heating, toxic air pollution, congestion, road danger, poor transport accessibility, social isolation, and more. This is because Clean Air Zone policies bring a huge range of benefits if tailored well to the city context and implemented successfully.

Clean Air Zone policies such as ZEAs are not just strategies to restrict polluting vehicles from accessing a certain area of the city. They enable residents to travel by zero-emission public transport, walk and cycle easily, reduce the number of polluting vehicles on the road, and accelerate the transition to zero-emission vehicles. This benefits residents living in and around the zone itself, as well as in surrounding areas where commuters live. Here are some of the many and varied benefits of Clean Air Zones:

## Clean Air Zones reduce air pollution and carbon emissions

Residents are becoming more aware of the dangers of exposure to poor air quality, one of the biggest contributors to early death worldwide.

More and more cities are using Clean Air Zone measures as a key strategy to tackle toxic air pollution and decarbonise the transport sector. And it's working:

- **35% reduction** in carbon dioxide ($CO_2$) emissions in the city centre of **Milan** thanks to the Area C Congestion Charge.
- **41.6% reduction** in polluting vehicles in the historic city centre of **Seoul** after the introduction of its Green Transport Zone.
- **46% lower** dangerous nitrogen dioxide ($NO_2$) concentrations estimated in central **London** compared to projected levels without the implementation of the Ultra Low Emission Zone (ULEZ).
- **92% reduction** in greenhouse gas (GHG) emissions estimated according to modelling by 2040 in **Rio de Janeiro** if the city continues to progress its LEZ and implement truck restrictions in the Central Business District.

Some local, national or international laws are beginning to require reductions in emissions and pollution. In **Poland** and **France** for example, cities are legally required to implement policies such as LEZs to meet pollution targets.

## Clean Air Zones improve health and wellbeing for city residents and visitors

Researchers report that climate breakdown is responsible for at least four million deaths globally since the year 2000, and that this figure is most likely a significant underestimate. Tackling the climate crisis by reducing the number of polluting cars on roads is also a public health measure. Thanks to transforming air quality and getting more people walking and cycling, Clean Air Zones can greatly improve public health for city residents. This can also lead to huge savings in social and healthcare costs.

- In **London** the cleaner air as a result of the LEZ and the ULEZ has contributed to a 4.5% reduction in long-term health problems and an 8% decrease in respiratory issues like asthma and bronchitis since 2008.
- In **Beijing**, China the Low Emission Zone saves an estimated 43 lives each year, leading to annual social cost savings of US $37 million.

Worldwide, residents who are marginalised or living with disabilities or long-term health conditions experience a disproportionate health impact from air pollution compared to other demographic groups. By tackling air pollution in the worst affected areas, cities can help address this inequality.

- In **London**, those exposed to the worst air pollution are more likely to be underserved Londoners and from Black, Asian and minority ethnic communities. Thanks to the ULEZ and related clean air policies, the gap between the most and least deprived areas for exposure to nitrogen dioxide (NO2) has narrowed by up to 50%.

Well-designed Clean Air Zones should also promote social connection and combat loneliness, improving mental health and wellbeing by creating new, green public spaces for communities to interact.

- The connection between more liveable and walkable streets and better social connection and community cohesion has been well documented in academic literature, for example in the **United States** and **Australia**. This emphasises why it is important that Clean Air Zone policies go above and beyond access restrictions for polluting vehicles in order to provide all possible benefits for residents.

**Clean Air Zones reduce traffic and improve road safety**

Clean Air Zones reduce traffic which also reduces congestion and improves road safety for all users, due to the decrease in traffic accidents, injuries and associated deaths.

- 25% reduction in traffic congestion in Barcelona, Spain thanks to the introduction of the city's Superblocks.
- A review of studies relating to traffic injuries in London's congestion charge zone found that there was a consensus that traffic injuries were reduced in the zone, with one study finding that the congestion charge is associated with 30 fewer accidents per month.

**Clean Air Zones improve public and active transport accessibility**

- Affordable and accessible transport systems are vital to ensure inclusion for all in education, employment, healthcare and many other facets of a thriving city.
- Low-income groups are often the most likely to use public transport and active travel for daily journeys, rather than a car, which means they will benefit most from improvements to public transport and walking and cycling infrastructure.

- The ULEZ expansion in London in 2023 was accompanied by an expansion in public transport services in outer **London** boroughs through the introduction of the Superloop, a new fast-service bus network.
- A scrappage scheme was also put in place by Transport for London (TfL) to incentivise those impacted by the expansion to switch to more sustainable modes of transport.

**Clean Air Zones provide economic benefits**

Clean Air Zones can provide economic benefit to town centres, with neighbourhood revitalisation attracting more customers and supporting jobs and livelihoods:

- A study in **Copenhagen**, Denmark showed that shoppers arriving by bike, on foot or via public transport are collectively responsible for 65% of the turnover in shops, compared to the 35% share of drivers.
- Research into the impact of the **Madrid** Central Low Emission Zone on Christmas spending found that compared to the previous year, spending in the area covered by the LEZ increased by over 8.6%, more than in the city overall, which was 3.3%.
- A survey in **Berlin**, Germany demonstrated that shoppers who used public transport and active travel like walking and cycling visit the shops more frequently and make up a higher proportion of customers. Those walking, cycling or taking public transport made up 91% of total revenue – however traders tended to underestimate the importance of these modes of transport to their business.

Clean Air Zone policies such as ZEAs also serve as an accelerator to transform the wider vehicle market by giving a strong steer to vehicle manufacturers to invest in cleaner, zero-emission technologies.

**And so much more...**

The true impact of Clean Air Zones will become much more pronounced over time as their impact on mode shift and behavioural change develop, and as broader and more holistic policies are introduced.

There is more data gathering and research to be done on various areas to demonstrate the true benefits of Clean Air Zones.

# The technical challenges to implementing a Clean Air Zone

Clean Air Zones bring vast benefits to residents and cities as long as they are implemented successfully, with the right planning and preparation beforehand. However, many cities face technical barriers to successful implementation. Here are some potential challenges cities can face.

## Challenge 1: Lack of access to key data

Comprehensive and accurate data is needed for effective urban and transport planning. Good quality data (across multiple areas, as discussed in Chapter 4) along with robust traffic, air quality, and emissions modelling capabilities can help assess the effectiveness and impact of interventions and justify the need for action. Insufficient or poor quality data and analysis can impede the ability to design effective measures, and to measure and communicate the benefits and impacts.

## Challenge 2: Insufficient provision of reliable and affordable public transport, and safe walking and cycling infrastructure

A fundamental feature of a successful Clean Air Zone is good access to attractive mobility options that reduce dependency on private cars. Accessible, frequent and affordable public transport, well-maintained walking paths, and safe and connected cycling infrastructure are important not only to ensure equitable access to employment, services and amenities but also to secure public acceptance of vehicle access restrictions.

The absence of these options can lead to resistance and decreased public support, particularly from residents who believe their choices are being limited if they can no longer drive their current vehicle. Therefore, cities must continue to invest in and improve infrastructure while they introduce a suite of complementary Clean Air Zone measures, and clearly communicate alternative available options and how these will be further improved. However, gaps in public transport services or walking and cycling infrastructure shouldn't stop a city from developing a Clean Air Zone. The city should focus on developing both vehicle restrictions and alternative mobility options at the same time, to improve access and air quality in the city.

## Challenge 3: Difficulty accessing appropriate finance

When considering the associated expenses of implementing scrappage schemes, electrification incentives, and public transport and active travel infrastructure improvements, Clean Air Zones can be costly. This is an issue for limited city budgets. Currently, there are limited examples of cities accessing external financing specifically for Clean Air Zone projects, for example from development banks. However, some Clean Air Zone policies such as congestion charges can generate revenue, which can contribute to the further development of transport projects. Congestion charging in **Stockholm** funded the expansion of the metro.

It is important for cities to build public trust before the implementation of a Clean Air Zone. Cities must carefully consider the business models and financing mechanisms available for all parts of the project ahead of time.

## Challenge 4: Low availability of affordable zero-emission vehicle options for residents

The availability of diverse, accessible and affordable zero-emission vehicles will influence the success of Clean Air Zones. EVs are still, in

most cases, significantly more expensive than fossil fuel options, and the secondhand market is only beginning to develop. It is key that affordable zero-emission vehicles for logistics and specialist uses are also available. However, UVARs such as LEZs can serve as an effective market signal to catalyse a faster transition to electrification, particularly for certain fleets. For example, ride hailing giant Uber has set targets for 50% of kilometres travelled via the app to be electric in <u>seven European capitals</u> (**Amsterdam, Berlin, Brussels, Lisbon, London, Madrid and Paris**). All these cities currently have ambitious LEZs, which can be seen as a key factor in pushing Uber to electrify quicker in these markets.

### Challenge 5: Limits to legal or regulatory powers to restrict vehicle access

While some cities begin by introducing Clean Air Zone measures that do not include UVARs, such as improving cycling and walking infrastructure, it is clear that restrictive measures will also be necessary to see major impact. Cities' ability to implement and enforce some types of access regulations (based on a vehicle's emissions, for example) may therefore impose limits on fast or effective implementation, as new regulations may need to be designed and passed. Without supportive legal frameworks or the ability to enforce measures, cities will see low levels of compliance and limited impact, or they may face legal challenges that impede progress.

### Challenge 6: Facing public and political resistance

Despite the technical viability of Clean Air Zones, the most significant barriers are often political. Any transformative policy will encounter some genuine concern from affected residents, businesses and other stakeholders, which should be mitigated with a strong equity-first approach. Cities can develop this using the Clean Air Zone Equity Checklist found in **Part 2: How to create an inclusive and equitable Clean Air Zone.**

However, political resistance can also be fuelled by those with vested interests. It may not always be visible, but this can originate or be funded by those within the automotive or fossil fuel industries, and can often derail implementation efforts. Take a look at **Part 3: How to build public**

**and political support for Clean Air Zones** for more detail on misinformation and disinformation campaigns, and how to address them effectively. Creating a successful Clean Air Zone that enjoys broad support from residents and stakeholders relies on the measures being equitable and inclusive. If the policy is or is perceived to be unfair, this can easily be weaponised by vested interests to whip up opposition.

### Are vehicle restriction measures actually unpopular?

Opposition can skew press coverage and public perception, but this is often not representative of the population as a whole. Polling shows strong support for clean air action and livable public spaces. However, support for particular policy measures can often be mixed prior to implementation. If policies are well designed and executed, support will typically increase after implementation as the benefits become visible.

In **Stockholm**, support for the congestion charge <u>doubled once the measures were introduced.</u> This is because people could witness and experience the promised benefits of reduced congestion and an improved city environment, while realising that the alleged negative impacts had been exaggerated. Overcoming political obstacles requires comprehensive public engagement strategies throughout both the design and implementation stages, and clear communication about the long-term benefits of vehicle restriction policies. Cities must consider strategies to engage these opposing stakeholders where appropriate, or to combat misinformation.

Generally speaking, having a plan from the outset rather than waiting to respond to opposition ensures that negative perceptions are minimised. If broad public support is already visible, vested interests may think twice about investing time and money into an opposition campaign.

While these challenges are pressing, many cities have already developed real-life strategies to overcome them and successfully implement Clean Air Zones. When cities employ a holistic approach and do the groundwork for policy implementation, many of these challenges can be successfully overcome.

# How to **effectively implement** a Clean Air Zone

Implementing a successful Clean Air Zone is a complex and iterative process that can be segmented into three stages: start stage, development stage and the going live stage. Ambitious projects often face unexpected hurdles, and cities may not be able to follow all stages in exact order. This section therefore serves as a summary of city examples and knowledge to help city officials and partners tailor their project to their own city context, challenges and aims.

## Prioritising equity and inclusivity at every stage

Clean Air Zone measures are a solution to address environmental inequities, particularly concerning air pollution and its disproportionate impact on already marginalised communities. At every stage of the project, cities should root their approach in the principles of equity and inclusivity.

This means considering and supporting marginalised communities, children and the elderly, people who are living with disabilities and long-term health conditions or on low incomes, and nonprofits, sole traders and small local businesses that rely on a vehicle for access and deliveries.

Supportive measures can include e-mobility incentives, exemptions and discounts, grace periods, or scrappage/vehicle replacement schemes to support the shift to cleaner vehicles that meet LEZ emission standards, or to alternatives such as cargo bikes. For example, **Barcelona** offers <u>free public transport for three years</u> for households in the metropolitan area that scrap an old, polluting vehicle.

To ensure your city is designing and implementing policies rooted in the principles of equity and inclusivity, use the Equity Checklist in: **Part 2: How to create an inclusive and equitable Clean Air Zone.**

## Clear communication from the outset

Cities require comprehensive communication strategies integrated at every stage of policymaking, spanning from initial planning and design to the final implementation of the policy and beyond. Effective communication ensures seamless coordination and understanding among stakeholders throughout the entire policy development process.

For insight into how to communicate and engage with the public, explore: **Part 3: How to build public and political support for Clean Air Zone.**

# Stage 1: Start stage

**Objective:** The city must build internal alignment for the project and develop a draft policy that is ready for further consultation and development with residents. Light-touch impact assessment and focus groups can make sure that the policy is on the right track.

Several motivating factors may lead to a city exploring a Clean Air Zone, such as national mandates, as is the case in **Spain**, or a mayoral commitment to ensure everyone breathes clean air, such as that led by C40 Co-Chair Mayor of London Sadiq Khan. Cities should establish their objectives, scope out the potential boundaries of the project, and explore different options to achieve the identified goal.

Cities may conduct feasibility, legal, and impact assessments, exchange insights and practices with peers, and host focus groups to gather input, all informing the policy design before wider exposure.

Assessing public transit capacity and investing in its expansion before implementing a Clean Air Zone can garner public support by offering reliable, accessible, alternative transportation. It is also important to coordinate across city departments, break down silos and more effectively design and implement the policy with a collaborative approach.

## Key actions for Stage 1
### Some actions may be done at the same time

☑ **Establish clear objectives**

☑ **Gather key data**

☑ **Develop stakeholder engagement plan to unify partners around overarching vision**

☑ **Research best practice examples and connect with international peers**

☑ **Develop a feasibility and legal framework study**

☑ **Model the benefits and conduct a light-touch impact and equity assessment**

☑ **Begin public participatory process, such as focus groups**

☑ **Develop a preliminary policy roadmap**

# City spotlight: Creating a cross-departmental vision in Bengaluru, India

When developing its Climate Action Plan, Bengaluru identified ZEAs as a priority measure to achieve its vision for sustainable transport and urban planning in the city. Bengaluru directed city staff to collectively develop a robust roadmap to implement a ZEA by 2030.

An important first step on this journey was to build internal buy-in and understanding of what a ZEA could look like in Bengaluru. The city organised a stakeholder engagement workshop with city staff from different departments working on transport and air quality, which introduced the concept and identified initial challenges and needs. This allowed city departments to work together from the outset, and build consensus on a vision of the city that puts walking, cycling and public transport first, while reducing vehicles and promoting electrification; all of which will reduce emissions, improve air quality and create a more vibrant city.

Bengaluru has united a group of invested internal stakeholders that provide diverse expertise on the development of the roadmap, and champion policy proposals across departments. This collaborative effort will help ensure a successful and coordinated approach to the development and implementation of a ZEA that works for Bengaluru and its residents.



**Bengaluru**
Exploring pathways to a ZEA by 2030

# How to gather the right data

Initial data collection will help inform the objectives of the Clean Air Zone. This should be considered in close connection with any existing city priorities and strategies, such as meeting binding national or international climate targets.

Next, collection of more detailed data is important to understand what approaches are needed to meet these objectives, and what interventions will resonate with residents and improve their wellbeing. It is also important to gather baseline data to demonstrate why the Clean Air Zone is needed, and to measure its effectiveness once implemented.

## Cities should gather data on:

- major local pollutants and their sources in planned zones and across the city
- levels of relevant public health impacts, such as paediatric asthma diagnoses and admissions, cardiovascular disease, or pneumonia
- the population exposed (and disproportionately exposed) to air pollution, and the numbers of residents living with disabilities and long-term health conditions
- local congestion within and outside the zone, understanding when and where it takes place
- availability of safe, reliable and accessible public transport
- availability of safe walking and cycling routes to access local services and amenities
- demographics within the affected area(s) and groups which are most

affected by both the status quo and any planned changes (for more detail, see the Equity Checklist in **Part 2: How to create an inclusive and equitable Clean Air Zone)**
- current modal split and who has access to (or is dependent on) a private vehicle
- public priorities around air pollution and emissions
- clear and recognisable urban boundaries such as major roadways or green spaces, which can allow identification of Clean Air Zone sites
- baselines of economic activity in the local area (e.g. business footfall, spend in shops)
- baselines of public service usage in the area (e.g. healthcare, schools)
- traffic accident data and fatalities
- availability of green and blue public space to local residents

# Stage 2: Development stage

**Objective:** When cities have a proposal for their project and have built internal alignment, they can begin to develop the roadmap to implementation, build a coalition of supportive voices, and develop pilots to socialise the policy to residents, which will strengthen the capacity to drive change.

- Once the initial idea for the project has been established, it is time to dig into details and develop the policy with the active and meaningful participation of residents and other relevant stakeholders at all stages of the process. This can be achieved through focus groups, polling and surveys.
- Cities should develop an in-depth impact and equity assessment of the proposed policy. The city should review any recommendations and integrate them into the development of the policy strategy and roadmap. London's Integrated Impact Assessment is an example of such an approach.
- For more advice on prioritising equity and inclusivity during this stage of policy development, read **Part 2: How to create an inclusive and equitable Clean Air Zone.**
- Start building your communications narrative at this early stage in order to avoid crises or negative impacts in the future. Clear messaging guidelines should be used for any public communications, including by any city spokespeople (e.g. the mayor, transport department) and non-city (health professionals, community groups, businesses) who are activated to communicate the policy vision.
- For more advice on building a public and political engagement campaign, read **Part 3: How to build public and political support for Clean Air Zones.**

## Key actions for Stage 2
### Some actions may be done at the same time

| | |
|---|---|
| ☑ **Continue a public participatory process to embed equity and inclusivity and refine policy** | ☑ **Leverage mayoral leadership within the city and beyond** |
| ☑ **Develop an in-depth impact and equity assessment** | ☑ **Identify, educate and elevate champions** |
| ☑ **Map influence and impact of stakeholders and champions, and continue building collaborative relationships** | ☑ **Conduct media and social media landscape analysis** |
| ☑ **Develop and publish a public roadmap and clear modelling of benefits** | ☑ **Show your vision is possible through events such as car-free days and pedestrianisation pilots** |

# City spotlight: Transforming streets to build resident support in Milan, Italy

Milan's Piazze Aperte (Open Squares) project launched in 2018 to enhance public spaces, by extending pedestrian areas and promoting sustainable forms of mobility, to benefit the environment and improve the quality of life in the city.

The city's overall vision for public streets is to champion active mobility and create accessible green public spaces in close collaboration with residents. The project involved actively engaging residents, local businesses, schools and associations, who were invited to participate in collaborative design sessions and workshops with the city's technical staff, and respond to surveys. This collective effort aimed to enhance the design and configuration of the new public space, fostering more profound connections within the local community and promoting the development of cycling and walking infrastructure.

This popular project created vibrant social hubs without cars, allowing the city administration to show residents what a transformed city would look like and build momentum for further ambitious action throughout Milan. A total of 46 projects have been implemented so far, with over 30,000 square metres reallocated, and more schools streets are in development.

More data is available in the project's 2022 report.



**Milan**
46 Piazze Aperte created since 2018

# Stage 3: Going live stage

**Objective:** This stage focuses on building public support, minimising disinformation and bringing the vision of a greener, healthier city to residents.

Some activities from stage one and two will continue throughout the implementation stage, and it is likely that policy refinement will need to take place. Peer learning and exchange should continue throughout implementation and beyond; one-to-one exchanges with cities that have already implemented similar policies through networks like C40 can be useful to address specific challenges.

City teams should prioritise transparency and accessibility in their communication strategies, ensuring that residents have clear information about the project, and resources and opportunities to participate meaningfully.

Establishing a clear timeline is also key, including milestones and deadlines communicated to residents to maintain accountability and build trust in the process. Cities should provide a clear roadmap for the project's progress, helping to manage residents' expectations and allow them to track whether the project is progressing as planned.

Activating local champions within communities for the project is crucial, as it helps to raise awareness and build support. By engaging these champions, cities can use their existing networks to effectively communicate the goals of the project to a wider audience. These champions could organise community events, hold information sessions with residents, and use social media platforms to spread awareness and garner support for the initiative.

For a detailed look at communications and public engagement read **Part 3: How to build public and political support for Clean Air Zones.**

## Key actions for Stage 3
### Some actions may be done at the same time

☑ **Engage in a public engagement participatory process focusing on messaging and communications**

☑ **Develop a messaging framework, media and digital strategy**

☑ **Launch media partnerships, paid media and out-of-home media campaigns**

☑ **Conduct digital and social media organising to combat disinformation and misinformation**

☑ **Train champions for media and run informative seminars for journalists and stakeholders**

☑ **Refine your crisis communications strategy**

☑ **Design an influential launch event**

☑ **Consider global platforms and partners to elevate impact**

# City Spotlight: Polling to inform Urban Clean Air Zones (ZUMAs) in Bogotá, Colombia

In September 2023, then Mayor of Bogotá, Claudia López, signed a mayoral decree to introduce the first Urban Clean Air Zones – Zonas Urbanas Por Mejor Aire (ZUMA). The ZUMA programme is a flagship measure of the mayor's air quality plan 'Unidos por un Nuevo Aire' to reduce air pollution, improve public health, and combat climate breakdown. The ZUMA programme will ensure cleaner air, better transport options and economic growth in neighbourhoods across Bogotá.

In the lead up to the launch of the programme, the city carried out a comprehensive package of activities, including a feasibility study, implementation roadmap and air quality monitoring plan. In addition, the city wanted to understand public perceptions of air pollution and the programme through a polling exercise. The polling sought to provide insight on the ZUMA framework, in particular to:

- understand the level of public support for general measures to reduce emissions, improve air quality and health
- understand public support and concerns around the ZUMA
- test ZUMA campaign messaging
- identify potential arguments in favour of and against the ZUMA
- test elements of the policy design.

The results from the polling indicated that residents are primarily concerned with safety and economic opportunities, and a ZUMA designed to improve road safety and revitalise the local economy would be well received. Residents also recognise that air pollution in the city is a major issue, but there is less consensus on the cause, solutions and negative public health impact of air pollution exposure. To address this, there is a need to increase public awareness of the links between air pollution and serious health conditions, especially for historically marginalised communities. The polling also found that the term 'ZUMA' was positively received, with respondents clearly connecting the policy with reduced air pollution and better public health outcomes.

