

CLEAN
AIR
FUND

CLEAN
AIR
IS
EVERYONE'S
BUSINESS

This report is written by the Clean Air Fund, a global philanthropic organisation that brings together private and corporate funders – from climate and health to equity and child development – to create a future where everyone breathes clean air.

THE CLEAN AIR FUND IS FUNDED BY:



FOREWORD

Sometimes, the best solutions are hidden in plain sight.

Cleaning up our air can be a secret weapon in addressing some of society's biggest challenges together, from public health to climate change, children's development and sustainable economic growth. By working together, we have a golden opportunity to transform our approach to one of the great hidden killers, and make action on air pollution a catalyst for fairer, cleaner growth and prosperity around the world.

This will take concerted action from a diverse coalition of funders, campaigners, business and governments, but it can be done. The investment will pay for itself several times over.

In this publication, we show why clean air is everyone's business. We set out the benefits of tackling air pollution for interventions in a wider range of areas, including early childhood development through to social justice and climate change. Finally, we offer suggestions, drawn from campaigners and funders, on how you might incorporate support for clean air into your work.



JANE BURSTON, EXECUTIVE DIRECTOR
CLEAN AIR FUND



EXECUTIVE SUMMARY

CLEAN AIR CAN CONTRIBUTE TO:

- Protecting health: reducing hospitalisations, premature births, cardiovascular illness and mortality.
- Increasing resilience to future disease
- Cutting healthcare costs

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Virtually all action to improve air quality in cities is action on climate²

Reducing emissions of SLCPs can avoid > 0.5°C of warming by 2050

Joined-up approaches to air pollution and climate change are:³

- 1 More cost-effective
- 2 Have greater co-benefits
- 3 Have a reduced likelihood of unintended consequences

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Air pollution is the second leading cause of deaths from non-communicable diseases after smoking.⁴

By 2060 premature deaths due to outdoor air pollution could total 6-9 million, at a cost of \$18-25 trillion dollars.⁵

[Read more](#)

Improving air quality is one of the most effective interventions for improving children's health and well-being.⁷

Many human activities, including transport and energy generation, contribute to local air pollution and the climate crisis.

Some pollutants directly contribute to climate change – Short Lived Climate Pollutants are responsible for 45% of current global temperature increases.¹

[Read more](#)

93% of children under the age of 15 breathe dirty air⁶

Early exposure to air pollution is linked to developmental delay and psychological and behavioural problems.

- Children are more likely to play outside - vital for social and physical development.
- The effectiveness of other crucial early-life interventions is improved.⁸

[Read more](#)

CLIMATE

PUBLIC HEALTH

BABIES, CHILDREN & YOUTH

CITIES & MOBILITY

SOCIAL JUSTICE

Well-planned transport systems, plentiful green spaces and walkable streets enable physical and mental health

Vehicles are a significant source of dirty air despite many people worldwide depending on walking and cycling.¹¹

Urban planning focuses on the movement of cars not the sustainable mobility of people.

Data on air quality-related benefits of street transformations can provide evidence to support further measures and improvements.

[Read more](#)

[Read more](#)

The impact of air pollution is unequal

In the UK, the poorest households are the most exposed.⁹

In the US, pollution-related childhood asthma doubles in the most diverse neighbourhoods.¹⁰

[Read more](#)

Tackling air pollution can protect the most disadvantaged groups and reduce health inequalities.

Mapping air quality data against health outcomes and other socio-economic indicators can support activities to address structural inequalities.

Equipping citizens with evidence on air quality and its impact can empower those most affected to campaign for change.

[Read more](#)

INTRODUCTION

Air pollution is a complex and multifaceted issue. The good news is, this means that the right solutions and policies can tackle several of our biggest problems together.

Dirty air impacts the health and well-being of entire societies - it reduces productivity, increases premature deaths and health care costs, and dents crop yields. It affects the poorest and most vulnerable most, exacerbating existing inequalities and injustices. Without clean air, many of the Sustainable Development Goals are unlikely to be achieved.

Equally, measures to clean the air can improve lives almost instantaneously and prevent future harm. A collective, well-resourced approach to improving air quality can also help advance progress on a multitude of other issues: for example, reducing inequality by protecting the most vulnerable, boosting productivity, improving children's well-being and mitigating climate change.

