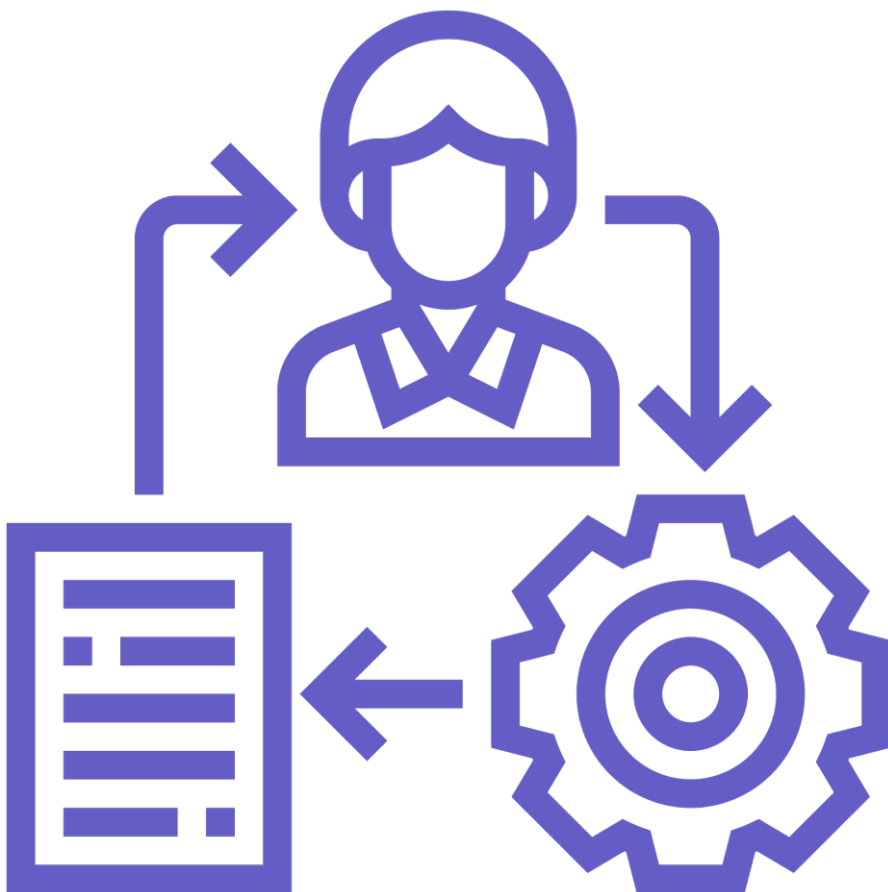


# Best Practice Guide

BP501 | Act on evidence

## Activities for impact



## Introduction

Local governments can implement a range of activities to engage with air quality issues at the local level. When planning an air quality monitoring project, it is important to consider which ‘activities for impact’ are realistic and possible for your organisation. In this context, ‘activities for impact’ are defined as data-driven activities that generate measurable outcomes.

If your project collects data, you need to have a clear sense of how you can act on data insights to make change, and how resourcing constraints or practical challenges might affect your options. Effective activities for impact related to air quality also require leadership buy-in and a broad commitment across your entire organisation (similar to other core organisational commitments, such as action on climate change or social equality).

This OPENAIR Best Practice Guide chapter is designed to help you articulate your project’s vision, carefully plan activities for impact, and secure widespread organisational support.



### ACTIVITIES FOR IMPACT: A DEFINITION

These are defined as the range of activities that local governments can undertake to have the desired impact across various sectors within their jurisdiction.

## Who is this resource for?

This resource aims to assist people involved in the design and delivery of air quality initiatives to define their project’s activities for impact, and to engage with staff and stakeholders within their organisation to expand the potential areas of impact.

It may be of interest to:

- people leading new air quality monitoring projects
- local government leadership
- strategic planners
- urban designers
- community engagement teams.

## How to use this resource

This OPENAIR Best Practice Guide chapter can be used to plan a core strategy that aligns with your organisational priorities and capacity, and to articulate and communicate the rationale behind your project to funders, senior management, project partners, or the wider community.

