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# THE STATE OF GLOBAL AIR QUALITY FUNDING 2025 METHODOLOGY

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# 1. INTRODUCTION

This document sets out the methodological approach that underpins the quantitative analysis in The State of Global Air Quality Funding 2025 report. This methodology has been developed by the Clean Air Fund and Climate Policy Initiative (CPI), and has been iteratively improved over several years.

The State of Global Air Quality Funding reports use clear and transparent data and analytical insights to provide a deeper understanding of the state of play in international development funders' actions on air quality. The 2025 report unpacks air quality funding trends and developments from 2019 to 2023 and examines financing patterns across funders, sectors, instruments and regions. These insights are presented alongside deep dives into funding that continues black carbon production (called "black carbon funding" in this report) and the fossil fuel-prolonging funding that works against the interests of air quality funding.

The State of Global Air Quality Funding 2025 provides a richer picture on the state of air quality funding by accompanying these quantitative analyses with qualitative insights drawn from expert interviews and case studies to contextualise the analysis and show what progress looks like in practice.

This methodology summarises the approach used to capture, clean and analyse the quantitative data used to track the following funding flows:

- **Total air quality funding from 2019 to 2023**, including (a) outdoor air quality funding and (b) funding with outdoor air quality co-benefits. Air quality funding is further categorised into black carbon funding and funding with both air quality and climate benefits.
- **Fossil fuel-prolonging funding from 2019 to 2023**, covering development finance for projects and activities that prolong the use of fossil fuels and therefore contribute to air pollution.

The 2025 report follows the methodological approach that was established for the 2023 report and enhanced for the 2024 report. The 2025 report further improves this methodology, most notably regarding the approach used to identify renewable energy projects that count as air quality funding (see Section 2). Clean Air Fund and CPI aim to continue to improve this methodology and incorporate feedback from relevant experts, including those within the report's Advisory Group.

The analysis in The State of Global Air Quality Funding is built on a foundation of publicly available development finance data and, as such, reflects the transparency and reporting efforts of international donors. Additional feedback and suggestions on the methodology used can be sent to [info@cleanairfund.org](mailto:info@cleanairfund.org).

## 2. CHANGES IN THE 2025 METHODOLOGY

### 2.1 RENEWABLE ENERGY KEYWORDS

The methodology used in The State of Global Air Quality Funding identifies projects with air quality relevance from international development finance data by looking for projects with specific keywords in their names or descriptions (see Section 4).

Renewable energy projects are only classified as “air quality finance” if they directly lead to a reduction in fossil fuel use, so demonstrating a clear, positive impact on air quality. The keywords used to identify renewable energy projects are constructed to reflect this criterion (see Section 5).

### 2.2 DATABASE IMPROVEMENTS

The keyword search that is applied to international development finance data returns a mixture of projects, some of which meet the eligibility criteria (and should be counted as air quality finance) and some that are erroneously selected “false positives” (and need to be removed or “manually cleaned” from the dataset). False positives are generated when the project that has been pulled into the database by a specific keyword is using that keyword in a different context or with a different meaning, and therefore is unlikely to actually address air quality. For example, the keyword “train” aims to identify funding for rail projects that reduce the use of fossil fuel-powered vehicles. However, this keyword also identifies many projects that are focused on training and education in a wider development context, with projects often focusing on providing young people with skills in low-income countries or providing capacity building. Manually checking the dataset allows for such false positives to be identified and removed.

In 2024 and 2025, some specific keywords were identified as having a higher probability of generating false positive results, and projects associated with these keywords received a more thorough manual checking process. Routine manual checks were also provided across all keywords, particularly for projects with large funding values.

In 2025, additional analysis was performed on the results from manual checking processes in previous years to determine which keywords generate the highest number of false positive results. The results of this analysis informed the direction of the manual checking exercise this year, and will inform manual checking processes in future years to ensure the final dataset is as accurate as possible. This analysis showed that some keywords that generate a significant number of “genuine” air quality projects nevertheless generate far greater numbers of false positive projects. It also highlighted that some keywords do not generate any genuine results at all. For example, the keyword “bc”, which aims to capture black carbon projects exclusively, brings in funding for archaeological, curatorial or conservation activities focused on artefacts or sites from the years “BC” (as opposed to “AD”). Such results are helpful in informing a more targeted and efficient keyword search in future years.

## 3. SCOPE OF THE ANALYSIS

The State of Global Air Quality Funding 2025 analyses funding for projects that tackle ambient (outdoor) air pollution between 2019 and 2023, and compares these flows against funding for projects that may undermine the clean air agenda by prolonging the use of polluting fossil fuels. The report also analyses the overlaps between (a) air quality funding and climate finance, and (b) air quality finance and finance that addresses black carbon.

### 3.1 DEFINITIONS

Table 3.1 contains the definitions used for air quality funding and fossil fuel-prolonging funding analysed in The State of Global Air Quality Funding 2025.

**TABLE 3.1: DEFINITIONS OF TYPES OF FUNDING ANALYSED**

Type of funding		Definition	Examples of projects
Total air quality funding	Outdoor air quality funding	Finance committed to projects where improvements to outdoor (ambient) air quality are an explicit benefit and objective, as mentioned in the project name or description.	<ul style="list-style-type: none"> <li>Air pollution prevention programmes, such as a multifaceted project to address air quality in a specific city by improving monitoring, implementing interventions and raising awareness.</li> <li>Technical assistance to help a country develop an outdoor air pollution strategy.</li> </ul>
	Funding with air quality co-benefits	Finance committed to projects where improvements to air quality (indoor or outdoor) are a co-benefit of the investment but are not explicitly mentioned in the project name or description. This also includes indoor air quality projects, which indirectly improve outdoor air quality.	<ul style="list-style-type: none"> <li>Electric-vehicle incentive programmes for commercial fleets.</li> <li>Projects that promote alternative uses for crop residues to prevent agroresidue burning.</li> </ul>
Fossil fuel-prolonging funding		Finance committed to projects involving the construction of assets and infrastructure that: (a) directly cause air pollution or (b) lead to the creation or promotion of air polluting activities.	<ul style="list-style-type: none"> <li>Development or expansion of a coal-fired power plant.</li> <li>Airport expansion.</li> </ul>

**Note:** Additional funding flows will also be discussed in this report. These include further sub-sets of ‘total air quality funding’, such as ‘black carbon funding’ and ‘air quality and climate finance’, which cut across both ‘outdoor air quality funding’ and ‘funding with air quality co-benefits’. The report will also use overarching terms such as ‘concessional finance’. These have not been included in Table 3.1 for ease of visualising the key definitions.

## 3.2 SOURCES OF FUNDING

The State of Global Air Quality Funding 2025's analysis focuses on funding from international development funders (including multilateral development banks, bilateral development agencies, and governments providing development financing) that has a direct or indirect effect on air quality. This can include, but is not limited to, concessional and non-concessional loans and grants.

Types of international development finance analysed include:

- a. Official development assistance (ODA);
- b. Other official flows; and
- c. Flows from public development funders that are not members of the Organisation for Economic Co-operation and Development's Development and Assistance Committee (OECD-DAC) (e.g., the Islamic Development Bank).