To realise these benefits a broad range of actors need to apply their expertise. Governments, funders, business and campaigners across health, social welfare, education, mobility, energy, agriculture and cities need to work together quickly and effectively.

Understanding how air pollution intersects with existing challenges, and demonstrating the widespread benefits of clean air is essential for growing the number of organisations and funders working on the issue. Working together, we can make sure that clean air is indeed everyone's business.



1

WHY DIRTY AIR IS A PROBLEM

IN THIS SECTION

- Climate
- Public health
- Childhood development
- Social justice
- Cities & mobility

The state of our air is a global public health emergency. Yet, while air pollution is starting to receive greater attention from policy makers, funding remains sparse and overall global action remains insufficient relative to the scale of the problem.

The OECD and World Bank project that the welfare costs associated with premature deaths from outdoor air pollution will cost the global economy \$18–25 trillion in 2060.¹² However, funding for air quality from development aid and climate finance through to philanthropic support, is low compared with other health and environmental issues.¹³

Currently, official development funding per healthy life years lost for air pollution is 66 times less than malnutrition and 472 times less than HIV/AIDS.¹⁴

While foundation funding with the primary aim of improving outdoor air quality increased in 2020, spending on air quality still amounts to a tiny fraction (0.1%) of overall grant making.¹⁵ The same is true of aid spending with data showing a

consistent trend of less than 1% of aid spending allocated to tackling air pollution.

The state of global funding also reflects the narrow view of air pollution as an environmental issue alone, despite its cross-cutting nature. Historically, most air quality grant-making has come from funders with a climate and environment focus.¹⁶ In 2020, 77% of air quality funding came from foundations with climate, environment and energy as one or more of their focus areas.¹⁷ However, despite a growing body of evidence on the health impacts, health foundations represent only 20% of funding.¹⁸ Similarly, improving air quality was identified in 2015 by UNICEF as critical for children's development, yet only 17% of clean air funding comes from children-focused foundations.

While the multiple benefits of air quality projects are recognised, ownership of the issue across governmental departments working on health and climate is unclear.¹⁹ This siloed approach not only slows progress and contributes to a lack of action, but can result in negative trade-offs.²⁰

A broader constituency of funders, researchers, policymakers and campaigners across a wide range of sectors is needed to tackle the issue. Joining-up action on the issue can create synergies to maximise the benefits of clean air, and help to achieve these benefits in a cheaper, faster and fairer way.²¹

This requires a greater understanding of how poor air quality intersects with many existing social and environment challenges. The Clean Air Fund wants to help those working on health, social justice, childhood development, climate change and sustainability mobility better understand how air pollution contributes to and can worsen many of the challenges on their agenda. We want to empower a broader community of actors to think about the implications of clean air for their work. In this section, we briefly outline why poor air quality is a problem for climate, public health, childhood development, social justice and cities & mobility.

CLIMATE

Despite the causes, impacts and solutions often being the same, policy and scientific decisions around climate and clean air have tended to occur separately.

The primary cause of climate change and air pollution is burning fossil and biomass fuels for energy and transportation. For example, 85% of airborne particulate pollution is caused by fossil fuel combustion in higher-income countries and the burning of biomass in lower-income countries.²² Furthermore, pollution and climate change also influence each other through complex atmospheric interactions. Emissions from manufacturing, waste management, agriculture and domestic cooking also contribute to both.

Some air pollutants are particularly significant for climate: black carbon, a component of fine particulate matter (PM_{2.5}), and ground level ozone are short-lived climate pollutants (SLCPs). These remain in the atmosphere for a much shorter period than carbon dioxide but have a much greater warming potential. Reducing SLCPs alongside carbon dioxide emission is seen as key to slowing the rate of near-term climate

change and limiting warming to 1.5°C

Agriculture fires and associated wildfires are a primary source of air pollution, have significant climate implications and reduce soil fertility and impact food security. Despite the harmful consequences for health, climate, and food security, burning to remove crop residues and prepare land for cultivation remains widespread. Furthermore, air pollution can inhibit crop productivity by causing damage to cell membranes affecting vegetation's ability to function and grow.

As climate change exposes the fragility of ecosystems, clean air's role in protecting the environments that sustain us is also becoming increasingly evident.

