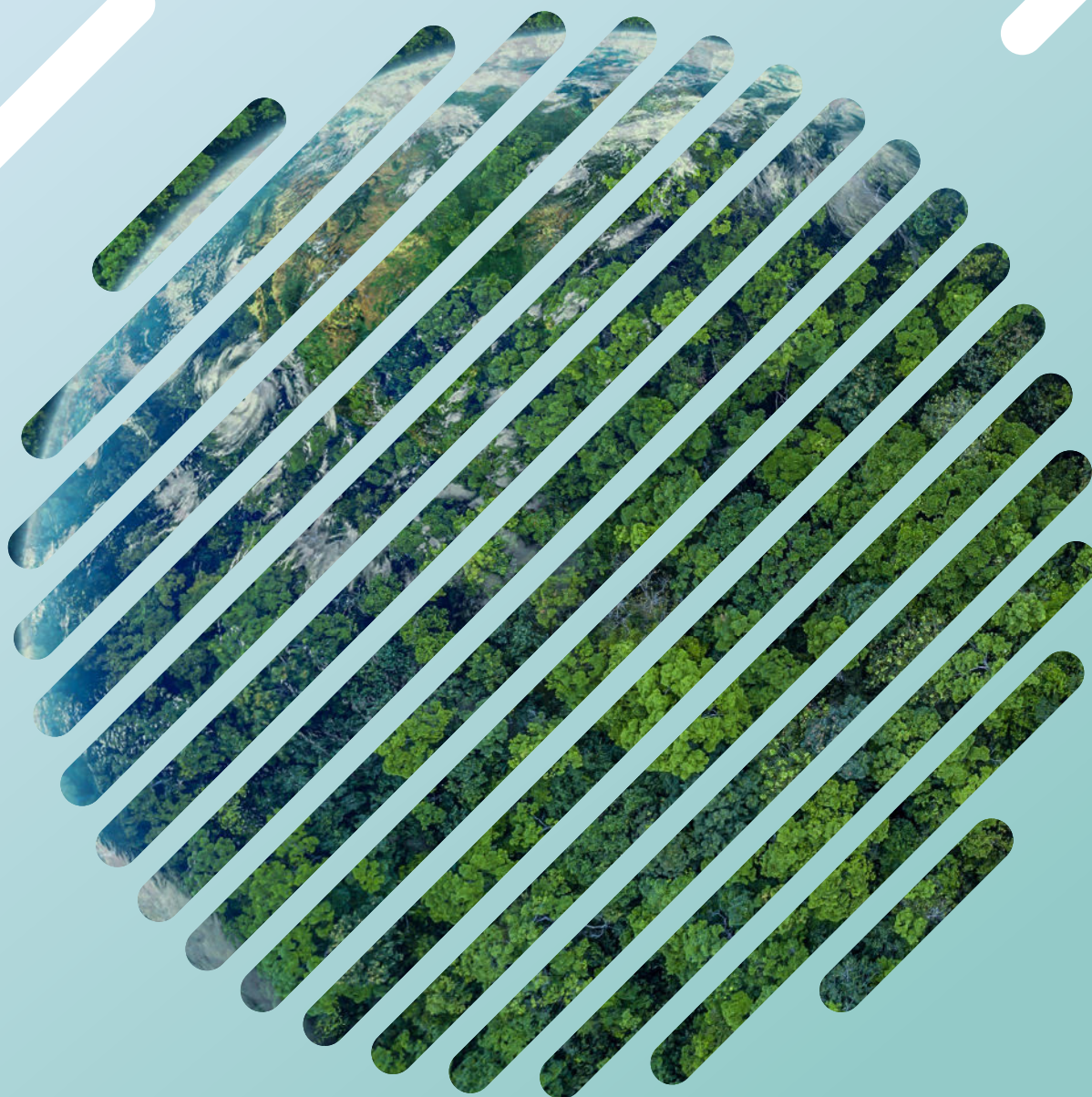


# Climate Directions

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How public health should bridge justice gaps, break silos  
and promote health co-benefits