Where a share of the finance provided by these funders is directed towards climate mitigation and adaptation projects that contribute to the goals of the Paris Agreement, we refer to this share as "international public climate finance".

The analysis in the report does not currently include funding from local governments' domestic resources (e.g., from national budgets) or private sector financing. This is due to data limitations and does not suggest that these sources play a small role in funding air quality projects. Rather, we recognise the important contribution they make to the total air quality funding landscape.

A separate report dedicated to philanthropic funding is scheduled to be published in late 2025. Philanthropic funding flows are assessed independently, as they often differ in scale and focus from institutional donor funding. Clean Air Fund recognises the vital role philanthropy can play in catalysing innovation, and directing funding to sectors or regions that may be overlooked by other donors. A dedicated report ensures these trends are explored in depth.

## 3.3 FINANCIAL INSTRUMENTS

The analysis examines funding made through the following financial instruments:

- **Grants:** Includes transfers made in cash, goods or services for which no repayment is required.
- **Loans:** Debt relying on a project's cash flow for repayment. "Low-cost loans" refers to loans extended at preferential terms relative to those offered on the market. We consider the full amount of the loan, not the grant equivalent. This type of financing (along with grant financing) is also referred to in the report as "concessional loans" or "concessional debt". "Market-rate loans" refers to loans extended at regular market terms.
- **Equity:** Equity investment relying on the project's cash flow for repayment.

We acknowledge the importance of risk-management instruments such as guarantees and insurance for enabling increased private climate flows, especially from sectors with low-risk appetites for private investment. However, following the principle of conservatism, we exclude these instruments from total air quality finance figures because actual disbursements from these instruments are contingent upon uncertain future events. Guarantees are only exercised in particular circumstances, and there is a chance that there will never be any financial outflows from the guarantor.

## 4. BUILDING THE DATABASE

### 4.1 METHODOLOGICAL STEPS

The following methodological steps were followed when building the databases for air quality funding and fossil fuel-prolonging funding.

#### Step 1: Data collection

International development funding for 2019–2023 was collected from the data sources detailed in Section 4.2.

#### Step 2: Data processing

Keyword searches were applied to data obtained in Step 1 to see if targeted keywords appeared in project names or descriptions. Section 5 contains lists of the keywords used in this step.

#### Step 3: Data standardisation and cleaning

The results of the keyword search were manually checked to remove false positives.

### STEP 1: DATA COLLECTION

Data on international development funding for the period between 2019 and 2023 was collected from relevant data sources (see Section 4.2).

### STEP 2: DATA PROCESSING (IDENTIFYING RELEVANT DATA)

Because the data collected in Step 1 spans all development areas (e.g. health, education, humanitarian assistance), the next step was to identify the air quality and fossil fuel-prolonging projects within this broader database. This was done by applying a keyword search on project names and descriptions implemented in Python, using the lists of keywords developed for air quality, and fossil fuel-prolonging projects (see [Table 5.1](#), [Table 5.2](#), [Table 5.4](#) and [Table 5.6](#)). These projects were categorised according to the criteria in Table 3.1.

Projects that claim to have air quality benefits, but for which evidence of such benefits is weak, were either not targeted by the keyword search or manually removed from keyword search results. For example, “**compressed natural gas**” was not included as a search term because there is evidence to suggest that, despite the claim of being a clean solution, the technology emits high levels of toxic pollutants. Moreover, better alternatives (electric vehicles) are available.

Additional processing and checks were done of project names, descriptions, and project IDs to ensure that projects were not double counted.



### STEP 3: DATA STANDARDISATION AND CLEANING

Once all the relevant projects were extracted, the data was standardised and cleaned as described below.

- All projects were categorised based on the targeted economic sectors (e.g., transport) and selected solutions (e.g., electric and hybrid road vehicles).
- International development funders were categorised as “bilateral development finance institutions”, “multilateral development finance institutions”, “national development finance institutions”, “governments and government agencies”, “export credit agencies”, “multilateral climate funds”, or “public funds” (see Section 3.2). This is based on the categorisation used by CPI in the Global Landscape of Climate Finance (GLCF) database.
- Funding instruments were categorised by instrument (such as grants, loans, or equity – see Section 3.3).
- Air quality projects with climate finance co-benefits were tagged based on their climate benefit (mitigation, adaptation, or multiple objectives), cross-checked against CPI’s GLCF database.
- Projects that address black carbon as a primary or secondary objective were tagged based on the black carbon keywords found in project names and descriptions (see Table 5.1, Table 5.2 and Table 5.4).
- The countries of origin for multilateral development banks were split according to the share of subscribed capital (or ownership) by the country stakeholders. For example, if Country A had subscribed capital representing 2% of the multilateral development bank’s total shares, then 2% of the total project’s value was assigned to Country A as the country of origin.
- Amounts reported in currencies other than USD, we converted using a standardised exchange rate (World Bank or European Central Bank annual average rate).
- Data that was shared with CPI under data licensing or confidentiality agreements were anonymised.

Of the remaining projects, those with the largest funding values and those that were selected based on keywords with a high probability of producing false positives were manually checked to ensure that they met the criteria set out in this methodology.

**Table 5.1, Table 5.2, Table 5.4, and Table 5.6** set out those keywords that have been flagged for their false positive risk. High risk of generating a false positive can stem from various reasons, including words having multiple meanings (as noted in the earlier “train” example) or projects only being eligible in a specific context (for example, a project identified using the keywords “cleaner vehicles” might be excluded if the project exclusively funds the increased uptake of biofuels). Projects that did not meet the methodology’s criteria were removed from the dataset.

## 4.2 DATA SOURCES

The analysis in The State of Global Air Quality Funding 2025 is based on project-level data drawn from a range of primary and secondary sources. The main data source for both air quality and fossil fuel-prolonging data was the OECD Creditor Reporting System. Because not all international development funders report to the OECD, data from the OECD Creditor Reporting System was integrated with other relevant sources used in CPI's GLCF database, such as CPI's proprietary survey data and publicly available data reported by development finance institutions.

**TABLE 4.1: DATA SOURCES**

Database	Data sources
<b>Air quality funding</b>	<b>Development funding flows</b> <ul style="list-style-type: none"> <li>• OECD Creditor Reporting System for 2015–2023<sup>i</sup></li> <li>• OECD Climate-Related Development Finance for 2015–2023<sup>ii</sup></li> </ul> <b>International public climate finance flows</b> <ul style="list-style-type: none"> <li>• CPI's proprietary survey data for 2015–2023 (anonymised)</li> <li>• The Climate Funds Update database maintained by ODI Global</li> <li>• Publicly available data published by development finance institutions</li> </ul>
<b>Fossil fuel-prolonging</b>	<b>Development funding flows</b> <ul style="list-style-type: none"> <li>• OECD Creditor Reporting System for 2015–2023</li> </ul>

## 4.3 PRINCIPLES APPLIED IN DATA COLLECTION AND REPORTING

### TRACK PRIMARY INVESTMENT

The analysis captures total primary financial transactions and investment costs, as well as components of activities that (a) directly contribute to air quality and climate mitigation and adaptation, or (b) prolong the use of fossil fuels. Secondary market transactions (such as reselling stakes or public trading in financial markets) were not considered because they do not represent new investments into new assets, but rather capital being exchanged for existing assets.