This chapter provides a high-level overview of various activities that can be implemented by local governments to enhance air quality across four main impact areas:

1. **Transport**
2. **Built environment**
3. **Green infrastructure**
4. **Community engagement**

For more detailed guidance, please refer to the OPENAIR supplementary resource *Activities for impact compendium*.

## What is an activity for impact?

Activities for impact are initiatives that can be implemented or supported by local governments to leverage either the power of new data or associated processes of community engagement to create measurable outcomes that drive impact. A local air quality monitoring project is not in itself an activity for impact, but the data it collects, or the people it engages, can enable those activities (see Figure 1).

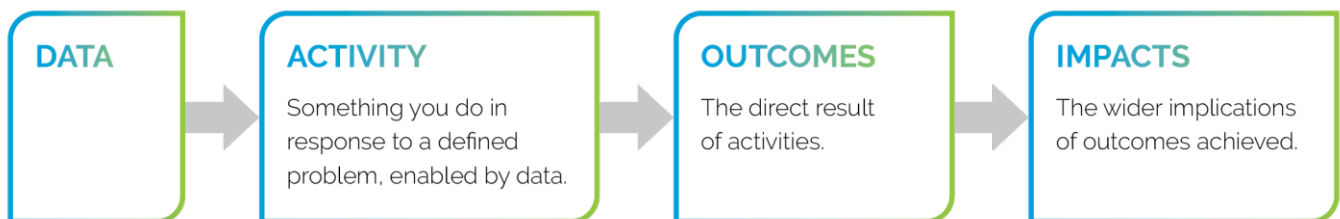


Figure 1. The pathway to impact creation

## Identifying activities for impact

You should identify the activities for impact you plan to support during the early planning stages of a new air quality monitoring project. Your project can then be strategically designed to support these activities.

The activities you identify should align with your organisation’s policy priorities and resourcing capacity. This will help you cultivate a broad commitment across your organisation to engaging with the issue, and ensure full leadership buy-in.

**To identify appropriate activities for impact, consider:**



## Core categories

Air quality activities for impact can be grouped into three broad categories (see Figure 2). Each plays an important role within any comprehensive strategy designed to address an air quality issue.