The results of the polling were instrumental in shaping the policy design, as well as communication of the ZUMA programme to residents and other stakeholders.

For insight into building public and political support with residents, stakeholders and the media, explore **Part 3: How to build public and political support for Clean Air Zones.**

# Leading city examples

## Guadalajara's Low Emission Zone

Guadalajara, Mexico introduced a two square kilometre LEZ in the historic city centre, with the busy Ramón Corona intersection at its heart. It is considered the first effort of its kind in Mexico, and will clean the air, improve road safety and reduce emissions.

Guadalajara's LEZ focuses on improving public space and active travel access for residents. In the long term, the city will explore mechanisms to limit polluting vehicles in the zone. The LEZ reflects a consolidated vision of a healthy, resilient, inclusive and sustainable city, bringing together previous improvements to mobility and public space, as well as plans for future initiatives.

The city closely considered the impacts of a potential LEZ and identified the historic city centre as the most impactful site. Technical studies conducted for the project revealed that cars are the main source of emissions in the historic centre of Guadalajara, followed by motorcycles and light cargo vehicles. By

implementing ambitious actions to reduce emissions from these vehicles, the city could reduce planet-heating carbon emissions by 90% and toxic black carbon emissions by 92%. It would also rejuvenate the central area, as it is estimated it could bring over 140,000 new pedestrians and nearly 5,000 new cyclists to the area every year to enjoy the healthier and more pleasant urban environment.

By introducing the first LEZ in Mexico, Guadalajara has not only marked a milestone in its commitment to climate action and sustainable mobility, but has charted a bold path towards a cleaner, safer and more resilient future.



**Guadalajara**
LEZ launched in 2024

# Shenzhen's Green Logistics Zones

Shenzhen, China established several Green Logistics Zones in 2018 to promote sustainable logistics and the electrification of urban freight vehicles.

These zones provide a pivotal opportunity for the city to foster the transition towards EVs by banning light diesel trucks, offering parking discounts and setting up charging piles, to encourage the use of EVs and promote the electrification of logistics in urban areas. They cover a total land area of 22 square kilometres, and are situated in administrative areas as well as in some of Shenzhen's multiple city centres.

The city worked closely with businesses to establish the zones, conducting consultations with operators that have been affected. Responding to business needs, the city has introduced financial incentives to support the transition, including subsidies for the purchase of compliant vehicles and support for ongoing operational expenses. This includes subsidies for vehicle charging costs and facilitation of curbside parking arrangements.

In addition to this collaboration, two other key factors to Shenzhen's success were support and ambition from the city leadership, and a coordinated and collaborative approach between city departments.

The zones have been hugely successful in shifting the market in the city. Shenzhen has reported that the number of new energy vehicles in the city exceeded one million by the end of 2023. 'New energy vehicles' include battery electric vehicles, plug-in hybrid vehicles and fuel cell electric vehicles. The city looks to continue this fast acceleration and rapidly reach full electrification of the fleet. It is clear that starting with freight vehicles can help drastically increase uptake in cities and pave the way for widespread electrification across the fleet.

**Shenzhen**
Green Logistics Zones active since 2018

# Paris' Limited Traffic Zone (ZTL)

The city leadership of **Paris**, France has made significant strides to decarbonise transport, reduce car dependence and improve liveability for its residents and visitors alike. In April 2024, just 4.3% of trips in the city centre were made by private motorised vehicles, with all remaining trips made by public transport and walking and cycling.

However, this still represents between 350,000 and 500,000 private vehicle trips per day in the city centre. More than half of these trips do not have their origin or destination in the city centre, instead passing through without stopping. The majority of these trips are made by cars and motorised two-wheeled vehicles, and of these, 70% have access to a sustainable alternative.

To address this, the city will introduce a limited traffic zone or Zone à Trafic Limité (ZTL) in the city centre, due for implementation in autumn of 2024 after the Summer Olympic and Paralympic Games. The ZTL will prevent private motorised vehicles from passing through the city centre without stopping. This is similar to measures in operation in other European cities including Madrid, Milan and Rome.

The ZTL will bring multiple benefits to the city centre and wider region. Traffic across a number of major roads inside the zone centre is expected to reduce (e.g. by up to 30% on Avenue de l'Opéra and 15% on Boulevard de Sébastopol), as well as reducing air and noise pollution. It is also likely to improve the environment for people walking, cycling and taking public transport.

Targeted exemptions will be made for collective transport, ride-hailing, taxis, emergency, police and service vehicles, people living with a disability, and residents. The purpose of the ZTL will be communicated as part of an educational phase, followed by targeted checks by the municipal police. In the long-term, the use of video cameras to aid enforcement could be established, but would require supportive national legislation.

Ultimately, Paris has set itself the goal of transforming the city centre, creating more recreational spaces and enhancing the overall quality of life for residents and visitors. The implementation of the ZTL represents a significant milestone demonstrating Paris' dedication to fostering a more sustainable and healthier urban environment. The ZTL will complement significant existing measures in Paris that are improving the urban environment, including its school streets programme, extensive public EV charging network, and network of dedicated cycle lanes delivered through Paris Plan Vélo.



**Paris**
ZTL planned for 2024

# Key takeaways

## 1. Start strong

A successful project kick-off is crucial. Establish clear objectives, gather key data, and develop stakeholder engagement plans to lay the groundwork for successful Clean Air Zone implementation. Conduct feasibility studies and impact assessments to inform policy design, build internal alignment and lay solid foundations to develop equitable and inclusive policies.

## 2. Embed equity and inclusivity principles from the outset

Address environmental and social injustices by ensuring the most impacted communities benefit from the policies, and that there are no unintended negative impacts. Involve and support marginalised and underserved communities and people on low incomes right from the beginning of policy development. Use incentives, exemptions, and scrappage schemes to encourage a shift towards public transport, walking, and cycling, as well as to facilitate the transition to cleaner vehicles. Use the Equity Checklist in **Part 2: How to create an inclusive and equitable Clean Air Zone.**

## 3. Make data-driven decisions

Gather data on local pollutants, public health impacts, transportation infrastructure, demographics, and economic activity to inform your objectives and strategy. Baseline data is essential for measuring both the need for a Clean Air Zone, as well as the effectiveness of the measures once implemented.

## 4. Collaboration is key

Foster collaboration between city departments, businesses, and community stakeholders to develop policies with all the right expertise for the benefit of all residents. Strong leadership, ambitious goals, and coordinated efforts are essential for long-term thinking and transformative policymaking.

## 5. Engage with residents

Develop Clean Air Zone policies with active participation from residents and stakeholders. Conduct in-depth impact and equity assessments, and refine policies based on feedback. Continuously engage with the public, address disinformation, and provide clear communication on project progress and milestones. Activate local champions to build community support and ensure meaningful participation throughout the implementation process.

## 6. Communicate clearly

Develop a comprehensive public engagement and communications strategy to be deployed at every stage of policymaking. This will help you engage with the public as well as your stakeholders and champions. It will help to create messages that resonate with your audiences. Maintaining transparency will help build understanding and support for the Clean Air Zone. To build an impactful public engagement campaign, please read **Part 3: How to build public and political support for Clean Air Zones.**

## 7. Be inspired

Learn from successful Clean Air Zone policy implementation in C40 cities. The cities involved in C40's Zero Emission Area Programme are all working hard to deliver transformative measures for their residents. Sharing insights and learnings and raising ambition is central to the impact and success of cities in the C40 network.

## 8. Continue learning and adapting

This culture of peer learning and exchange with other cities will help to view Clean Air Zones as a continued work in progress, which adapts and shifts to the changing nature and needs of the city. This approach will help to address challenges and refine Clean Air Zone initiatives over time. Listen to residents' feedback to understand what is working and what needs adjusting. Prioritise transparency, accessibility, and accountability to build trust and confidence in the process.

# Glossary

**Clean Air Zone**
Clean Air Zones improve public health by cleaning up toxic air and promoting a shift to active travel such as walking and cycling, as well as public transport. They also address the climate crisis by reducing the number of vehicles on the road and accelerating the transition to zero-emission transport. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone.

Rather than a single policy, Clean Air Zones should be seen as a suite of measures that can be gradually implemented to transform the way residents and visitors experience and get around the city. Combined, they create long-lasting, systemic change for the better.

**Climate action**
Stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate-induced impacts.

**Clinically vulnerable**
People who are biologically more susceptible than others to air pollutants. These groups include children, pregnant women, older adults, and individuals with pre-existing heart and lung disease.

**Community**
Any individual or group who has a vested interest/influence in, or is impacted by, the project.

**Congestion charge**
All, or most, vehicles are charged a fee to enter the city boundary or a zone within the city. Drivers may be charged at all times or only during peak hours.

**Disability**
People living with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.

**Equity**
Achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalised people and groups while accounting for diversity. It considers power, access, opportunities, treatment, impacts and outcomes, in three main areas:
1. Representational equity: the proportional participation at all levels of an institution;
2. Resource equity: the distribution of resources in order to close equity gaps;
3. Equity-mindedness: the demonstration of an awareness of, and willingness to, address equity issues; recognising that unequal starting points and barriers exist – meaning that individual needs can differ from person to person and group to group.
(Adapted from the University of British Columbia's Equity and Inclusion Glossary of Terms.)

**Equity assessment**
Equity assessments help a city explore and understand both the potential or existing positive and negative effects of policies and projects, and the distribution of the costs and benefits of said policies across different groups and communities.

In the context of Clean Air Zone policies, an equity assessment can contribute to:

- Ensuring that the policies are designed to achieve truly equitable outcomes and guarantee that all residents can benefit from the implementation of policies for improved

air quality and health;
- Driving equitable access to high-quality, expanded public transport services and sustainable modes of transport;
- Identifying who may face negative consequences as a result of the policy, allowing action to be planned by the city to mitigate this and to prevent any pushback on the policy further down the line.

A good equity assessment will require a set of benchmarks – both for baseline-setting and to assess how these indicators change as a result of policy implementation. Without equity assessments, it is difficult to predict and understand the real effects of policy on people in the city.

If the city does not have data or capacity to conduct a quantitative equity assessment, it is advisable to carry out a qualitative equity assessment to support the city in the design and implementation of Clean Air Zones. If resources allow, the city is encouraged to consider socio-spatial and disaggregated data in the delivery of the quantitative equity assessment as part of the policy implementation.

Qualitative assessment requires:
a. Identification of frontline communities who will be impacted by the policy implementation
b. Assessing potential positive and negative impacts on these communities;
c. Exploring how the policy could be designed or redefined and provide recommendations to result in more equitable outcomes.

Please note that while ideally, an equity assessment is undertaken during the planning phase, there's still value in using this tool to assess equity considerations and refine a project/policy that is already in the design or implementation stage.

Quantitative assessment requires:
a. Baseline data on availability, affordability of and/or access to goods and services of different groups;
b. Action-specific spatial or disaggregated

indicators that can help assess the quantitative impacts (e.g % households with access to public transport by district, % households with access to basic services by gender, income etc).

### Hard-to-reach
Those groups or individuals within society that are typically under-represented in the engagement process or have limited capacity to be involved.

### Holistic neighbourhood interventions
A range of pollution reduction measures introduced in selected small areas, such as a neighbourhood or several blocks:
- improve active travel infrastructure such as cycling lanes and expanded paths
- work with residents to reallocate, redesign and introduce more greenery to public space
- implement sustainable urban planning approaches such as 15-minute cities
- promote bike and car sharing.

### Inclusive climate action (ICA)
The consideration of how people and communities may be impacted by climate change and climate actions, given their wellbeing, prosperity and location in a city.

### Inclusivity
The practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes despite their different needs.

An inclusive policy goes beyond consulting the impacted stakeholders. It ensures that everyone's voice is represented in decision-making, especially those suffering from inequalities, and that policies are designed and evaluated on the basis of their direct impacts and the distribution across the population.

### Intersectionality
How different aspects of an individual or group's social and political identities overlap race, gender, climate exposure, pollution exposure)

to shape and define their needs, priorities and capacity. Adapted from Intersectional Approaches to Vulnerability Reduction and Resilience Building, ODI, 2019.

In the context of climate crisis, it refers to how multiple identities combine, overlap and intersect, thereby shaping people's exposure to and ability to accommodate climate risks.

**Large pedestrian zones**
A zone where pedestrians are prioritised and vehicle access is greatly restricted. Cycles may or may not be allowed. Some freight may be permitted, usually with time restrictions.

**Low Emission Zones (LEZs)**
An emissions-based access regulation policy where vehicles below a specified emissions standard are either banned from or charged a fee to enter a specified zone within the city. This may cover the whole city boundary or only part of the city.

LEZs may also only target, or have different restrictions for, different vehicle classes, such as trucks and buses.

**Low traffic zones or neighbourhoods**
These zones reduce traffic by limiting some access to the zone – certain streets may be only open to residents or there may be no through-traffic allowed and journeys must end in the zone to avoid a fine.

**Managed parking zones**
As most cities have a high level of power over parking management, they can remove, reduce or greatly increase the cost of parking to reduce car usage. This can be done as part of broader parking policies like abolishing parking minimums and a workplace parking levy.

Many cities are also beginning to explore parking costs which are staggered and linked to various factors such as how polluting the vehicle is, its size or weight, or the income of the driver.

**Marginalisation**
A social process by which individuals or groups are (intentionally or unintentionally) distanced from access to power and resources and constructed as insignificant, peripheral, or less valuable/privileged to a community or "mainstream" society. This term describes a social process, so as not to imply a lack of agency. (Adapted from Equity & Inclusion Glossary of Terms – University of British Columbia).

Marginalised groups or people are those excluded from mainstream social, economic, cultural, or political life. Examples of marginalised groups include, but are by no means limited to, groups excluded due to race, religion, political or cultural group, age, gender, or financial status. To what extent such populations are marginalised, however, is context specific and reliant on the cultural organisation of the social site in question.

**Public participatory process**
Public participatory processes can take many forms, including surveying or polling residents, organising focus groups, facilitating discussion forums, e-voting systems, local workshops, interactive events, or public debates.

**School streets**
School streets close streets outside schools to traffic at the beginning and end of the school day or permanently pacify schools' surroundings. Open street measures close a specific street, for example a high street or market street, to traffic on a specific day.

**Scrappage scheme**
A scrappage scheme is a government incentive programme offering cash or grants to those replacing their old polluting vehicle with a modern, more sustainable vehicle.

**Race and ethnicity**
Race is defined as a category of humankind that shares certain distinctive physical traits. The term ethnicity is more broadly defined as large groups of people classed according to common racial, national, tribal, religious, linguistic, or cultural origin or background.

**Urban vehicle access regulations (UVARs)**
Measures to reduce the number of vehicles entering a designated area of a city. These can include regulatory measures, for example LEZs, financial measures such as a congestion charge, or spatial measures, for example superblocks or reallocating road space to create a pedestrian zone.

**Zero Emission Areas (ZEAs)**
Zero Emission Areas (ZEAs) are measures introduced by cities that prioritise people over cars. They ensure an area or zone of the city is only available to zero-emission modes of transportation, by restricting access to polluting vehicles.

**Zero Emission Delivery Zones (ZEDZs)**
Zero Emission Delivery Zones (ZEDZs) are areas in which zero-emission delivery vehicles are prioritised at the curb, for example through access to additional designated loading spaces. In some cases, only zero-emission freight vehicles are allowed to stop and deliver in the zone, but other types of vehicles are still able to access and drive through the area.

**Zero Emission Zone for Freight (ZEZ-F)**
Areas in cities where fossil fuel freight vehicles' access is strictly limited or only zero-emission freight vehicles may enter. This measure targets high-mileage and highly polluting freight vehicles, including vans, trucks and waste collection vehicles.

**15-minute city**
In a 15-minute city, everyone is able to meet most, if not all, of their needs within a short walk or bike ride from their home. It is a city composed of lived-in, people-friendly, 'complete' and connected neighbourhoods achieved by a sustainable and community focused approach to urban development. It means reconnecting people with their local areas and decentralising city life and services. The 15-minute city helps reduce unnecessary travel across cities, provide more public space, inject life into local high streets, strengthen a sense of community, promote health and wellbeing, boost resilience to health and climate shocks, and improve cities' sustainability and liveability.

This intuitive, adaptable approach to urban planning can have different names in different contexts. Leading examples include **Bogotá's** Barrios Vitales, **Portland's** Complete Neighbourhoods and **Melbourne's** 20-minute neighbourhoods, as well as the Paris 15-minute city that captured international attention. Find out more about 15-minute cities here.

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# Clean Air Zone Toolbox

From Low Emission Zones to Zero Emission Areas: how cities can transform transport to create cleaner, greener and healthier streets



## Part 2: How to create an inclusive and equitable Clean Air Zone

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# About the Clean Air Zone Toolbox

Clean Air Zones are specific areas of a city in which measures have been introduced to reduce toxic air pollution, prioritise people over cars, and promote a shift to active travel including walking, cycling and public transport. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone, as they improve air quality and public health by restricting access to the most polluting vehicles. This also helps to accelerate the transition to zero-emission transport and address the climate crisis. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Clean Air Zones can be referred to by different names in different cities, such as Environmental Zones, Ultra Low Emission Zones, and Limited Traffic Zones.

This toolbox is for all C40 and non-C40 cities planning, developing and implementing Clean Air Zone policies. It is informed by insights and learnings from leading C40 cities that have introduced Clean Air Zone policies, and are already seeing impressive benefits for residents. A total of 35 cities have signed the C40 Green and Healthy Streets Accelerator and committed to introduce a ZEA in their city by 2030.

In line with this and other ambitious climate commitments, this guide regularly refers to policy recommendations to help develop and implement ZEAs. In order to meet climate and air quality targets, we maintain that the most ambitious clean air measures will continue to be needed, and consider ZEAs as the ultimate goal.

The C40 Clean Air Zone Toolbox provides resources and insight from cities worldwide, to support the implementation of equitable Clean Air Zones with broad public and political support. It is designed to help create transformative change for thriving, inclusive and healthy cities worldwide.

## The Clean Air Zone Toolbox is made up of three parts which can be read individually or together:

### Part 1
**How to introduce a Clean Air Zone in your city**



### Part 2
**How to create an inclusive and equitable Clean Air Zone**



### Part 3
**How to build public and political support for Clean Air Zones**

# Contents

# Acknowledgements

# Foreword



**C40 Co-Chair
Mayor of London Sadiq Khan**

When I promised to make London home to the largest Clean Air Zone in the world, I knew it was an ambitious commitment. But it was one I had to stand by, to tackle the dangers of toxic air and improve the lives of Londoners. For too long cities have been designed around polluting cars, rather than people. This results in traffic and congestion, unsafe streets, and limited public transport options for those who need it most. Polluting vehicles not only contribute to the climate crisis; they are also to blame for the fact that around the world, 99% of us are breathing unhealthy air.

But it doesn't have to be this way. Clean Air Zone policies such as Low and Zero Emission Areas (LEZ and ZEAs) address these challenges and create cleaner, greener and healthier cities. Since I introduced the Ultra Low Emission Zone (ULEZ), toxic nitrogen dioxide pollution has reduced by almost 50%. Between 2016 and 2020, London reduced its pollution levels five times faster than the rest of the UK. Between the implementation of the ULEZ and February 2024, our polls show a seven point increase in support compared to before the introduction of the policy.

As C40 Co-Chair alongside Mayor of Freetown Yvonne Aki-Sawyerr, I am proud to represent the diverse and innovative cities around the world that are leading ambitious urban climate action. By introducing Clean Air Zone policies such as expanded public transport networks and pedestrianised streets, cities are drastically reducing air pollution, improving public health, and addressing the climate crisis.

Experience has shown that when people witness and feel the positive impact and tangible benefits of climate action – including cleaner air; reduced traffic congestion; safer streets; more walking and cycling options; more accessible, affordable public transport; green jobs and improved quality of life – they become advocates for change and catalysts for further action.

This toolbox is designed to help cities create and deliver inclusive, equitable policies that work for their residents. Informed by the work of leading C40 cities, it offers practical guidance, best practices, and case studies to assist cities at every stage of the implementation process, as well as guidance and inspiration for compelling communications and public engagement campaigns. By equipping cities with the necessary knowledge and tools, and inspiring city residents to become champions and change makers, together we can create healthier, more equitable, and more vibrant cities for everyone.

# Introduction

## Why is it so important to ensure Clean Air Zones are equitable and inclusive?

A well-designed Clean Air Zone should provide better air quality to those most affected by pollution, provide clean, affordable and accessible transport options, and transform public space to reduce inequities in access to green and community space.

Clean Air Zones and related transport and air quality policies – such as Low Emission Zones (LEZs), Zero-emission Delivery Zones (ZEDZ), congestion charges, school streets, and pedestrianisation – provide an opportunity for cities to embed equity and inclusivity principles from the outset. They can address environmental and social injustices by ensuring that the most impacted communities benefit, and that there are no unintended negative impacts. This allows cities to:

- identify and reduce inequities in the city
- map out impacted groups, with a particular focus on people who are already marginalised and who are more susceptible to the harms of toxic air – such as children, the elderly, and those living with a disability or long-term health condition
- identify how these groups might benefit from or be negatively impacted by the policy implementation
- engage with local communities to better understand their needs and inform the policy process

- identify key supportive stakeholders to help shift public opinion in favour of the intervention
- identify any individuals or organisations that might oppose the policy based on equity considerations, understand their reasoning, and adapt the policy and/or messaging to address their concerns and mitigate potential negative impacts
- separate the concerns of residents who would genuinely be harmed by a lack of considerate measures from the campaigning of interest groups who may use these arguments to delay policies to protect vested interests
- maximise the effectiveness and impact of other city-led inclusive climate policies and actions by identifying synergies

That's why we have created the Clean Air Zone Equity Checklist which enables city officials to assess the equity and inclusivity goals of their proposed policies.

To learn more about the technical aspects of designing a ZEA please read **Part 1: How to introduce a Clean Air Zone in your city.**

To build an impactful communications campaign, please read **Part 3: How to build public and political support for Clean Air Zones.**

# What is the Clean Air Zone Equity Checklist?

The Clean Air Zone Equity Checklist presents a set of questions, tips and useful resources for city officials to better understand the opportunities and challenges of including social equity considerations in Clean Air Zone policies, and to plan and coordinate policy actions to achieve equitable outcomes.

The Clean Air Zone Equity Checklist should be used by city officials involved in designing a Clean Air Zone for their city. Those completing the checklist should have an understanding of the Clean

Air Zone policy or policies in development, how their proposed measures will impact city residents, and the support available for residents – or have access to colleagues with this information.

# How to use the Clean Air Zone Equity Checklist

The Clean Air Zone Equity Checklist has been designed as a guidance tool to assess the equity and inclusivity goals of your city's Clean Air Zone policy. It can be used during the policy and project design phase, and/or after the policy has been introduced, as a way of tracking progress towards the equity and inclusivity goals of the policy.