<sup>i</sup> While most of The State of Global Air Quality Funding 2025's analysis was conducted on data covering 2019–2023, data for 2015–2018 was also collected for the purpose of comparison with previous reports.

<sup>ii</sup> The OECD Climate-Related Development Finance database has been implicitly included in previous years of The State of Global Air Quality Funding reports as a key component of CPI's proprietary climate finance database. This year, keyword searches have been run directly on this database to maximise the number of relevant projects identified.

## INCLUDE TANGIBLE FINANCIAL COMMITMENTS

In the analysis, “funding” generally refers to firm financial commitments – as opposed to disbursements – which can take the form of a board decision, the finalisation of financing contracts, or similar actions. Such commitments are backed by the necessary funds to provide financing to a project.

Commitments record the amount of an expected transfer at the time of contract finalisation, regardless of the time required to complete the disbursement. This approach can yield results that differ from those of approaches that focus on disbursements. For example, under the commitments approach used in this analysis, a project that reaches financial close in 2017 but becomes operational in 2018 will be recorded as a 2017 investment, regardless of when construction starts or ends. An approach that records the investment as occurring when an asset becomes operational would treat the same investment as having taken place in 2018.

Disbursement information would provide a more accurate picture of the actual scale of financial resources devoted to air quality projects in a given year. However, consistent data on disbursements are not universally made available by all donors that report to OECD-DAC. Gaps in disbursement data are particularly prevalent among multilateral development finance institutions. As such, to avoid information bias due to partial data, the analysis continued focusing on commitments. Furthermore, commitment data provides a better view of the trends of funding decisions and the priorities of donors, who are the main target audience for The State of Global Air Quality Funding 2025.

## ERR ON THE CONSERVATIVE SIDE

Where detail is insufficient, a conservative approach was taken. Underreporting of funding flows is preferable to overreporting. Based on this principle, the analysis excluded risk-mitigation instruments, such as guarantees and insurance products, because actual disbursements from these instruments are contingent on uncertain future events.

## AVOID DOUBLE COUNTING

The analysis only tracked investments in new projects. Investments in private research and product development (R&D) that might be relevant to air quality were excluded because the costs of such technologies are rather factored into the investment amounts of new projects that might implement these technologies. Including R&D investments would, therefore, increase the risk of double counting.

Similarly, policy-induced revenue-support mechanisms and other public subsidies whose primary function is to pay back investment costs were not tracked. Revenue-support mechanisms (such as feed-in tariffs) pay back investment costs, so including the investments made for their implementation would constitute double counting.

## 5. KEYWORDS

### 5.1 KEYWORDS USED FOR AIR QUALITY PROJECTS

Keywords to extract air quality projects from the database were developed by Clean Air Fund and CPI, building on the methodology developed for The State of Global Air Quality Funding 2023. As in 2023 and 2024, the keywords were separated into three groups to capture:

- a. Explicit air quality improvements;
- b. Pollutants and their effects; and
- c. Air quality sector solutions.

To make sure all relevant projects were captured, the lists of keywords included both US and UK English spelling. Moreover, where project descriptions were in a language other than English, these were translated before running the keywords search.

The keyword search was applied to a combination of project descriptions and project titles. For the purposes of the search, both the project strings and the keywords to be searched for were converted to lower case and singular terms. This removed the need to search for words in both their singular and plural forms.

The keywords listed in Table 5.1 and Table 5.2 indicate whether the project identified should be categorised as “outdoor air quality funding” or “funding with air quality co-benefits”. Table 5.4 captures whether the projects should be double checked for false positives. If multiple keywords were found and a project qualified as both “outdoor air quality funding” and “funding with air quality co-benefits”, the project was categorised as “outdoor air quality funding”.

#### EXPLICIT AIR QUALITY IMPROVEMENTS

The group of keywords listed in Table 5.1 identified projects where the explicit intention of the project was to address and improve outdoor/ambient air quality. This list was developed via coordination between Clean Air Fund and CPI, building on Clean Air Fund’s Methodology that was used in previous State of Global Air Quality Funding reports.

All explicit air quality improvements projects are categorised as “outdoor air quality funding”, with the sole exception where any of these keywords are found with a clear mention of indoor air pollution, in which case projects are classified as “funding with air quality co-benefits”.

**TABLE 5.1: LIST OF KEYWORDS FOR EXPLICIT AIR QUALITY IMPROVEMENTS**

Keywords	Air quality funding type	Risk of false positive	Primary black carbon funding	Secondary black carbon funding
air + management	Outdoor air quality	Yes		
air + measurement	Outdoor air quality	Yes		
air + measure	Outdoor air quality	Yes		
air + modelling	Outdoor air quality			
air + modeling	Outdoor air quality			
air + monitor	Outdoor air quality	Yes		
air + monitoring	Outdoor air quality			
air + pollutant	Outdoor air quality			
air + pollution	Outdoor air quality			
air + sensor	Outdoor air quality	Yes		
air + action	Outdoor air quality	Yes		
air + policy	Outdoor air quality	Yes		
air + reduce	Outdoor air quality	Yes		
air + mitigate	Outdoor air quality	Yes		
air + co-benefit	Outdoor air quality	Yes		
exhaust + measurement	Outdoor air quality	Yes		
air + emissions	Outdoor air quality	Yes		
air + quality	Outdoor air quality			
clean air	Outdoor air quality			
healthy air	Outdoor air quality	Yes		
health + air	Outdoor air quality	Yes		
exposure + air	Outdoor air quality			
Acid Deposition Monitoring Network	Outdoor air quality			
atmospheric chemistry	Outdoor air quality			
Climate and Clean Air Coalition	Outdoor air quality			x
CCAC	Outdoor air quality			x
aethalometer	Outdoor air quality		x	

**Note:** “+” separated words appear in any order in the descriptive data. Words separated by a space appear in this precise order in the descriptive data.

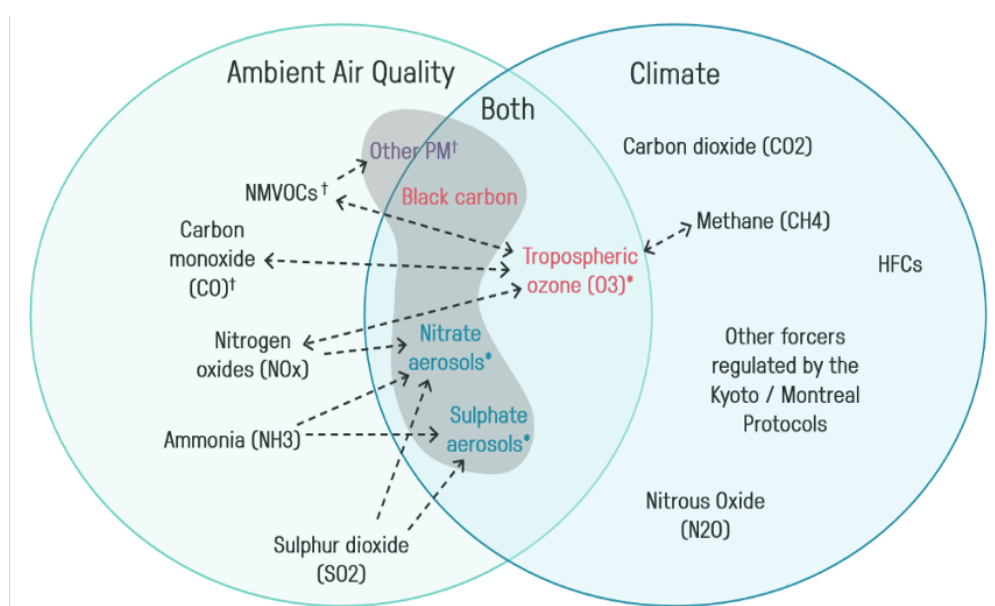
## POLLUTANTS AND THEIR EFFECTS

Table 5.2 provides the keywords used to identify projects that mentioned outdoor/ambient air quality-related pollutants and their effects (e.g., acid rain). To make sure the list of keywords captured a comprehensive and widely accepted list of air quality-related pollutants, the following frameworks and guidelines were consulted:

