CCLA

GOOD INVESTMENT

Guy's & St Thomas' Foundation

Investing in a healthier society

CONSULTATION ON A PROPOSED CORPORATE AIR POLLUTION BENCHMARK

HOSTED BY CCLA INVESTMENT MANAGEMENT AND GUY'S & ST THOMAS' FOUNDATION

5 NOVEMBER 2024

CCLA and Guy's & St Thomas' Foundation invite you to share your views on an approach to assessing responsible corporate action on air pollution.

CCLA Investment Management (CCLA) provides investment management products and services to charities, religious organisations and the public sector. Its purpose is to help its clients maximise their impact on society by harnessing the power of investment markets.

Guy's & St Thomas' Foundation is an independent foundation whose mission is to build the foundations of a healthier society. It invests, partners, engages and influences to come at big health challenges from all angles. Through its family of forward-looking organisations, it collaborates with its communities, partners and hospitals, and uses its assets to transform lives.

Introduction

Air pollution substantially impacts human health. It is the second-largest global risk factor for mortality – after high blood pressure - and contributed to 8.1 million deaths in 2021.[1] In addition, the health impacts of air pollution significantly affect the economy. For example, health damages from exposure to $PM_{2.5}$ air pollution in 2019 were estimated at US$8.1 trillion, equivalent to 6.1% of the world's GDP.[2] Air pollution also harms planetary health. It damages ecosystems, contributes to acidification, and reduces forest and agricultural yields.[3]

CCLA and Guy's & St Thomas' Foundation both recognise the scale and importance of air pollution in relation to human and planetary health. As investors with a shared commitment to building healthier communities to support healthier investment markets, the two institutions are collaborating to examine the part that investors can play in relation to air pollution.

CCLA and Guy's & St Thomas' Foundation have joined forces to commission a scoping review by Chronos Sustainability Ltd to explore the role of investors in tackling corporate air pollution. **The outcome of this review is a proposal to develop a global benchmark to assess company preparedness and resilience to the impacts of urban air pollution.**

Specifically, the benchmark will:

(i) define investor expectations of companies involved in urban road transport
(ii) drive increased transparency and disclosure by companies on air pollution
(iii) provide investors with an accessible way to understand and evaluate corporate practices
(iv) showcase examples of good practice in corporate management of air pollution for the benefit of investors and companies.

Who should respond?

This consultation invites feedback from investors, companies, academics, non-governmental organisations and other stakeholders with an interest in reducing the impacts of corporate air pollution on public health and the environment.

How will the responses be used?

The responses will be used to inform CCLA and Guy's & St Thomas' Foundation's thinking on the value to investors of a benchmark on corporate air pollution and, assuming there is support for the idea of a benchmark, will lead to further refinements of the benchmark assessment criteria and

methodology. The benchmark will then be piloted with a selected group of companies prior to the launch of a global benchmark and baseline report in 2025.

Data Privacy Notice

We encourage you to be open and honest in your responses, as this will help to inform future developments in this project. The information you provide will be stored securely and only accessed in its original form by a small core team for analysis purposes. Personal identifying information (name and email address) will be removed before the resulting analysis is shared outside of the analysis team. Responses will be aggregated at a sector, industry and geographic level. None of your answers will be attributed to you as an individual respondent in public communications. If you have any questions or concerns about the use of your data, please contact our Data Protection Adviser, Joy Doran at: joy.doran@ccla.co.uk

CCLA's Privacy Notice

Please note: The consultation will take around 45 minutes to complete.

Deadline for responses: Tuesday 17 December 2024.

This consultation paper, which invites your views, is structured in eight parts as follows:

I Background to the project
II Type of investor intervention
III Benchmark aims and objectives
IV Benchmark scope
V Draft evaluation criteria
VI Assessment approach
VII Additional comments
VIII Appendices

In February 2024, CCLA and Guy's & St Thomas' Foundation commissioned a scoping project to explore the role of investors in tackling corporate air pollution.

Between February and September 2024, a research team at Chronos Sustainability conducted a desk review of the literature, and carried out interviews with academic, NGO, investor and technical experts in the UK and in selected European countries to explore why investors should be concerned about air pollution and what actions investors can take to address corporate impacts on air pollution.