All users of the Clean Air Zone Equity Checklist are advised to adapt it to their own social, economic, cultural and political contexts. C40 recommends using this checklist as early as possible in the design process to ensure the equity and inclusivity goals are embedded in the project from the

beginning. However, it is never 'too late' to use the checklist. Every city will have something to learn from completing the Clean Air Zone Equity Checklist, no matter how advanced they are in their policy development or how long ago the policy was launched.

# The Four Pillars

The **four checklist pillars** represent milestones on the journey to ensure the effective and equitable design and implementation of a Clean Air Zone in your city. It is advisable to revise the completed pillars and steps throughout the whole process, working off existing strengths and resources. **Note, however, that this is not a linear but an iterative process.**

| 1. Institutional commitment and preparedness | 2. Inclusive planning and equitable impacts | 3. Inclusive stakeholder engagement | 4. Inclusive implementation |
|---|---|---|---|
| • Commitment<br>• Governance<br>• Budget<br>• Baseline generation | • Equity assessment<br>• Equitable impacts<br>• Monitoring and evaluation<br>• Policy recommendations | • Define the vision for public participation<br>• Stakeholder mapping and analysis<br>• Inclusive communication and public engagement | • Monitoring and evaluation<br>• Governance<br>• Continued engagement of stakeholders and impacted groups |
| Identify how institutionally and financially prepared your city is to address equity and inclusivity considerations, and what data is available to inform this process. | Assess which groups could be impacted by the introduction of the Clean Air Zone, and what city-wide benefits will be accessible to these groups. | Map a diverse set of stakeholders who may inform, be impacted by or may oppose the policy, and develop an engagement strategy to strengthen the process. | Review, refine and monitor the implementation of equitable policy recommendations and maintain accountability to stakeholders. |

**Users will know they have mastered the pillar when they can answer "Yes" to the questions in the checklist.** Each question is followed by a top tip to strengthen your city's commitment to equity and inclusivity. This Clean Air Zone Equity Checklist builds on resources developed by the C40 Inclusive Climate Action team, and the ZEA Planning Guide developed by the Institute for Transportation and Development Policy for the City of Los Angeles with input from C40.

# The Clean Air Zone Equity Checklist

## Pillar 1 - Institutional commitment and prepardness

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Commitment** | Has the city defined goals to address equity and inclusivity considerations within specific policies, cross-departmental strategies or ad-hoc programmes? | ☐ Yes | ☐ No | Identify synergies between Clean Air Zones and other policies (e.g. anti-racist or gender frameworks) from the start. This will help demonstrate the value of your policy, contribute to other equity and inclusivity goals and maximise its impact. |
| | Has the mayor of your city explicitly and openly committed to goals of equity and inclusivity? | ☐ Yes | ☐ No | The mayoral commitment should in this instance be strong and visible, both in tangible, impactful actions as well as their public speeches and media appearances.<br><br>Following demonstrable commitment, equity and inclusivity principles should be embedded at all levels of government (where applicable). Governance structures should support inter-departmental collaboration, decision-making and clear indicators to track progress (see more details about indicators in Pillar 4 – Inclusive Implementation). |
| **Governance** | Has your city identified the key participants (internal and external e.g metropolitan authorities) of the Clean Air Zone working group, or set any other kind of consultation and coordination structure? | ☐ Yes | ☐ No | An internal working group should include city officials and experts in key planning areas, including transport, urban planning, traffic and road experts and agents, communications, community engagement and research staff when necessary.<br><br>Developing and creating memorandums of understanding across departments or with external partners at the start of the project creates consensus about the project goals, clearly defines roles, and helps mainstream equity and inclusivity considerations.<br><br>Regional and metropolitan authorities should be involved to ensure coordination and integration of local policies. |
| | Does your city have a department dedicated to racial equity, gender equity, inclusive growth or equitable development? | ☐ Yes | ☐ No | If an equity-focused department exists, consider engaging the office into the Clean Air Zone working group to ensure policy planning and development is informed by sustainability and equity considerations and expertise. |
| | Does your project have a clearly identified lead who drives the work? | ☐ Yes | ☐ No | Defining a project lead from the get-go is critical to effectively developing and implementing the policy. |

| Component | Question | | | Tips |
|-----------|----------|---|---|------|
| **Budget** | Does your city have dedicated funding for a meaningful, continued stakeholder engagement process as part of the policy design and implementation? | ☐ Yes | ☐ No | Equitable and inclusive policy design and implementation will require robust funding for continued and meaningful stakeholder engagement processes. Depending on the needs assessment, some funding can be diverted to local organisations that actively participate in the process and may lack resources.<br><br>The budget should also account for a free-of-charge childcare facility (to allow parents to participate in meetings) and for compensation (e.g. vouchers) for participating residents where relevant. Additional resources may be available in community engagement departments. |
| **Baseline generation** | When making decisions around sustainability and climate action, does your city assess the health and socioeconomic impacts that such actions have on marginalised groups and those who may be more susceptible to the impacts of toxic air, taking into account the barriers they face? | ☐ Yes | ☐ No | Cross-sectoral policies such as Clean Air Zones can impact everyday life for many people, particularly when it comes to moving around the city. It is vital to gather baseline data to inform the possible positive outcomes and to anticipate and correct potentially negative impacts on specific communities.<br><br>Consider complementing numerical data with participatory data collection methods to strengthen the inclusivity of the process, and to better understand the needs of these groups. For more information on actively listening to the needs of your city and residents, read **Part 3, Chapter two: How to listen to the needs of your city and residents.** |
| | Does your city currently collect, analyse and overlay data on poverty, pollution, climate impacts, health disparities, and other relevant data to inform its sustainability and urban climate action planning actions? | ☐ Yes | ☐ No | Academia, civil society and community groups can provide valuable insight into residents' lives, particularly those who may be harder to reach, or who have historically been left out of decision making. Consider consulting these groups at an early stage or inviting them to specific meetings of the working group. This will help redress any imbalance, engage different groups from the outset, and identify additional equity challenges.<br><br>Finally, identify any data gaps and how best to fill them. |
| | Is the data you have available disaggregated by race, gender, disability status, age, income, migration status? | ☐ Yes | ☐ No | Disaggregated data allows for a more precise appreciation of local contexts to inform and adapt the policy responses. It also allows you to identify the needs of diverse groups, for example, the needs expressed by women of different ages, ethnic groups, sexual and gender minorities, and people living with disabilities. |

# Pillar 2 - Inclusive planning and equitable impacts

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Equity assessment** | Start with people. Which groups, including clinically vulnerable and marginalised communities, could potentially be most negatively affected by the proposed implementation of Clean Air Zone policies? | ☐ Yes | ☐ No | This step helps ensure common understanding within city departments of key impacted groups before designing or implementing Clean Air Zone policies. Typically most impacted groups include: <br><br> • low-income communities living within the vehicle restriction area <br> • low-income communities living outside of the vehicle restriction area <br> • outdoor workers, temporary workers, gig workers <br> • informal workers and traders <br> • racial and ethnic minorities <br> • women <br> • pregnant people <br> • people with limited mobility <br> • people who have migrated or been displaced <br> • religious minorities <br> • people with disabilities <br> • people with underlying health conditions <br> • elderly, youth people, children <br> • commuters (e.g. from the metro area), delivery drivers and commercial passenger vehicles <br><br> Think particularly about who loses out if certain considerations are not taken into account. <br><br> An intersectional lens can help you identify how overlapping identities strengthen or weaken existing injustices. For example, those living in poverty tend to experience more barriers when accessing jobs and training. Often this disadvantage and discrimination is compounded by being a woman of colour, with different experiences for Asian and Black women. |
| | What equity considerations do you take into account when defining the location of the vehicle restriction area? | ☐ Yes | ☐ No | To achieve equitable outcomes of the policy, consider prioritising an area where air pollution and social inequities are the highest (e.g. lower access to high quality public transport services, higher rates of morbidity related to air pollution, lower access to active transport infrastructure). |

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Equity assessment** | How is access to essential services distributed among different groups in the area and other parts of the city? | ☐ Yes | ☐ No | Once you've identified the location and the groups that may be most impacted or lose out, think about accessibility. For instance, if:<br>• the policy improves access for these groups to public transport, walking and cycling options, e.g. for people living with disabilities or caregivers<br>• the most impacted communities will still be connected to economic and educational opportunities, e.g. by ensuring bus routes provide high quality services and links to employment opportunities and education facilities<br>• there are public transport safety concerns for women, racial and ethnic minorities, or the LGBTQIA+ community<br>• culturally appropriate and translated consumer education available about EVs, including rebates, environmental benefits, battery life, charging speeds, and lower maintenance costs<br>• EV charging stations are available in residential areas and on curb-sides<br>• landscaping and tree coverage make walking and cycling more attractive<br>• bike share schemes include child seats or hand-pedal bikes |
| | Will the benefits be affordable? | ☐ Yes | ☐ No | Understanding economic mobility and affordability for impacted groups is one of the key challenges of the process. Consider whether there will be any negative financial impacts, and how best to provide support for them. Assess the following financial considerations:<br>• feasibility of direct and differentiated services to low-income drivers and businesses, such as financial rebates on clean vehicles, i.e. targeted scrappage schemes<br>• cost of existing bus fares for low-income riders<br>• high congestion charge or Clean Air Zone policy fee<br>• cost of ride-hailing or car-sharing options<br>• cost of micro-mobility options, e.g. sharing schemes or grants for purchase of e-bikes<br>• high purchase cost of EV vehicles<br>• cost of parking on the edges of the vehicle restriction area<br>• the long-term impact on rent prices in the area of implementation<br>This will help to avoid putting undue economic burden on community members or businesses that may already be facing hardship, and identify how you can support them financially to adapt to any potential changes. |

| Component | Question | | | Tips |
|-----------|----------|---|---|------|
| **Equitable impacts** | Has the team defined how the benefits from the policy will be quantified and assessed? | ☐ Yes | ☐ No | For the success of the policy implementation, it is critical that cities can quantify and communicate its wider benefits, from decent jobs to improved health, and that these positive impacts are equitably distributed. To inform this step, cities should first conduct an equity assessment, but be mindful that a detailed impact analysis can further strengthen the design and planning process. |
| **Monitoring and evaluation** | Has the city identified indicators to monitor and evaluate Clean Air Zone policy implementation with an equity lens? | ☐ Yes | ☐ No | The implementation of Clean Air Zone policies is an opportunity to define how and which interventions can contribute to reducing existing inequalities in the city. Below is a selection of equity categories and examples, but the list is not exhaustive. **Accessibility** • increased number of women cycling and using public transport • increased number of people living within 500m of high-quality public transport • increased number or percentage of bus/train stations that provide facilities for parents and caregivers • expanded percentage of bike networks and supportive infrastructure • increased number or percentage of public transport services that are accessible for people with disabilities e.g. low floor buses and accessible stops • increased number or percentage of accessible infrastructure and transportation options for people living with disabilities **Affordability** • increased percentage of low-income people impacted by the policy who perceive public transport to be affordable • increased number of low-income people using public transport options ahead of the policy launch • increased number or percentage of low-income people taking up financial support via scrappage schemes or other options **Safety** • enhanced security in public transport services and perception of safety by women and marginalised groups • decrease percentage or number of traffic accidents involving pedestrians in underserved communities **Health** • reduced levels and exposure to air pollution for clinically vulnerable groups, including children, elders, pregnant people, people with pre-existing medical conditions, resulting in and lower asthma and heart attack rates • decrease of NOx and PM concentrations by percentage in the vicinity of primary schools, kindergartens, hospitals and low-income neighbourhoods |

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Monitoring and evaluation** | Has the city identified indicators to monitor and evaluate Clean Air Zone policy implementation with an equity lens? | ☐ Yes | ☐ No | **Jobs**<br>• increased number of women employed in sustainable transportation sectors<br><br>**Other**<br>• **public participation:** high levels of participation and satisfaction in policy public consultations, with a focus on diverse representation, including women, the elderly and people with disabilities<br>• **business and local economy:** increase in the average income for local businesses located within the policy restriction area<br>• **wellbeing:** enhanced life satisfaction of marginalised groups including women, older people, and people living with disabilities<br><br>Goals and indicators should be developed in collaboration with communities and reflect their unique needs. Actively monitoring the wider benefits of the policy helps to adjust and improve it continuously. It's also crucial in communication with the public **(see Pillar 3)**. |
| **Policy recommendations and actions** | Based on the equity and benefits assessments, has the city considered developing a list of actions to ensure that equity and inclusivity considerations are embedded during the design and implementation of the policy, and as part of the stakeholder engagement process? | ☐ Yes | ☐ No | Many cities introduce complementary measures to ensure benefits are equitable. This could include:<br><br>• subsidies for low-income residents and small businesses to access clean vehicles, e.g. scrappage schemes<br>• incentives to use alternative sustainable modes of transport, e.g. mobility credits<br>• ensure bus routes reach low-income areas<br>• deploy flexible mobility solutions to increase the accessibility of the city centre and provide discounts and exemptions for people with reduced mobility or health requirements<br>• provide financial support for the residents inside the zone to switch to cleaner vehicles<br>• ramp up efforts to increase public bikes, improve bike lanes, and provide shared electric cars<br>• consider tenant and renter protection measures to ensure housing security and prevent resident displacement<br><br>The final combination of recommendations should consider the outcomes of community engagement actions **(see next pillar)**. |

## Pillar 3 - Inclusive stakeholder engagement

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Vision setting for community engagement** | Is the city developing a stakeholder engagement strategy and formalising the engagement process? | ☐ Yes | ☐ No | Consider establishing a formalised advisory group or using existing structures that facilitate engagement with residents, businesses, commuters and other stakeholders to advise the city on the policy design and implementation. It is important to identify from the start when and how to involve different stakeholders in the project. |
| | Has your city established an accessible, inclusive vision for stakeholder engagement in the Clean Air Zone policy development? | ☐ Yes | ☐ No | At this stage, select which type of community engagement you expect to use based on the Inclusive Community Engagement Guide (p. 36):<br>• consult<br>• collaborate<br>• co-design and empower<br><br>Consulting is considered absolutely essential. However, to achieve truly equitable and publicly supported policies, public engagement should prioritise opportunities to collaborate and co-design. Ideally, community engagement must extend beyond the specific policy planning and design phases and into implementation and operation. The entire process should be iterative, consisting of a continuous cycle of community feedback and project modifications. |
| **Stakeholder mapping and analysis** | Based on your equity assessment, has your city mapped out categories of stakeholders to be engaged in the design and implementation of Clean Air Zone policies? | ☐ Yes | ☐ No | Stakeholder mapping helps identify the key stakeholders to engage with. It builds on the assessment of the most impacted groups and considers other relevant stakeholders and dynamics within your city that may contribute to the policy's success.<br><br>Start by asking these questions:<br>• Who might be negatively impacted?<br>• What are the clinically vulnerable and marginalised groups?<br>• Who might be left out?<br>• Which stakeholders have the most influence?<br>• Who is likely to have questions or objections?<br>• Who will be your champions?<br>• Who might oppose the action? |
| | Have you ranked stakeholders according to their power and influence? | ☐ Yes | ☐ No | The interest and influence matrix (p. 49 of the Inclusive Community Engagement Playbook) enables you to assess the different levels of interest and influence your stakeholders may have, and to focus on the essentials. This will help minimise the unnecessary use of resources and/or capacity when designing engagement methods.<br><br>The power analysis also helps to address underlying issues that can make certain groups hard to reach, and help to identify the right communication methods to reach those that are often left out of decision making. This will allow all stakeholders to engage and participate in an equitable way. |

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Stakeholder mapping and analysis (continued)** | How are you planning to engage groups most impacted by the policy? | ☐ Yes | ☐ No | Certain stakeholder groups are persistently underrepresented in community engagements for various reasons, including limited access to technology, limited language proficiency, health concerns and disabilities, and work schedules.<br><br>To overcome these barriers, consider how to:<br>• **Reach your target groups.** Think about setting up tables outside food banks or community events to reach audiences who may not use the internet.<br>• **Ensure the event is accessible.** Consider providing materials available in different languages, timing suitable for working people, childcare services, travel costs reimbursed, time commitment compensated, venue accessibility suitable for people with disabilities.<br>• **Create space** for community members to reflect upon and voice their experiences. Areas of particular focus could be transportation, air quality, public space, housing affordability, and other issues that the policy may impact.<br><br>Building trust with local communities and partners is absolutely essential to the success of your policy and your city's climate work in general. The city work should move 'at the speed of trust', which means investing in building relationships, showing up for communities and partners, and making an effort to truly understand what communities need and want. |
| | Has your city identified stakeholders who were previously engaged in other climate policies and actions in the city? | ☐ Yes | ☐ No | Many cities have established relationships with local stakeholder groups, such as academia, business groups, community groups, NGOs, and schools. It is worth leveraging any existing relationships and gaining their insights and support for your policy. |
| | Has your mayor enlisted support and buy-in from other leaders and elected officials, including from the wider county, province, metro, region and/or state, for the implementation of the policy? | ☐ Yes | ☐ No | Public officials can uniquely influence decision-making and local actors by expressing their vision and priorities in public discourse, because their political office exists to protect the common needs and interests of the public, and improve health and people's quality of life. |
| **Monitoring and evaluation** | Are there clear targets for assessing the effective implementation of the stakeholder engagement strategy, in particular involving clinically vulnerable and marginalised groups? | ☐ Yes | ☐ No | Clear targets help you to evaluate the impact of your stakeholder engagement process against its intended objectives.<br><br>How the metrics are chosen is equally important to the agreed outcomes. It is crucial to have metrics in order to remain accountable when it comes to ensuring robust, diverse engagement. |

| Component | Question | | | Tips |
|---|---|---|---|---|
| **Inclusive communication and public engagement** | Has the city put in place a communication strategy or plan to disseminate information and keep relevant stakeholders and the public informed of the policy design progress? | Yes | No | Clear and active communication with residents on the progress of the policy is a crucial step to building trust. A good practice example is the <u>website</u> developed by **Barcelona**, Spain, to promote the understanding of how its LEZ scheme works, the benefits it delivers, and to collect feedback and address concerns. Note that digital communication may not work for all impacted groups and traditional forms of communication may be more appropriate. |
| | Having identified champions, has the city enlisted them to support communications and policymaking efforts? | Yes | No | Champions often have a direct line of communication with decision-makers and have a better understanding of the details, challenges and decisions regarding future actions. They can demonstrate support by authoring op-eds and serving as an intermediary with other stakeholders. |
| | How does city communication incorporate projected positive impacts? | Yes | No | For successful policy design and implementation, ensure projected impacts (e.g. reduced levels and exposure to air pollution of clinically vulnerable and marginalised groups, or an increased number of people living within 500m of high-quality transit) are established with relevant stakeholders **(see Pillar 2)**, and that they are clearly and widely communicated. |
| | Is the communication of the city planned at pace with the policy process and implementation phase? | Yes | No | For the policy process to be inclusive, it is essential that stakeholders, residents and commuters are informed well in advance of implementation, for example through consultations and periods of public enquiry. This will provide both the opportunity to participate, as well as enough time to make the transition. Communities should also be kept informed throughout the process of implementation, even if there are delays to the process – this will help them continue to feel engaged and consulted. |

## Pillar 4 - Inclusive implementation

| Component | Question | Tips |
|---|---|---|
| **Monitoring and evaluation** | Does the city have any monitoring and evaluation frameworks to be used during the implementation phase? | Consider adapting existing frameworks to keep track of the implementation of the equity considerations identified as part of **Pillar 2** of this checklist. For example, you can collect data about access and quality of financial incentives provided to certain groups, e.g. scrappage schemes and mobility credits. |
| | How will you keep track of the implementation of equity recommendations and ensure an equitable distribution of benefits? | Consider the development of a Policy Recommendations Implementation Plan to monitor how the recommendations from **Pillar 2** are incorporated during the implementation phase.

Think about using existing mechanisms or creating new ones to keep tracking, reviewing and refining equity policy recommendations, for example including KPIs.

Consider expanding on the monitoring and evaluation mechanisms that have been created as part of **Pillars 2 and 3** of this checklist. |
| **Governance** | Are there any existing governance mechanisms that could be adapted to oversee the successful implementation of equity and inclusivity considerations? | Consider adapting existing governance structures (existing committees or project steering groups or ad-hoc new ones) to oversee the successful implementation of equity considerations. This governance structure can be responsible for monitoring the progress of the Implementation Plan. |
| | Consider involving key stakeholders as part of these governance mechanisms. | The stakeholder engagement map and plan (from **Pillar 3**) can be used as a reference to identify key stakeholders to involve in these structures. This contributes to clear accountability mechanisms and the continued involvement of stakeholders throughout implementation, which helps anticipate potential concerns related to the policy. |

| Component | Question | Tips |
|---|---|---|
| **Ongoing stakeholder engagement and communications** | How are you planning on communicating the progress of the project during the implementation phase? | Based on the communication strategies identified in **Pillar 3**, develop a communications and public engagement plan to keep stakeholders informed during the implementation phase.<br>This plan should include different communication channels to receive ongoing feedback from stakeholders during the implementation phase, particularly from those who might be negatively impacted. |
| | Are there any new stakeholders that emerge (or were not identified in the planning phase) who need to be considered during implementation? | Consider reviewing and updating the stakeholder map and plan that you created during the planning stage (**Pillar 3**) to take into account any relevant activities that will need to be undertaken during the implementation phase. |
| | Documenting and reporting | Identify ways to document the process of implementation to keep track of the following:<br>• implementations of policy recommendations<br>• feedback from stakeholders<br>• stakeholder engagement activities |

# Conclusion

Equity and inclusivity considerations can and should be embedded into every stage of Clean Air Zone policy planning and delivery. By prioritising the needs of residents, cities can ensure the policy or policies have the maximum benefit to the greatest number of people, while also addressing existing social injustices. Using the Clean Air Zone Equity Checklist, city officials can navigate the complexities of policy development and implementation while prioritising equity and inclusivity, to help create thriving, accessible and sustainable urban environments for the benefit of residents.

| | |
|---|---|
| To learn more about the technical aspects of designing a ZEA please read **Part 1: How to introduce a Clean Air Zone in your city.** | To build an impactful communications campaign, please read **Part 3: How to build public and political support for Clean Air Zones.** |



**London**
Ultra Low Emission Zone expanded to world's largest zone in 2023.

# Glossary

**Clean Air Zone**
Clean Air Zones improve public health by cleaning up toxic air and promoting a shift to active travel such as walking and cycling, as well as public transport. They also address the climate crisis by reducing the number of vehicles on the road and accelerating the transition to zero-emission transport. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone.

Rather than a single policy, Clean Air Zones should be seen as a suite of measures that can be gradually implemented to transform the way residents and visitors experience and get around the city. Combined, they create long-lasting, systemic change for the better.