While understanding the relationship between clean air, climate and the environment has become more established, and the opportunity to tackle them is increasingly recognised, there are many synergies not yet realised.



PUBLIC HEALTH

The Harvard School of Public's Health Six Cities study established over a 20-year period that people in cities with cleaner air were living longer than people in polluted cities. Furthermore, the research was ground-breaking in its association of mortality risk with fine particulate matter concentration. Since then, there has been a pronounced increase in publications on the health consequences of air pollution.²³

Most of the world's population live in places that exceed WHO air quality guideline limits.²⁴ As such, the health of billions is at risk.

Long-term exposure to air pollution can cause and exacerbate many health conditions, including heart disease, stroke, chronic obstructive pulmonary disease, cancer and pneumonia, type 2 diabetes and reduced fertility. In addition, a global review in 2019 by the Forum of International Respiratory Societies Environmental Committee found that ultrafine particles can reach the bloodstream and are carried around the body causing inflammation that can damage every organ and virtually every cell in the body.²⁵ Children, the elderly and those

with existing health conditions are most severely affected by polluted air.²⁶

Recently the cognitive impacts have been better understood. A systemic review of evidence found that greater exposure to airborne pollutants is linked with increased risk of dementia.²⁷ Furthermore, research has found that exposure to air pollution can increase the severity of mental illness.²⁸

In 2018 the UN recognised air pollution as a major risk factor contributing to the rapid growth of non-communicable diseases. Air pollution is now one of the leading risk factors for early death worldwide, alongside high blood pressure, tobacco use and poor diet and is the primary environmental risk factor.

OECD modelling projects air pollution-related healthcare expenditure will rise to USD 176 billion by 2060.²⁹ The Covid-19 pandemic has exerted enormous pressure on and exposed the weakness of many health systems worldwide. This pressure will only intensify as the longer-term burden of morbidity from air pollution takes hold.

CHILDHOOD DEVELOPMENT

According to the UN Convention on the Rights of the Child, every child has a right to grow up in a clean and healthy environment. However, 93% of children under 15 are denied that right, breathing air so polluted that it jeopardises their future development.

Clean air is especially critical during the first 1000 days of life: from conception to age 2, when the foundations of growth and cognitive development are established. Up to 17 million babies each year are born in areas where air pollution significantly exceeds international limits. In 2018 the first evidence was found of tiny particles reaching the placenta, a defining moment in understanding the lasting impact of poor air quality on children's health.

In lower-income countries, poor nutrition and healthcare put children at greater risk. Poor health can make children more sensitive to the health impacts of dirty air.

Clean air is a critical requirement for every child to grow, develop, and learn to fulfil their potential into adolescence and adulthood. A UNICEF study of evidence found links between poor air quality and development delay, psychological and behaviour problems, anxiety and depression.³⁰

School children are particularly exposed. A study of air quality near 270 schools in Bengaluru in India found that nearly 83% of children were exposed to PM2.5 values that

exceeded WHO limits during school hours.³¹ This impacts health and has an adverse effect on development. Evidence is growing of the impact on educational attainment through absence and attention problems.

A study in US found that school absences rise on and after bad air days. While it is too early to establish causation between air quality and non-attendance, the correlation justifies further study. In China, research in 2018 found that air pollution had a detrimental impact on school attendance.

In heavily polluted countries, schools can close completely. For example, over 400 schools were closed for several days in Bangkok in 2019 and 2020 due to severe smog caused by traffic exhaust, construction, manufacturing and burning crops.

Bad air days also prevent children from outdoor activities and playing outside with their friends, missing out on the physical, social and emotional benefits this brings. During the worst of the pollution in Beijing, the lack of clean air was said to be "redefining childhood".

The impact of air pollution on children's ability to play and learn can have long-term effects, impacting a child's future well-being, productivity and even earning potential.



SOCIAL JUSTICE

Levels of pollution, exposure and corresponding health impacts can vary between neighbourhoods and streets. Traditionally marginalised (including tribal, indigenous, Dalits) and older and poorer communities are likely to experience the greatest burden. The effects of air pollution can exacerbate poverty and inequity. Moreover, poverty and inequity worsen the social and health impacts of air pollution. The most socially disadvantaged communities suffer the triple burden of poverty, poor quality environment and ill health.