- The United Nations Economic Commission for Europe's **Guidelines for Reporting Emissions and Projections Data under the Convention on Long-range Transboundary Air Pollution**;
- The World Health Organization's **list of pollutants**;
- Air pollutants **tracked by European Union (EU) member states** in terms of the National Emission Reduction Commitment Directive;
- The European Monitoring and Evaluation Programme/European Environment Agency's **Air Pollutant Emission Inventory Guidebook**, 2019;
- The Climate and Clean Air Coalition's (CCAC's) **Integrated Guide for Business Greenhouse Gas and Air Pollutant Emission Assessment**.

Pollutants (and related keywords) were categorised based on whether they have a direct effect on outdoor/ambient air quality ("outdoor air quality funding") or they have mainly an impact on climate change ("funding with air quality co-benefits"). This categorisation was based on the Venn diagram in Figure 5.1, which shows the overlap and interlinkages between pollutants that impact air quality and climate change.

**FIGURE 5.1: OVERLAP AND INTERLINKAGES BETWEEN POLLUTANTS THAT IMPACT AIR QUALITY AND CLIMATE CHANGE**



**Note:** Pollutants in red have a positive climate forcing (warming) effect, while those in blue have a negative climate forcing (cooling) effect. Those shown in purple can be either warming or cooling.

\* denotes pollutants that are secondary (not emitted but formed as a result of multiple atmospheric mechanisms).  
<sup>†</sup> denotes pollutants that can be directly emitted (primary pollutants) and are also formed as secondary pollutants. Dashed arrows show atmospheric mechanism that link primary pollutants to secondary pollutants.

Pollutants in the grey shape are components of particulate matter measuring 2.5 microns (PM<sub>2.5</sub>) that are aerosols.

In Table 5.2, pollutants that primarily have an impact on climate change (such as methane and short-lived climate pollutants) are categorised as “funding with outdoor air quality co-benefits” unless they are found in combination with words such as “air” and “health”, which suggests that tackling air pollution is a primary objective of the project.

In addition, funding for projects that aim to address pollutants that mainly contribute to indoor air pollution (such as formaldehyde or carbon monoxide) are always categorised as “funding with outdoor air quality co-benefits”, in line with the definitions in Table 3.1.

**TABLE 5.2: KEYWORDS FOR POLLUTANTS AND THEIR EFFECTS**

Keywords	Air quality funding type	Risk of false positive	Primary black carbon funding	Secondary black carbon funding
sulphur dioxide	Outdoor air quality			
sulfur dioxide	Outdoor air quality			
SOx	Outdoor air quality	Yes		
SO2 + emissions	Outdoor air quality	Yes		
SO2 + reduce	Outdoor air quality	Yes		
SO2 + remove	Outdoor air quality	Yes		
SO2 + abatement	Outdoor air quality	Yes		
sulphur oxides	Outdoor air quality	Yes		
sulfur oxides	Outdoor air quality			
nitrogen oxides	Outdoor air quality	Yes		
nitrogen dioxide	Outdoor air quality	Yes		
NOx	Outdoor air quality	Yes		
NO2	Outdoor air quality	Yes		
ammonia + emission	Outdoor air quality	Yes		
ammonia + air	Outdoor air quality	Yes		
NH3	Outdoor air quality	Yes		
non-methane volatile organic compounds	Outdoor air quality	Yes		
non methane volatile organic compounds	Outdoor air quality	Yes		
NM VOC	Outdoor air quality	Yes		
particulate matter	Outdoor air quality			
particulate emissions	Outdoor air quality			
PM1	Outdoor air quality			x
PM 1	Outdoor air quality			x
PM2.5	Outdoor air quality			
PM 2.5	Outdoor air quality			
PM7	Outdoor air quality			
PM 7	Outdoor air quality			
PM10	Outdoor air quality			
PM 10	Outdoor air quality			
ultrafine particles	Outdoor air quality			x
UFP	Outdoor air quality	Yes		x
total suspended particulate matter	Outdoor air quality			

Keywords	Air quality funding type	Risk of false positive	Primary black carbon funding	Secondary black carbon funding
black carbon	Outdoor air quality		x	
BC	Outdoor air quality	Yes	x	
Soot	Outdoor air quality	Yes	x	
elemental carbon + air	Outdoor air quality		x	
organic carbon + air	Outdoor air quality	Yes		x
carbon monoxide***	Outdoor air quality co-benefits			x
carbon monoxide + ambient	Outdoor air quality			x
CO + ambient	Outdoor air quality			x
carbon monoxide + outdoor	Outdoor air quality			x
ground-level ozone	Outdoor air quality			
ground level ozone	Outdoor air quality	Yes		
ground-level O3	Outdoor air quality	Yes		
ground level O3	Outdoor air quality	Yes		
tropospheric ozone	Outdoor air quality	Yes		
tropospheric O3	Outdoor air quality	Yes		
ozone + precursor	Outdoor air quality	Yes		
methane + health*	Outdoor air quality	Yes		
CH4 + health*	Outdoor air quality	Yes		
methane**	Outdoor air quality co-benefits	Yes		
CH4**	Outdoor air quality co-benefits	Yes		
short-lived climate pollutants**	Outdoor air quality co-benefits			x
short lived climate pollutants**	Outdoor air quality co-benefits			x
SLCP**	Outdoor air quality co-benefits	Yes		x
super pollutants**	Outdoor air quality co-benefits			x
short-lived climate pollutants + health*	Outdoor air quality			x
short lived climate pollutants + health*	Outdoor air quality			x
SLCP + health*	Outdoor air quality			x
super pollutants + health*	Outdoor air quality			x
heavy metals + air	Outdoor air quality	Yes		
formaldehyde + air***	Outdoor air quality co-benefits	Yes		
lead + air	Outdoor air quality	Yes		
mercury + air	Outdoor air quality	Yes		
cadmium + air	Outdoor air quality	Yes		