**Climate action**
Stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate-induced impacts.

**Clinically vulnerable**
People who are biologically more susceptible than others to air pollutants. These groups include children, pregnant women, older adults, and individuals with pre-existing heart and lung disease.

**Community**
Any individual or group who has a vested interest/influence in, or is impacted by, the project.

**Congestion charge**
All, or most, vehicles are charged a fee to enter the city boundary or a zone within the city. Drivers may be charged at all times or only during peak hours.

**Disability**
People living with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.

**Equity**
Achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalised people and groups while accounting for diversity. It considers power, access, opportunities, treatment, impacts and outcomes, in three main areas:
1. Representational equity: the proportional participation at all levels of an institution;
2. Resource equity: the distribution of resources in order to close equity gaps;
3. Equity-mindedness: the demonstration of an awareness of, and willingness to, address equity issues; recognising that unequal starting points and barriers exist – meaning that individual needs can differ from person to person and group to group.

(Adapted from the University of British Columbia's Equity and Inclusion Glossary of Terms.)

**Equity assessment**
Equity assessments help a city explore and understand both the potential or existing positive and negative effects of policies and projects, and the distribution of the costs and benefits of said policies across different groups and communities.

In the context of Clean Air Zone policies, an equity assessment can contribute to:

- Ensuring that the policies are designed to achieve truly equitable outcomes and guarantee that all residents can benefit from the implementation of policies for improved

air quality and health;

- Driving equitable access to high-quality, expanded public transport services and sustainable modes of transport;
- Identifying who may face negative consequences as a result of the policy, allowing action to be planned by the city to mitigate this and to prevent any pushback on the policy further down the line.

A good equity assessment will require a set of benchmarks – both for baseline-setting and to assess how these indicators change as a result of policy implementation. Without equity assessments, it is difficult to predict and understand the real effects of policy on people in the city.

If the city does not have data or capacity to conduct a quantitative equity assessment, it is advisable to carry out a qualitative equity assessment to support the city in the design and implementation of Clean Air Zones. If resources allow, the city is encouraged to consider socio-spatial and disaggregated data in the delivery of the quantitative equity assessment as part of the policy implementation.

Qualitative assessment requires:
a. Identification of frontline communities who will be impacted by the policy implementation
b. Assessing potential positive and negative impacts on these communities;
c. Exploring how the policy could be designed or redefined and provide recommendations to result in more equitable outcomes.

Please note that while ideally, an equity assessment is undertaken during the planning phase, there's still value in using this tool to assess equity considerations and refine a project/policy that is already in the design or implementation stage.

Quantitative assessment requires:
a. Baseline data on availability, affordability of and/or access to goods and services of different groups;
b. Action-specific spatial or disaggregated

indicators that can help assess the quantitative impacts (e.g % households with access to public transport by district, % households with access to basic services by gender, income etc).

### Hard-to-reach
Those groups or individuals within society that are typically under-represented in the engagement process or have limited capacity to be involved.

### Holistic neighbourhood interventions
A range of pollution reduction measures introduced in selected small areas, such as a neighbourhood or several blocks:
- improve active travel infrastructure such as cycling lanes and expanded paths
- work with residents to reallocate, redesign and introduce more greenery to public space
- implement sustainable urban planning approaches such as 15-minute cities
- promote bike and car sharing.

### Inclusive climate action (ICA)
The consideration of how people and communities may be impacted by climate change and climate actions, given their wellbeing, prosperity and location in a city.

### Inclusivity
The practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes despite their different needs.

An inclusive policy goes beyond consulting the impacted stakeholders. It ensures that everyone's voice is represented in decision-making, especially those suffering from inequalities, and that policies are designed and evaluated on the basis of their direct impacts and the distribution across the population.

### Intersectionality
How different aspects of an individual or group's social and political identities overlap (e.g. race, gender, climate exposure, pollution exposure)

to shape and define their needs, priorities and capacity. Adapted from Intersectional Approaches to Vulnerability Reduction and Resilience Building, ODI, 2019.

In the context of climate crisis, it refers to how multiple identities combine, overlap and intersect, thereby shaping people's exposure to and ability to accommodate climate risks.

**Large pedestrian zones**
A zone where pedestrians are prioritised and vehicle access is greatly restricted. Cycles may or may not be allowed. Some freight may be permitted, usually with time restrictions.

**Low Emission Zones (LEZs)**
An emissions-based access regulation policy where vehicles below a specified emissions standard are either banned from or charged a fee to enter a specified zone within the city. This may cover the whole city boundary or only part of the city.

LEZs may also only target, or have different restrictions for, different vehicle classes, such as trucks and buses.

**Low traffic zones or neighbourhoods**
These zones reduce traffic by limiting some access to the zone – certain streets may be only open to residents or there may be no through-traffic allowed and journeys must end in the zone to avoid a fine.

**Managed parking zones**
As most cities have a high level of power over parking management, they can remove, reduce or greatly increase the cost of parking to reduce car usage. This can be done as part of broader parking policies like abolishing parking minimums and a workplace parking levy.

Many cities are also beginning to explore parking costs which are staggered and linked to various factors such as how polluting the vehicle is, its size or weight, or the income of the driver.

**Marginalisation**
A social process by which individuals or groups are (intentionally or unintentionally) distanced from access to power and resources and constructed as insignificant, peripheral, or less valuable/privileged to a community or "mainstream" society. This term describes a social process, so as not to imply a lack of agency. (Adapted from Equity & Inclusion Glossary of Terms – University of British Columbia).

Marginalised groups or people are those excluded from mainstream social, economic, cultural, or political life. Examples of marginalised groups include, but are by no means limited to, groups excluded due to race, religion, political or cultural group, age, gender, or financial status. To what extent such populations are marginalised, however, is context specific and reliant on the cultural organisation of the social site in question.

**Public participatory process**
Public participatory processes can take many forms, including surveying or polling residents, organising focus groups, facilitating discussion forums, e-voting systems, local workshops, interactive events, or public debates.

**School streets**
School streets close streets outside schools to traffic at the beginning and end of the school day or permanently pacify schools' surroundings. Open street measures close a specific street, for example a high street or market street, to traffic on a specific day.

**Scrappage scheme**
A scrappage scheme is a government incentive programme offering cash or grants to those replacing their old polluting vehicle with a modern, more sustainable vehicle.

**Race and ethnicity**
Race is defined as a category of humankind that shares certain distinctive physical traits. The term ethnicity is more broadly defined as large groups of people classed according to common racial, national, tribal, religious, linguistic, or cultural origin or background.

**Urban vehicle access regulations (UVARs)**

Measures to reduce the number of vehicles entering a designated area of a city. These can include regulatory measures, for example LEZs, financial measures such as a congestion charge, or spatial measures, for example superblocks or reallocating road space to create a pedestrian zone.

**Zero Emission Areas (ZEAs)**

Zero Emission Areas (ZEAs) are measures introduced by cities that prioritise people over cars. They ensure an area or zone of the city is only available to zero-emission modes of transportation, by restricting access to polluting vehicles.

**Zero-emission Delivery Zones (ZEDZs)**

Zero-emission Delivery Zones (ZEDZs) are areas in which zero-emission delivery vehicles are prioritised at the curb, for example through access to additional designated loading spaces. In some cases, only zero-emission freight vehicles are allowed to stop and deliver in the zone, but other types of vehicles are still able to access and drive through the area.

**Zero Emission Zone for Freight (ZEZ-F)**

Areas in cities where fossil fuel freight vehicles' access is strictly limited or only zero-emission freight vehicles may enter. This measure targets high-mileage and highly polluting freight vehicles, including vans, trucks and waste collection vehicles.

**15-minute city**

In a 15-minute city, everyone is able to meet most, if not all, of their needs within a short walk or bike ride from their home. It is a city composed of lived-in, people-friendly, 'complete' and connected neighbourhoods achieved by a sustainable and community focused approach to urban development. It means reconnecting people with their local areas and decentralising city life and services. The 15-minute city helps reduce unnecessary travel across cities, provide more public space, inject life into local high streets, strengthen a sense of community, promote health and wellbeing, boost resilience to health and climate shocks, and improve cities' sustainability and liveability.

This intuitive, adaptable approach to urban planning can have different names in different contexts. Leading examples include **Bogotá's** Barrios Vitales, **Portland's** Complete Neighbourhoods and **Melbourne's** 20-minute neighbourhoods, as well as the Paris 15-minute city that captured international attention. Find out more about 15-minute cities here.

# Clean Air Zone Toolbox

**From Low Emission Zones to Zero Emission Areas: how cities can transform transport to create cleaner, greener and healthier streets**



## Part 3: How to build public and political support for Clean Air Zones

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# About the Clean Air Zone Toolbox

Clean Air Zones are specific areas of a city in which measures have been introduced to reduce toxic air pollution, prioritise people over cars, and promote a shift to active travel including walking, cycling and public transport. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone, as they improve air quality and public health by restricting access to the most polluting vehicles. This also helps to accelerate the transition to zero-emission transport and address the climate crisis. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Clean Air Zones can be referred to by different names in different cities, such as Environmental Zones, Ultra Low Emission Zones, and Limited Traffic Zones.

This toolbox is for all C40 and non-C40 cities planning, developing and implementing Clean Air Zone policies. It is informed by insights and learnings from leading C40 cities that have introduced Clean Air Zone policies, and are already seeing impressive benefits for residents. A total of 35 cities have signed the C40 Green and Healthy Streets Accelerator and committed to introduce a ZEA in their city by 2030.

In line with this and other ambitious climate commitments, this guide regularly refers to policy recommendations to help develop and implement ZEAs. In order to meet climate and air quality targets, we maintain that the most ambitious clean air measures will continue to be needed, and consider ZEAs as the ultimate goal.

The C40 Clean Air Zone Toolbox provides resources and insight from cities worldwide, to support the implementation of equitable Clean Air Zones with broad public and political support. It is designed to help create transformative change for thriving, inclusive and healthy cities worldwide.

## The Clean Air Zone Toolbox is made up of three parts which can be read individually or together:

### Part 1
How to introduce a Clean Air Zone in your city

### Part 2
How to create an inclusive and equitable Clean Air Zone

### Part 3
How to build public and political support for Clean Air Zones

# Contents

# Acknowledgements

# Foreword



**C40 Co-Chair
Mayor of London Sadiq Khan**

When I promised to make London home to the largest Clean Air Zone in the world, I knew it was an ambitious commitment. But it was one I had to stand by, to tackle the dangers of toxic air and improve the lives of Londoners. For too long cities have been designed around polluting cars, rather than people. This results in traffic and congestion, unsafe streets, and limited public transport options for those who need it most. Polluting vehicles not only contribute to the climate crisis; they are also to blame for the fact that around the world, 99% of us are breathing unhealthy air.

But it doesn't have to be this way. Clean Air Zone policies such as Low and Zero Emission Areas (LEZ and ZEAs) address these challenges and create cleaner, greener and healthier cities. Since I introduced the Ultra Low Emission Zone (ULEZ), toxic nitrogen dioxide pollution has reduced by almost 50%. Between 2016 and 2020, London reduced its pollution levels five times faster than the rest of the UK. Between the implementation of the ULEZ and February 2024, our polls show a seven point increase in support compared to before the introduction of the policy.

As C40 Co-Chair alongside Mayor of Freetown Yvonne Aki-Sawyerr, I am proud to represent the diverse and innovative cities around the world that are leading ambitious urban climate action. By introducing Clean Air Zone policies such as expanded public transport networks and pedestrianised streets, cities are drastically reducing air pollution, improving public health, and addressing the climate crisis.

Experience has shown that when people witness and feel the positive impact and tangible benefits of climate action – including cleaner air; reduced traffic congestion; safer streets; more walking and cycling options; more accessible, affordable public transport; green jobs and improved quality of life – they become advocates for change and catalysts for further action.

This toolbox is designed to help cities create and deliver inclusive, equitable policies that work for their residents. Informed by the work of leading C40 cities, it offers practical guidance, best practices, and case studies to assist cities at every stage of the implementation process, as well as guidance and inspiration for compelling communications and public engagement campaigns. By equipping cities with the necessary knowledge and tools, and inspiring city residents to become champions and change makers, together we can create healthier, more equitable, and more vibrant cities for everyone.

# Introduction

Clean Air Zones are a suite of comprehensive policies that create green and healthy urban areas for residents. Depending on the size of the city, their introduction could benefit hundreds of thousands or even millions of residents and visitors on an annual basis. Clean Air Zone policies, for example Low Emission Zones (LEZs), Zero Emission Delivery Zones and pedestrianisation projects, drive a shift away from private polluting vehicles, and bring people, public transport, walking and cycling to the heart of their city streets. They deliver cleaner air, quieter and safer roads, economic prosperity, and healthier public spaces.

However, any transformative change can result in lifestyle adjustments that may inconvenience residents in the short or immediate term. Successfully navigating and communicating these benefits, impacts and changes requires a carefully considered, impactful public engagement strategy to meaningfully connect with a broad spectrum of residents and stakeholders. This will help your city demonstrate that ultimately, Clean Air Zone policies are vital solutions to a number of interconnected challenges – including toxic air, traffic and congestion, and the climate crisis.

**C40 Clean Air Zone Toolbox Part 3: How to build public and political support for Clean Air Zones** is a guide for communications and campaigns teams in cities wishing to implement Clean Air Zone policies. Communications professionals and campaigners in nonprofits and other partner organisations will also find the guide a valuable resource, as will politicians and other city officials wishing to learn more about communicating Clean Air Zones, and building public and political awareness and support.

This guide will help users develop a strategic and impactful public engagement campaign that truly engages and collaborates with residents and key stakeholders from the start. It will empower cities to articulate the benefits of a future with fewer cars on the roads and more space for public transit, walking and cycling, emphasising positive outcomes for both residents and businesses, and a more equitable distribution of public space.

This all begins by identifying and understanding your target audience and their needs, and designing campaigns that work for and will resonate with your residents and stakeholders. We share advice on listening to your audience and developing key messaging for your campaign, as well as countering myths about Clean Air Zone policies. We cover building and delivering effective digital, media and stakeholder engagement campaigns, as well as crisis communications. This guide contains case studies and examples from a broad range of leading cities worldwide, including the innovative Clean Air Wins campaign that was launched ahead of the expansion of the Ultra Low Emission Zone (ULEZ) in London in 2023. We close with some key takeaways that all cities can learn from, to ensure their Clean Air Zone policy public engagement and communications have the greatest impact and success.

> To learn more about the technical aspects of designing a Clean Air Zone please read **Part 1: How to introduce a Clean Air Zone in your city.**

> To ensure your Clean Air Zone policies are equitable and inclusive, please read **Part 2: How to create an inclusive and equitable Clean Air Zone.**

# Why public and political support for Clean Air Zones is so important

Many cities around the world face unprecedented challenges to their climate action. Vehicle restriction policies are increasingly being used in culture wars. Opponents with vested interests may often fund others or use sophisticated tools to campaign against ambitious action. This backlash against climate policies, particularly those targeting vehicle emissions, has gained traction in recent years, which has made the policy environment challenging to navigate.

In Europe for example, the implementation of LEZs has sparked opposition campaigns in several cities including Brussels, Belgium, London, United Kingdom and Milan, Italy. Opponents argue that urban vehicle access regulations (UVARs) affect low-income residents and small businesses, highlighting the importance of embedding equity and inclusivity in both the design of Clean Air Zone policies and their communications and public engagement campaigns.

Any transformative policy will encounter some genuine concern from affected residents, businesses and other stakeholders, which should be mitigated with a strong equity-first approach. Cities can develop this using the Clean Air Zone Equity Checklist found in **Part 2: How to create an inclusive and equitable Clean Air Zone.** However, resistance to climate policies worldwide can take the form of political polarisation and disinformation and misinformation campaigns. Opponents of emissions reduction measures, particularly those involving UVARs, falsely frame them as encroachments on personal freedom or as threats to economic prosperity, which exacerbates divisions and hinders progress on climate action.

We've gathered expert advice on countering myths, misinformation and disinformation in **Chapter 4: How to counter common myths about ZEAs.**

Ultimately, change is disruptive, which is why communicating the wide ranging benefits of Clean Air Zones, including cleaner air and accessible, sustainable transportation modes, is so important. On a positive note, public awareness of the climate crisis and the urgent need to act only continues to grow. With strategic communication, inclusive policy making, and a commitment to equity, cities can mobilise public and political support and overcome resistance, to pave the way for greener, healthier and safer cities for everyone.

It's important to note that, if properly managed with genuine engagement, impactful communications, and an equity-first approach, opposition to new policies is usually short lived, and mayors who boldly face down vested interests in favour of benefitting the majority are rewarded. In **London**, UK for example, despite very vocal opposition from a minority to the Ultra Low Emission Zone (ULEZ), Mayor Sadiq Khan was re-elected with a larger majority following its introduction.

# The public policy adoption curve

By David Bluestone, Jason Ashley, Esther Kim – ClearPath Strategies

In public policy, nothing is ever set in stone. It is subject to public opinion, which is always in flux. Shifting priorities can topple even the strongest laid plans. For transformative Clean Air Zone policies such as LEZs and ZEAs to be successful, they require active, ongoing public engagement both in the long and short term.

A public policy's adoption lifecycle in most cities follows a predictable pattern that evolves over time – welcomed at first, then eventually facing unwelcoming backlash, even rejection. Recognition of this pattern means we can take advantage of the peaks and proactively confront (and control) the inevitable troughs.

A Clean Air Zone policy such as a LEZ or ZEA may start as an unknown or little-known entity. People may not understand the specifics, but they might be open to the overall goal. When framed correctly, the public can understand that the policy brings health benefits, proactive mobility solutions, and better urban living. Inevitably, however, people identify problems in their community, which they attribute to that policy, fairly or not. These include complaints about lack of freedom to move, shifted air quality issues, high costs, inequity, inconvenience, and misallocation of resources.

This can escalate into full-scale backlash toward a LEZ or ZEA, manifesting in elections and mobilisation of opposition.

This backlash is largely avoidable because it is predictable. We know it is coming. We know the usual causes. Critically, we know how to address them, proactively, with the right policies, politics, and messaging to preempt and mitigate them.

The Adoption Curve represents typical pathways for public policy ending up in either acceptance or backlash, based on the quality of public engagement. For policy focused on road usage charges, the Adoption Curve builds on the Goodwin Curve which shows the public is most worried about road usage charge policy when they know it is coming but do not know the details (how much they will be charged, how often, or even if they will be). Goodwin's research shows once people live under road usage charging, they are more willing to accept it.

This framework comes from new technology adoption theory. We've modified it to better fit the realities of public policy. To achieve Acceptance of an LEZ, ZEA, or other Clean Air Zone policy, there are two critical points in time to get right when you are entering what we call the **'going live'** stage.

## ZEA going live stage

### 1. The launch

A strong launch incorporates the needs of the public and key stakeholders. It is contextually appropriate. It uses plain language, connects the dots from problem to solution, and actively builds the policy up to shield against attack. Strong launches are informed by the economic, political, social, cultural, legal, climate, and transportation realities of a city and by engagement done in the two earlier stages of the policy development as laid out in **Part 1, Chapter 4: how to effectively implement a Clean Air Zone**, as we have seen in **Part 1** and **Part 2** of this Clean Air Zone Toolbox. Strong launches build massive support for the new policy.

### 2. When reality sets in

No matter how successful a launch there will always be a reality check once people start experiencing the new policy. Their expectations might not have been met. People might be facing unintended consequences. Highs can't last forever. There will also likely be pain points (ZEAs and LEZs are asking people to change their behaviour after all). Stories of people wronged by the policy will build. Opposition forces will make sure of that.

Dealing with these pains and concerns is paramount. Even a policy with a good launch can result in a backlash if public engagement does not effectively deal with attacks and concerns. A strong launch incorporates pain mitigation ahead of time; think subsidies, reinvestments, and grace period; and a data-driven narrative that can speak clearly and effectively of the benefits of your policy.
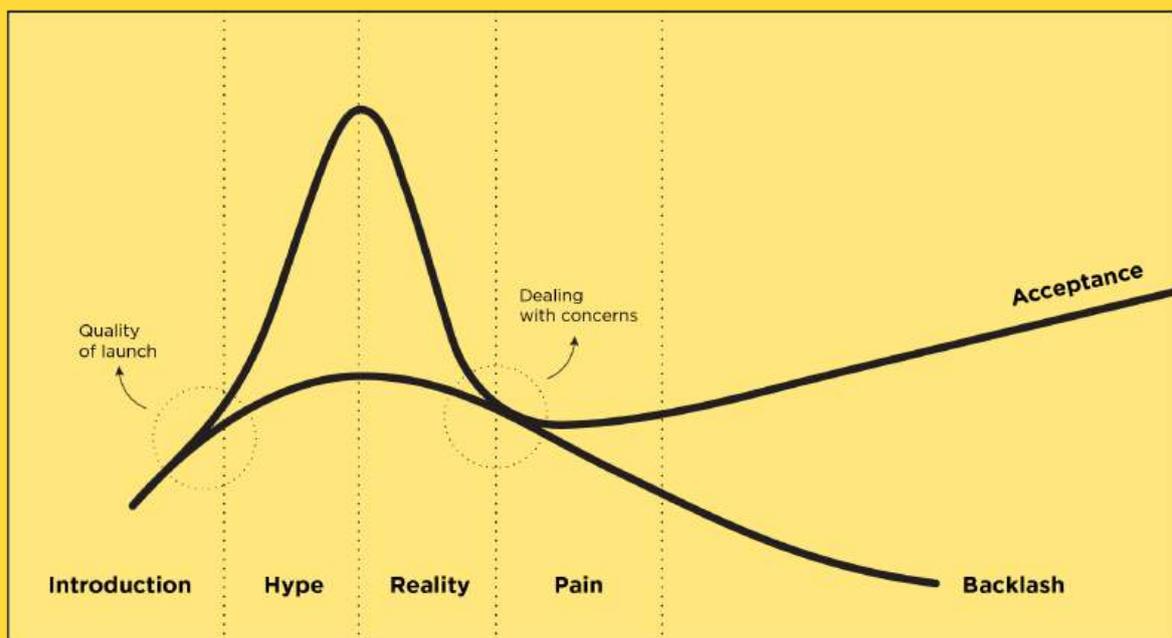


Public Policy Adoption Curve

# How to design the right campaign for your city

Every city is unique. Some cities may have particularly poor air quality which is damaging the health of residents. Others might have a limited walking and cycling network, which needs to be improved in order to get more people out of their cars and using active forms of travel, to benefit their health and reduce emissions and air pollution.

As we have seen in **Part 1** and **Part 2** of this Clean Air Zone Toolbox, understanding your audience will help you design the right policies that meet the needs of your city residents, particularly the most marginalised. It will ensure your policies are the most equitable and inclusive they can be.