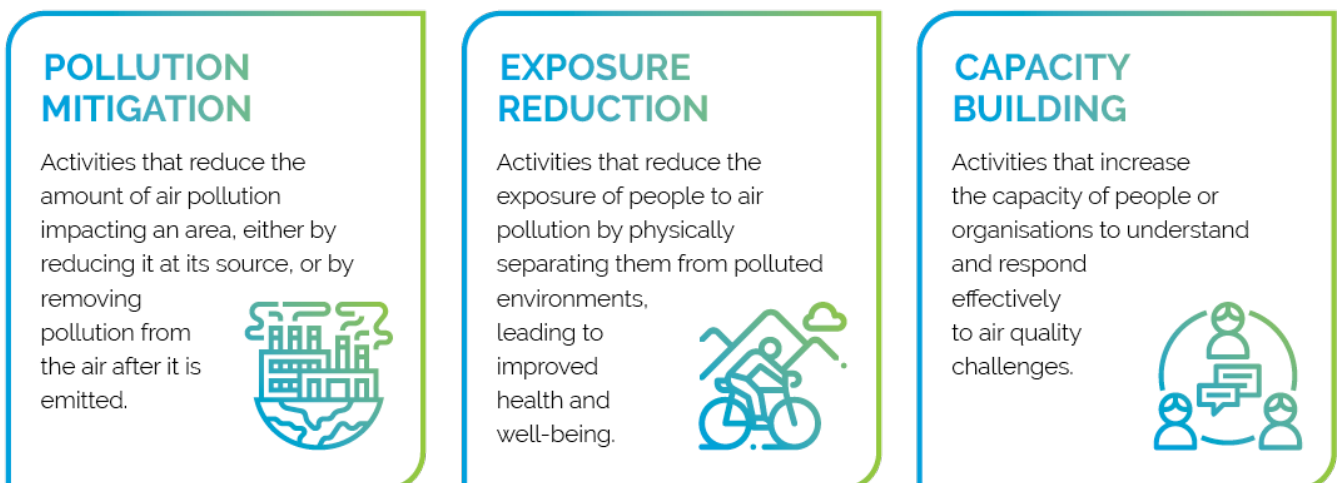


Figure 2. Three core categories of air quality activities for impact

## Direct agency vs advocacy

Local governments have many opportunities for direct agency on air quality, with the potential to create significant impacts. In general, however, they may have less direct agency where state government is the primary manager of an air quality monitoring activity. In these cases, local governments can use new data from their own air quality projects as a powerful tool to leverage wider advocacy outcomes.

**Direct agency** Activities that are implemented or supported by local government must fall within local government jurisdiction or direct agency.



Examples include installation of cycling infrastructure in residential streets, green infrastructure policy, community engagement programs, or planning and development controls.

**Advocacy** Activities that cannot be directly implemented or supported by local government may still be indirectly supported through advocacy.



Examples include advocating to state government for changes to major roads, or supporting community opposition to a potentially polluting development.



Low-emission zone in London. Image source: [Low Emission ZONE](#) by Leo Reynolds is licenced under [CC BY 2.0](#)

## Time frames for impact activities

Local government engagement with air quality issues is a long-term commitment that requires action on a variety of fronts, and across several time frames (see Figure 3). You should review your options for activities across different time scales, starting with short-term actions that are easy to achieve, but planning for more complex medium- and long-term activities in parallel.

<p><b>Lower impact</b> <i>Easier to achieve</i></p> <p><b>Higher impact</b> <i>Harder to achieve</i></p>	<p><b>Near future</b> 0-1 years</p>	<ul style="list-style-type: none"> <li>• Promotional campaigns</li> <li>• Community engagements</li> <li>• Strategic partnerships</li> <li>• Protection of existing assets (e.g. green space; cycle paths)</li> <li>• Emergency responses to support community health (e.g. clean air shelters)</li> </ul>
	<p><b>Short-term</b> 1-2 years</p>	<ul style="list-style-type: none"> <li>• Air quality strategy development</li> <li>• Pilot projects</li> <li>• School engagements</li> <li>• Citizen science</li> <li>• Installation of smart low-cost sensing networks to better understand local air quality (and enable sharing of data)</li> <li>• Localised traffic management (e.g. traffic calming; no-idling zones)</li> <li>• Place activation</li> </ul>
	<p><b>Medium-term</b> 2-5 years</p>	<ul style="list-style-type: none"> <li>• Core infrastructure development (e.g. cycle paths; EV-charging networks; micro-depots)</li> <li>• Core asset upgrades (e.g. electrification of local government vehicle fleet)</li> <li>• Policy creation or amendments (linked to planning, transport, the environment, or human resources)</li> <li>• Updated development controls</li> <li>• Localised public space redesign (at demonstration scale)</li> <li>• Advocacy for major state government interventions (e.g. congestion charging; car-free zones; low-emission zones; light rail; zero-emission public transport)</li> <li>• Demonstration retrofits of particular local government buildings (e.g. for improved heating, ventilation, and air-conditioning)</li> </ul>
	<p><b>Long-term</b> 5-10 years</p>	<ul style="list-style-type: none"> <li>• Expansion from pilot projects to widespread adoption as core operations</li> <li>• Widespread public space redesign (extensive and policy-based)</li> <li>• Completion of new precincts that implement air quality policy in their design</li> <li>• Bringing contractors in line with updated policy (e.g. low-emission vehicles)</li> <li>• Fully integrated transport and built environment policy (with measurable, place-based outcomes)</li> <li>• Retrofit of a majority of existing building stock (e.g. widespread replacement of wood heaters in residential homes)</li> </ul>
	<p><b>Very long-term</b> 10+ years</p>	<ul style="list-style-type: none"> <li>• Significant realisation of large-scale policy positions (e.g. the 15-minute city concept)</li> <li>• Maturation of trees delivering planned benefits</li> </ul>

Figure 3. Time frames for potential activities for impact

## Practical considerations and constraints

Once you identify a potential activity for impact, you should assess your ability to successfully implement it (and achieve the desired outcomes) by considering the practical constraints described in Figure 4.