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# Climate Directions

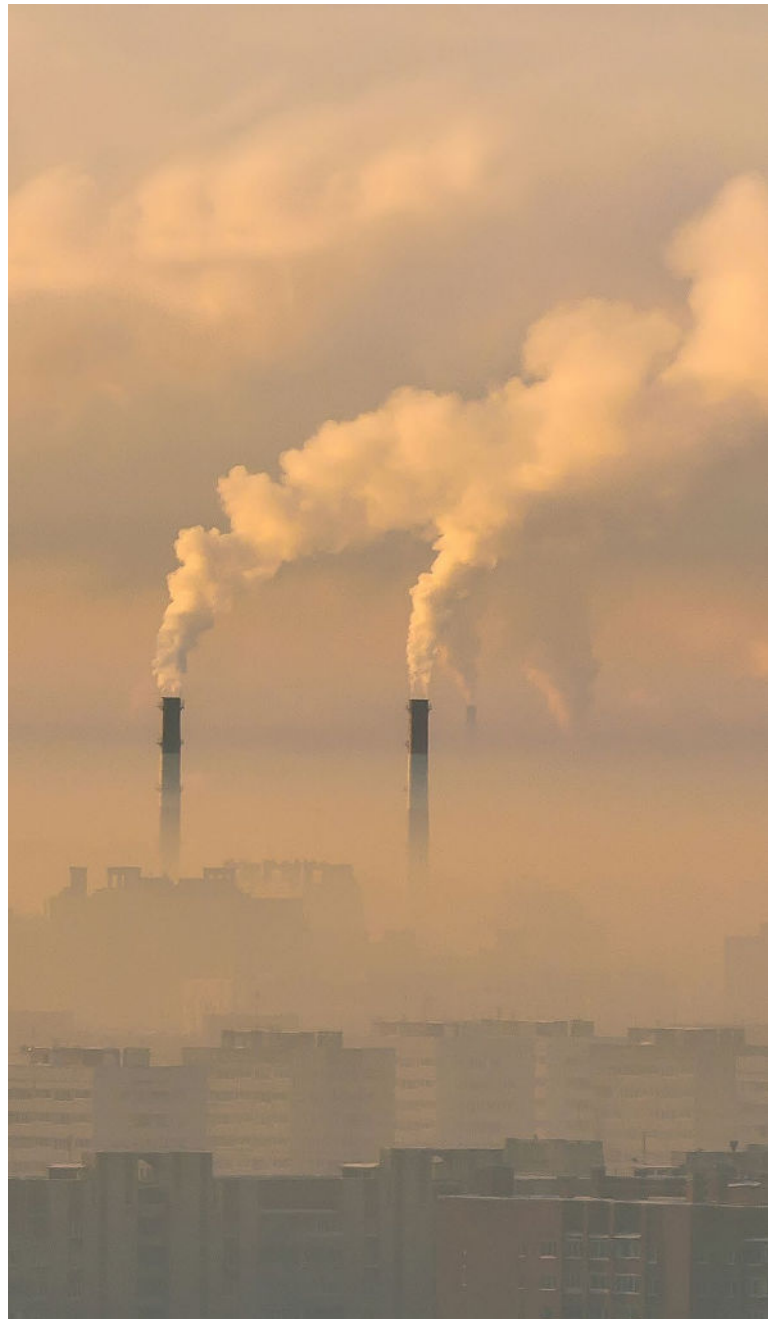
How public health should bridge justice gaps, break silos and promote health co-benefits

## Where are we?

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Anthropogenic climate change is happening. Fossil fuel burning and atmospheric trapping of greenhouse gases is impacting our climate and affecting public health. Flooding in Belgium and Germany in 2021, which destroyed villages and killed more than 200 people, was made much more likely because of climate change (World Weather Attribution, 2021). A drought in the Horn of Africa has been made 100 times more likely due to climate change (World Weather Attribution, 2023c). A heatwave in Southeast Asia in 2023 was made 30 times more likely due to climate change, especially affecting the most marginalised and vulnerable (World Weather Attribution, 2023b) and in 2022, 61,000 Europeans lost their lives to heat (Ballester et al., 2023).

Predictions show that 2023 will be the hottest year on record, after both June and July were predicted to be the hottest on record, aided by air and sea heatwaves and an El Niño Southern Oscillation, as high temperature records were broken in many cities and regions globally, and wildfires affected North America, Africa and Europe (CarbonBrief, 2023), with the Canadian wildfires made 7 times more likely because of climate change (World Weather Attribution, 2023a). **Wildfires in Greece** were the **biggest ever recorded in the EU**.



The risks are exacerbated by the unpredictability of the intensity, frequency, duration and variability of weather events.