CCLA and Guy's & St Thomas' Foundation would like to thank the individuals at the following organisations whose valuable insights have informed this consultation paper:

- Achmea Investment Management
- Asthma + Lung UK
- BNP Paribas Asset Management
- Church of England Pensions Board
- Clean Air Fund
- Impact on Urban Health, Guy's and St Thomas' Foundation
- Imperial College London
- Ricardo
- ShareAction
- The King's Fund
- World Economic Forum

The findings from the research revealed:

- A generalised lack of awareness and understanding of corporate air pollution amongst investors and many companies. Exceptions exist, however, including amongst companies with significant emissions that operate under pollution permits. For example, in the UK, industrial activities contributing to air pollution require an environmental permit that is regulated by local government or the Environment Agency. In the US, federal regulations mandate that major air pollutant emissions sources must obtain an operating permit.
- While many governments and organisations have implemented policies to reduce air pollution, significant challenges remain in fully addressing the health impacts. Many countries' air quality standards are less stringent than the WHO's updated guidelines, meaning that health risks persist even in areas that meet legal requirements. Moreover, existing policies tend to focus on reducing emissions and pollution levels, but their ability to address the full scope of health and environmental impacts is mixed.
- An absence of standardised metrics for measuring and reporting on air pollution across corporate reporting frameworks. Furthermore, the difficulty in attributing business contributions to ambient air pollution at the company or sector level is largely due to the complex interaction of various emissions sources, shared infrastructure, indirect contributions, and data limitations.
- The level of preparedness of companies for upcoming regulations linked to air pollution varies significantly across industries, regions, and the size of the business. Many companies, particularly larger ones in highly regulated sectors, have made strides in preparing for tighter air quality regulations. However, companies in sectors that are not considered to be high emitting, but which nevertheless contribute to air pollution may be less prepared. Some examples of upcoming regulations include, for example, the EU CSRD topic standard on pollution[4] and sector-specific draft standards for the road transport sector[5], and the UK and EU bans on the sale of new petrol and diesel cars and vans by 2035.[6] [7]

The research highlighted that corporate air pollution is a broad and complex topic requiring multiple interventions at a system level, at an investor portfolio level, at a sector level and at a company level. Mindful that any intervention by investors would need to be focused on a specific aspect of air pollution, the research revealed an opportunity to address significant public health and environmental impacts arising from urban air pollution-linked road transport.

Road transport and urban air pollution

- Air pollution causes 8.1 million deaths worldwide.[8] The most significant impacts are seen in urban areas due to high population density and a higher concentration of polluting activities. In the UK, more than one in 19 deaths in large towns and cities is linked to air pollution, mainly through respiratory and cardiovascular health effects.[9]
- Road transport is a major contributor to pollution in highly populated areas and is responsible for significant proportions of pollutants commonly harmful to health such as particulate matter (PM), ozone (O_3) and nitrogen dioxide (NO_2).
    1. Globally, road transport is responsible for 25% of all $PM_{2.5}$ - the most harmful pollutant for human health - in cities.[10]
    2. In the EU, it is the cause of 37% of nitrogen oxide (NO_x) emissions and around 9% of particulate matter (PM_{10} and $PM_{2.5}$), as well as 18% of carbon monoxide (CO) and 23% of black carbon.[11]
    3. In the UK, road transport is the largest source of NO_2 at 30%, and the second largest source of $PM_{2.5}$ and PM_{10} at 18% and 16% respectively.[12]
- Company vehicles account for 15% of the UK's total vehicle share, including 52% of buses, coaches, HGVs and LGVs.[13] Likewise, in the EU, 13% of vehicles are vans, trucks and buses, which are largely commercial,[14] and in the US, around 11% of vehicles are commercial.[15,16]
- The proportion of air pollution caused by commercial vehicles is potentially significantly higher than their percentage vehicle share as HGVs contribute disproportionately to air pollution; over 40% of on-road NO_x and 60% of on-road $PM_{2.5}$ globally come from HGVs despite them making up a small proportion of total vehicles on the road.[17]
- Therefore, action on business-related transport emissions can make a significant contribution to improving urban air quality.