To design the right campaign that engages your specific residents and stakeholders, you must actively listen to them and their needs. All successful public and political Clean Air Zone campaigns will need to be specifically tailored to fit the context of the city, its challenges and strengths, and the needs and preoccupations of residents. Well-crafted, thoughtful campaigns will gain support and counter any reactionary attacks, as well as ensure city leaders are seen as being in touch with the needs of their residents, and acting in their interests.

The campaign must not operate in a vacuum, but be in tune with public and political debate. By gaining wide support, the campaign will have strong advocates that will act as spokespeople for the policy in media appearances and on social media.

## How to listen to the needs of your city and residents

There are many different ways of fairly and inclusively listening to residents and key stakeholders to assess their needs and preoccupations. This also creates an opportunity to test your own assumptions, explore current public attitudes, and start to situate your goals within the broader public discourse. Careful, meaningful listening takes time and needs to be accounted for in initial planning.

The following methods of active listening are means of engaging, involving and empowering your residents and key stakeholders. This ensures they are listened to, and that the Clean Air Zone policies being introduced are genuinely informed by their needs and concerns.

Whatever the chosen method of active listening, a diverse spectrum of residents from different walks of life should be engaged, to ensure the campaign reaches and resonates with a wide audience.

It is critical to ensure an inclusive process that seeks to understand the views of those that will be the most impacted by the policy, particularly marginalised groups, children, the elderly, and people living with disabilities or long-term health conditions.

# Here are some key ways to listen actively and effectively:

## 1. Create a public participatory process
This could take many different forms both online and in person, including discussion forums, e-voting systems, local workshops, interactive events, and public debates. Informative and educational communications campaigns can encourage residents to get involved, and raise awareness of the broader themes being discussed, such as air pollution or road safety. Digital content, city billboards, street furniture and email marketing campaigns can help prepare the field for deeper interactions.

Cities across the C40 network have created meaningful and engaged relationships with residents through public forums and social media. For example, after **Bogotá**, Colombia announced its new Urban Clean Air Zones or Zonas Urbanas por un Mejor Aire (ZUMAs), City Hall implemented a participatory process involving residents of the proposed ZUMA areas, to involve them in the urban planning phase. This helped to involve these communities, provide them with the opportunity to raise any concerns, and encourage support for the proposed changes in their neighbourhoods.

To learn more about participatory democracy in cities, explore the C40 Knowledge Hub:

- C40 Inclusive Community Engagement Playbook
- How to engage stakeholders for powerful and inclusive climate action planning
- Inclusive stakeholder engagement: Engagement processes for inclusive climate action in Latin America
- How to strengthen climate governance for an effective climate action plan

## 2. Survey your residents
Surveying or polling residents can help analyse and understand public opinion towards specific topics, opportunities and possible risk factors. It can help identify residents' primary concerns; for example, are they more worried about air pollution, employment opportunities, safety, climate or traffic in their city? Polling can also help identify knowledge gaps, the spread of misinformation and disinformation, as well as testing and comparing different messages.

A strong foundation of data can help you contextualise your campaign, craft a more effective strategy, build a credible narrative and inform tailored messages to engage city residents. It enables testing and strategic planning of when and how to announce policies, via the right channels and messengers. It also allows tracking of public opinion over time. Polling is often done through online questionnaires, but in-person interviews can be more representative in some geographies. When your engagement efforts are intended to address specific areas or communities, consider targeted polling at neighbourhood level, which can be very useful for answering specific questions or checking a theory.

## 3. Organise focus groups
This can give you a deeper understanding of different stakeholders' positions towards a policy or a campaign, through structured conversations that generate discussions. Focus groups enable the testing and development of impactful language around issues and concepts. Hearing residents and stakeholders in their own words is important to develop an authentic, relevant campaign and impactful messaging. Notably, focus groups help check assumptions and surface new ideas you may not have thought about. Focus groups and interviews can be useful to conduct in the early stages of the policy design, to give residents the opportunity to provide more in-depth information and opinion than other means, for example a poll.

## 4. Map out the political, social, economic, and cultural landscape
Understanding the specific context you are navigating is vital to meet and respond to residents' needs with messages that will resonate. It will also help identify the most appropriate moment to announce and implement the Clean Air Zone policy. That's why we have developed the Clean Air Zone city context self-assessment exercise, which you can find below. Transformative policies require strategic timing, which is only possible with full understanding of the political, social, economic and cultural landscape of the city. This will inform decision-making about the most fitting moments to announce (and implement) Clean Air Zone policies.

# Clean Air Zone city context
## self-assessment exercise

We've developed the following Clean Air Zone city context self-assessment exercise to help you identify your areas of strength, areas for improvement, and any additional research needed to build out your public engagement strategy.

Each of the following metrics interact and may appear differently in different cities. Reflecting on them will help inform the tone, scope, size, and levers of the campaign. It will help answer questions including: does our campaign need to focus on public awareness? Does our campaign need to educate audiences? Does it need to persuade sceptics, or depoliticise a toxic topic?

Does it need to be in service of some larger goal (for example helping to ease the cost of living)? These are not exhaustive questions, but may serve as a starting point.

Each of the items below should be assessed using a mix of data and personal judgement. Some are sourced from public opinion research and others from desk research. You may not know some of the data. That's okay. This exercise is designed to help identify the information you already have and what information you might still need to fully contextualise your Clean Air Zone policy campaign.

# Descriptive scenarios:
## What does your context mean?

All cities are unique and face distinct challenges, environments, and contexts. To help understand the context for your Clean Air Zone policy campaign, we've identified four city types based on the identifiers in the self-assessed context score. These city types are purely informative, descriptive scenarios, rather than a prescriptive strategy. All cities will of course need a tailored public engagement and communications strategy that fits its specific context, needs and capabilities.

Each type of city: **Acorn**, **Seedling**, **Sapling and Oak**, represents how well equipped the city is

to communicate the launch and implementation of a transformative Clean Air Zone policy such as a LEZ or ZEA, and what steps it can take to advance further on its journey. Each city type is accompanied by case study examples to illustrate the position the city might find itself in at this stage of its journey.

These metrics can also help policymakers, campaigners and communications experts to keep track of where they are on the policy Adoption Curve, and signal when their strategy needs to adapt.

# Clean Air Zone context self-assessment exercise

| Theme | Consideration | Circle your self assessment score | | |
|---|---|---|---|---|
| Economic | Are inflation and cost of living having an impact on residents? | 1<br><br>Big impact | 3<br><br>Moderate impact | 5<br><br>Small impact |
| | Is unemployment a big issue? | 1<br><br>Big issue | 3<br><br>Moderate issue | 5<br><br>Small issue |
| | How strong or weak is the economy? | 1<br><br>Weak | 3<br><br>It's okay | 5<br><br>Strong |
| | Dominance of economy in public consciousness | 1<br><br>Big presence | 3<br><br>Moderate presence | 5<br><br>Small presence |
| Political | How popular is the mayor or city leadership in the eyes of the public? | 1<br><br>Unpopular | 3<br><br>Mixed popularity | 5<br><br>Popular |
| | How polarised is the local environment? | 1<br><br>Very polarised | 3<br><br>Somewhat polarised | 5<br><br>Not very polarised |
| | Does the public view transportation policy as a success story or sore spot? | 1<br><br>Sore spot | 3<br><br>Mixed views | 5<br><br>Success story |
| | Does the public view environmental policy as a success story or sore spot? | 1<br><br>Sore spot | 3<br><br>Mixed views | 5<br><br>Success story |
| Legal | Does the city have the legal grounds for this Clean Air Zone policy? Do we expect legal challenges? Is the legal system on our side? | 1<br><br>Complex legal path | 3<br><br>Clear legal path | 5<br><br>Easy legal path |
| Cultural | Is the Clean Air Zone policy affecting culturally important institutions/areas (i.e. iconic places, relevant historical areas, world or local heritage sites)? | 1<br><br>Yes, negatively | 3<br><br>No impact | 5<br><br>Yes, positively |
| Transport | Is public transport high quality (including safety, reliability, frequency, geographic coverage)? | 1<br><br>Needs work | 3<br><br>Good | 5<br><br>Very good |
| | Is public transport affordable for all sections of society? | 1<br><br>Needs work | 3<br><br>Good | 5<br><br>Very good |
| | Level of congestion | 1<br><br>Low | 3<br><br>Medium | 5<br><br>High |
| | How car-reliant is the population? | 1<br><br>Very car reliant | 3<br><br>Somewhat car reliant | 5<br><br>Not very car reliant |
| | Are low-carbon transport options available in the city (i.e. shared mobility such as bike schemes, car clubs, micro mobility etc.)? | 1<br><br>Low availability | 3<br><br>Medium availability | 5<br><br>High availability |
| | Is EV infrastructure including charging widely available? | 1<br><br>Low availability | 3<br><br>Medium availability | 5<br><br>High availability |

| Theme | Consideration | Circle your self assessment score | | |
|---|---|---|---|---|
| Environment and climate | How concerned are the public about the climate crisis? | 1<br><br>Not concerned | 3<br><br>Mixed views | 5<br><br>Concerned |
| | How aware are the public of air pollution? | 1<br><br>Unaware | 3<br><br>Somewhat aware | 5<br><br>Very aware |
| | How aware are the public of the links between vehicle emissions and air pollution? | 1<br><br>Unaware | 3<br><br>Somewhat aware | 5<br><br>Very aware |
| | How aware are the public of the health impacts of air pollution? | 1<br><br>Unaware | 3<br><br>Somewhat aware | 5<br><br>Very aware |
| | How supportive are the public of green/sustainable transport policy? | 1<br><br>Oppose | 3<br><br>Mixed views | 5<br><br>Support |
| Stakeholder engagement | Is the Clean Air Zone policy affecting the most impacted groups or marginalised groups? | 1<br><br>Yes | 3<br><br>Yes, some | 5<br><br>Doesn't affect |
| | Do clinically vulnerable or marginalised groups support the Clean Air Zone policy? | 1<br><br>No | 3<br><br>Some do | 5<br><br>Yes |
| | Do your traditional allies (i.e. stakeholders already working with you, or which you could map out for involvement) support the Clean Air Zone policy? | 1<br><br>Unaware | 3<br><br>Somewhat aware | 5<br><br>High |
| | Is car parking being reduced near small businesses? | 1<br><br>Yes, a lot | 3<br><br>Yes, some | 5<br><br>No |
| | Do small businesses support the Clean Air Zone policy? | 1<br><br>Oppose | 3<br><br>Somewhat support | 5<br><br>Stongly support |
| Communities | Are there existing, well-organised community groups that would support the Clean Air Zone policy? (e.g. cyclists, parents, faith groups, health professionals, etc.) | 1<br><br>No | 3<br><br>Yes, some | 5<br><br>Yes, many |
| | Are there specific considerations for affected communities in the Clean Air Zone policy plan? | 1<br><br>Yes, multiple | 3<br><br>Yes, some | 5<br><br>No |
| Threat assesment | Has an opposition political party or third party entity attacked past environmental policy? | 1<br><br>Strongly | 3<br><br>Moderate | 5<br><br>Not at all |
| | How well-funded would an opposition movement be? | 1<br><br>Very well-funded | 3<br><br>Somewhat well-funded | 5<br><br>Not well-funded |
| | How heavy of an opposition do you expect? | 1<br><br>Very heavy | 3<br><br>Somewhat heavy | 5<br><br>Light |
| **Context total score** | | **/155** | | |

# Descriptive scenarios

| Score total | City type | Description | Case studies |
|---|---|---|---|
| >115 | 🌳<br>**Oak**<br>→ Leader | Many indicators in the right direction.<br><br>Need to fine-tune and tailor the launch to best fit the moment. | In a recent LEZ launch in an Oak city, our research showed a climate-conscious public was well aware of the air pollution problem, but did not fully understand the extent of its health impacts. Despite high public support for sustainable policy, the city team needed to show the public how Clean Air Zone policies would help address air pollution and improve public health.<br><br>However, air pollution was not the primary concern. Safety was. Therefore, the city needed to focus on the elements of the Clean Air Zone that addressed safety, to demonstrate its commitment to the needs and concerns of its residents. Despite high levels of support, polling also showed the potential for blowback on future vehicle restrictions in the LEZ.<br><br>The city did not need to convince people of the importance of dealing with the problem. Instead, they needed to connect the dots between the LEZ and public health, while showing how the LEZ can also improve public safety. |
| 90–114 | 🌾<br>**Sapling**<br>→ Advocate | Some indicators in the right direction, but important elements holding things back. | In a recent exploration of Clean Air Zone policies in a Sapling city, we found the public was deeply concerned with congestion and resulting air pollution. People wanted action. They strongly supported the idea of a LEZ, however perception of the public transportation system was also poor. It was not believed to be a strong enough solution to congestion. Instead of launching a campaign to encourage residents to use public transport – which would have reflected badly on the LEZ as a whole – the city ran a campaign to improve perception of the public transport system. The city ran a campaign to highlight the quality, safety and timeliness of the public transport system to encourage its uptake among residents, before fully launching the LEZ.<br><br>In a separate Sapling city looking to expand their LEZ, our polling found that despite living with an LEZ for several years, the public was not fully sold on the benefits. The public was very climate-forward and identified climate action as within their top three priorities for the city. However, this did not translate into support for expanding the LEZ. Polling found people were not hearing enough from the city about the positive effects of the LEZ, and instead were hearing the loud counter-arguments of the opposition. It proved vital to reiterate the key reasons why a LEZ was needed, and continue to tell the positive story of impactful climate action and its benefits in the city. |

| Score total | City type | Description | Case studies |
|---|---|---|---|
| 60–89 | **Seedling**<br>→ Persuader | A mixed bag of indicators.<br><br>Some elements to work with, but there is a need for nuance. | In a recent Seedling city looking to expand its LEZ, our polling found generally positive impressions of sustainable policy and only mid-level awareness of the underlying problems (air pollution and public health). More importantly, however, there was a well-funded and loud opposition from a vocal minority. Despite supporting the LEZ's underlying policies, once the LEZ name was attached to the policy, public support plummeted. We needed to use trusted voices to carry the right information, while explicitly connecting the dots between air pollution and public health. After expansion, the opposition quieted. Now the city is helping show people the positive impacts and how little it affected their daily commutes. |
| <60 | **Acorn**<br>→ Introducer | Both the city and the public will need more information to move forward.<br><br>There will likely need to be a big public education campaign.<br><br>Access points to Clean Air Zones may be via issues with an indirect link. | In Acorn cities, the public may be uninterested in sustainable policy, unaware of the problems air pollution poses (or that it is even an issue in the city), or entirely focused on other issues (cost of living or safety).<br><br>Recent polling in an Acorn city showed widespread public support for sustainable and green policy. However, the public was also dealing with an intense cost of living crisis, and they could not think beyond the immediate issues of paying for food and energy and keeping their families safe. Despite concern about the climate crisis, it simply was not something they had space to act upon in their daily lives. It was thought of as a challenge for the future. To move climate action forward, we needed to make sure it was made relevant to life today. Public communication did not focus on climate action. Instead, the actions pursued were under the umbrella of immediate flood control and community safety.<br><br>Acorn cities that might be impacted by a difficult socioeconomic situation should consider clearly communicating the socioeconomic benefits of climate action. These could include the long term benefits of increased footfall for local businesses, and the support provided to the most impacted groups, for example the scrappage system and exemptions for people with disabilities and older people. |

# How to develop key messaging for your campaign

Crafting and conveying messages with precision and purpose can shape public perception, garner support, and drive policy implementation. The insight and understanding gained about your city context and audiences will help develop the key messaging for your Clean Air Zone. Tailoring messages to the concerns of residents, civil society groups and decision-makers is essential for generating broad-based support and gaining a mandate to implement often transformative changes.

Strategic framing of Clean Air Zone policies, particularly transformative ones such as LEZs and ZEAs, is central to their success. A well-crafted messaging plan, including core messages, compelling statistics, and preemptive counter arguments, can foster acceptance and mitigate opposition.

This chapter draws insights from polling data collected in leading cities across the C40 network. The advice and insight is designed to be used and tailored to inform campaigns that resonate with local concerns. Clean Air Zone policies must ultimately be made relevant to residents, and be presented as action the city is taking to make their lives better, easier and healthier.

## Top tips for creating Clean Air Zone policy messaging

We have developed these top tips with a focus on air quality, however this might not be the most impactful topic for your city. These guidelines could apply to other issues that may resonate well with residents, such as poor public provision or congestion.

### 1. Tap into increasing public awareness of high levels of air pollution

Air pollution has become one of the top concerns in urban areas. Surveys of residents in several C40 cities between 2021 and 2024 show most residents in **Bogotá**, Colombia; **Jakarta**, Indonesia; **London**, UK; **Milan**, Italy; and **Warsaw**, Poland are aware of and worried about the dangers of air pollution.

- **92% of people** in **Bogotá** think about air pollution daily.
- **58% of London** residents and **65% of Warsaw** residents know air quality is bad in their cities.

### 2. Connect the dots between air pollution and its dangerous health effects

In each of the cities we've polled, clearly linking air pollution to direct health impacts is the most or among the most persuasive arguments for ZEA policies. Focusing on the human impact is a powerful way to increase support and demand for Clean Air Zone policies.

For example, asking people: 'do you know someone with asthma?' then making the link between emissions, air pollution and serious but common ailments is a powerful strategy. Asthma is often the most easily understood health concern linked to air pollution.

Once people understand the dangerous health impacts, they are more likely to demand action. This is especially true when focusing on the health impacts of children, the elderly, and those with underlying health conditions.

### 3. Emphasise the importance of transport solutions

Often, people are not aware that the major sources of air pollution in their city are polluting private vehicles, combined with lack of trees and green spaces. People are also often unaware that policies such as LEZs and ZEAs can reduce air pollution and make their air safer to breathe. The next step therefore is to create the link to a greener vision of cities with cleaner, healthier air, which Clean Air Zones can help make a reality.

### 4. Present policies as positive and enabling, rather than neutral or restrictive

Even with weak opposition arguments and little mention of restrictions, people are concerned about imposed limits.

Frame the Clean Air Zone policies – especially LEZs and ZEAs – as having a positive impact that will bring lots of benefits to the whole community, from safer streets to cleaner air to boosting the local economy.

Explain the benefits for children, the elderly, and other groups whose health is disproportionately impacted by toxic air, such as people living with disabilities and other historically marginalised populations. This communicates the intent of the policy and demonstrates how everyone will benefit. This will help people adapt and shift their behaviour, which can often be challenging.

### 5. Get personal

Develop messaging that allows residents to understand exactly how they will personally benefit from the introduction of Clean Air Zone policies. This makes it relevant to their lives and becomes a topic they are invested in.

Generally, public support increases if messages focus on rethinking a city and building a shared, co-created vision that they can be a part of.

### 6. Use easy to understand language

Present measures in popular language that everyone can understand, no matter how engaged they are in politics or environmental issues. Include accessible numbers and data that will help people visualise and understand the benefits of Clean Air Zone policies. Select diverse media channels to reach all residents, and share compelling human stories from people with real lived experience.

# The power of patient stories
By The European Lung Foundation

Hearing powerful personal stories from patients can help make air pollution less of an abstract or invisible concept, and encourage people to support measures designed to tackle it.

People living with a lung condition are often more extremely impacted by high pollution levels in cities. It can make their condition worse, and increase the risk of anxiety and depression.

Air pollution negatively affects already marginalised communities and clinically vulnerable people first. Patients are often living proof that living in economically deprived areas, in poor quality housing, and having less access to green space can all make their condition worse.

The public and policymakers can feel more connected to 'people like them' telling a personal story. It could quite easily be about themselves or someone they care about.

To engage patients, contact should be made between the city and patient organisations, which should be able to put you in touch with individuals and help you reach out to their members. The European Lung Foundation has a useful database of respiratory organisations in different countries.

### 7. Offer solutions to immediate problems

Frame Clean Air Zone policies as the solution to challenges people face in their everyday lives. Lead with the best or most popular reason the public should support the policy – this should be the centrepiece that all communications tie back into. Nest the policy within other broad issues, for example the cost of living, traffic congestion, or public safety. Speaking to people's immediate concerns will help to keep the policy relevant and focused on the right priorities.

**Rio de Janeiro** is highlighting how their LEZ is making the city centre much safer, and how crucial the area is for the development of the city as a whole.

### 8. Showcase consensus around the policy

According to research from the Global Change Institute, it is vital to demonstrate a scientific consensus to gain widespread support for climate policies. Demonstrate that experts, scientists, the city leader and city officials all agree with the evidence behind the policy and that it will bring real benefit to residents' lives. Find out who is most trusted in your community to speak about health, jobs, environmental issues, social justice, wellbeing, mobility. The inclusive stakeholder engagement section in **Part 2: How to create an inclusive and equitable Clean Air Zone** will help to map out these advocates and champions. Build up this coalition of advocates to participate in campaign activities and disseminate your message in a united, coordinated way.

These voices will be in charge of spreading positive messages, helping you build trust and address any backlash. A message is only as strong as the messenger.

**London**, for example, engaged community leaders and borough-level campaigners, doctors, and scientists to publicly support the expansion of the ULEZ. This was a data-driven decision, with evidence suggesting that these voices would be more powerful among residents than political actors or social media personalities.

For more advice and insight about stakeholder engagement, read **Chapter 7: How to engage and activate your community.**

## How health professionals can help
By The European Lung Foundation

Health professionals are able to present up to date, reliable, scientific evidence showing the link between poor air quality and negative health outcomes. Respiratory health professionals treat people with respiratory illnesses, which are caused or made worse by air pollution. In cities, pollution from traffic has a direct and visible impact on people's health.

Holistic understanding of science and lived experience is useful when trying to engage policy makers and the public. Health professionals are a trusted source of information and guidance within their local communities. They can inform their patients and the public of the impacts of air pollution, and help keep them safe on days when pollution is high. They can also recommend preventative measures, such as avoiding busy roads, staying within LEZs on your route to work, and exercising indoors on high pollution days.

These lifestyle recommendations can support the case for the introduction of further low emission zones as well as help with implementation of current plans, by garnering public support for clean air policies within cities.

To engage medical professionals the city should get in touch with national membership bodies who can put you in touch with their local networks. The European Respiratory Society has a useful global membership database.

## 9. Develop strong arguments to counter ZEA opponents

Arguments from LEZ and ZEA opponents can be very persuasive – especially those highlighting the financial costs of action. Surveys show the supposed costs of LEZ or ZEA policy, for example the economic impact on a family income, new rules to comply with, and the supposed restrictions of freedom, can turn public opinion against Clean Air Zone policies because these appear to be personal and immediate impacts. We know this, so we can deal with it before the attacks hit.