Keywords	Air quality funding type	Risk of false positive	Primary black carbon funding	Secondary black carbon funding
persistent organic pollutants + air	Outdoor air quality	Yes		
POPs + air	Outdoor air quality	Yes		
radon + air	Outdoor air quality	Yes		
arsenic + air	Outdoor air quality	Yes		
chromium + air	Outdoor air quality	Yes		
copper + air	Outdoor air quality	Yes		
nickel + air	Outdoor air quality	Yes		
selenium + air	Outdoor air quality	Yes		
zinc + air	Outdoor air quality	Yes		
construction dust	Outdoor air quality			
smog	Outdoor air quality			x
smoke	Outdoor air quality	Yes		
acid rain	Outdoor air quality			
volatile organic compounds	Outdoor air quality	Yes		
VOC	Outdoor air quality	Yes		
sulphur trioxide	Outdoor air quality co-benefits	Yes		
sulfur trioxide	Outdoor air quality co-benefits	Yes		
SO <sub>3</sub>	Outdoor air quality co-benefits	Yes		
sulphuric acid	Outdoor air quality co-benefits	Yes		
sulfuric acid	Outdoor air quality co-benefits	Yes		
H <sub>2</sub> SO <sub>4</sub>	Outdoor air quality co-benefits	Yes		
hydrogen sulphide	Outdoor air quality co-benefits	Yes		
hydrogen sulfide	Outdoor air quality co-benefits	Yes		
mercaptans	Outdoor air quality co-benefits	Yes		
dimethyl sulphides	Outdoor air quality co-benefits	Yes		

**Note:** “+” separated words appear in any order in the descriptive data.

Words separated by a space appear in this precise order in the descriptive data.

\* Health indicates primary air pollution focus.

\*\* Categorised as “funding with outdoor air quality co-benefits” because predominantly climate motivated.

\*\*\* Categorised as “funding with outdoor air quality co-benefits” because predominantly related to indoor air quality.

## AIR QUALITY SECTOR SOLUTIONS

Table 5.3 presents a group of keywords aimed at capturing activities that – even in the absence of specific, intentional air quality objectives – would still lead to air quality improvements and are therefore categorised as “funding with outdoor air quality co-benefits”.

The list of keywords was based on the taxonomy for air quality sector solutions developed by Clean Air Fund and CPI. The taxonomy aims to capture all solutions identified in the following sources:

- f. **EU policies to improve air quality;**
- g. United Nations Environment Programme (UNEP)/CCAC’s **Africa Integrated Assessment;**
- h. UNEP/CCAC’s **Global Methane Assessment;**
- i. CCAC’s short-lived climate pollutant solutions;
- j. The World Bank’s working paper **Integrating Air Quality Management and Climate Change Mitigation.**

**TABLE 5.3: TAXONOMY FOR AIR QUALITY SECTOR SOLUTIONS**

Sector	Solution	Description
TRANSPORT	<b>Cleaner road vehicles and modal shift</b>	The adoption of cleaner vehicle technologies (such as low-emission vehicles and alternative fuels) combined with a shift towards more sustainable transportation modes (like public transit, cycling and walking). This contributes to improved air quality by reducing tailpipe emissions from road transport.
	<b>More public transport and railways</b>	The expansion and increased use of public transportation systems (including buses, trams and trains), which tend to have lower per-passenger emissions than personal vehicles. This reduces overall transportation-related emissions and improves air quality.
	<b>Electric and hybrid road vehicles</b>	The promotion and adoption of electric and hybrid-electric vehicles that produce fewer or zero tailpipe emissions. These vehicles contribute to improved air quality by reducing transportation-related emissions, particularly in urban areas.
	<b>Cleaner fuels and vehicles for shipping</b>	A targeted approach to mitigating air pollution by implementing low-sulphur fuels, alternative propulsion systems and advanced exhaust-treatment technologies in the maritime sector. This addresses the shipping industry’s contribution to airborne emissions such as sulphur oxides (SO <sub>x</sub> ), nitrogen oxides (NO <sub>x</sub> ) and particulate matter (PM), ultimately enhancing air quality.

Sector	Solution	Description
TRANSPORT	<b>More cycling and walking</b>	Fostering non-motorised transportation modes such as cycling and walking, which produce zero emissions. This improves air quality by minimising dependence on motorised transport and limiting associated emissions.
	<b>Traffic planning and management</b>	The implementation of intelligent transportation systems, congestion pricing and other measures to optimise traffic flow and therefore minimise idling. These strategies improve air quality by curtailing emissions from vehicles in congested traffic.
	<b>Lower petrol and diesel vehicles emissions</b>	The implementation of more stringent emissions standards for internal combustion engine vehicles, as well as regular inspection and maintenance programmes to reduce tailpipe emissions. This improves air quality by ensuring that vehicles produce minimal emissions.
RESIDENTIAL SECTOR/ BUILDINGS	<b>Reduce indoor air pollution</b>	<p>The adoption of cleaner residential energy sources and appliances, such as improved cookstoves and efficient heating systems, to minimise indoor air pollution. This ameliorates air quality by curtailing emissions from residential sources.</p> <p>Note: LPG projects are included in the analysis because, while they do not represent climate mitigation solutions, they do have a positive impact on indoor air pollution.</p>
	<b>Using waste heat from industry and clean energy sources for district heating</b>	The capture and use of waste heat from industrial processes and the integration of clean energy sources in district heating systems to reduce fossil fuel combustion for heating purposes. This improves air quality by minimising heating-related emissions.
	<b>Efficiency in buildings</b>	The use of energy-efficient building designs, materials and technologies – as well as retrofitting existing buildings to boost energy efficiency – curtails energy consumption and associated emissions.
ENERGY GENERATION + INDUSTRY	<b>Phasing out and replacement of fossil fuel plants</b>	The decommissioning of coal, oil and gas-fired power plants together with their explicit substitution with clean and renewable energy sources, improves air quality by curtailing emissions from fossil fuel-based power generation.
	<b>Clean and renewable energy</b>	<p>Explicitly transitioning to sustainable, low-emission energy sources, such as solar, wind, hydro and geothermal mitigates the release GHGs, PM and other harmful pollutants associated with conventional energy production, so improving air quality.</p> <p>Notes: Renewable energy projects either (a) reduce present air pollution when they are built to replace fossil fuel plants, or (b) avoid future air pollution when they are built in response to a country's growing energy demand. The analysis in the report focused only on (a) because these projects are the only ones with a clear positive impact on air quality.</p> <p>All biofuels, with the exception of biogas, were excluded from the analysis because it is debatable whether they have an overall positive impact on air pollution.</p>
	<b>Emission and pollution control in mining</b>	Implementing advanced pollution control measures and technologies (such as PM suppression, fugitive gas capture and wastewater treatment) in mining operations to minimise the release of air pollutants. This improves air quality by mitigating the environmental impacts of mining activities.