Investors should be concerned about corporate air pollution because it presents financial risks, legal liabilities and reputational damage. Companies that fail to address their air pollution impacts may face regulatory penalties, increased costs, shareholder activism, and declining consumer trust. Conversely, businesses that reduce their air pollution footprint and embrace cleaner technologies are likely to be better positioned for future growth, regulatory changes, and investor interest.

Investors have a critical role to play in addressing corporate air pollution through various interventions that can encourage or pressure companies to adopt more sustainable practices. These interventions range from direct engagement with companies to strategic investment decisions, voting on shareholder resolutions, and public policy advocacy.

Consultation questions

1. Do you agree with the rationale for the project's focus on tackling urban air pollution?
    - Yes
    - No [specifically, what would you change?]

2. Are there other aspects of corporate air pollution that impact on public health or the environment that should be considered?
    - No
    - Yes [please specify which aspects you suggest are considered, and please explain your rationale]

Different types of investor initiatives were considered as part of the scoping project, including a standalone public policy engagement programme and a privately-conducted company engagement programme.

Considering, however, the nascency of corporate air pollution as a topic for investors and the disclosure gaps in corporate reporting requirements and recognising existing multi-stakeholder initiatives on corporate air pollution, the proposed investor intervention is a benchmark on corporate air pollution.

A corporate air pollution benchmark would provide investors with a valuable tool to assess and compare companies' environmental performance on specific pollutants, identify risks and opportunities, and align investment strategies with sustainability goals. It would improve transparency, enable informed decision-making, mitigate regulatory and reputational risks, and help investors promote the transition to a cleaner, healthier and more sustainable economy.

Specifically, a corporate benchmark would:

- Offer a clear framework setting out investor expectations of companies in relation to corporate air pollution as a standalone issue
- Provide a standardised tool for investors to use during company engagements
- Provide a mechanism for investors to compare the relative performance of companies in given sectors and to monitor their progress over time
- Enhance the quality and consistency of private sector data and corporate reporting on air pollution
- Improve corporate transparency and accountability on company contributions to air pollution

The overall aim of the proposed benchmark is to develop a robust framework for investors to accurately assess how companies are managing and reporting on risks and opportunities linked to urban air pollution arising from road transport.

The benchmark has four objectives:

I. To increase investor and company awareness and understanding of urban air pollution and its impacts on human health and the environment.
II. To outline investor expectations of companies on their preparedness for emerging regulation and their role in contributing to reduced urban air pollution.
III. To drive corporate transparency and disclosure on companies' management and performance impacts linked to urban air pollution.
IV. To equip investors with reliable, robust and comparative data on companies to support their investment decision making and to guide their engagement activities.

The benchmark will provide investors with a clear account of current practice amongst corporate businesses, highlighting areas of good practice as well as areas where more work is needed. It will also provide an effective accountability mechanism for ensuring that companies set and deliver on their commitments to reduce air pollution emissions.

Consultation questions

3. Do you agree with the benchmark objectives?
    - Yes
    - No [please specify which aspects of the objectives you would change and explain your rationale]

4. Are there other tools that investors need to deliver on the objectives above?
    - No
    - Yes [please specify which tools might be useful]

Geographical scope: Global

- The benchmark will cover global listed companies to appeal to a wide base of investors with diverse international holdings.

Sector scope: Sectors that rely on road transportation in urban areas

Specific sectors could include:

- **Ground transportation and freight/logistics companies** operating road haulage and distribution services
- **Retailers and consumer goods companies** including e-commerce and brick-and-mortar retailers
- **Construction companies** covering building materials and heavy equipment
- **Agricultural companies** covering food distribution and farm supplies
- **Manufacturing companies** covering raw materials and finished products
- **Waste management companies** covering residential and industrial waste management
- **Energy and utilities companies** covering fuel distribution and logistics for renewable energy projects
- **Automotive industry companies** covering vehicle distribution and parts distribution
- **Technology and electronics companies** covering consumer electronics and industrial electronics

Activity scope: Companies operating owned and leased transportation fleets

Corporate impacts will focus on road transportation operated directly and indirectly by companies. For companies listed in the sectors above, this will include:

- Companies that operate company-owned and operated delivery lorries/vans/trucks/motorcycles
- Companies that outsource deliveries to road transportation and logistics companies
- Companies that operate company-owned car fleets
- Companies that operate leased company car fleets

Consultation questions

5. Do you agree with the global geographical scope for the benchmark, i.e. listed companies with global operations?
    - Yes
    - No [specifically, what would you change?]