Messaging should demonstrate how Clean Air Zone policies benefit residents and address socioeconomic challenges in the city. See **Part 2: How to create an inclusive and equitable Clean Air Zone.**

For advice and insight into dealing with opposition arguments and mythbusting, read **Chapter 4: Mythbusting – how to counter common arguments about Clean Air Zones.**

## 10. Create more than one winning argument

Clean air is usually a strong argument in favour of transformative measures such as LEZs and ZEAs, but it is not enough to win the debate in the long term. Consider that the air quality varies over the course of a year. A city's air quality may be more problematic in winter months, and many cities face wildfire smoke problems in the summer. Take that into account when planning a holistic messaging plan and what to prioritise.

When building your narrative, create a messaging plan, a FAQ document to address different concerns of key stakeholders, communities and residents that may arise during the implementation phase. This will help you get ahead of the opposition and counter misinformation and disinformation, while also preparing to educate the most impacted residents.

Read **Part 1: Chapter two: The benefits of Clean Air Zones** for more winning arguments for Clean Air Zones.

## 11. Choose your name wisely

The name of your policy can have a huge impact on how it is received by stakeholders and residents. C40 polling has shown that names such as Clean Air Zone are usually more popular than Low Emission Zone or Zero Emission Area for example.

In **Bogotá**, Colombia, residents that were interviewed before the city's LEZs were announced said that they should be a political priority simply based on their name: 'ZUMA – Zona Urbana por un Mejor Aire' or 'Clean Air Urban Areas' in English. It helped residents clearly connect the policy to reducing air pollution. Once defined with details, people liked the ZUMA concept even more.

'Clean Air Zone' tells people what they get (cleaner air) and 'Low Emission Zone' or 'Limited Traffic Zone' tells people something is being taken away. Even though we are reducing emissions, as stated above, it takes a few cognitive steps to get from emissions to air pollution to health to positive impact. Instead, clean air does it in one step. Opponents have an easier time exploiting a negative framing (focusing on the things being taken away) than they do with a positive one. It's difficult to argue with clean air.

## 12. Prepare crisis communications messaging from the outset

Use stakeholder mapping and public opinion research to understand immediate reactions to Clean Air Zone policies such as LEZs and ZEAs ahead of time, to address as many concerns as possible before launch.

Build responses to these concerns possibly into a rapid response strategy plan and create trusted networks to disseminate information before, during and after the launch and your planned future steps. Leave the door open to strengthen the dialogue with your residents: their recommendations or criticisms could help you improve both the policy and your relationship with them.

For more advice and insight into crisis communications, read **Chapter 8: How to avoid and manage a crisis.**

# Amplifying the voices of campaigners

by Ruth Fitzharris – Campaigner, Mums for Lungs

I'm from London and I'm raising my son here too. He has asthma and has been in hospital 16 times now. Neither I nor his father have it. On his third stay in hospital, when he was one and half, the respiratory consultant advised us to avoid traffic-filled roads where possible. He explained that the high levels of air pollution in London were making many children sick. He described how it inflames the lining of the lungs and increases the likelihood and severity of an asthma attack.

The last time my son was sick he stayed in hospital for 12 days. The UK's Department for Environment, Food and Rural Affairs (DEFRA) rated air pollution at its top tier during that time. In the last academic year he has missed almost a fifth of his education. It has broken my heart to see my son struggle to breathe so many times. Nothing has been the same since.

Recovery from an asthma attack is very tiring. The patient needs medicine often hourly, even during the night. This includes steroids, nebulisers, oxygen, inhalers and sometimes intravenous medication too. It makes sleeping very difficult. When someone develops a health condition and needs care, it is often women that will give up work or reduce working hours to deliver this, with huge financial consequences that can often last for the rest of their lives.

## "We know what the solutions are, and change is within reach"

I heard a talk some time ago, from a paediatrician and neo-natalist at Evelina Children's Hospital. She described the impact that air pollution can have on a foetus. I think about that sometimes, about how I walked past lines of near-stationary traffic to get to work in central London, five days a week. I wish my son started his little life somewhere else, somewhere better than this.

Air pollution from vehicle fumes makes up a huge proportion of the toxic particles that we breathe every day. It is imperative that cities introduce low and zero-emission zones that are proven to reduce these fumes. There are reams of evidence from peer reviewed scientific research about the impact that vehicle exhausts have on our health.

Given what we know, action is needed urgently. Anyone that has any power or responsibility in this arena should visit a hospital and see what it looks like when a child can't breathe.

We know what the solutions are, and change is within reach. Of course it is hard, but it is possible. Bring in a Clean Air Act, to clean up our toxic air as soon as possible – we need a clear map to achieve each of the World Health Organization (WHO) guidelines in the shortest time.

Clean Air Zones, School Streets, improved public transport, disincentivising private vehicle use – all these measures work to reduce air pollution. The costs of not acting run into the billions, and the costs to individual lives, like ours, are immeasurable. Even if you don't at present suffer from any health conditions related to air pollution, there are tremendous benefits to living in a place free from excessive traffic. Quieter, more walkable and cyclable cities bring life and vitality into public spaces, as it is turned over to more equitable and enjoyable uses than the scourge of traffic.

It is no coincidence that streets which people enjoy using, or spending time on, are those with less cars.

# How to counter common Clean Air Zone myths

Research carried out at COP27 by Climate Action Against Disinformation (CAAD) found that many climate disinformation narrative themes reflect global turmoil, focus on the cost of living crisis, and take advantage of culture wars and the rise of conspiracy theories.

These messages are used worldwide to attack Clean Air Zone policies, particularly those involving vehicle restriction policies such as LEZs and ZEAs. The arguments against them can be grouped into three themes:

## 1. Limits to individual freedom.

This disinformation narrative frames vehicle restriction policies as authoritarian, and a threat to residents' personal freedom, lifestyle and cultural values. For a century, car industry marketing campaigns have associated car ownership and high speed with independence and self expression. Disinformation campaigns tap into this bias to argue against LEZs and ZEAs. What they fail to draw attention to is the freedom and greater range of choice available in societies with plenty of affordable, accessible and reliable public transport options, safe and appealing walking and cycling routes, and clean, healthy air to breathe for everyone.

## 2. Taxes on working people

This disinformation narrative portrays LEZs and ZEAs as damaging to city residents' standard of living and incomes. It also tends to frame climate action as only benefiting wealthy elites, rather than lower-income residents. This argument can be particularly persuasive in periods of economic downturn. However, this narrative does not take into account equitable, inclusive principles embedded into policymaking and implementation, or the financial support that should be made available to marginalised communities most impacted by measures. It also doesn't account for the fact that underserved communities are often at greatest risk of toxic air pollution, and least likely to own a vehicle.

## 3. Impacts on the local economy

This disinformation narrative exaggerates the threat to the local economy posed by Clean Air Zone policies such as LEZs and ZEAs. However, research demonstrates that cycling and walking expansion, 15-minute city measures and pedestrianisation projects tend to increase local businesses' earnings and commercial values.

## How to respond to disinformation and misinformation

Misinformation and disinformation play a significant role in perpetuating divisive narratives around climate action worldwide. Misinformation is the unintentional sharing of inaccurate information. Disinformation involves deliberately spreading false or misleading content to deceive and manipulate public opinion.

The proliferation of fake news and misleading narratives further complicates the discourse around Clean Air Zone policies such as LEZs and ZEAs, making it challenging to separate fact from fiction. As revealed by Valent Projects, around £170,000 was spent by opposition groups on undermining **London's** ULEZ expansion using online manipulation tactics.

Disinformation is often designed to prey on the genuine concerns of city residents, and so responding to it requires sensitivity and care. It also requires an understanding of the digital and media landscape, and the tactics of opposition interests. In this context, it is vital that cities develop robust communication strategies that debunk myths, clarify misconceptions, and engage with communities in a meaningful and productive way both online and offline.

By proactively addressing concerns and providing accurate information, cities can build trust, foster dialogue, and garner support for Clean Air Zone policies. To get ahead of these concerns, it is important to plan your handling of disinformation before it happens. However, being reactive and assessing the severity of the threat is vital; sometimes the scenario will warrant time and energy spent on refuting the claims, but at other times this is not the answer.

The following process will help to identify the appropriate action and respond swiftly to take control of the situation:

## 1. Assess the threat

- **Understand whether you are dealing with misinformation or disinformation**. It can be difficult to distinguish between the two, however it is important to identify whether the opposition messages you are facing are a deliberate effort to mislead others (disinformation), or legitimate concerns that come from a place of misunderstanding (misinformation). This will help identify the best response based on the intention behind the opposition message.
- **Understand the potency of the attack.** The negative messaging being spread about the policy may not be powerful enough to change public opinion or stand up against your campaign messaging. Use your public and stakeholder research ahead of the policy development and launch to identify 'trouble topics', which will help you know what to focus on and what you can let slide. If disinformation is being spread about the policy, there may be powerful vested interests and funding behind the messages.
- **Measure the real-world impact.** Just because opposition messages are proliferating online, it doesn't mean it's getting through to people. Regular survey research, community forums and conversations with your city residents can help understand what your audience is really concerned about. This will also help identify legitimate concerns in communities, as opposed to the concerns of a small number of people receiving a disproportionate amount of coverage.

## 2. Identify the right response

Generally, there are four options when dealing with a targeted disinformation attack:

- **Proceed as normal.** In some cases you can ignore the disinformation. If it is primarily bots engaging with the messaging, not one of your 'trouble topics' and not reaching real people, then responding directly could make the problem worse by drawing attention to it.
- **Double down on your core message.** If the attack is only achieving a limited real-world impact, then it will likely be enough to simply expand the reach of your current strategy. If the negative messages being spread have not previously been identified as one of your 'trouble topics', then making sure that the real people engaging with the disinformation also receive your evidence-based arguments and key campaign messages may be enough to dispel the disinformation.
- **Layer in arguments against**. Directly responding to disinformation with the facts is probably the right move if the attack is an identified 'trouble topic', or it has managed to reach a large number of real people. A tactic to consider is responding directly and immediately pivoting to your core message. Remember that setting the agenda of the conversation and the terms of the debate is critical, rather than letting the agenda be set by opponents.
- **Be ready with your crisis communications plan.** In some specific cases you might miss the window to respond to the attack, or you may have underestimated the attack and its impact. This could lead to losing control of the narrative, resulting in any response potentially making the situation even more complex. When this happens, have your crisis communications plan at the ready. For more information read **Chapter 8: How to prevent and manage a crisis.**

This process is not a one-time exercise. You will need to continually monitor social media for misinformation and disinformation campaigns, assess their threats and respond appropriately each time. It is important to have a plan, and not be reactionary, which is often what the opposition wants. The key thing is to integrate misinformation 'responses' and planning into your launch, as well as preparing for opposition attacks ahead of time.

# Some common Clean Air Zone myths and how to counter them

Although every city is unique and has its own challenges, there are some recurring myths that appear in different opposition campaigns against Clean Air Zone policies, particularly vehicle access restrictions such as LEZs and ZEAs. The following mythbuster fact sheet will help you prepare a mythbusting FAQ document specific to the concerns in your city, so you are ready with some fast facts and useful data on Clean Air Zone policies to back up your own climate action.

## Myth 1: Vehicle access policies aren't effective
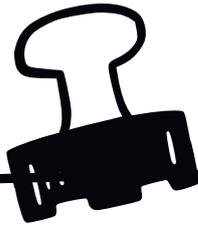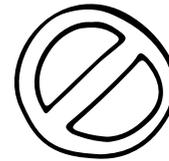
**Why it's a myth:**

- The evidence from around the world is clear; vehicle access policies are proven to reduce toxic air pollution, as well as reduce greenhouse gas (GHG) emissions and traffic congestion.
- **Brussels** has seen a 30% reduction in air pollution along major roads in its LEZ. **Barcelona's** superblocks have reduced congestion by 25%. In **Germany**, since the implementation of LEZs in major cities, fewer patients have been admitted to hospital for cardiovascular diseases and strokes.

**How to bust it:**

- Cities must identify key indicators that are a priority for residents and local businesses to monitor before and during the implementation phase. Cities should then develop a baseline for each indicator and communicate the measured improvements across these indicators.
- This will mean tracking more than just air quality, GHG emissions and congestion. Take a look at the Clean Air Zone Equity Checklist in **Part 2: How to create an inclusive and equitable Clean Air Zone** for more information on socioeconomic indicators to integrate into your monitoring and evaluation process.
- This myth may be fuelled by misinformation about the pollution caused by zero-emission vehicles (**see myth 4**) or by anecdotal experiences of congestion or pollution within the zone.

# Myth 2: Vehicle access policies make it more difficult to get around cities and limit residents' freedoms

## Why it's a myth:

- Vehicle access policies affect which vehicles can access certain areas of the city based on their high emissions; they do not restrict the movement of people themselves. People can still access the city by other forms of transport, including public transport, walking or cycling, or with a compliant vehicle. In most cities, some drivers and vehicles qualify for grace periods, discounts or exemptions, such as people living with disabilities or small charities.
- Limiting the circulation of highly polluting vehicles and reducing the overall number brings cleaner air and safer streets to other road users, such as people walking and cycling. With less traffic public transport moves faster.
- Most people living or driving within a zone will already have a compliant vehicle. In **London**, the expansion of the ULEZ to all of Greater London in August 2023 affected just 1 in 10 vehicles in the new zone. These are the dirtiest and most polluting vehicles. At the same time, London also implemented more bus routes in the zone to provide better transport access and make it even easier for people to move around.

## How to bust it:

- Communications should focus on the vision and the opportunities that the policy will bring, rather than on a 'restriction' or 'ban'. Cities should provide and draw attention to alternative transport options residents can use to access the zone, and make sure these are accessible and affordable. They should also provide support for residents that need it, such as mobility credits, e-mobility incentives, or scrappage schemes. Policy clarity and long-term planning are essential to build support and provide residents enough time to adapt to the changes. Disinformation thrives where there is a lack of clarity about future plans, so being transparent and publishing roadmaps and strategies in advance will combat this.

# Myth 3: Vehicle access policies are an unfair tax on the poor

## Why it's a myth:

- In most cities, the poorest residents are least likely to own a car and are therefore disproportionately reliant on walking, cycling or public transport as their main mode of transportation. For example in **London**, only 5% of the lowest-income Londoners own a car, yet they are around 10% more likely to suffer from toxic air. Households in the poorest areas of outer London are 2.5 times less likely to own a car than households in the richest areas.
- Therefore, this claim is often based on incorrect assumptions (that the poorest drive an old polluting vehicle, which they cannot afford to upgrade) and anecdotes (such as stories highlighted in the press of particular low-income residents who cannot take public transport for a certain reason), rather than data.

## How to bust it:

- Cities must recognise that there will be some residents and businesses who do need to upgrade their non-compliant vehicle but cannot afford to do so, for example, people with disabilities or those who need a vehicle for work, such as tradespeople. There should be financial support targeted to these groups, through scrappage schemes which support the purchase of electric vehicles and/or cargo bikes where possible.
- Cities should also publish the results of equity assessments laying out clear measures and commitments to mitigate any negative impacts, such as expansion of public transport, or provision of mobility credits, e-mobility incentives, or scrappage schemes.
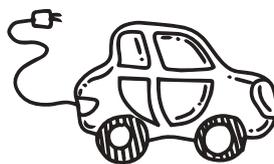
# Myth 4: Fossil fuel vehicles aren't that bad; and electric vehicles aren't any better

## Why it's a myth:

- Internal combustion engine (ICE) vehicles are a major consumer of fossil fuels and cause of the air pollution and climate crises. The Real Urban Emissions initiative (TRUE) provides clear, real-life data on the vehicles polluting city streets.
- EVs are less polluting than ICE vehicles. Even when taking into account tyre and brake wear, and that some EVs may be powered by dirty grids that are reliant on fossil fuels, EVs still produce far fewer emissions than ICE vehicles. See here for more EV mythbusting.
- Importantly, well-designed LEZs should encourage fewer vehicles overall, not just the replacement of the current fleet with electric vehicles.

## How to bust it:

- Clear, publicly available data on real world emissions is important to identify that ICE vehicles are a major source of pollution in your city, and provide the rationale for targeting the most polluting vehicles.
- Cities should acknowledge that EVs are not a silver bullet and that the aim is not to replace all vehicles with EVs. Rather, it is important to communicate that the policy will also tackle congestion and road safety issues by encouraging active travel and improving public transport.
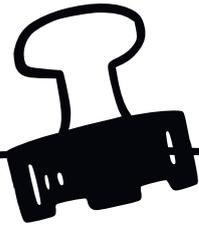
# Myth 5: Cities don't listen to residents' opinions; there isn't support for vehicle access restrictions

**NO!**

## Why it's a myth:

- Polling conducted by C40 and others has shown that there is majority support in cities for air quality action, and specific policies which regulate the access of polluting vehicles. Existing policies, such as LEZs and congestion charges, are broadly supported by residents.
- Community consultations or co-creation are highly important in mitigating negative impacts of the policy and getting public support and we encourage all cities to integrate a thorough engagement process at all stages of policy development. For more information on this topic, take a look at **Part 2: How to create an inclusive and equitable Clean Air Zone.**

## How to bust it:

- Start early with a strong engagement and co-creation process with residents to combat these claims.
- On top of this, cities should build a coalition of support, engaging trusted voices such as healthcare professionals, teachers and community leaders to show their support for the policy measure. Combine this with polling results to show that there is broad support for the policy across all areas of society.

# Myth 6: Vehicle access policies are not about improving air quality, they're a money-making scheme

**Why it's a myth:**

- Evidence shows that vehicle access policies improve air quality and lead to better health outcomes in cities, in particular reducing heart and circulatory problems.
- These policies aim to increase the compliance of vehicles in the zone and to foster a shift to greener transport modes, rather than to raise revenues.
- All funds that are generated due to charges or fines are reinvested in the local transport system, improving the quality and reliability of services.

**How to bust it:**

- Cities should focus the communications on the shared vision that the policy works towards: one of cleaner, greener and healthier streets for all.
- Cities should publicly state that all revenues are ring fenced for improving local public transport and active mobility infrastructure. Cities should provide specific examples of infrastructure that has been supported by revenues from the policy.
- Providing data on compliance and charges issued, where available, is helpful to show the extent to which drivers are penalised.

# How to deliver an effective digital campaign

Digital campaigns play a pivotal role in shaping public perception and driving support for Clean Air Zone policies. A successful digital campaign will require a coalition of communications professionals across departments and teams including from City Hall, transport providers, and key stakeholders and partner organisations. This broad range of experts will not only contribute to an excellent and impactful campaign, it will also help the campaign speak with a united voice and reach a wider audience.

Here are some nuanced strategies to elevate your digital campaign efforts:

### Harness the power of local partnerships

Forge partnerships with local influencers and creators, community organisations, and advocacy groups. These grassroots partnerships will amplify your campaign's reach and also lend credibility and authenticity to your messaging. Consider co-creating content with local influencers or hosting virtual town halls with community leaders as another means to engage directly with communities and neighbourhoods across the city. Read **Chapter 6: How to engage and activate your community** for more detail.

### Tap into emotion and aspiration

Move beyond traditional messaging about emissions reduction and congestion relief. Appeal to residents' emotions and aspirations by framing LEZs and ZEAs as catalysts for a cleaner, healthier, and more livable city. Use storytelling techniques to humanise the impact of air pollution on residents' lives and highlight the transformative potential of Clean Air Zone policies. Read **Chapter 3: How to develop key messaging for your campaign for more ideas.**

### Empower local voices

Amplify the voices of residents directly affected by air pollution and traffic congestion. Feature testimonials, personal stories, and user-generated content to create a compelling narrative around the need for Clean Air Zone policies including ZEAs. Encourage residents to share their experiences and perspectives on social media, fostering a sense of community ownership and advocacy for the policy. This will demonstrate to your audience that their voice matters, and that you are listening to and amplifying their experiences.

### Research the opposition narrative and messages

Crack the opposition's engagement strategy and campaigns. Scan Facebook, WhatsApp and Telegram groups, check popular accounts on Instagram and TikTok, and where possible invest in social media analysis from an external provider to understand the media ecosystem. Constant social listening and tracking of climate disinformation will help you shape your strategies.

### Utilise visual storytelling

Create interactive maps, infographics, and dashboards that showcase air quality improvements, reduction in GHG emissions, and other tangible or projected outcomes of the policy. Visual storytelling can also reinforce the effectiveness of Clean Air Zone policies and build public confidence in their implementation. As an example, Dutch Cycling Lifestyle is a tool that uses generative AI to reimagine streets to be greener and more accessible, which boosts support for sustainable transportation policies. The approach sparks curiosity and generates hopeful mental images that can shift public opinion towards the policies.

### Facilitate two-way communication

Transform your digital campaign into a platform for meaningful dialogue and feedback exchange. Use social media listening tools to monitor public

sentiment, identify emerging concerns, and address misinformation in real-time. Actively respond to resident inquiries, concerns, and feedback, demonstrating transparency and accountability in the policymaking process.

## Optimise for mobile and accessibility

Recognise the prevalence of mobile devices as primary sources of information consumption among residents. Ensure that your digital content is mobile-friendly, with responsive design and fast load times. Additionally, prioritise accessibility by incorporating features such as alt text for images, closed captions for videos, and screen reader compatibility to be inclusive of all residents.

## Measure impact beyond engagement

Move beyond vanity metrics like likes and shares to measure the real-world impact of your digital campaign. Develop key performance indicators (KPIs) that align with broader policy objectives, such as increased public awareness, behaviour change towards sustainable transportation modes, and ultimately, the reduction of air pollution and emissions. Utilise data analytics tools to track and evaluate the effectiveness of your campaign in achieving these outcomes.

Through digital campaigns that involve authentic storytelling, community empowerment, and data-driven communication, cities can drive meaningful change towards a greener and more resilient future.

# City spotlight: Making public safety fun in Melbourne, Australia

Metro Trains Melbourne, the public company that manages the railway network in Melbourne, Australia, approached their public safety campaign in an engaging, fun and surprising way. Many awareness campaigns promoting safety use shock or fear tactics. However, Metro Trains Melbourne released 'Dumb Ways to Die' an animation and song in which colourful cartoon characters meet their comical end through often ridiculous decisions – such as using their dryer as a place to hide, poking a grizzly bear with a stick, or taking their helmet off in outer space.

The video uses humour and a catchy tune to address the serious issue of train accidents. This allowed Metro to reach new and younger audiences whose imaginations would not have been captured in the same way by traditional messaging. The entertaining and engaging approach worked. After the campaign, the number of train accidents in Melbourne dropped by 21%.

The catchy tune and cute cartoon characters have earned the video more than 300 million views on YouTube, and the song, available on iTunes, topped sales charts in many countries. This success story continued with two themed smartphone games, a Tumblr channel, a poster campaign in stations, a children's book, a website and even merchandise featuring the characters from the video.

There is no recipe for a viral campaign, but this is a pretty great example. By spreading the message across different tools and channels, Metro shared the crucial message of train safety in a fresh, contemporary and cliché-free way that captured the attention and imagination of residents and allowed them to have fun with it.