The Intergovernmental Panel on Climate Change (IPCC) warned in their 6th report released early 2023, with “high to very high confidence” that climate change has already caused significant morbidity and mortality, increased infectious disease risk and has been associated with decreased mental health

(Intergovernmental Panel on Climate Change, 2023).

It further added that 3.3 – 3.6 billion people globally live in contexts that are highly vulnerable to climate change (Intergovernmental Panel on Climate Change, 2023). Vulnerability is often the outcome of long-term social processes, which affect population’s capacity to cope with changes in the present (Bankoff, 2004). Income status, ethnicity, gender, location, age and health status all affect how people experience climate change (Deivanayagam et al., 2023; Ganzleben & Kazmierczak, 2020). Recognising vulnerability and its variability in all decisions and actions taken is crucial, as the effects of climate change are not felt equally between different populations.

Life on this planet, including human life, societies and civilisation, relies on a delicate balance of natural processes creating a liveable planet. Human health cannot be separated from the Earth’s systems, including animal and environmental health. This lens is known as Planetary Health. This approach acknowledges that human activities are changing ecological drivers resulting in climate change, biodiversity loss, pollution, altered biochemical processes and resource scarcity. These disruptions

ultimately affect every facet of human health and well-being, whether it is by altering air and water quality or our exposure to natural hazards and infectious diseases. Mediating factors like governance, technology, and resources have the potential to mitigate these effects. However, achieving this mitigation calls for a concerted effort to break down disciplinary barriers, thus preventing the risk of a cascading decline in natural systems and, consequently, a decline in human health (Myers, 2017). A deterioration in climate can produce dry, hot conditions, aiding fires, contributing to air pollution, worsening population cardiovascular and respiratory health (European Public Health Alliance, 2023). Biodiversity and natural area loss can see an increased human-animal-nature interface, leading to pathogen spill over and increased pandemic risk (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2020).

The recent Budapest Declaration brokered in July 2023 by the World Health Organization (WHO) leans on this interplay of health and environment (World Health Organization, 2023). Realising there is an environmental triple crisis of climate change, environmental pollution and biodiversity loss, the WHO has highlighted “the interdependencies between the health of humans, animals, plants, and ecosystems at large, and... the urgent need to reduce pressures on biodiversity and decrease environmental degradation to reduce risks to health” (World Health Organization, 2023). The call to action from this declaration is all-encompassing: “Emphasizing [sic] that, in an interdependent world, successfully tackling complex, multidimensional challenges require urgent, inclusive, intersectoral and transformative action... as advocated by the One Health and Planetary Health approaches” (World Health Organization, 2023).

**The world’s main health body has declared that the health of the planet is integral to our health, and that mass collaborative approaches are needed rapidly.**



## Where do we go?

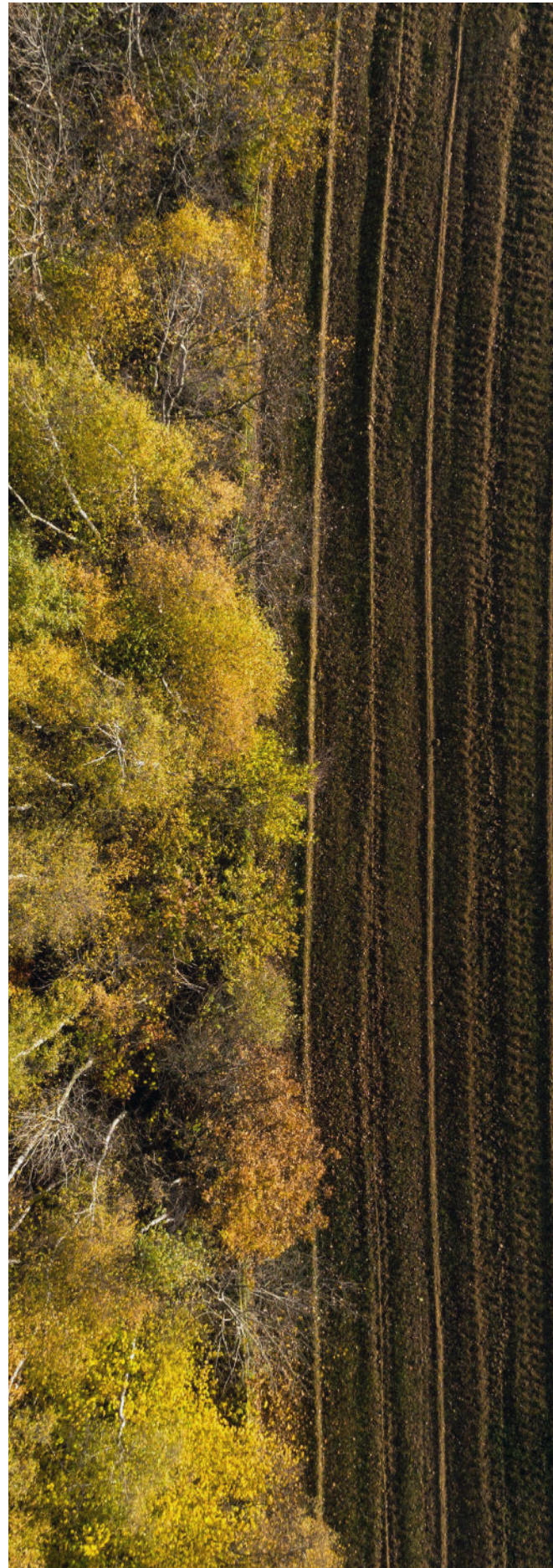
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**Rapid, collaborative efforts are needed to holistically tackle the complex system that is climate change.**