6. Of the sectors listed above, which do you think are the top three sectors that should be covered by the benchmark?
    - [Please list your top three sectors from the above list]

7. If there are other sectors not listed above that you think should be considered for inclusion, please specify.
    - [Please specify any additional sectors to be considered for inclusion]

8. Do you agree with the activity focus on company owned and/or leased transportation fleets?
    - Yes
    - No [specifically, what would you change?]

CCLA and Guy's & St Thomas' Foundation propose structuring the benchmark using a management systems framework. This will ensure that the benchmark pays particular attention to the internal governance conditions (management systems and processes, corporate policies, board/CEO leadership) that are necessary to change and shape corporate actions on the management of air pollution emissions.

The benchmark will include questions (yet to be defined and piloted) across five assessed areas:

0. Qualification criteria

This section will include baseline questions to establish (i) if company-operated fleets are owned or leased (ii) if company is outsourcing distribution to third parties.

1. Management and policy commitment

It is good practice for companies to publish a formal policy statement on reducing air pollutant emissions, and to signal their commitment at the highest level of executive leadership. This section will cover management commitments and policies on air pollution. These will include questions covering the business drivers (risks and opportunities), and management commitments and policies on, for example, freight transport, company vehicle fleets, etc.

2. Governance and management processes

It is good practice for companies to assign internal responsibility for both oversight and implementation of air pollution reduction strategies. This responsibility extends to management processes in relation to company supply chains. This section will include questions designed to assess the governance structure relating to air pollution, such as board oversight and operational management responsibility. It will also cover supplier contractual obligations, supplier monitoring and auditing, and supply chain support/training on air emissions reductions.

3. Objectives and targets

Setting objectives and targets on air emissions reductions is an important step in putting a commitment into practice. This section will assess whether companies have published time-bound objectives or targets linked to reducing emissions from road transportation and whether these reductions are aligned with national air quality goals and international frameworks. It will also assess whether the company has described the actions it will take to achieve these objectives or targets.

4. Performance data

Improved corporate disclosure on air emissions can lead to a significantly better understanding of the relative performance of companies on air pollution. With more consistent and detailed disclosure, it will become easier to compare companies on their air pollution performance and identify industry leaders and laggards, providing valuable information for investors and other stakeholders. Over time, such comparisons can drive competition among companies to improve their environmental performance.

This section will assess corporate reporting on a range of performance metrics. These are likely to include emission quantities (for specific pollutant categories), emissions intensity, contextual metrics (e.g. linked to vehicle fleet composition, vehicle kilometres travelled (VKT, etc), scope of emissions monitored and reported on, compliance and regulatory metrics (including permits and fines), pollution control measures, data quality and verification, and the integration of air quality performance with wider sustainability goals such as initiatives linked to climate change or public health. The criteria will also include an assessment of company reporting on progress against targets linked to air pollution. Over time, once performance reporting has become more

standardised, it will become more feasible to evaluate the relative performance of companies on air pollution within their respective industry sectors and geographies.

5. Innovation and outreach

This section will assess the extent to which companies are proactively responding to the regulatory and other pressures on air emissions and air quality. It also aims to recognise companies that are collaborating with external stakeholders to advance collective efforts to reduce air pollution. This section will cover questions designed to assess investment in innovation, including technological innovation, R&D, and application of Best Available Technologies. It will also cover participation in industry initiatives and academic, charity, community, labour or other multi-stakeholder initiatives related to air pollution and health. It will include lobbying activities on air quality.