**Read more about how targeted communications and creative marketing strategies help support public transport usage here.**

# How to deliver an effective media campaign

Engaging with the media is a strategic imperative to build support for Clean Air Zone policies. It is a vital means of raising awareness about air quality, health implications, and the benefits of sustainable transportation. An effective, targeted strategy will help direct messages to the right audiences, including potential investors, government officials, industry stakeholders, and community members.

Positive media coverage can also help build momentum for legislative action and garner public support for policy implementation, as well as pressure national policymakers to prioritise and support Clean Air Zone policies. By showcasing tangible results and sharing success stories, cities can mitigate crises, preempt opposition attacks, and maintain control over the policy narrative. To maximise the impact of media engagement, the following tactics can be used not just in the context of Clean Air Zones, but also when it comes to other transformative climate action measures.

### Strategic relationship building
Go beyond transactional interactions with media outlets and cultivate genuine relationships with journalists, editors, and influencers. Offer exclusive access to key stakeholders, behind-the-scenes insights, and opportunities for impactful storytelling to incentivise positive coverage.

### Empower a broad range of spokespeople
Provide media training for mayors, deputy mayors, partners, and other allies to equip them with the skills and confidence to effectively communicate Clean Air Zone policies in the media. This will help demonstrate support from a diverse array of perspectives and experts from different fields. Ensure spokespeople are equipped with consistent messaging and counterarguments to address challenging questions and misinformation and/or disinformation campaigns.

### Develop innovative storytelling formats
Experiment with unconventional storytelling formats to capture audience attention and imagination. Explore interactive multimedia experiences and immersive storytelling techniques to bring the impact of Clean Air Zone policies to life. Collaborate with local artists, filmmakers, and content creators to develop compelling narratives that resonate with diverse communities.

### Strategic media placement
Consider partnerships with niche publications, podcasts, and online communities to reach targeted demographics and amplify messaging. Leverage data-driven insights to identify emerging media trends and capitalise on opportunities for strategic media placement.

### Community co-creation
Empower local communities to co-create media content and participate in storytelling initiatives through community-driven media projects, photo contests, and storytelling workshops to amplify diverse voices and perspectives. Engage community influencers and advocates as co-creators and ambassadors for Clean Air Zone initiatives, fostering grassroots support and authenticity.

### Localised messaging campaigns
Tailor media messaging and outreach efforts to specific neighbourhoods, demographics, and cultural contexts within the city. Develop localised campaigns that address community-specific concerns and priorities. Collaborate with community leaders, organisations, and influencers to co-design messaging strategies that resonate authentically with target audiences.

With an impactful media strategy cities can effectively take control of the narrative, amplify the positive impact of Clean Air Zone initiatives, and drive meaningful change to create cities where everyone can thrive.

# City spotlight: Black stars for road safety, Bogotá, Colombia

'No more deaths on the roads' is an impactful public safety campaign that achieved behaviour change, raised awareness and educated residents on road safety in Bogotá by making daily road traffic fatalities visible

Bogotá City Hall painted the shape of a star on pavements to mark locations of road traffic fatalities. This was accompanied by adverts on TV to explain the meaning of the stars and provide advice about road safety. Additionally, through an educational team, interventions were carried out on the busiest roads of the city to deliver the message of life protection in traffic in a personalised way to residents, which successfully educated more than 83,000 people. These stark reminders of the potential impact of dangerous roads helped make pedestrians and drivers conscious of their responsibility to make Bogotá safer for everyone.

The campaign achieved widespread media coverage and started conversations both within Bogotá and across Colombia. It was so successful that it helped to change the perception of risk associated with speeding in 80% of people surveyed about it.

This is a new edition of the 'Black Stars' road safety campaign conducted by the City Hall in 2003. It is built on its successes, which had a significant impact on residents' behaviour on the roads.

# How to engage and activate your community

Ambitious goals require cross-sector collaboration. Building a broad coalition of allies in favour of Clean Air Zone policies is a powerful tool to build public and political support in your city.

Coalitions with key stakeholders, such as local groups, civil society, and businesses, among others, are needed to make transformative Clean Air Zone policies such as LEZs and ZEAs understood and popular. Coalitions built outside of the city administration may be more accepted by residents, as they are deemed independent and therefore more credible.

Ideally the coalition of stakeholders will be built up over time to cultivate meaningful and trusting relationships. This should start right from the policy planning process, and continue into the communications campaign, where all allies and stakeholders are willing to speak with a united voice.

## Who should you be engaging with?
Identifying and activating the right allies for a successful public engagement strategy is vital. But how best to identify them?

### Do your research
Make use of preliminary research, polling, and interviews to understand community dynamics, identify potential allies, and recognise knowledge gaps. Consider involving external consultants to conduct stakeholder mapping and analysis. Data can also help you identify biases and recognise any knowledge gaps.

### Map out stakeholders
Map out existing coalitions, alliances, and networks to identify potential partners. Engage diverse stakeholders, including subject experts, community leaders, civil society organisations, businesses, and grassroots activists. Consider unconventional allies such as celebrities and local influencers, with the ability to mobilise certain audiences in support of your goal. Think broadly – subject experts include health experts, academics, unions, civil society organisations, youth groups, community leaders, faith leaders, artists, parents, the elderly, teachers, small businesses and more. The C40 Inclusive Community Engagement playbook contains stakeholder mapping tools.

### Make use of networks
Leverage city networks like C40 Cities to access global mayors, cities, and allied organisations. Learn from best practices, successes, and failures, and seek bilateral support from other cities facing similar challenges. Ask for this support through your C40 city advisors, regional directors, or network leads.

## How should you engage them?
To effectively engage stakeholders and build public and political awareness, consider the following strategies:

### Start early
Begin building a coalition and platform for change well in advance of policy implementation. Establish a joint platform, campaign, or pledge at least one to two years ahead to create positive pressure for policy adoption.

### Build trust
Public engagement should be an ongoing process, not a one-time event. Establish multiple feedback loops to build and maintain trusting relationships with residents and stakeholders. Elected officials need to meet people in their own neighbourhoods and listen to their needs, concerns, hopes, and dreams.
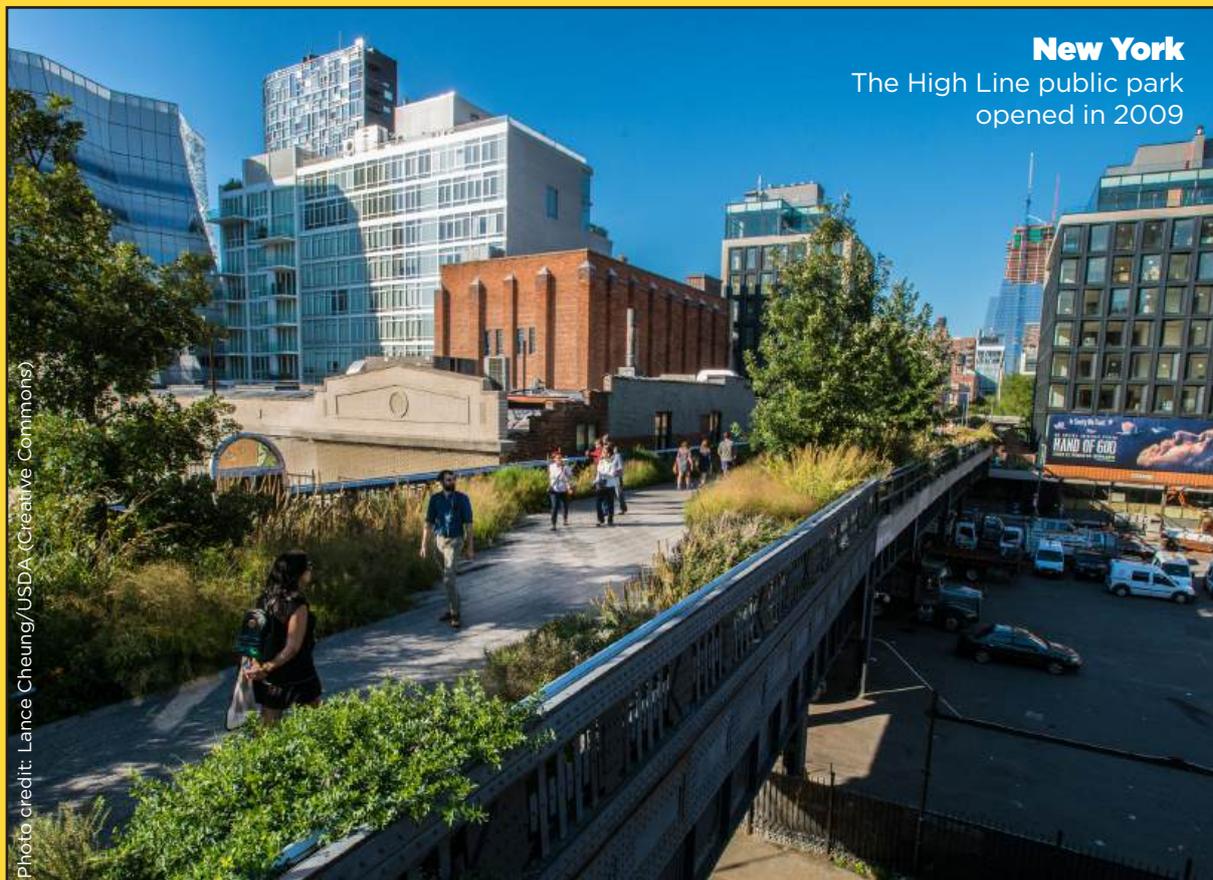
# City spotlight: The power of ideas New York, USA

New York's famous High Line has become an international example of how a well-organised group can influence urban design and empower an entire community. The High Line is both a nonprofit organisation and a public park on the West Side of Manhattan. Friends of the High Line implemented participatory planning methods that engaged and empowered residents so that they became part of decision-making and felt invested in their local area. The group delivered forums and engaged a broad range of people through consultations and emails.

Friends of the High Line also organised an ideas competition which invited people to be as bold and forward thinking with their vision for the High Line as possible. This competition created excitement and raised awareness of the potential of this formerly disused space built on a historic freight rail line elevated above the streets. It also helped members of the community, as well as people right across the world, feel invested and involved in the future of this now iconic public park, saved from demolition and given a new life.

Read more about the thriving High Line here.



Photo credit: Lance Cheung/USDA (Creative Commons)

**New York**
The High Line public park opened in 2009

# City spotlight: Bold branding to connect with residents in Greater Manchester, UK

Greater Manchester's Bee Network is revolutionising transportation by integrating bus, tram, cycling, and walking routes under local government control. The project takes the worker bee as its emblem – an iconic symbol of Manchester, adopted as a motif during the Industrial Revolution and representing Mancunians' hard work during this era. The Bee Network is designed to encourage more people to opt for public transport instead of private cars.

The Bee Network App provides real-time travel information and discounted tickets to make public transport as convenient and accessible as possible for residents. As of 2024, the Bee Network is made up of 121 km of cycling lanes and 2,900 km of walking and cycling routes. The project has been supported by a coalition of over 20 groups since 2018, including trade unions, renters associations, older people's groups and climate activists. This unique branding strategy fosters community engagement, aligning with Greater Manchester's vision for accessible and sustainable transportation.

**Manchester**
The Bee Network campaign launched in 2023

## Build strong coalitions

Collaborate with key stakeholders, including local groups, businesses, and civil society organisations, to drive transformative change. Cross-sector collaboration is essential for garnering public support and acceptance of vehicle access regulations. Look for common ground upon which you can tailor your messages and link your priorities. In Bogotà, city officials focused on the benefits of cycling and walking and built relationships that fit with this theme, to demonstrate how ZUMAs will improve quality of life for all.

## Prioritise equity and inclusivity

Inclusive community engagement is critical to understand existing inequalities and identify strategies to reduce them. Work alongside the most impacted residents and marginalised communities from the area in and around your proposed policy, to improve decision-making and policymaking processes, as well as how they are communicated. Consult or co-create and maintain a dialogue with diverse communities, and define the levels of engagement you commit to pursuing with these groups. Ultimately, it is about empowering marginalised and underrepresented residents to participate in decision-making and have their voices heard and amplified. Please read **Part 2: How to create an inclusive and equitable Clean Air Zone to learn more about this process.**

## Promote sustainable decisions

Engage with local communities to understand their needs, opinions, and visions for sustainable transportation. Incorporate local knowledge into decision-making processes to create inclusive and effective solutions. This increases acceptance of decisions and community commitment to outcomes as local knowledge from diverse groups shapes and creates inclusive, effective solutions.

## Strengthen democracy

Foster deliberative democracy through collaborative exchanges on policy issues. Build trust in governance by engaging residents in decision-making processes and improving transparency and accountability.

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# Engaging different social groups and specific stakeholders

## Civil society organisations 🤝

Civil society organisations often serve as trusted intermediaries between government institutions and communities, representing diverse voices and advocating for the interests of marginalised populations. By involving civil society groups in the planning and implementation of Clean Air Zone policies, as well as in subsequent communications campaigns, cities can ensure that the needs and concerns of all residents are addressed, fostering inclusivity and social equity. Civil society organisations possess valuable expertise, resources, and grassroots networks that can enhance the effectiveness and legitimacy of public engagement efforts, ultimately leading to greater support and acceptance of Clean Air Zone initiatives within the community.

## Create a proposal and have a clear ask

You need to know what you are trying to achieve and how. The possibility of positively impacting a policy is one of the major benefits of collaborating with civil society organisations. Begin working together early in the policy development process to enrich your work and benefit from their expertise.

## Do not over-promise

Try to keep the expectations as realistic as possible to avoid damaging the relationship. Be clear on the level of engagement you want to pursue with them from the outset. Have realistic expectations of what (often unfunded) civil society organisations may be able to do, unless you are willing to contribute resources.

## Guarantee their independence

Remember civil society organisations have their own policy goals and vision they are seeking to achieve. They may support one specific policy or project but may want the city to go further on others, as is their role. Find the point of unity where there is agreement, but there does not need to be agreement on every topic.

# Engaging with underrepresented communities, Medellín, Colombia

While designing the Urban Protected Air Zones or Zonas Urbanas de Aire Protegido (ZUAP) in Medellín, Colombia, city officials aimed to create a meaningful public engagement strategy focused on opening a participatory process with the marginalised communities and most impacted residents where the ZUAPs are located.

In order to engage underrepresented communities, City Hall reached out to residents in the places where they work, live, and enjoy their free time. Firstly, they mapped out key stakeholders in the ZUAPs areas. With this information, they launched polling work in the area to get to know the community's interests, concerns, and sentiments towards the policy. Once they collected and analysed this data, they developed a message tailored for the community, which focused on showcasing the benefits and positive impact the ZUAP would have on residents' health. The city engaged with residents through workshops and public events, at which they managed the risk of any crises or misunderstandings, addressed and countered any myths about the ZUAPs, empowered communities, and expanded the policy throughout the city.

Using accessible language and focusing on the immediate impact to their everyday lives, as well as the community leaders the city engaged with in order to build trust with residents, were all key to the success of the campaign. Currently, Medellín has two ZUAPs throughout the city, and is working on delivering more with the support of C40.



**Medellin**
2 ZUAPs identified since 2018

# Community leaders and local champions 📣

Community leaders and local champions could be elected officials, activists, religious leaders and others who represent the local community. These individuals often hold significant influence and trust within their respective communities, making them effective advocates for policy initiatives. Before reaching out to them, map the groups you have and identify the key leaders who could work alongside you.

## Build a trusted network

Building a relationship with existing community leaders (or with new community leaders you identify, engage and train) offers an avenue to a much stronger, open and honest neighbourhood-level conversation with residents impacted by Clean Air Zone policies. Cities can tap into existing networks and leverage their credibility to disseminate information, garner support, and address concerns at the grassroots level. Community leaders and champions can provide valuable insights into local dynamics, preferences, and priorities, ensuring that Clean Air Zone initiatives such as LEZs and

ZEAs are tailored to the specific needs of each neighbourhood, and communicated effectively. Their endorsement and active involvement can significantly enhance the legitimacy and success of public engagement efforts, leading to greater buy-in and cooperation from the community as a whole.

## Amplify meaningful stories

Working with community leaders will also help you discover powerful stories to showcase in your campaigns to create awareness, and persuade and educate others on the negative impacts of pollution. For example in London, Rosamund Adoo-Kissi-Debrah has been calling on MPs to introduce the Clean Air (Human Rights) Bill – or 'Ella's law', named after her daughter Ella Kissi-Debra, who died aged nine after an asthma attack. Ella was the first person in the UK to have air pollution listed as a cause of death. In the ten years since Ella's death, her mother Rosamund has been campaigning to clean up the air in London, and has spoken in support of London's ULEZ policy.

# Businesses 🌳

Business engagement can be focused on building relationships with bigger businesses, such as IKEA and Amazon, or local businesses, such as independently-run coffee shops and restaurants, or having a strategy that engages both. This can help deepen the consultation process to inform the policy, build trust, and develop a meaningful relationship that could result in public-facing support for the policy during your communications campaign.

## Larger companies

Engaging with larger corporations can provide access to resources, expertise, and influential networks that can amplify the reach and impact of public engagement efforts.

## Create a pitch

Brief them on your policy objectives, the activities you have crafted for your public engagement strategy, and how your plan could serve their ESG initiatives. Provide data. Offer opportunities to engage with the mayor and the city in an impactful way.

## Align with the company's sustainability and climate goals

Make a clear case for collaboration. Have a convincing vision to share and a public engagement strategy in place, to demonstrate which impactful opportunities are on offer to get them involved.

## Own the narrative and be a leader

Explain what the policy means for their workforce and customers, and how improving people's quality of life could positively impact their business. It could also open the door to creating joint awareness campaigns and educational opportunities within the company to bring more people to bike to work, use public transport, walk and reduce car usage.

## Encourage collaboration

By fostering collaboration between businesses of all sizes, cities can demonstrate a shared commitment to environmental sustainability and economic prosperity, fostering broad-based support for Clean Air Zone policies among stakeholders.

## Local businesses 🌿

Small businesses often have deep roots within local communities and can serve as trusted voices to communicate the benefits of Clean Air Zone policies to residents. Their involvement can help alleviate concerns about potential economic impacts and highlight the opportunities for innovation and growth associated with sustainable transportation solutions.

### Take time to understand

When it comes to local businesses, take time to understand how a Clean Air Zone policy could directly affect or impact different sectors of the local economy and their work before engaging. Prepare an impact assessment to clearly understand how vehicle access restrictions would affect local shops and use research to show them how the local economy has been affected by similar policies in other cities.

### Listen

Be prepared to listen to and answer any doubts in a constructive way. Engagement will help better understand their concerns and collaborate on solutions. Treat this as an opportunity to build trust and collect creative solutions to any issues you are facing. Local businesses may look at the same problem differently, and you might like to build on their knowledge to help drive the change you want to make with their support.

### Reach out to trade associations and other existing networks

Local businesses often belong to trade associations or coalition groups representing them, which could be the gatekeepers of the businesses located in the area your policy is going to be implemented. They usually have the capacity to influence, mobilise and activate business owners and can be allies in supporting campaign tactics.

### Create opportunities

Creating supportive schemes or incentives for small businesses could open doors to co-create the policy and communications campaign, and strengthen your engagement process.

### Counter myths

As usual, identify any misinformation or disinformation around how the policy will affect local businesses. Be ready with examples of how similar policies have benefited businesses and the economy in other cities.

# Unions 👩‍💼👷

Unions represent frontline workers who are directly impacted by policy changes, making them influential stakeholders in shaping public opinion. By involving unions in the planning and implementation process, cities can address concerns about job security, worker rights, and the just transition. Additionally, collaboration with transport unions can foster dialogue and cooperation, leading to the development of inclusive and sustainable solutions that benefit both workers and the broader community. Please read **Part 2: How to create an inclusive and equitable Clean Air Zone** and the **Just Transition Toolkit** for more information.

## Understand union dynamics

Unions have complex political dynamics you need to know, respect and understand. Map the leaders you know or have worked with in the past and introduce them to the vision and the process you are trying to build. Take time to meet representatives from all sectors that might be impacted by the policy; many unions represent both public transport workers and those in other occupations.

## Understand the impact on workers

Prepare an impact assessment to clearly understand how your Clean Air Zone policy would affect workers of different sectors, especially the ones driving in and out of a LEZ or ZEA (for example suppliers, frontline workers, couriers, specialists and logistic operators).

Consider incentives and support or scrappage schemes, which could serve as trade-off tools to build workers to support a policy publicly. Offer training and opportunities for re-skilling, for example in relation to EV trucks or buses.

## Create and support good, green jobs

Ensure unions and workers are aware of job impacts and job creation of Clean Air Zone policies. Introduce unions to the good green jobs being created and the schemes present in your city. Emphasise the measures you are taking to make these jobs accessible for everyone, and how they are addressing the climate crisis. Good green jobs seek to reduce GHG emissions, protect nature and improve wellbeing while aiming to provide fair wages, safe working conditions, and stable employment for everyone.

## Campaign with unions

After building a discussion platform with unions, consider the opportunity of leveraging their networks to educate workers about the benefits of Clean Air Zone policies and to fight climate disinformation.

Interested to know more about a crucial link between public transport and good green jobs? Listen to a live podcast organised by C40 Cities and the International Transport Workers Federation at London Climate Action Week 2023, available on Apple Podcast and Spotify.

# Schools, universities and academia 🏫

It is vital to engage with education institutions for a number of reasons. Toxic air pollution can rise to dangerously high levels around schools due to increased vehicle use around pick-up and drop-off times. This can result in asthma and other respiratory issues for children, whose lungs are particularly vulnerable to negative health impacts of air pollution. 'School streets' or other policies that limit traffic near schools can be a great place to demonstrate the benefits of measures designed to protect the health of children, for example the School Streets Programme, which started in Northern Italy in 1990.

Education institutions also serve as influential hubs of knowledge dissemination and opinion shaping, particularly among young people who are future voters and decision-makers. Cities can collaborate with educators to develop educational materials and outreach programmes that raise awareness about the importance of clean air and sustainable transportation. This also provides an opportunity to foster a culture of civic engagement and sustainability from an early age, empowering students to become advocates for positive change in their communities. Additionally, partnerships with academia can facilitate research collaborations, data analysis, and evidence-based policy recommendations, enriching the policymaking process and enhancing the credibility of Clean Air Zones to help build public and political support for policies such as LEZs and ZEAs.

## Engaging schools and teachers
### Identify schools
Begin by mapping the schools located within your Clean Air Zone, distinguishing between private and public institutions. Public schools, often managed by local municipalities, may offer easier entry points for engagement.

## Collaborate with parents
Parents, particularly those involved in advocacy groups focused on clean air and road safety, can be valuable allies – for example Mums for Lungs in the UK, Genitori Antismog in Italy, RedPaPAz in Colombia, and Legacy Road Safety Initiative in Uganda, to name just a few. Engage with parent groups to amplify the benefits of Clean Air Zone policies and leverage their influence within the community.