Sector	Solution	Description
<b>ENERGY GENERATION + INDUSTRY</b>	<b>Pollution controls and increased energy efficiency in energy and industrial processes</b>	Implementing advanced pollution-control technologies (such as flue gas desulphurisation, selective catalytic reduction and electrostatic precipitators) can significantly reduce emissions of PM, sulphur dioxide and nitrogen oxides. Enhancing energy efficiency in both energy generation and industrial processes improves air quality by reducing energy consumption and related emissions.
<b>AGRICULTURE</b>	<b>Improvements in livestock production to reduce emissions</b>	Optimising livestock production practices to minimise emissions of air pollutants, particularly ammonia (NH <sub>3</sub> ) and methane (CH <sub>4</sub> ). Targeted strategies include adjusting/supplementing animal diets, improving manure management/storage and enhancing grazing systems to decrease emissions and reduce ammonia volatilisation.
	<b>Improved food production and consumption</b>	Implementing more sustainable and efficient agricultural practices, reducing food waste and promoting dietary shifts towards lower-emission foods can significantly reduce emissions of air pollutants, particularly NH <sub>3</sub> , NO <sub>x</sub> and volatile organic compounds (VOCs).
<b>WASTE</b>	<b>Solid waste management</b>	The systematic control of the generation, collection, storage, transport, processing and disposal of solid waste materials can reduce air pollution by minimising the emissions of harmful substances such as CH <sub>4</sub> , VOCs and PM, which are released during waste decomposition and incineration. Techniques such as recycling, composting, waste-to-energy conversion and sanitary landfilling can significantly improve air quality.
	<b>Improved waste water treatment and water sanitation</b>	The enhancement of processes and technologies used in treating and managing wastewater, and providing safe drinking water. These improvements can improve air quality by reducing the emissions of GHGs such as CH <sub>4</sub> , VOCs and nitrous oxide (N <sub>2</sub> O), which are typically released during wastewater treatment and sanitation processes. Advanced treatment methods (such as membrane bioreactors, anaerobic digestion and nutrient recovery systems) can minimise emissions while conserving energy and recovering valuable resources.
<b>NATURAL SOURCES</b>	<b>Reduction of non-anthropogenic air pollution</b>	The mitigation of air pollution sources that are not directly attributable to human activities, such as wildfires and biogenic emissions from vegetation and soil. Strategies to reduce non-anthropogenic air pollution include monitoring and forecasting of forest fires and implementing land management practices to prevent wildfires.

Table 5.4 lists keywords for air quality sector solutions. Projects captured by these keywords are categorised as “funding with outdoor air quality co-benefits” unless keywords are found together with the words “air”, “health” or “exposure”, in which case they count as “outdoor air quality funding” (see example).

## EXAMPLE OF TAXONOMY FOR SECTOR SOLUTIONS COUNTED AS OUTDOOR AIR QUALITY FUNDING

Sector	Solution	Keywords for projects with outdoor air quality co-benefits	Keywords for outdoor air quality projects
<b>TRANSPORT</b>	Cleaner vehicles and modal shift	Cleaner transport	cleaner transport + air
			cleaner vehicle + health
			cleaner vehicle + exposure
		Cleaner vehicle	cleaner vehicle + air
			cleaner vehicle + health
			cleaner vehicle + exposure

The only exceptions to this rule are solutions to reduce indoor air pollution, which are always categorised as “funding with outdoor air quality co-benefits”, in line with the definitions in Table 3.1.

TABLE 5.4: KEYWORDS FOR AIR QUALITY SECTOR SOLUTIONS

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
TRANSPORT	Cleaner road vehicles and modal shift	cleaner transport		x
		cleaner vehicle	Yes	x
		modal shift	Yes	x
		lorry + replace	Yes	x
		freight + transport + replace		x
		truck + replace	Yes	x
		bus + retrofit + emissions		x
		truck + retrofit + emissions		x
		HGV + retrofit + emissions		x
	More public transport and railways	public transport	Yes	
		public transportation	Yes	
		BRT	Yes	
		bus rapid transit		
		bus	Yes	
		public bus	Yes	
		rail	Yes	
		rolling stock	Yes	
		train	Yes	
		railway	Yes	
		electric + train	Yes	
		electric + railway	Yes	
	Electric and hybrid road vehicles	electric vehicle		
		EV	Yes	
		battery electric vehicle		
		BEV	Yes	
		plug-in hybrid electric		
		plugin hybrid electric		
		PHEV	Yes	
		electric car		
		electric bus		
		hybrid vehicle		

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
TRANSPORT	Electric and hybrid road vehicles	HEV	Yes	
		hybrid bus		
		hybrid car		
		electric truck		
		electric lorry		
		electric + freight + transport		
	Cleaner fuels and vehicles for shipping	sulphur emission control area		
		SECA		
		shipping + emissions	Yes	x
		shipping + health	Yes	x
		green corridor + shipping		x
		zero-carbon shipping		x
		zero emission vessels		x
		zero-emission vessels		x
		roll-on/roll-off + electric		x
		ro-ro ship + electric		x
		cargo ship + electric		x
		zero emission berth standard		x
		continuous emissions monitoring systems	Yes	
		low-sulphur fuels	Yes	
		low-sulfur fuels	Yes	
		non-residual fuels		
		scrubbers + ship		x
		water injection + ship		x
		exhaust gas recirculation + ship		x
		humid air motor + ship		x
		selective catalytic reduction + ship		
	More cycling and walking	cycling	Yes	
		walking	Yes	
		bike		

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
TRANSPORT	More cycling and walking	bicycle		
		pedestrian	Yes	
		active travel		
	Traffic planning and management	traffic planning	Yes	
		traffic management	Yes	
		car free days		
		clean air zones		x
		CAZ		x
		ultra low emissions zones		x
		ULEZ		x
		smoke control areas		x
		congestion	Yes	
		congestion charge		x
		limited traffic zone	Yes	x
		LTZ	Yes	x
		low-emission zone	Yes	x
		low emission zone	Yes	x
		LEZ	Yes	x
	Lower petrol and diesel vehicles emissions	emission standards	Yes	x
		diesel + filter	Yes	x
RESIDENTIAL SECTOR/ BUILDINGS	Reduce indoor air pollution	kerosene + lamp + replace		x
		kerosene + lamp + replacement		x
		clean light		x
		clean lighting		x
		solar lamp	Yes	x
		solar light	Yes	x
		clean cookstove		x
		clean cooking		x
		LPG + stove		x
		LPG + cook		x
		liquefied petroleum gas + stove		x
		liquefied petroleum gas + cook		x



Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
RESIDENTIAL SECTOR/ BUILDINGS	Using waste heat from industry and clean energy sources for district heating	waste heating	Yes	
		district heating	Yes	
		clean heat		
		clean air conditioning	Yes	
		clean cooling	Yes	
		clean AC	Yes	
		geothermal heat pump	Yes	
		ground source heat	Yes	
		solar water heater	Yes	
		SWH	Yes	
	Efficiency in buildings	insulation + building	Yes	
		building + insulate	Yes	
		energy + efficiency + household	Yes	
		efficient + appliance	Yes	
		efficient + boiler		x
		low-emission boiler		x
		low + emission + boiler		x
		eco + boiler		x
ENERGY GENERATION + INDUSTRY	Phasing out and replacement of fossil fuel plants	fossil + phase + out		x
		fossil + replace		x
		coal + replace		x
		gas + replace		x
		oil + replace		x
		diesel + replace		x
		gasoline + replace		x
	Clean and renewable energy	clean energy + replace / decarbonise / decarbonisation		
		renewable energy + replace / decarbonise / decarbonisation		
		hydropower + replace / decarbonise / decarbonisation		
		hydro + replace / decarbonise / decarbonisation	Yes	