The worst impacts of air pollution are often felt by those least responsible, who often lack the agency and power to change their circumstances.

Research by the Environmental Protection Agency in the USA found that polluting facilities have historically been situated in low-income neighbourhoods and communities of colour. Resulting health problems can lead to missed school or work and further exacerbate inequality and limit access to opportunity.³²

In the US a growing body of evidence shows how the impacts of air pollution are experienced unequally, with race particularly impacting exposure. A study across the US found in 2021 that race, rather than income, drives

air-pollution exposure disparities. The research found that a disproportionate number of non-white people were exposed to air pollution from nearly all major emission sources, regardless of where they live or how much money they earn.³³

The effects of air pollution on health depend on exposure levels, but also the vulnerability of the people exposed. Some groups are likely to be at greater risk because they are disadvantaged by existing health inequalities. In the UK, the Marmot Review on health equity and life expectancy points to air pollution as one of the environmental determinants of health that is significant in worsening health inequalities.³⁴

The burden of air pollution is also unequal globally. Children under 5 in lower-income countries are 60 times more likely to die from exposure to air pollution as children in high-income countries.³⁵ Air pollution is hindering development in many countries by causing illness and premature death, reducing labour productivity and agricultural yields and making cities less appealing to workers.

CITIES & MOBILITY

How we travel is not only a challenge for clean air, but hugely significant for climate, for commercial activity, for productivity, for health, safety and well-being.

Vehicles, particularly those fuelled by diesel, are a significant source of air pollution. Vehicles also contribute significantly to greenhouse gas emissions, with transportation accounting for about half of emissions in cities. Much urban growth has occurred during the automobile era, with planning focused on the movement of cars rather than people.

Congestion problems have been made worse by the growth in home deliveries in recent years. Meanwhile deaths and injuries cause by road traffic take the greatest toll on pedestrians, cyclists and motorcyclists.

The need for clean air has driven recent action at national and city level, with the focus on transportation and sustainability mobility – clean air zones, electrification and active travel. Electrification is happening at pace in

some cities and significant investments are being made. However, electric cars still take up valuable space in cities and create congestion.

The infrastructure essential to support clean air, physical health and more sustainable mobility is often lacking. In addition, only half the world's urban population has convenient access to public transportation.³⁶

Many people depend on walking and cycling to access vital services, education, employment and other opportunities. While such active commuting can support health through increased physical activity, poor air quality can make this difficult with pedestrians forced to take alternative routes to avoid the worst exhaust emissions. On very high pollution days active commuters may need to avoid walking or cycling entirely.

A more coordinated approach across clean air and sustainable urban development can deliver multiple benefits for mobility, health, equity, safety and climate.

2

WHAT INVESTMENT IN AIR QUALITY ACHIEVES

Poor air quality negatively impacts societies: undermining progress in health, exacerbating poverty and equity, accelerating climate change and environmental degradation and compromising the development of generations of children. In addition, lack of clean air puts pressure on already overburdened healthcare systems and can impact productivity and growth and reduce the effectiveness of policymaking and investments.

If we are serious about tackling climate change, improving health, protecting children and building fairer societies, then greater investment in clean air is imperative. Clean air can provide many benefits. For these to be realised, action is needed across a broader range of issues than is currently evident.

This section outlines a few of the co-benefits that investment in clean air can bring to motivate a range of actors to align their work with improving air quality. It provides examples of organisations that are realising the benefits of clean air to their work. Finally, it highlights some examples of how those working in other disciplines can provide essential data and expertise to support the demand for and delivery of clean air.

IN THIS SECTION

- mitigate against climate change
- deliver rapid & substantial health benefits
- support better developmental outcomes for babies & children
- help address inequality
- promote safe & active travel

MITIGATE AGAINST CLIMATE CHANGE

Cleaning up our air is also one of the most immediate ways to protect the planet. Clean air measures can deliver improved air quality, reduce global heating and protect ecosystems. Not only do air pollutants and greenhouse gases share common sources – including the burning of fossil fuels – some pollutants contribute directly to warming. Reducing short-lived climate pollutants such as black carbon, a component of particulate matter, alongside carbon dioxide emission is seen as key to slowing the rate of near-term climate change. Furthermore, some measures to improve air quality have the potential to reduce carbon dioxide by nearly 20 percent by 2050.³⁷

“A focus on clean air increases the urgency to act; achieving health benefits today can resonate more with people and politicians than receiving climate benefits decades in the future.” TIY CHUNG, CLIMATE & CLEAN AIR COALITION

For those funding and working on climate change, the need for clean air can rally much needed political and public support. Air pollution has less of the challenging politics that surround climate.

