

Factsheet n°10 – Air quality

Facts & Figures:

- 91% of the world's population live in places where air pollution levels exceed WHO guideline limits.¹
- 2/3 of the EU population live in urban areas with poor air quality.²
- Air pollution is estimated to cause about 19% of all lung cancer cases, 20% of all ischemic cardiovascular disease and diabetes cases, 26% of all strokes, and 40% of all chronic obstructive pulmonary disease (COPD).³
- Air pollution causes 400 000 premature deaths in the EU.⁴
- In 2016, household air pollution was responsible for 3.8 million deaths.⁵
- Poor air quality leads to hundreds of billions of euros in health costs each year.⁶

Our recommendations

- **Align EU air quality standards with WHO guidelines and the latest research findings.**

EU air quality standards have a clear potential in reducing and preventing air pollution. The recently published Zero-Pollution Action Plan of the European Commission unfortunately fails to commit to the full alignment of EU air quality standards to WHO's. The EU Ambient Air Quality Directives (AAQD) should set high standards for air quality, with the ultimate goal of protecting people's health. AIM recommends a strengthening of EU air quality standards in those directives and their alignment with WHO guidelines and the latest scientific evidence on the health and environment impacts of air pollution. AIM calls for the inclusion of additional air pollutants within the scope of those guidelines.

The current EU AAQD standards fail to protect the health of many EU citizens, and do not reflect the latest science. WHO is revising and updating its guidelines. "The EU legally binding limits for air pollutants should use and be as strict as these WHO regularly updated guidelines."⁷

In addition, there is growing evidence on the negative impact of some air pollutants that are currently not included in the AAQDs on both air quality and health. Mercury, black carbon, ultra-fine particles or ammonia are some examples. AIM joins HEAL's and many others' in their call for air quality standards and monitoring requirements for those pollutants too.⁸

¹ <https://www.who.int/data/gho/data/themes/air-pollution/ambient-air-pollution>

² https://www.env-health.org/wp-content/uploads/2021/01/Health-based-clean-air-standards_v4-screen.pdf

³ https://www.who.int/airpollution/events/conference/AP_exposure_and_NCDs_background.pdf?ua=1

⁴ https://www.env-health.org/wp-content/uploads/2021/05/Air-quality-in-the-EU_EEB-Flyer_2021-S-compressed.pdf

⁵ <https://www.who.int/data/gho/data/themes/air-pollution/household-air-pollution>

⁶ <https://cleanair4health.eu/wp-content/uploads/sites/2/2020/10/final-health-costs-of-air-pollution-in-european-cities-and-the-linkage-with-transport-c.pdf>

⁷ https://www.env-health.org/wp-content/uploads/2021/03/Lopez-report_plenary_MEPs.pdf

⁸ https://www.env-health.org/wp-content/uploads/2021/03/Lopez-report_plenary_MEPs.pdf

- ***Cut down emissions from industry.***

Chemicals pollution and exposure to chemicals from industry should be cut at their root. The health impact of direct emissions in the environment or indirect emissions via products and the food chain for example speak in favour of stricter legislation. “Factories, power plants, (...) and refineries produce more than half of EU carbon emissions.”⁹

The Industrial Emissions Directive (IED) is currently not delivering sufficiently on better health. AIM encourages the European Commission to update it. It should include the zero-pollution and non-toxic environment ambitions, and strict requirements for CO₂ emission cuts.¹⁰ The IED has the potential to support EU industry’s transition to becoming climate-neutral through decarbonisation and realise its potential contribution to a circular economy. It can also make a significant contribution to reaching the EU climate goals. The revision of the IED should indeed accelerate the transition towards a green and digital economic recovery.

- ***Ensuring that the food chain has a neutral or positive impact on the environment.***

Manufacturing, processing, retailing, packaging and transportation of food contribute largely to air pollution. Food system activities produce greenhouse gas (GHG) emissions which cause climate change and contribute to respiratory disease from smog and air pollution. From all food system sources of pollution, “(...) livestock production is the largest, accounting for an estimated 14.5 percent of global GHG emissions from human activities (...)”, with meat from ruminant animals being particularly emissions-intensive.¹¹ The use of chemicals in agriculture and the excess of nutrients in the environment, used in agriculture and not effectively absorbed by plants, are other major sources of air but also soil and water pollution.¹²

Ensuring that the food chain including food production, transport, distribution, marketing and consumption has a neutral or positive environmental impact is therefore key in ensuring high levels of air quality.