### Complexity/difficulty

**Have you considered** how complex the task is, and how difficult it may be to achieve your intended outcome?

It can be useful to think in terms of associated risk, the number of critical processes and stakeholders involved, or the number of extraneous governing factors.



### Expertise required

**Have you considered** if you need specific expertise, knowledge, or skills (e.g. technical, domain-specific, or policy development) to implement the activity?



### Time required

**Have you considered** how long it will take to achieve?

Consider internal processes for proposing and approving new activities; time frames required for implementation; and the time between implementation and any measurable outcomes.



### Resourcing

**Have you considered** how much the activity will cost, and human resourcing requirements?

If there is an expectation that your air quality project delivers results beyond just collecting data, consider allocating some of your budget to activities for impact. For instance, your team may have the skills but lack the capacity to take on the extra work required to deliver impacts.



### Measuring and monitoring

**Have you considered** how you will know if your project delivers its intended impacts?


Plan activities that can be measured, monitored, and reported. This can be vital to securing ongoing support for your air quality project.

Figure 4. Practical constraints to consider when choosing a suitable activity for impact



## Activities across key areas of impact


Local governments can consider activities for impact on local air quality issues across four key areas: **transport; built environment; green infrastructure; and community engagement** (see Table 1).

Table 1. Detailed breakdown of possible activities across key areas of impact

Impact area	Impact strategy	Impact activities
<b>Transport</b> 	Encourage and facilitate active transport	<ul style="list-style-type: none"> <li>• Provide adequate, high-quality, safe, accessible, and well-connected infrastructure, facilities, and services for cyclists and pedestrians</li> <li>• Deliver initiatives that support the uptake of active transport options</li> <li>• Update transport policy to address air quality through an emphasis on active transport</li> </ul>
	Implement measures to reduce the presence of motor vehicles in certain areas	<ul style="list-style-type: none"> <li>• Advocate for congestion charging</li> <li>• Implement car-free zones</li> <li>• Advocate for the creation of low-emission zones</li> <li>• Optimise freight strategy</li> </ul>
	Implement traffic management strategies	<ul style="list-style-type: none"> <li>• Implement traffic calming measures</li> <li>• Create no-idling zones around schools and other vulnerable receptor sites</li> <li>• Introduce smart traffic light phasing to discourage vehicles idling at hotspot intersections</li> </ul>
Support and adopt zero-emission vehicles		<ul style="list-style-type: none"> <li>• Support uptake of electric vehicles (through providing facilities and incentives)</li> <li>• Convert the local government fleet to zero-emission vehicles</li> <li>• Favour contractors with zero-emission vehicles</li> <li>• Advocate for zero-emission public transport</li> </ul>



Impact area	Impact strategy	Impact activities
<p><b>Built environment</b></p> 	<p>Update planning policy to support improved air quality outcomes linked to new developments</p>	<ul style="list-style-type: none"> <li>• Require new developments to prioritise active and public transport</li> <li>• Limit the number of parking spaces for cars</li> <li>• Reduce the street canyon effect and its negative impact on people</li> <li>• Limit the exposure of vulnerable receptors (e.g. children) to air pollution</li> <li>• Update policy and guidelines relating to the control of dust on construction sites</li> <li>• Address diesel emissions from backup generators</li> <li>• Implement controls on wood burning heaters and fireplaces</li> </ul> <p>Technology adoption</p> <ul style="list-style-type: none"> <li>• Incentivise the adoption of low-emission technologies to create energy-efficient homes</li> </ul>
<p><b>Green infrastructure</b></p> 	<p>Update green infrastructure strategies and policy to support improved air quality outcomes</p>	<ul style="list-style-type: none"> <li>• Understand how trees impact local air quality, and update green infrastructure policy accordingly</li> <li>• Plant strategically near major roads to form a barrier to pollution dispersal</li> <li>• Use urban greening as part of a broader strategy to reclaim streets from cars</li> <li>• Use green infrastructure to help reduce the urban heat island effect</li> <li>• Update planning controls to support greener buildings and developments</li> <li>• Protect existing green infrastructure</li> <li>• Support equitable distribution of green infrastructure</li> </ul>