Consultation questions

9. Do you broadly agree with the proposed structure for the assessment criteria?
    - Yes
    - No [please explain your rationale]

10. Are there specific elements covered by each of the criteria sections you would add or remove?
    - 0. Qualification criteria
        i. No
        ii. Yes [please specify and explain your rationale]
    - 1. Management and policy commitment
        i. No
        ii. Yes [please specify and explain your rationale]
    - 2. Governance and management processes
        i. No
        ii. Yes [please specify and explain your rationale]
    - 3. Objectives and targets
        i. No
        ii. Yes [please specify and explain your rationale]
    - 4. Performance data
        i. No
        ii. Yes [please specify and explain your rationale]
    - 5. Innovation and outreach
        i. No
        ii. Yes [please specify and explain your rationale]

CCLA and Guy's & St Thomas' Foundation outline below the proposed assessment approach:

Focus on corporate entity

Reflecting a focus on investors' interests, the aim is to assess how the company as a whole manages air pollution. As such, it is proposed that the focus of the company evaluations be on the corporate entity. However, when evaluating performance reporting, it will be interesting to understand a company's impacts on air pollution in specific geographies.

Publicly disclosed information

In line with the aim to increase awareness of corporate air pollution, it is proposed to assess each company based on information that is publicly available (i.e. on corporate websites and in corporate publications such as corporate sustainability reports, annual reports and similar documents) at the time of the assessment.

Scores will not be provided for information that is not in the public domain for three reasons: (1) the aim is to encourage companies to provide a better account of their approach to air pollution; corporate transparency is a core objective of the benchmark, (2) the aim is to create a level playing field so that companies are assessed consistently and objectively, without the risk of bias from CCLA, Guy's & St Thomas' Foundation or its nominated assessment provider, (3) information published by companies is typically subject to internal scrutiny (including by technical, legal/compliance and public affairs departments) to ensure accuracy and consistency.

Assessment method

The assessment process will involve a desktop review of company information and the generation of a draft score for each company. This will involve a detailed review of material on a company's corporate (i.e. parent company) websites, in its annual reports, in its sustainability reports and other publications, and on its subsidiary company websites.

Individual company assessments will then be reviewed by members of the benchmark technical working group to check the factual accuracy of the content and to ensure consistency. A peer review of companies' preliminary assessments will be conducted to check for consistency in the assessment approach.

Preliminary company assessment reports based on interim findings and scores will be shared with companies for review. The final confidential company reports, showing individual scores and comments for each question, as well as overall company scores and comparable sector scores, will be shared with companies at the time of the public launch of the benchmark findings. The published benchmark data will not reveal individual company scores and will instead indicate the level to which companies are managing the business risks and opportunities presented by urban air pollution.

Frequency

CCLA and Guy's & St Thomas' Foundation understand that investors need access to reliable and accurate data in order to evaluate companies on their management of business risks and opportunities. Investors also need to be able to monitor improvements or deteriorations in company performance over time. As such, an annual assessment of corporate management of air pollution is proposed. The two organisations also believe that the frequency of assessments will drive momentum in companies to continuously improve their management and reporting on air pollution across their operations.

Consultation questions

11. Do you agree with the proposed focus on the corporate (parent group) entity, with a more geography-specific evaluation of performance reporting?
- Yes
- No [please explain your rationale]

12. Do you agree with the proposal to assess companies on their published information only?
- Yes
- No [please explain your rationale]

13. Do you agree with the proposal to share confidential preliminary reports with companies prior to finalising the benchmark rankings?
- Yes
- No [please explain your rationale]

Consultation questions

14. Can you identify any examples of particularly good corporate practice on air pollution?
- No
- Yes [please specify and explain your rationale]

15. What are the critical success factors linked to the project's proposed investor intervention?
- [Please specify any relevant success factors]

16. What do you consider to be the limitations of this project's proposed investor intervention and how might these be overcome?
- [Please specify any relevant limitations and how they might be overcome]

17. To support the benchmark, additional activities for investors are proposed e.g. an investor roundtable on corporate air pollution encouraging structured engagement with companies to improve management of emissions, and collective policy engagement to encourage policies to address urban air quality. Are there any specific activities you would recommend?
- No
- Yes [please specify and please explain your rationale]

18. Do you have any other comments on this intervention?
- No
- Yes [please specify]

19. Do you have any additional comments about corporate management of air pollution or a framework to assess it that you haven't yet had the chance to share?
- No
- Yes [please specify]

If you have any questions about the consultation, please contact Hannah Wakelin at Chronos Sustainability: hannah@chronossustainability.com

Thank you for taking the time to read this consultation paper. CCLA and Guy's & St Thomas' Foundation look forward to your feedback.