One notable example is how China’s focus on air quality has helped accelerate action on climate. In 2013, Beijing witnessed the worst air pollution in its history – this pollution has been described as a watershed moment which shifted China’s attitude towards climate change.³⁸

“Personal ownership of a vehicle is a heck of a thing to move with only climate as the driver. Rise in the awareness of air quality and the particularly the problem and health impacts in cities is a powerful stimulus for action.” SHEILA WATSON, FIA FOUNDATION

The Chinese government has policies in place that address both air pollution and climate change and is looking at how cleaner air can support the meeting of the country’s nationally determined contributions. Clean air, as a political and public priority, is being used to build consensus and gain support for low-carbon strategies.³⁹ There are opportunities and cost savings to tackle both together.

“By integrating climate and clean air you get a greater return on investment. You can coordinate greenhouse gas emissions and pollutant inventory analysis and show your citizens that are getting clean air benefits today while helping the country achieve its climate goals.” TIY CHUNG, CLIMATE & CLEAN AIR COALITION

Air quality must be further integrated into governmental and business climate and net zero action plans.



IKEA FOUNDATION

The IKEA Foundation investments in clean air are a route to achieving its climate objectives. Furthermore, societal demand for clean air is proving an effective way to get people to engage with climate change.

According to Liz McKeon, Head of Portfolio Climate Action, climate change can be difficult to measure and explain and doesn’t always have the immediacy that people need. Air pollution is less remote and more localised. While it is often called the invisible killer, in the most polluted areas it can be seen and smelt, and its proximity motivates people to act.

“When you get down to the science and understand that many of the contributing factors to greenhouse gases also lead to air pollution, you realise that you have a different strategic window to walk through to speak to hearts and minds and to get people to care.” LIZ MCKEON

DELIVER RAPID & SUBSTANTIAL HEALTH BENEFITS

Clean air can improve the health of billions. A review by the Forum of International Respiratory Societies found that reducing pollution at source brings rapid and sizeable health improvements. Within weeks respiratory and irritation symptoms, such as shortness of breath, can disappear. Acute illnesses decrease significantly, as do hospitalisations, premature births, and mortality due to air pollution. Interventions to improve air quality can protect health, build resilience to future disease and reduce healthcare costs.

“Knowing that air pollution is one of the biggest non-communicable diseases threatening human populations, it is puzzling that we do not see more health funders joining forces with climate funders to improve air quality.” LIZ MCKEON, IKEA FOUNDATION

In low- and middle-income countries, clean air is one of the most effective strategies for curtailing the growth of noncommunicable diseases (NCDs). In 2019 Norway became the first donor country to launch a global NCD strategy that points to clean air as a means to reduce NCDs risks in low-income countries.⁴⁰

“You have to make the health consequences more visible; people need to recognise the risks they are facing. In China and elsewhere, dramatic changes in air quality came only after the public perceived risks to their own health and started calling for government action.” JOSE SIRI, WELLCOME

The healthcare community is trusted, has significant influence and a history of effective action on major public health issues.⁴¹ Many have now seen firsthand the harmful effects of air pollution on patients.

Healthcare professionals can be trusted advocates, providing information to patients and families about risks and reducing exposure. Moreover, they can facilitate the delivery of health data to governments to inform critical policy to clean up air and improve health.

HEALTHCARE COALITIONS

Health professionals around the world have a unique opportunity and responsibility to create societal demand for clean air on behalf of the communities they serve. A number of coalitions of healthcare professionals have been established to bring urgent attention to the importance of clean air in the public health and global policy discourse.

In Europe Medics4Clean is urging the European Union and national governments to end the sale of new diesel and petrol vehicles by 2028 and for walking, cycling and public transit to be prioritised in cities. Healthcare without Harm aims to build a network of health workers who can act as clean air champions for patients, policymakers and the wider public.