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
ENERGY GENERATION + INDUSTRY	Clean and renewable energy	hydro power + replace / decarbonise / decarbonisation		
		wind power + replace / decarbonise / decarbonisation		
		wind energy + replace / decarbonise / decarbonisation		
		onshore wind + replace / decarbonise / decarbonisation		
		offshore wind + replace / decarbonise / decarbonisation		
		on-shore wind + replace / decarbonise / decarbonisation		
		off-shore wind + replace / decarbonise / decarbonisation		
		solar power + replace / decarbonise / decarbonisation		
		solar energy + replace / decarbonise / decarbonisation		
		solar pv + replace / decarbonise / decarbonisation		
		solar photovoltaic + replace / decarbonise / decarbonisation		
		solar thermal + replace / decarbonise / decarbonisation		
		concentrating solar power + replace / decarbonise / decarbonisation		
		CSP + replace / decarbonise / decarbonisation	Yes	
		concentrated solar power + replace / decarbonise / decarbonisation		
		geothermal + replace / decarbonise / decarbonisation	Yes	
		waste to energy + replace / decarbonise / decarbonisation	Yes	
		waste-to-energy + replace / decarbonise / decarbonisation	Yes	

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
ENERGY GENERATION +	Clean and renewable energy	biogas + replace / decarbonise/decarbonisation		x
		ocean energy + replace / decarbonise / decarbonisation	Yes	
		tidal energy + replace / decarbonise / decarbonisation	Yes	
		marine energy + replace / decarbonise / decarbonisation	Yes	
	Emission and pollution control in mining	gas leak detection		
		repair + gas + pipeline		
		repair + oil + pipeline		
		blowdown capture		
		premining degasification		
		flooding + mines		
		air methane oxidation		
		vented gas + vapor recovery		
		gas flaring + phase out	Yes	x
		gas flaring + phasing out	Yes	x
	Pollution control and energy increased efficiency in energy and industrial processes	pollution + control + industry	Yes	
		pollution + prevention + industry	Yes	
		emission + control + industry	Yes	x
		emission + abatement + industry	Yes	x
		end-of-pipe control system		x
		efficient charcoal production		x
		efficiency + industry		
		energy efficiency	Yes	
		boiler + replace		x
		brick kiln	Yes	x
		coke oven	Yes	x

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
AGRICULTURE	Improvements in livestock production to reduce emissions	livestock + emission	Yes	
		livestock + feeding	Yes	
		livestock + feed	Yes	
		manure management	Yes	
		closed manure storage		
	Improved food production and consumption	crop + burning + reduce	Yes	x
		agricultural burning	Yes	x
		fertilisers + emission	Yes	
		fertilisers + emission	Yes	
		fertiliser + management	Yes	
		organic fertiliser	Yes	
		organic fertiliser	Yes	
		nitrogen-based fertiliser + reduce	Yes	
		nitrogen-based fertiliser + reduce	Yes	
		nitrogen based fertiliser + reduce	Yes	
		nitrogen based fertiliser + reduce	Yes	
		alternate wet and dry + rice	Yes	
		phosphogypsum addition	Yes	
		rice straw + composting	Yes	
		sulfate addition	Yes	
		direct wet seeding	Yes	
		alternative hybrid cultivars	Yes	
		methane emissions + rice	Yes	
		crop loss + reduction	Yes	
		food waste + reduction	Yes	
		dietary change	Yes	
		diet + substitution	Yes	
WASTE	Solid waste management	waste burning	Yes	x
		open burning		x
		landfill + gas + collection		

Sector	Solution	Keywords for funding with air quality co-benefits	Risk of false positive	Secondary black carbon funding
WASTE	Solid waste management	landfill + gas + flaring		x
		closure + open dump		
		close + open dump		
		waste collection		x
		sanitary landfill		
		organic waste + reduce	Yes	
	Improved waste water treatment and water sanitation	wastewater treatment plants		
		methane collection + wastewater treatment		
		water sanitation	Yes	
NATURAL SOURCES	Reduction of non-anthropogenic air pollution	wildfires + prevent		x
		wildfires + firefight		x
		forest fires + firefight		x
		forest fires + prevent		x
MINING/MINERALS	Coal mining	coal + methane	Yes	

**Note:** Entries in pink blocks represent new keywords. “+” separated words appear in any order in the descriptive data.

Words separated by a space appear in this precise order in the descriptive data. “/” separated words were searched separately.

## 5.2 KEYWORDS FOR FOSSIL FUEL-PROLONGING ACTIVITIES

This group of keywords is used to extract projects related to fossil fuel activities that impact air pollution either directly (by, for example, funding the construction of new fossil fuel assets) or indirectly (by, for example, supporting the growth of industries that have high fossil fuel use, such as aviation).

**TABLE 5.5: TAXONOMY FOR FOSSIL FUEL-PROLONGING ACTIVITIES**

Sector	Subsector	Project category	Pollution type
<b>ENERGY SYSTEMS</b>	Power and heat generation	Coal-fired power plant	Direct
		Natural gas-fired power plant	Direct
		Oil-fired power plant	Direct
		Dual fuel or fossil fuel-fired (of unknown type)	Direct
	Power and heat transmission and distribution	Power lines to connect fossil fuel-fired power plants to the grid	Indirect
	Policy and national budget support and capacity building	Support to fossil fuel sector (up-, mid- and downstream)	Indirect
	Upstream	Coal mining and extraction	Direct and indirect
		Oil and gas extraction, production, refinery, storage, transportation and distribution	Direct and indirect
<b>TRANSPORT</b>	Private road transport	Road constructions and upgrades	Indirect
	Aviation	Aviation support (airports, aircrafts, etc.)	Direct and indirect
	Waterways	Fossil fuel-powered water transportation	Direct
	Policy and national budget support and capacity building	Support to fossil fuel-powered transport sector	Indirect
<b>INDUSTRY</b>	Industry and manufacturing	Steel plant development or expansion	Indirect
		Production of chemicals	Indirect
		Production of ferrous metals	Indirect

When developing the list of keywords in Table 5.6, only projects leading to additional air pollution were considered. This excludes all business-as-usual projects such as the maintenance of transport infrastructure (e.g., roads and airports) or transmission and distribution networks.