## Deliver workshops
Once access is granted, provide educational workshops for teachers and students to underscore the importance of Clean Air Zone policies for health and climate. Educating children can have a ripple effect on their families and communities.

## Develop exciting means of engagement
Implementing interactive activities such as games, tournaments, and workshops can foster a sense of ownership and involvement among students, encouraging them to actively participate in community development.

C40 has partnered with **Minecraft Education** to empower young people to share their ideas for improving urban environments. For example, leveraging the Schools Reinventing Cities Programme, where children can build their city from their vision can help you engage young people and generate valuable insights for Clean Air Zone development.

# City Spotlight: Empowering residents in Glasgow, Scotland

Glasgow City Council is developing a long-term travel behavioural change strategy to address the climate crisis, as well as improve safety in the streets, promote physical activity and reduce congestion. The city's focus is on tackling structural barriers to sustainable transport access and funding different events to promote cycling and walking in Glasgow.

Glasgow's long-term behavioural change strategy focuses on addressing three strategic areas:

1.  Individual context – people's values, beliefs, cost, attitudes, skills, habits and emotions, among others
2.  Social context – external factors such as institutions, roles and identities, opinion leaders and social norms
3.  Material context – the wider environment such as the infrastructure of the city and roads, the times and schedules, rules and regulations, transport options (bicycles, scooters, buses, etc) and technologies.

For each of these areas, Glasgow City Council has developed a collaborative strategy to empower their residents. For the individual context, the city has developed a Cycling Training Pilot Project, where residents can learn how to make the most of the infrastructure. For the social context, the city coordinated with the national programme Cycling Scotland to teach young people how to cycle and create awareness around safety on the streets. For the material context, the city liaised with the charity Community Transport Glasgow, to promote affordable, reliable, and accessible transport to communities across the city, serving older adults and people living with mobility issues and physical disabilities.

Find more information here.

## Engaging universities, think tanks, academics, and scientific experts 💭

### Forge partnerships

Collaborate with universities and research institutions on joint projects and educational programmes to strengthen policy initiatives and provide evidence-based insights to counter misinformation and opposition attacks. Initiatives like C40's Students Reinventing Cities empower universities and students to develop design solutions for potential ZEA pilots, fostering innovative ideas and community engagement.

### Create platforms for expertise

Host events and panels featuring academic experts to disseminate evidence-based knowledge on the negative impacts of air pollution and car-centric urban design. By offering platforms for experts to share their insights, cities can raise awareness and build support for Clean Air Zones.

## Youth organisations 💡

Young people are directly impacted by air pollution and the climate crisis, but are often left out of decision-making and policy design. By involving young people in the policymaking process, cities can tap into their energy, creativity, and passion for environmental justice, amplifying the message and building momentum for sustainable transportation initiatives. Additionally, youth engagement cultivates a sense of ownership and empowerment among younger generations, ensuring that their voices are heard and valued in shaping the future of their communities.

### Recognise their importance

Recognise young people as vital stakeholders in driving urban change, particularly when it comes to the climate crisis. Treat them as valuable advocates and active partners, ensuring they feel as relevant and important as all other stakeholders. Their unique perspectives and ideas can profoundly influence community understanding, making engagement with young people a mutually beneficial learning process.

### Give them space

Empower young people to define their level of involvement in the project, boosting their commitment and inspiring participation. Develop co-creation spaces and facilitate meetings where they can propose agendas or moderate discussions. This inclusive approach may uncover relevant topics that have been previously overlooked, enriching the engagement process.

### Prioritise inclusion and equity

Youth organisations are usually very well aware of the importance of inclusive and equitable policies. Cultivating an atmosphere of respect and understanding is crucial to engage with them. Establish clear ways of working and guidelines against harassment and discrimination to ensure prompt resolution of any issues. Meaningful involvement in processes is essential – consider having a dedicated youth engagement team working alongside them to demonstrate their perspectives are understood and their knowledge valued.

### Effectively use social media and digital tools

Use social and digital for effective communication and mobilisation of young people. Create targeted ads and share news about youth engagement events to reach and engage this demographic. Collaborate with communication teams to develop a social media engagement strategy tailored specifically for youth.

### Create opportunities

Recognise the diverse interests of young people. Provide schemes and opportunities that open doors for their participation and personal development, fostering their engagement in the policy implementation process.

**For more information** about youth engagement please read the C40 Youth Engagement Playbook for Cities and the C40 Knowledge Hub.

## Marginalised communities and the most impacted residents 💚

Engaging with marginalised communities and the most impacted residents should be at the heart of everything you do to design and implement Clean Air Zone policies. These groups are often the most impacted by pollution and congestion, and contribute the least to traffic levels. In **Warsaw**, Poland for example, city officials working on the city LEZ have engaged their senior population to get the policy on an inclusive track. In **Bogotá**, Colombia, the local community and the most impacted residents played a crucial role in the policy design of the first ZUMA since they provided city officials with fresh and different perspectives of what could work best for them, and how this could solve some of their immediate problems.

To engage them, start with the following steps:

### Create a vulnerability map
Determine which marginalised communities and other impacted groups will be impacted by the policy, and how their everyday life and quality of life will change. Work with your communications team to tailor messages specifically for these populations and communities.

### Share the lead of the discussion
When engaging with marginalised communities, empower them to co-create the meeting agenda and guide the flow of discussions during policy design or implementation stages. Utilise their insights and expertise to enrich your policy, recognising that community knowledge is invaluable and may not be accessible through other means. Emphasise that engagement is an ongoing process focused on building trust and meaningful relationships with residents.

### Reach them in their area or meeting spots
Consider setting up outreach tables outside food banks or community events, venues and centres to reach audiences who may not have access to the internet. Remember you cannot always rely on social media to engage these groups. Ensure event accessibility by providing materials in multiple languages, scheduling events at convenient times for working individuals, offering childcare services, reimbursing travel costs, compensating for time commitment and ensuring venue accessibility for people with disabilities. Create a safe space for community members to share their experiences, particularly regarding transportation, air quality, public space, housing affordability, and other relevant issues impacted by the policy.

> To ensure your Clean Air Zone policies are equitable and inclusive, please read **Part 2: How to create an inclusive and equitable Clean Air Zone.**

# City Spotlight: Amplifying community voices in Milan, Italy

A vital part of Milan's public engagement strategy to launch its Area C congestion charge was its social media campaign. The city established a Facebook group to inform residents about the measure and offer them the opportunity to provide feedback. As well as engaging residents, the group also involved mobility experts and opponents of Area C.

In the group's first weeks, Milan played an active role in stimulating conversation. City officials invited questions which were submitted by residents, and the city responded with short explainer videos. Members of the group began to discuss the measure between themselves, with the city playing the role of moderator. This proved useful for the city in gathering suggestions and ideas for policy refinement.

Soon the conversation shifted from Area C to general mobility issues. The city organised a BarCamp, which is an open, participatory format for the moderation of large groups which allows delegates to design the discussion and outcome. The theme of this BarCamp was transport and mobility, entitled TrafficCamp. Over 40 residents, individuals and representatives of associations, companies, and informal groups presented concrete ideas with the city administration and members of the city council.

Using the Area C congestion charge as a starting point, the event created space for community voices in an open, collaborative setting. Many of the speakers shared projects already underway or in the start-up phase, driven by local stakeholders. Some of the projects presented were then adopted and implemented by or with the city administration. This empowered community members and fostered a sense of collaboration, building trust and support for the policy.

# How to **prevent and manage a crisis**

In the unpredictable landscape of policy implementation, crises can emerge unexpectedly, threatening the integrity of Clean Air Zone policies as well as the reputation of the city's leadership. These crises often become focal points of public debate, spreading rapidly through media channels and social networks. While the exact nature of a crisis is unpredictable, proactive planning and preparation can prevent it from becoming too much of a challenge and mitigate its impact.

## What is a crisis?

A crisis can be described as an unexpected and negative situation or event that impacts the implementation and reputation of either the policy in question, the city leadership, or both. This crisis can arise internally or externally and affects various stakeholders, including the general public, politicians, residents, businesses, and opposition groups. While crises are inherently unpredictable, many types can be anticipated through stakeholder mapping and scenario planning. The following four types of crises are commonly encountered:

### Objective crisis
Tangible events such as accidents or strikes trigger objective crises, necessitating clear communication of facts and measures to keep it under control.

### Subjective crisis
Intangible events like rumours or controversial statements pose subjective crises, requiring management of perceptions and emotions.

### Technical crisis
Arising from technical risks like failures in air measurement sensors, technical crises demand detailed information dissemination and risk mitigation.

### Political crises
Stemming from shifts in public opinion such as social conflicts or unpopular decisions, political crises require transparent and convincing communication of decisions and actions.

## How to effectively prevent or manage a crisis

### Create a crisis prevention committee
Establish a committee responsible for analysing and responding to crises promptly. Assign roles, gather crucial information, evaluate possible responses, and designate leaders and spokespeople for communications management.

### Proactive public relations and stakeholder engagement
Implement proactive public relations strategies to promote positive narratives and maintain open communication channels with key stakeholders. This will help address concerns and build trust before a crisis may occur, and help to rapidly respond if it begins to unfold.

### Identify and appoint authorised spokespeople
Choose the right spokespeople for the right context, preparing them with training and key messages to address the crisis, backed by technical experts for specific matters. The spokesperson could be the mayor, deputy mayor, press secretary or department secretary, depending on the context.

## Set up and practise a crisis response plan

Develop a clear yet flexible crisis response plan, including procedures for informing staff, engaging with media and the public, and approving communications. Conduct workshops to identify gaps and improve response readiness.

## Use the narrative as a guideline

Utilise the narrative framework to develop messages aligned with the policy's objectives and tone. Ensure consistency and ownership of the narrative to frame public discourse effectively.

## Collect data

Base crisis responses on key and up-to-date data to avoid errors that could exacerbate the situation. Maintain transparency and accuracy in communications to mitigate scrutiny and opposition backlash.

By proactively preparing for potential crises, cities can resiliently and confidently navigate unexpected challenges and safeguard the Clean Air Zone policy along with public trust. It is possible to emerge from a crisis as stronger, having learnt valuable lessons that will inform the continued improvement of the policy itself as well as how it is communicated.

# Clean Air Wins case study

Clean Air Wins was a campaign supported by C40 Cities and the UK's <u>Healthy Air Coalition</u>, which ran from April to September 2023. The central goal of the campaign was to activate public, partner, and grassroots support on clean air. By counteracting misinformation and disinformation, it aimed to help people better understand the issue, offer a soft landing for the expansion of London's Ultra Low Emission Zone (ULEZ), and lay the foundation for further bold measures on clean air.

## Campaign strategy and tactics

Despite opposition to the ULEZ expansion, the Clean Air Wins campaign achieved significant success through excellent campaign tactics. It successfully:

- shifted the media narrative
- unified a diverse range of partners
- created an engaging social media presence
- created an active community of engaged volunteers
- demonstrated international support for the ULEZ expansion
- created an excellent creative campaign that captured the imagination and attention of Londoners.

To find out more about the challenges, impact and lessons learned from the campaign, explore the **Clean Air Wins: lessons and insights from the campaign** on the C40 Knowledge Hub.

# Key Takeaways

## 1. Prioritise equity and inclusion

Ensure that all public engagement activities are embedded with the principles of equity and inclusion. It is vital to engage with marginalised communities and the most impacted residents to understand their needs and concerns. Design policies and campaigns that address existing inequalities and empower underrepresented voices in decision-making processes. Use the Clean Air Zone Equity Checklist in **Part 2: How to create an inclusive and equitable Clean Air Zone.**

## 2. Start engaging early and build strong coalitions

Form alliances with diverse stakeholders and champions, including civil society organisations, local businesses, community leaders and those who are usually left out of decision-making, to generate and demonstrate broad support and credibility for Clean Air Zone policies. Begin engaging stakeholders and building coalitions well in advance of policy implementation to ensure the policy design is informed by a broad range of perspectives, and help create positive pressure for adoption. This will allow time to build trust and co-create your communications campaign together with stakeholders, and speak with a united voice.

## 3. Design a compelling, positive vision

Craft the campaign narratives and messaging reinforcing communities' shared values, including public health and well-being, local economic growth and safety. These values can help gain public support for your Clean Air Zone policies, offering comprehensive solutions to immediate issues that will improve their quality of life.

## 4. Empower community voices

Amplify the voices of residents directly affected by air pollution and traffic congestion. Sharing these powerful personal stories can help make air pollution less of an abstract or invisible concept, and encourage people to support measures designed to tackle it. Testimonials, personal stories and user-generated content on social media can help to foster Clean Air Zone policies, and help build understanding and support.

## 5. Use accessible, engaging data

Communicate the need for and the impact of Clean Air Zone policies such as LEZs and ZEAs will be vital for making a compelling case in support of your measures. Present your data in accessible, engaging ways using data visualisation to tell the story of your policy. Evidence-based insights will build public confidence in policy effectiveness. They will also be effective in countering misinformation and disinformation campaigns.

## 6. Create exciting, engaging social media campaigns

Develop innovative and interactive social media content to capture audience attention and imagination about the transformative potential of Clean Air Zone policies. Experiment with various formats and collaborate with local media and content creators to amplify campaign reach and authenticity.

## 7. Preempt opposition narratives and prepare well for crises

Research and understand the narratives and messaging of opposition groups. Utilise social listening and data analysis to shape effective strategies and counter climate disinformation and misinformation campaigns. Identify and train designated spokespeople and practice crisis response plans to maintain public trust and safeguard policy implementation.

## 8. Measure impact and continuously improve

Commit to ongoing learning and improvement by collecting feedback and adapting strategies to align with evolving community needs and priorities. Develop KPIs aligned with broader policy objectives to measure the real-world impact of your communications campaigns beyond engagement metrics. Utilise data analytics tools to track effectiveness in increasing public awareness and driving behaviour change.

# Glossary

**Clean Air Zone**
Clean Air Zones improve public health by cleaning up toxic air and promoting a shift to active travel such as walking and cycling, as well as public transport. They also address the climate crisis by reducing the number of vehicles on the road and accelerating the transition to zero-emission transport. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. Urban vehicle access regulations (UVARs) such as Low Emission Zones (LEZs) and Zero Emission Areas (ZEAs) are an important part of a Clean Air Zone.

Rather than a single policy, Clean Air Zones should be seen as a suite of measures that can be gradually implemented to transform the way residents and visitors experience and get around the city. Combined, they create long-lasting, systemic change for the better.

**Climate action**
Stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate-induced impacts.

**Clinically vulnerable**
People who are biologically more susceptible than others to air pollutants. These groups include children, pregnant women, older adults, and individuals with pre-existing heart and lung disease.

**Community**
Any individual or group who has a vested interest/influence in, or is impacted by, the project.

**Congestion charge**
All, or most, vehicles are charged a fee to enter the city boundary or a zone within the city. Drivers may be charged at all times or only during peak hours.

**Disability**
People living with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.

**Equity**
Achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalised people and groups while accounting for diversity. It considers power, access, opportunities, treatment, impacts and outcomes, in three main areas:
1. Representational equity: the proportional participation at all levels of an institution;
2. Resource equity: the distribution of resources in order to close equity gaps;
3. Equity-mindedness: the demonstration of an awareness of, and willingness to, address equity issues; recognizing that unequal starting points and barriers exist - meaning that individual needs can differ from person to person and group to group.

(Adapted from the University of British Columbia's Equity and Inclusion Glossary of Terms.)

**Equity assessment**
Equity assessments help a city explore and understand both the potential or existing positive and negative effects of policies and projects, and the distribution of the costs and benefits of said policies across different groups and communities. In the context of Clean Air Zone policies, an equity assessment can contribute to:

• Ensuring that the policies are designed to achieve truly equitable outcomes and guarantee that all residents can benefit from the implementation of policies for improved air quality and health;

- Driving equitable access to high-quality, expanded public transport services and sustainable modes of transport;
- Identifying who may face negative consequences as a result of the policy, allowing action to be planned by the city to mitigate this and to prevent any pushback on the policy further down the line.

A good equity assessment will require a set of benchmarks – both for baseline-setting and to assess how these indicators change as a result of policy implementation. Without equity assessments, it is difficult to predict and understand the real effects of policy on people in the city.

If the city does not have data or capacity to conduct a quantitative equity assessment, it is advisable to carry out a qualitative equity assessment to support the city in the design and implementation of Clean Air Zone policies. If resources allow, the city is encouraged to consider socio-spatial and disaggregated data in the delivery of the quantitative equity assessment as part of the policy implementation.

Qualitative assessment requires:
a. Identification of frontline communities who will be impacted by the policy implementation;
b. Assessing potential positive and negative impacts on these communities;
c. Exploring how the policy could be designed or redefined and provide recommendations to result in more equitable outcomes.

Please note that while ideally, an equity assessment is undertaken during the planning phase, there's still value in using this tool to assess equity considerations and refine a project/policy that is already in the design or implementation stage.

Quantitative assessment requires:
a. Baseline data on availability, affordability of and/or access to goods and services of different groups
b. Action-specific spatial or disaggregated indicators that can help assess the quantitative impacts (e.g % households with access to public transport by district, % households with access to basic services by gender, income etc).

### Hard-to-reach
Those groups or individuals within society that are typically under-represented in the engagement process or have limited capacity to be involved.

### Holistic neighbourhood interventions
A range of pollution reduction measures introduced in selected small areas, such as a neighbourhood or several blocks:
- improve active travel infrastructure such as cycling lanes and expanded paths
- work with residents to reallocate, redesign and introduce more greenery to public space
- implement sustainable urban planning approaches such as 15-minute cities
- promote bike and car sharing.

### Inclusive climate action (ICA)
The consideration of how people and communities may be impacted by climate change and climate actions, given their wellbeing, prosperity and location in a city.

### Inclusivity
The practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes despite their different needs.

An inclusive policy goes beyond consulting the impacted stakeholders. It ensures that everyone's voice is represented in decision-making, especially those suffering from inequalities, and that policies are designed and evaluated on the basis of their direct impacts and the distribution across the population.

### Intersectionality
How different aspects of an individual or group's social and political identities overlap (e.g. race, gender, climate exposure, pollution exposure)

to shape and define their needs, priorities and capacity. Adapted from Intersectional Approaches to Vulnerability Reduction and Resilience Building, ODI, 2019.

In the context of climate crisis, it refers to how multiple identities combine, overlap and intersect, thereby shaping people's exposure to and ability to accommodate climate risks.

**Large pedestrian zones**
A zone where pedestrians are prioritised and vehicle access is greatly restricted. Cycles may or may not be allowed. Some freight may be permitted, usually with time restrictions.

**Low Emission Zones (LEZs)**
An emissions-based access regulation policy where vehicles below a specified emissions standard are either banned from or charged a fee to enter a specified zone within the city. This may cover the whole city boundary or only part of the city.

LEZs may also only target, or have different restrictions for, different vehicle classes, such as trucks and buses.

**Low traffic zones or neighbourhoods**
These zones reduce traffic by limiting some access to the zone – certain streets may be only open to residents or there may be no through-traffic allowed and journeys must end in the zone to avoid a fine.

**Managed parking zones**
As most cities have a high level of power over parking management, they can remove, reduce or greatly increase the cost of parking to reduce car usage. This can be done as part of broader parking policies like abolishing parking minimums and a workplace parking levy.

Many cities are also beginning to explore parking costs which are staggered and linked to various factors such as how polluting the vehicle is, its size or weight, or the income of the driver.

**Marginalisation**
A social process by which individuals or groups are (intentionally or unintentionally) distanced from access to power and resources and constructed as insignificant, peripheral, or less valuable/privileged to a community or "mainstream" society. This term describes a social process, so as not to imply a lack of agency. (Adapted from Equity & Inclusion Glossary of Terms – University of British Columbia).

Marginalised groups or people are those excluded from mainstream social, economic, cultural, or political life. Examples of marginalised groups include, but are by no means limited to, groups excluded due to race, religion, political or cultural group, age, gender, or financial status. To what extent such populations are marginalised, however, is context specific and reliant on the cultural organisation of the social site in question.

**Public participatory process**
Public participatory processes can take many forms, including surveying or polling residents, organising focus groups, facilitating discussion forums, e-voting systems, local workshops, interactive events, or public debates.

**School streets**
School streets close streets outside schools to traffic at the beginning and end of the school day or permanently pacify schools' surroundings. Open street measures close a specific street, for example a high street or market street, to traffic on a specific day.

**Scrappage scheme**
A scrappage scheme is a government incentive programme offering cash or grants to those replacing their old polluting vehicle with a modern, more sustainable vehicle.

**Race and ethnicity**
Race is defined as a category of humankind that shares certain distinctive physical traits. The term ethnicity is more broadly defined as large groups of people classed according to common racial, national, tribal, religious, linguistic, or cultural origin or background.

**Urban vehicle access regulations (UVARs)**
Measures to reduce the number of vehicles entering a designated area of a city. These can include regulatory measures, for example LEZs, financial measures such as a congestion charge, or spatial measures, for example superblocks or reallocating road space to create a pedestrian zone.

**Zero Emission Areas (ZEAs)**
Zero Emission Areas (ZEAs) are measures introduced by cities that prioritise people over cars. They ensure an area or zone of the city is only available to zero-emission modes of transportation, by restricting access to polluting vehicles.

**Zero Emission Delivery Zones (ZEDZs)**
Zero Emission Delivery Zones (ZEDZs) are areas in which zero-emission delivery vehicles are prioritised at the curb, for example through access to additional designated loading spaces. In some cases, only zero-emission freight vehicles are allowed to stop and deliver in the zone, but other types of vehicles are still able to access and drive through the area.

**Zero Emission Zone for Freight (ZEZ-F)**
Areas in cities where fossil fuel freight vehicles' access is strictly limited or only zero-emission

freight vehicles may enter. This measure targets high-mileage and highly polluting freight vehicles, including vans, trucks and waste collection vehicles.

**15-minute city**
In a 15-minute city, everyone is able to meet most, if not all, of their needs within a short walk or bike ride from their home. It is a city composed of lived-in, people-friendly, 'complete' and connected neighbourhoods achieved by a sustainable and community focused approach to urban development. It means reconnecting people with their local areas and decentralising city life and services. The 15-minute city helps reduce unnecessary travel across cities, provide more public space, inject life into local high streets, strengthen a sense of community, promote health and wellbeing, boost resilience to health and climate shocks, and improve cities' sustainability and liveability.

This intuitive, adaptable approach to urban planning can have different names in different contexts. Leading examples include **Bogotá**'s Barrios Vitales, **Portland**'s Complete Neighbourhoods and **Melbourne**'s 20-minute neighbourhoods, as well as the Paris 15-minute city that captured international attention. Find out more about 15-minute cities here.

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