Impact area	Impact strategy	Impact activities
<p><b>Community engagement</b></p> 	<p>Deliver activities that directly support the health and well-being of people</p>	<ul style="list-style-type: none"> <li>• Provide your local community with information, advice, and support during bushfire smoke events</li> <li>• Upgrade local government buildings to better protect people from outdoor air pollution</li> <li>• Develop human resources policies to protect local government staff from poor air quality</li> <li>• Establish community clean air shelters</li> <li>• Support the retrofitting of homes to better protect people from bushfire smoke</li> </ul>
	<p>Encourage behaviour change</p>	<ul style="list-style-type: none"> <li>• Increase public awareness of air quality</li> <li>• Share real-time air quality information with the public</li> <li>• Deliver effective behaviour change campaigns linked to improving local air quality</li> </ul>
	<p>Support citizen leadership</p>	<ul style="list-style-type: none"> <li>• Directly support community action</li> <li>• Support data collection through DIY technology projects and digital literacy education</li> <li>• Encourage local open innovation on air quality</li> </ul>
	<p>Activate public spaces</p>	<ul style="list-style-type: none"> <li>• Commission data-informed public art installations to enhance community engagement with air quality issues</li> <li>• Activate public spaces by bringing real-time air quality data to life through creative data visualisations</li> <li>• Ask your internal public arts team to explore the possibility of funding new digital works on the theme of air quality</li> </ul>

## Additional resources

**npj Climate and Atmospheric Science** | [\*\*Designing vegetation barriers for urban air pollution abatement: a practical review for appropriate plant species selection\*\*](#)

A literature review that identifies how best to design vegetation barriers to maximise their impact on air pollution in urban environments.

**Medical Journal of Australia** | [\*\*Bushfire smoke: urgent need for a national health protection strategy\*\*](#)

This paper highlights some of the issues surrounding current health advice linked to bushfires, and the need for real-time air quality monitoring to minimise the public's exposure to bushfire smoke.

**Medical Journal of Australia** | [\*\*Understanding and managing the health impacts of poor air quality from landscape fires\*\*](#)

This paper highlights the health impacts of landscape fire smoke, and discusses mitigation strategies in Australia.

**Environmental Health Standing Committee (enHealth) of the Australian Health Protection Principal Committee** | [\*\*Managing prolonged smoke events from landscape fires\*\*](#)

This Australian Government guide provides nationally consistent recommendations to public health agencies for actions to be taken to protect human health during landscape fires. The advice is directed at various groups, including the general public, people who are likely to be vulnerable, and those in particular workplace settings (such as local governments).

**The Workshop** | [\*\*Short guide: How to talk about air quality and environmental health, 2022\*\*](#)

This is a guide (created by an innovative New Zealand research institution) for air quality advocates on how to talk clearly and effectively about air quality and environmental health with the public, to enhance understanding of the issue and actions in support of change.

## Associated OPENAIR resources

### Supplementary resource

#### **Activities for impact compendium**

This resource presents a detailed compendium of activities that can be undertaken by a local government to create impact relating to an air quality issue. Activities are categorised into four impact areas: transport; built environment; green infrastructure; and community engagement.

## Further information

For more information about this project, please contact:

*Peter Runcie*

*Project Lead, NSW Smart Sensing Network (NSSN)*

Email: [peter@natirar.com.au](mailto:peter@natirar.com.au)

This Best Practice Guide chapter is part of a suite of resources designed to support local government action on air quality through the use of low-cost smart sensing technologies. It is the first Australian project of its kind. Visit [www.openair.org.au](http://www.openair.org.au) for more information.

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