**TABLE 5.6: LIST OF KEYWORDS FOR FOSSIL FUEL-PROLONGING ACTIVITIES**

Keywords	Related fossil fuel-prolonging activity
coal + power plant	Coal-fired power plant
coal + power-plant / plant / power	Coal-fired power plant
coal-fired / coal-powered	Coal-fired power plant
gas + power plant	Natural gas-fired power plant
gas + power-plant / plant / power	Natural gas-fired power plant
gas-fired / CCGT / gas-powered	Natural gas-fired power plant
gas fired	Natural gas-fired power plant
incineration / incinerator / combustion	Manual check
power plant	Manual check
oil + power plant	Oil-fired power plant
oil + power-plant / plant / power	Oil-fired power plant
oil-fired / oil-powered	Oil-fired power plant
oil fired	Oil-fired power plant
waste + incineration / incinerator / combustion / burning	Waste incinerators
gas + pipeline / pipe / transport / transportation / distribution	Upstream oil and gas
coal mining / mine / production / extraction / transportation	Upstream coal
gas / oil / petroleum / kerosene / LNG + extraction / production / upstream / refinery	Upstream oil and gas
fossil / coal / oil / gas + policy / technical assistance / measure / capacity building / support	Fossil fuel sector support
fossil / coal / oil / gas + capacity building	Fossil fuel sector support
fossil / coal / oil / gas + technical assistance	Fossil fuel sector support
transport / transportation + policy / measure / support	Fossil fuel transport sector support
transport / transportation + capacity building	Fossil fuel transport sector support
transport / transportation + technical assistance	Fossil fuel transport sector support
airport / plane / aviation	Aviation support
waterway / boat	Fossil fuel-powered water transportation
van / bus / train / carriage / locomotive / engine / motor + diesel / diesel-powered / diesel-fuelled / oil / coal / ice	Road transport
coal / gas / lng / methane	Manual check
(palm / olive / edible / vegetable) oil	Manual check
(greenhouse) gas	Manual check
passenger vehicle + diesel / ice / oil / gas	Road transport
passenger car + diesel / ice / oil / gas	Road transport

Keywords	Related fossil fuel-prolonging activity
car / LDV / PLDV + diesel / ice / oil / gas	Road transport
primary steel plant development / expansion	Industry
ferrous metals + production	Industry
chemicals + production	Industry
manufacturing + industry	Manual check
gas / oil boiler subsidy	Residential

**Note:** “+” separated words appear in any order in the descriptive data. Words separated by a space appear in this precise order in the descriptive data. “/” separated words were searched separately. Words in parentheses were used as discriminants to exclude projects.



## 6. METHODOLOGY LIMITATIONS

This methodology represents a leading effort to identify and analyse international development funding flows for air quality. There are, however, some limitations that should be taken into account.

### TRACKING COMMITMENTS RATHER THAN DISBURSEMENTS

As mentioned in Section 4.3, the analysis is based on financial commitments rather than disbursements. Commitments record the total amount of a contract in the year when it is closed, irrespective of the time required to complete the disbursement. The result is that funding categories with a relatively small volume of commitments, such as outdoor air quality funding, can be significantly skewed by a single large contract in a specific year, making it difficult to identify long-term trends.

To overcome this limitation, we focus the analysis on cumulative funding for the most recent five years for which data is available (2019–2023) to smooth the possible impact of singular large transactions. Using disbursement data would provide a more accurate picture of the actual funding volume flowing to air quality projects in a given year. However, the disbursement data available today does not permit cohesive analysis on the scale required for The State of Global Air Quality Funding.

### THE USE OF KEYWORDS

As mentioned in Section 4.1, once the data is collected, we run a keyword search to identify air quality and fossil fuel-prolonging projects. The keyword list has been extensively reviewed by relevant experts and iterative improvements are made each year. However, it is possible that some air quality projects may have names or descriptions that do not include any of the selected keywords, meaning the keywords used in our search will not capture them.

The keyword search approach also depends on the quality and level of detail provided in the project descriptions. For projects with brief or non-existent descriptions in the reported data, there is a much lower likelihood of being selected by the keyword search and, therefore, a lower likelihood of being identified as air quality finance. Furthermore, because the keyword search only works with project-level data, investors and sectors for which data is only available in an aggregate format cannot be included in the analysis, leading to potentially considerable data gaps.

In the absence of an air quality tag or taxonomy to more accurately identify relevant projects, the use of keywords remains the leading option for extracting projects for the analysis. Clean Air Fund and CPI will continue to refine the list of keywords to ensure progressive improvements in accuracy, and emphasise the importance of accurate, detailed project descriptions to studied institutions.

## SCOPE OF ANALYSIS

As mentioned in Section 3.2, the analysis does not currently include funding provided by the private sector or national governments, which nevertheless play a key role in funding both air quality improvement and fossil fuel-prolonging projects. This is due to the analysis focusing on international flows of public development finance to low- and middle-income countries, and in no way suggests that private sector and national funding play an unimportant role in the air quality funding landscape.

## DEFINITIONS

The distinction between “outdoor air quality funding” and “funding with air quality co-benefits” (Table 3.1) is not always clear cut. In many cases, the categorisation of a project under one funding flow or the other will depend on how the project description has been interpreted, and whether outdoor air quality seems to be a key objective or just a co-benefit of the project. In some cases, funders do not provide much detail about a project’s objectives or expected impacts in the project description. Due to the size of the database, it is not possible to delve into detailed documentation for each project to clarify project objectives and impacts.

## INSTRUMENTS

The OECD Creditor Reporting System database does not have a data field to indicate whether debt financing has been provided on concessional terms. Proxies have therefore been used in this analysis. Where loans are marked as “ODA loans” in the database, they are categorised as “low-cost debt”. Loans that do not meet ODA criteria are marked as “Other official flows” in the OECD database; these are categorised in our methodology as “market rate debt”, based on the assumption that “Other official flows” includes funding that does not meet the ODA requirements on concessionality. It is possible that some loans in this category are provided on concessional terms but do not meet ODA criteria for other reasons; this methodology cannot capture these loans in its analysis of concessional finance, and therefore this report’s estimates of concessional finance should therefore be seen as conservative estimates.

## 7. GEOGRAPHIC CLASSIFICATION

Table 7.1 shows the regional grouping used in The State of Global Air Quality Funding 2025. These groupings and their names do not imply any opinion on the part of Clean Air Fund or CPI concerning: (a) the legal status of any region, country, territory, city or area, or of its authorities, or (b) the delimitation of frontiers or boundaries. Flows are classified as “transregional” when resources are channelled to more than one region.

**TABLE 7.1: REGIONAL GROUPING USED FOR THE ANALYSIS OF AIR QUALITY FUNDING**

Region	Country or territory
<b>Central Asia and Eastern Europe</b>	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, <sup>iii</sup> Kyrgyz Republic, Latvia, Lithuania, Montenegro, North Macedonia, Poland, Slovak Republic, Republic of Moldova, Romania, Russian Federation, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, Uzbekistan
<b>East Asia and the Pacific</b>	American Samoa, Brunei Darussalam, Cambodia, China, Cook Islands, Democratic People’s Republic of Korea, Federated States of Micronesia, Fiji, Indonesia, Kiribati, Lao People’s Democratic Republic, Malaysia, Marshall Islands, Mongolia, Myanmar, Nauru, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, Vietnam
<b>Latin America and the Caribbean</b>	Anguilla, Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bonaire, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, St. Barthélemy, Sint Eustatius and Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, República Bolivariana de Venezuela, West Indies
<b>Middle East</b>	Bahrain, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, occupied Palestinian territory, Syrian Arab Republic, United Arab Emirates, Republic of Yemen
<b>Other Oceania</b>	Australia, New Zealand, Tokelau

<sup>iii</sup> This designation is without prejudice to positions on status, and is in line with United Nations Security Council resolution 1244 and the International Court of Justice Opinion on the Kosovo Declaration of Independence.

Region	Country or territory
<b>Africa</b>	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Arab Republic of Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Réunion, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe
<b>South Asia</b>	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
<b>United States and Canada</b>	Canada, United States of America
<b>Western Europe</b>	Andorra, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Vatican City

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