SUPPORT BETTER DEVELOPMENTAL OUTCOMES FOR BABIES & CHILDREN

Clean air is one of the most effective ways to promote children's health and well-being. By investing in projects and implementing policies that tackle air pollution, funders can prevent exposure during pregnancy and avert associated childhood illnesses and conditions, ranging from asthma to mental ill-health and poor cognitive development.

“Clean air is everyone's right, but especially for the youngest children, because it has such an impact later on in life.” IMKE VERBURG, BERNARD VAN LEER FOUNDATION

Clean air is a critical requirement for every child to grow, develop, and learn to fulfil their potential into adolescence and adulthood. Small investments that protect where children learn and play can return lifelong benefits, as well as improve the built environment to the benefit of all citizens.

“Emphasising the impact that air pollution has on children is incredibly powerful for getting people engaged. Every child has the right to clean air and to safer streets.” KATE LANGFORD, IMPACT FOR URBAN HEALTH

A more child-centred approach to clean air that puts the protection of children and young people at the forefront also offers the opportunity drive progress to the benefit of all.



URBAN DESIGN

A project by Google Air View, Utrecht University, Gehl and the Bernard van Leer Foundation is using data on air quality and its impacts to inform and advocate for urban renewal to support children and their caregivers.

Air quality data in conjunction with lived experience was used to identify children and caregivers' exposure to air pollution in daily routines. This information was used to design better urban environments for children and the wider community. Where air quality was relatively good improvements were made to encourage active travel and to expand the green spaces to encourage citizens to spend more time in these areas. The goal is to apply this approach to further neighbourhoods and build synergies between reducing air pollution, improving health and urban renewal.

HELP ADDRESS INEQUALITY

Reducing air pollution is critical to addressing structural inequalities and their disproportionate impact on poor communities and ethnic minorities. The most disadvantaged groups are often the most impacted by air pollution, most likely to live in polluted neighbourhoods or work where they may be more exposed.

“The people who are most likely to be affected tend to be impacted by other drivers for health, whether that’s poverty, structural racism or unemployment. They tend to contribute the least and in general have less power and are less involved in decision-making.” KATE LANGFORD, IMPACT FOR URBAN HEALTH

Low-cost local air quality monitors provide data that is essential for cleaning up the air but can also help expose historical and present-day inequalities.

“So much happens when you map: plotting health outcomes, the location of manufacturing facilities, the points where the highway and major junctions bifurcate a neighbourhood. People react when you show them relationships, and they see patterns of poor health.” SHARON ROERTY, ROBERT WOOD JOHNSON FOUNDATION.

Mapping air pollution data alongside demographic, socioeconomic and health information can expose historical environmental injustices, bringing to light unjust planning and policy decisions and can enhance understanding of the root causes of inequality and poor health. Furthermore, social justice experts can support the delivery of equitable solutions and address the factors contributing to excessive exposure in some communities.



MAPPING INEQUALITY

Air quality data can help community groups and policymakers understand and address local disparities. Empowering citizens and groups with data can provide much-needed evidence to support their lived experience of inequality. Data can also enable more equitable decision-making.

In Canada, GoodScore, a tool that measures the environmental quality of urban streets is being used to highlight systemic racism.⁴² It also visualises the health impacts of poor environments. Mapping pollution exposure and health vulnerability can enhance capacity to identify disparities and prioritise action. Improved monitoring and data enables a more equitable-led approach that improves the situation for all but emphasises improvements to those most affected. It can also support the development of comprehensive policies that address the inter-related challenges of environmental risk, racial injustice, poor access to services and limited economic opportunity.

PROMOTE SAFE & ACTIVE TRAVEL

Cities that address air pollution through well-planned transport systems, walkable streets and green spaces are more likely to support physical fitness, mental health and social cohesion.

“Cars are one of the major sources of air pollution. When you take away space from cars and give it to people you not only get cleaner air, but you also positively support more physical activity and lower risk of cardiovascular disease. You also provide space for recreation and socialisation - important considerations for mental health.” JOSE SIRI,

WELLCOME TRUST

As a global public health emergency air pollution can provide the impetus to prioritise the movement of people, rather than cars. For those advocating a fundamental rethink of how we move around, the need for clean air can be a catalyst for rethinking and redesigning accessible, clean, liveable and safe streets.