- ***The Farm to Fork Strategy – a game changer for more resilient and healthier food systems***

The European Commission published its Farm to Fork Strategy in May 2020. The Strategy has the potential to pave the way towards greener and more resilient food systems as well as healthy and sustainable diets. The announced framework for sustainable food systems can be a game changer. AIM hopes the proposals it will comprise will live up to the ambitions and expectations.

Other objectives such as the reduction of the overall use and risk of chemical pesticides by 50% and the reinforcement of environmental risk assessment of pesticides; the reduction in nutrient losses by at least 50% and in the use of fertilisers by at least 20% by 2030, if achieved, will have a positive impact on air quality. Though not specifically mentioned as such in the Strategy, reducing GHG emissions should be a transversal objective of many of the listed initiatives, e.g. Framework for Sustainable Food Systems, the Common Agricultural Policy, the Revision of the EU Promotion Programme for Agricultural Products, etc., from agricultural and husbandry practices to the high consumption of animal products, but also the manufacturing, processing, retailing, packaging and transport of foodstuffs.

⁹ <https://www.cleanteindustry.eu/>

¹⁰ <https://www.env-health.org/cutting-air-pollution-and-co2-from-europes-industrial-installations/>

¹¹ <http://www.foodsystemprimer.org/food-production/food-and-climate-change/>

¹² https://eur-lex.europa.eu/resource.html?uri=cellar:ea0f9f73-9ab2-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

AIM believes that reducing the production and over-consumption of meat and dairy will be decisive in achieving the needed shift to more sustainable food systems. AIM calls for a proper implementation of the Strategy, with those objectives as steering wheel, and health and environmental concerns as priorities.

- ***Support ecological public transport and promote healthy mobility.***

“Passenger cars and light commercial vehicles are responsible for 15% of all Europe’s carbon dioxide emissions and are the single largest source (25%) of toxic nitrogen oxide emissions, which cause chronic diseases, cut short the lives of 54 000 Europeans every year and cost Europeans over €200 billion a year in oil imports.”¹³ A study by the European Public Health Alliance (EPHA) shows that the number of cars on the roads of Europe’s cities are clearly associated with more pollutants in the air, and consequently, with higher disease rates and elevated costs to society.¹⁴ Healthy mobility thus has a clear potential for air pollution prevention.

In that vein, cutting emissions from road transport should be a priority. To do so, reducing private car journeys is essential. Transitional strategies should be put in place to promote and encourage carpooling and develop dedicated carpool lanes that give priority to people who engage in this behaviour and prohibit single occupant car journeys. In addition, governments should promote car-free mobility by expanding safe cycling lanes, restricting traffic, banning cars in city, introducing speed limits and promoting walks for short distances. Incentives to switch to healthy and more environmentally friendly transport alternatives should be promoted, including electric cars, and removing the ones on fossil fuels and diesel cars, to cite but a few measures. Infrastructures and transport networks need to be improved and access for all to low-emission public transport ensured. Automotive manufacturers and supply chain industries should be incentivised to invest in the transition to zero emission vehicles.

AIM supports the call¹⁵ for phase out dates for sales of new diesel and petrol cars and vans in the European Union to be set no later than 2035.

- ***Operate the transition to cleaner and renewable energy.***

The production and burning of fossil fuels (oil, coal, gas) results in hazardous air pollution. Yet, some member states and regions rely heavily on coal, peat, or oil shale for energy production. In those areas, the sector also contributes greatly to employment and to the country’ or region’s economy. Pollution from those fossil fuelled power plants and other sources crosses borders and affects all European Member States.

Accomplishing a clean and just energy transition (and fighting climate change) is rightly recognised by the European Commission as the biggest challenges of the 21st century.¹⁶ As part of the EU Green Deal, it has established a Just Transition Mechanism (JTM), to ensure that the shift to a climate-neutral economy happens in a fair way, leaving no one behind.¹⁷ A just transition should ensure the necessary support for renewable energy technologies, especially in those regions which are dependent on fossil fuels.