Desk review research approach

In March 2024, a desk review of grey and white literature was conducted to identify the current understanding of air pollution and its contributory factors, and to identify the potential for investor action to address corporate air pollution issues. The research set out to answer the following questions:

- What is air pollution? Why is it of concern?
- What are the key air pollutants and what is their distribution?
- What are the key sources and pathways into the atmosphere [including business sectors]?
- What are the implications for human health?
- What are the implications for nature and the environment?
- What are the implications for the economy?
- What are the risks and opportunities to companies and investors?
- What have been the key solutions, including regulatory interventions?
- How does air pollution fit into corporate disclosure frameworks?
- What are the interventions by investors?

Key authoritative sources were identified for the desk review, representing source types across academia, business and investor sectors, civil society, policymakers, think tanks, and intergovernmental agencies. Sources included the Institute for Health Metrics and Evaluation (IHME), the Stockholm Environment Institute, the United Nations Environment Programme (UNEP), the World Economic Forum (WEF) and the World Health Organization (WHO). Once relevant papers or website material were collated, a literature matrix was completed for each source to capture insights against each research question. A running list of key themes was also maintained.

Following the desk review, interviews were conducted in two rounds. Eleven organisations were interviewed between June and September 2024. Prior to the interviews, a summary of the research findings or a proposal for an intervention was shared with each interviewee, depending on the stage at which they were interviewed.

First, technical experts and practitioners from academia, business and investor sectors and civil society were interviewed to corroborate the findings from the desk review, identify any gaps in the research, and gain specific insights into the characteristics, opportunities and limitations of a potential investor initiative on corporate air pollution. The interviews covered:

- Whether air pollution presents a material risk to companies and investors.
- Whether investors should take action on corporate air pollution and what forms of action might be most effective.
- The pollutant, sector and geographical scope of investor interest.
- Whether an investor-led coalition and/or a corporate benchmark might be considered a useful intervention, and ideas on alternative investor interventions.

Building on the insights gathered, the second round of interviews were based on a high-level proposal for an investor intervention targeted at road transport in urban areas. The purpose was to seek more detailed feedback from investors on the feasibility of the intervention based on their experience of conducting corporate engagement.

Desk review findings

This section summarises the headline findings from the desk review.

What is air pollution? Why is it of concern?

Air pollution is the biggest environmental threat to human health, posing significant impacts to the economy. After high blood pressure, it is the second largest risk factor of mortality globally, responsible for 8.1 million deaths in 2021.[18] Air pollution also harms biodiversity and ecosystems.[19]

What are the key air pollutants and what is their distribution?

The WHO Air Quality Guidelines identify key pollutants affecting health: particulate matter ($PM_{2.5}$ and PM^{10}), ozone (O^3), nitrogen dioxide (NO_2/NO_x), sulfur dioxide (SO_2/SO_x), and carbon monoxide (CO).[20] Air quality depends not only on emission levels but also on how these pollutants disperse and react in the atmosphere.

What are the key sources and pathways into the atmosphere, including business sectors?

Anthropogenic air pollution is mainly linked to commercial activities, with electricity generation, industrial processes, buildings, mining, agriculture, waste management, and transportation being the highest emitting sectors.[21,22]

What are the implications for human health?

Air pollution is a major risk factor for non-communicable diseases such as cardiovascular and respiratory diseases and diabetes, and it is increasingly linked to mental health and neurological issues.[23, 24] $PM_{2.5}$ is particularly lethal, causing 4 million deaths annually.[25]

Vulnerability is determined by age and socioeconomic factors such as living in urban and deprived areas.[26,27] Moreover, working in high-exposure occupations such as construction is associated with higher rates of chronic obstructive pulmonary disease (COPD) and lung cancer.[28,29]

What are the implications for nature and the environment?

Air pollution harms biodiversity and ecosystems through ocean acidification, eutrophication of lakes, acid rain, and reduction of forest and agricultural yields.[30]

It is closely interlinked with climate change given that similar pathways, effects and solutions apply to both greenhouse gases and key air pollutants.

What are the implications for the economy?