“At the heart of global street design is road safety, but so is the environment, physical activity, economic health, diversity, equality. The street is the nexus of so many different global challenges.” SKYE DUNCAN, GLOBAL DESIGNING CITIES

INITIATIVE

In addition, air quality data can be used to measure the health impacts of sustainability mobility and urban transformations and provide the evidence that designers and planners need to scale projects. Data on air quality change from initiatives is essential to build the evidence base and bring more funding to mobility and urban improvements.

SCHOOL STREETS

The simple act of closing streets around schools during the periods when children are arriving and leaving has been shown to support the delivery of clean air through design interventions that separate sources and people.

A study funded by the FIA Foundation and Bloomberg established a 23% reduction in nitrogen dioxide from closing streets when children are walking to and from school in London. Broader benefits can also be realised.

Modelling from the University of Manchester suggests that maintaining these lower levels of pollution could improve a child's working memory by 6.1%, the equivalent of four weeks extra learning per year. Safety is also improved and enabling children to walk and cycle to school provides physical and mental benefits from increased activity. Physical activity on the way to school can improve a child's energy levels, mood and mental alertness. It can also help reduce stress, anxiety and boost independence.



3

HOW TO INCORPORATE CLEAN AIR INTO WORK & INVESTMENTS



Broad societal and environmental co-benefits from clean air can only be achieved with comprehensive, coordinated funding and action. A bigger, more diverse global coalition of changemakers taking bold, decisive action towards clean air across a range of sectors is required. Such an approach can reduce pollution and advance progress across a range of issues.

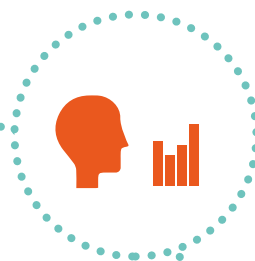
“There are foundations that hold a lot of weight in multiple sectors, foundations that have invested for decades in livelihoods, development, health and social justice. When they speak credibly, forcefully about the rationale behind ending a problem, momentum can build quickly around needed change.” LIZ MCKEON, IKEA FOUNDATION

Primarily, more funds are needed from existing and new funders to align the level of investment to the scale of the problem. Furthermore, foundations and organisations, especially those working on health, childhood development, equity, climate and urban design can build clean air expertise, capacity and collaborations to help advance progress on the issues they support and fund to make clean air a reality for everyone.

“It is important to figure out what arguments decision-makers need to hear and the data that will convince them to prioritise and invest. Do you need to frame it in a climate friendly argument? Do you need to frame it in terms of air pollution impact on biodiversity and ecosystem indicators? Do you need to coin it in terms of children’s health? The same goes for motivating governments to act.” RACHAEL KUPKA, GLOBAL ALLIANCE ON HEALTH AND POLLUTION (GAHP)

WE RECOMMEND THAT FUNDERS AND CAMPAIGNERS:

Build internal knowledge and strengthen team competence and understanding of the impacts and benefits of clean air. Develop or bring in **expertise on clean air** at trustee and/or director level. Where you don't have internal knowledge, partner with experts.



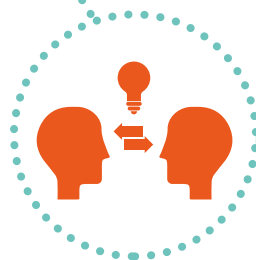
Use data and evidence on air pollution to understand the impacts of clean air on your work and vice versa. Build an understanding of how air pollution impacts the organisations you work with or fund.

Build and diversity demand for clean air by discussing the benefits of clean air to your work in communications, advocacy and lobbying. Where possible **share air quality data and evidence** and its implications for your work with policy-, decision-makers and other key stakeholders.



Engage with the communities you serve. Build alliances with groups that are most affected. Use data on air quality and its impacts to demonstrate how environmental risks can exacerbate structural inequities in communities.

Support the delivery of clean air by applying your issue-specific expertise to the problem.



Help **make a case for more efficient funding** and projects that address several development goals together. **Share evidence** of projects and investments that support the delivery of clean air and that also benefit the climate, health, equity, children and economic development.

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