Only through breaking silos and systems thinking can we face the challenge of climate change, while also ensuring a just transition that protects public health and leads to a cleaner future. An approach that looks at the interconnected, moving parts of the systems that relate to climate change, with inclusive efforts to protect health, including of the most marginalised and vulnerable, identify risks, and create solution, will be the best way to ensure that this essential transition guarantees justice.

These points are echoed in the first global stocktake synthesis report, published in September 2023, in time for the UN Climate Change Conference (COP28) at the end of the year. The purpose of the stocktake is to assess collective progress on climate action across all sectors and regions under Article 14 of the Paris Agreement. By identifying gaps and fostering collaboration, the stocktake presents a pivotal moment to elevate ambition towards the agreement's targets, with the intention of mitigating the most severe consequences of climate change for all. The report recognises siloed responses as a key constraint to take climate action and observes that most "adaptation efforts are fragmented, incremental, sector-specific and unequally distributed across regions" (United Nations, 2023). Currently, siloed thinking is leading to lack of leadership and cohesive action across different silos, for example, health, climate, transport, economy and agriculture. Lack of awareness of the full system is leading to fragmentation of work. Tackling injustice is related to political will and discourse; the lack of interconnection, collaboration and engagement across fields, sectors, populations and silos means justice is suboptimal. Efficiency remains suboptimal and co-benefits remain underutilised.

Climate change is a public health crisis, and to protect health, there needs to be a focus on justice.



## Justice in climate change takes on multiple forms, including **social justice**, **international justice** and **intergenerational justice**.

There are multiple facets to this justice, including health equity, but also access to justice. By focusing on justice, and through inclusive collaboration, the needs and risks of marginalised groups can be prioritised, and solutions that ensure health protection in the face of a changing climate can be devised, so that the transition to new systems is just.

In Europe, multiple groups already experience environment inequity, facing less access to healthy environments, greater exposure to environmental risks and stressors, and less access to justice (Ganzleben & Kazmierczak, 2020).

**People of lower education status and lower incomes tend to be more exposed to environmental hazards and stressors**

(European Environmental Agency, 2023).

Roma populations have been shown to suffer energy poverty, poor housing and higher flood risk (European Network Against Racism, 2022; Heidegger & Wiese, 2020). This is not just a European issue however, it is applicable worldwide; the Canadian wildfires of 2023 disproportionately affected Indigenous People (World Weather Attribution, 2023a).

Gradients in environmental justice and health equity are present internationally. Countries of the Global South stand to be disproportionately affected by climate change, despite having contributed the least to the changing climate (Deivanayagam et al., 2023), and often have less capacity for health systems, technological, economic and infrastructure resilience (IPCC, 2023). Experts, scientists and activists from many countries in the Global South continue to be sidelined in decision making and climate communication. Some countries, such as low-lying Pacific Islands, face an existential threat from climate change (IPCC, 2023). Initiatives look to redistribute wealth to nations to bolster resilience to a changing climate, such as the United Nations **Loss and Damage Fund**, announced at COP27. However, other major global public health initiatives, such as the European Union Global Health Strategy have





not emphasised the risk of climate change in the Strategy, nor seen climate change mitigation and adaptation as health actions. These remain in the silo of environment, despite the unravelling public health crisis caused by climate change. There is an imperative to transform this narrative and see the challenge of climate change mitigation and adaptation as intersectoral.