The health impacts of air pollution significantly affect the economy. For example, in 2019, health damages from $PM_{2.5}$ exposure were estimated at US$8.1 trillion, equivalent to 6.1% of the world's GDP.[31] An estimated 3.8 billion workdays could be lost due to pollution by 2060.[32]
New research suggests air pollution reduces the productivity of healthy workers in virtually all industries, affecting both physical and cognitive work. For example, estimates suggest that increases in air pollution reduce worker productivity, even at so-called 'safe' levels of pollution, and that the combined effects on labour supply and productivity have large-scale effects at national and regional levels.[33]

What have been the key solutions, including regulatory interventions?

Regulation has arguably played the most significant role in reducing air pollution by setting legal standards, limiting emissions, promoting cleaner technologies, and holding industries accountable through enforcement mechanisms. For example, in the UK, all key pollutants except ammonia have reduced by at least 66% since the 1990s and the introduction of key legislation.[34] However, there are limitations to regulation in many countries, due to issues such as lack of monitoring technology, capacity, accountability and weak enforcement.[35]

Effective regulation helps protect public health, reduces environmental damage, and encourages innovation in clean technologies. However, to be effective, regulations must be rigorously enforced, updated based on scientific advancements, and supported by both industry cooperation and public awareness initiatives.

Decarbonisation underpins many, although not all, of the solutions given that the pollutants most harmful to health largely come from the combustion of fuels in the energy, industrials, and transportation sectors, as well as in domestic use.

What are the risks and opportunities to companies and investors?

Companies face risks from evolving legal norms, mandatory ESG standards, worker ill-health and reduced productivity, litigation, and reputational damage. Institutional investors also bear the systemic risk air pollution presents through its impacts on the economy.[36]

Opportunities include efficiency gains associated with renewable and low-emission energy supply and use, addressing air pollution and climate change simultaneously, gains in productivity from healthier employees, and reputational gains associated with tackling systemic risks linked to air pollution.

How does air pollution fit into corporate disclosure frameworks?

Despite a plethora of corporate reporting frameworks, air quality is underrepresented in corporate disclosure standards. While many key standards such as the Global Reporting Initiative (GRI) and the Taskforce for Nature-Related Financial Disclosures (TNFD) require companies to report emissions, few explicitly require reporting on management of air pollution. The EU's Corporate Sustainability Reporting Directive (CSRD) is a notable exception in that it requires companies to report impact, risk and opportunity management, as well as metrics and targets, on pollution where it is material.[37]

What are the opportunities for investors?

Air pollution is a nascent issue for the private sector, with limited action to date. Investor action is hampered by various factors including: lack of reliable data points; a lack of understanding of pollutant types, their sources, distribution and effects; poor monitoring, action and disclosure by companies; wide variances in regulatory controls and their ability to reduce underlying emissions; and a lack of clarity around the financial implications for investment portfolios.

Nonetheless, initiatives are beginning to tackle air pollution in the private sector: ShareAction's Long-term Investors in People's Health (LIPH) initiative targets investors, while the Alliance for Clean Air works with companies to create and improve their emissions inventories, reduction targets and knowledge-sharing opportunities.

Investors have the opportunity to drive corporate action and address the systemic risks by signalling their interest in air pollution and participating in related interventions. A benchmark assessing corporate performance on air pollution would not only provide a useful tool for investors

but would also serve to raise awareness amongst the private sector and incentivise transparent reporting by companies.

Interview findings

Investor action

There was consensus that air pollution is material to investors. However, interviewees noted the challenge of translating economic and societal impacts into financial materiality due to the lack of data on corporate contributions to air pollution - a problem that is reflected in the research findings.

Interviewees agreed that investors should take action but that the investor voice is missing on air pollution due to lack of awareness. Interviewees felt this should be addressed through knowledge-building and awareness-raising for investors. Policy engagement, corporate engagement, and multi-stakeholder initiatives were seen as key avenues for investor influence.

Corporate action

Corporate disclosure and accountability on air pollution was seen as a very nascent idea owing to absence of a normative reporting framework on air pollution, as well as the lack of perceived business risk from weak investor and public pressure, especially relative to the issue of greenhouse gases.