¹³ <https://icephaseout.org/>

¹⁴ <https://epha.org/how-much-is-air-pollution-costing-our-health/>

¹⁵ <https://icephaseout.org/>

¹⁶ https://ec.europa.eu/info/news/focus-towards-just-and-clean-energy-transition-2020-oct-1_en

¹⁷ <https://www.env-health.org/wp-content/uploads/2020/12/HEAL-Just-transition.pdf>

AIM calls for an end to investments in fossil fuel gas and for a phase out of coal, as one of the main contributors to emissions of pollutants, as well as for greater investments in renewable, combustion-free electricity generation (e.g. wind and solar).

- ***Achieve healthier buildings for improved indoor and outdoor air quality.***

Buildings are a crucial determinant of health and thus the building sector is a key sector to address. 39% of global energy-related carbon emissions are attributed to buildings.¹⁸ The sector is indeed responsible for 40% of energy consumption and 36% of CO₂ emissions in the EU. Unhealthy buildings have an impact on individuals' health. They can damage people's lungs and respiratory systems – especially those of vulnerable groups like children – , increase cancer risks, endanger cardiovascular health and harm mental health.¹⁹ Inadequate ventilation, poor indoor air quality, chemical contaminants from indoor or outdoor sources, are some of the factors that exert influence on people's health.

As HEAL highlights in its briefing²⁰, many countries take indoor air quality into account when building new residential buildings. However, it is often not the case for existing ones in need of renovation. It is estimated that one in six Europeans lives in homes that make them sick.²¹ There is therefore a clear need to prioritise the issue and take action.

Different policies could encourage a shift to more energy-efficient and healthy buildings. For example, using heat from renewable energy sources will have a positive impact both on indoor and outdoor air quality. Shifting to 100% renewable energy in the design and renovation of buildings, and thus avoiding the use of health-harming fossil fuels, is also a key measure to be implemented. Replacing hazardous chemicals present in building materials and furnishings (paint, floor coverings, etc.) with safer alternatives is another crucial aspect. Wood as a building material (especially for public spaces) could be more strongly included or more financial support could be initiated. Sustainable timber construction with natural and/or alternative insulation materials can contribute to improving indoor air quality. At the local level, proper urban planning, which ensures that buildings where people live and work are sufficiently distant from polluting areas, would also contribute to reducing the exposure of individuals to poor indoor (and outdoor) air quality.²² In addition, AIM encourages the monitoring of air quality indoor in public buildings such as kindergartens, schools, offices and retirement homes, and the public disclosure of the data collected.

- ***Improve awareness and public access to information about air quality and the health impacts of air pollution, both indoor and outdoor.***

Ensuring access to information about air quality and improving public awareness on the links between air pollution and adverse health outcomes is essential in empowering individuals to reduce their exposure to both indoor and outdoor air pollution whenever possible. Trustful and timely information, properly targeted, especially to vulnerable groups, should be made accessible to all. Those awareness-

¹⁸ <https://worldgbc.org/clean-air-buildings/causes>

¹⁹ <https://www.env-health.org/wp-content/uploads/2018/05/Healthy-Buildings-Briefing.pdf>

²⁰ <https://www.env-health.org/wp-content/uploads/2018/05/Healthy-Buildings-Briefing.pdf>

²¹ Idem

²² For more information see HEAL's briefing: <https://www.env-health.org/wp-content/uploads/2018/05/Healthy-Buildings-Briefing.pdf>

raising campaigns should take place both at European and National level and involve local actors such as community services and NGOs.

Healthcare providers also have a key role to play in awareness raising. As first contact point to healthcare services, their advice is highly valued and trusted by individuals. It is therefore key to educate and raise awareness among health care providers (including occupational physicians) on the impact of air pollution on health and on the importance of reducing it. They should also be equipped with the skills necessary to efficiently communicate the information on how to reduce exposure and associated risks to their patients.²³ Nursery assistants, child nurses, teachers, and other early childhood professionals should also be properly informed on the effects of children's exposure to air of poor quality and on how to limit that exposure.

Campaigns to raise awareness should be accompanied by other measures aiming at improving air-quality and tackling the above-mentioned factors.

²³ <https://globalheartjournal.com/articles/10.5334/gh.948/>