Benchmark design

Interviewees showed widespread support for an accountability mechanism, such as a corporate benchmark, aimed at driving corporate transparency and disclosure on air pollution and also at monitoring company improvements over time. A benchmark would also provide a level playing field for investors and other stakeholders to evaluate the relative performance of companies in given sectors.

Differentiating air pollution from climate change is a key challenge for initiatives targeting sectors with largely combustion-based air pollution, such as road transport. Initiatives should emphasise the added value of an air pollution lens, emphasising the localised, short-term benefits to morbidity and mortality.

Several interviewees argued for addressing air pollution within a systemic ‘health’ framing (as opposed to an environmental angle) given its well-established health impacts and their links to economic and societal effects.

Benchmark scope

There was consensus that geographic and pollutant scope should be guided by where health impacts from company operations are most significant.

Sector scope should reflect industries that are not the traditional high emitters but whose activities overlap with highly populated areas (transport, construction, etc.). Investor experience suggests it is more impactful to start on the demand side rather than supply in terms of companies and sectors targeted – e.g. the initiative should target fast-moving consumer goods (FMGC) companies that hire ground transportation [i.e. to implement higher standards for their suppliers] rather than

solely target transport and logistics companies themselves. Initiatives should also recognise that companies and industry associations may be lobbying against air pollution regulation.

Geographic scope should be urban (including consensus on relevant associated pollutants being $PM_{2.5}$, PM_{10} and NO_x). There was a divergence of opinion on whether emerging markets and/or value chains should also be addressed. Interviewees noted that a benchmark should include global companies (rather than UK or Europe) to capture a wide base of investors, noting it is likely to be very relevant to pension funds whose beneficiaries may be directly impacted by air pollution, for example, local authorities in urban areas.

Theory of change

Investors recognise that well-designed, regularly repeated benchmarks, alongside corporate engagement activities, are useful in driving real improvements in corporate practice and performance. These guiding principles are central determinants of whether the benchmark will be effective at delivering the changes or outcomes that are sought. Change is driven through a range of different mechanisms:

- **Signalling:** Benchmarks are helpful in signalling investor expectations of companies on particular issues of concern. Companies inevitably focus attention on the topics/issues covered in a benchmark, and on improving their scores against the questions in a benchmark. Topics not covered by benchmarks will tend to receive less attention and companies will be less interested in performance measures that are not covered by benchmarks.
- **Credibility:** It is essential that the benchmark is seen as technically rigorous (in terms of the assessment process, the quality assurance, the criteria reflecting academic research and key international norms, etc) and as providing an accurate account of company practice and performance on the issue in question. Benchmarks that do not meet these criteria are either dismissed by companies or used to undermine the credibility of the issue in question and the credibility of the supporting organisations.
- **Legitimacy:** The sponsorship of a benchmark can help to build support, in particular in the early years. This will be achieved not only through CCLA's and Guy's and St Thomas' Foundation's sponsorship of the project, but also through a defined governance process involving technical experts on air pollution and practitioners recruited into an expert advisory group. An expert panel will be convened to advise on the design of the benchmark criteria and scoring and thereafter to guide the benchmark's development in subsequent years.
- **Call to action:** It is important that attention is paid to how the message and results are presented and communicated to the media and to other stakeholders. Corporate reputation and the media are obvious levers for change but investor expectations (on risk management, on strategy), customer expectations (in particular for business-to-business), and consumer pressures are equally important drivers of change.
- **Engagement of companies:** Many companies will respond positively to constructive engagement; companies will tend to respond if they are presented with recommendations that they see as relevant to their business; companies can often advise on the best solutions and on the best levers for change; engaging with companies and responding to their comments and suggestions both builds relationships and also reduces the risk of a backlash later on. The converse also applies; a failure to engage leaves the benchmark and the benchmark results open to criticisms of lack of rigour, lack of accuracy and lack of credibility.
- **Longevity:** Delivering change on the scale sought by CCLA and Guy's and St Thomas' Foundation in relation to air pollution management is a multi-year process. It requires a willingness to maintain focus over an extended period of time, to be consistent in the demands that are made, to ensure that commitments made by companies are actually delivered, and to

ensure that progress is not delayed or undermined by constantly changing objectives. The same considerations apply to benchmarks.

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