Young people are a group more vulnerable to a number of environmental stressors and risks (European Environmental Agency, 2023), however, the issue of intergenerational justice is very relevant in the climate change discussion. Intergenerational equity, as understood by the OHCHR “relies on the duty of solidarity of present generations towards future generations. Intergenerational justice calls for climate action now, as a way to protect future generations from experiencing the worst effects of climate change” (Office of the United Nations High Commissioner for Human Rights, 2023). However, with continuous dismay at a lack of ambitious climate action, mental ill-health and eco-anxiety related to climate change are rising phenomena, and younger people are showing higher rates of mental health problems related to climate change (World Health Organization, 2023). Predictions for climate change, such as those in the IPCC Sixth Assessment, look to the years 2070 and 2100 (Intergovernmental Panel on Climate Change, 2023); predictions for these years will nearly entirely be felt by people yet to be born, who do not have agency in 2023.

Young people are however making their own agency, evidenced by movements for climate action globally, led by young people. Ensuring justice in a Just Transition means agency for future generations.

## How do we go there?

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The Planetary Health approach sees the **interlinkages between climate change, environmental pollution and biodiversity loss and health**, whilst focusing on justice, inclusive equity, and collaboration to break through silos and achieve the greatest positive impact in facing climate change.

For public health, this means making the linkages clear between these often-missed connections. A rigorous approach to justice and equity, using Planetary Health and rights frameworks need to be advocated. Public health practitioners have experience with these frameworks and connections, as well as in protecting marginalised populations. Skills valuable in other areas of public health are transferable, as public health practitioners are already highlighting the increased risk of the most marginalised in the face of a changing climate and other environmental exposures such as air and noise pollution, and lack of green space. All of this fall under the wider umbrella of Planetary Health. Other fields that can lend tactics include prevention of infectious disease through data monitoring and early warning systems, and the policy responses to Antimicrobial Resistance (AMR), which threatens human, environmental and animal health. The way that public health practitioners approach health issues and use a rights-based framework for inclusion and protection of the health of marginalised populations can inform how public health practitioners can make the next step to a Planetary Health lens.

However, public health has another trick up their sleeve; health co-benefits.



Identifying and linking health co-benefits is a convincing way to make linkages between silos to bring together action in a cohesive way. And the co-benefits are many. Actions to reduce emissions and reduce pesticide use protect water sources from environmental contamination, protect pollinator populations and biodiversity, all of which decrease potential food scarcity (Romanello et al., 2022). Efforts towards clean transport, heating and cooking practices reduce carbon emissions, but also air pollutants, which also have a climate effect (and are sometimes named “Short-Lived Climate Forces”) (AMAP, 2021), whilst also effecting biodiversity and animal life, as well as infrastructure (European Commission, 2022). Noise pollution also has health effects on human, animal and environmental health, and stands to be improved by cleaning transport, and city-level sustainability measures (European Commission, 2021; World Health Organization, 2018). City-level sustainability measures and nature-based solutions, such as green spaces, can reduce air and noise pollution, decrease the Urban Heat Island

effect, increase biodiversity, increase resilience to severe weather, improve mental health and disproportionately benefit marginalised populations (European Environmental Agency, 2022).

All of these benefit Planetary Health by balancing human civilization with the wise management of natural systems. Public health has the experience in highlighting public health co-benefits, and could use this experience as a basis to expand awareness and advocacy around Planetary Health, identify co-benefits across other sectors, and push for just transitions, using systems approaches, equity frameworks and intersectoral collaboration to best spur action. Education of health professionals is essential to galvanise this action, and there are calls, such as from the Association of Schools of Public Health in the European Region (ASPHER), who has identified that training public health practitioners on the complexity of climate change and health risk is essential, but this will also help to forge collaborations, as well as promote health and wellbeing across society.

# Interlinkages Between Different Systems, Populations and Exposures Related to Climate Change and Mitigation



This infographic shows the multiple interconnections between selected systems, factors and populations in regard to climate change, environmental stressors and public health. Each section represents a multitude of sub-factors, and the arrows demonstrate the interdependencies and interconnections between these, and how changes in one can affect another in the wider system. This illustrates that increased sustainability or improvements in one system can positively benefit another system, factor or population health.

(Cooley & Schoeman, 2023; European Public Health Alliance (EPHA), 2023; World Health Organization, 2016, 2023)





To enable these co-benefits to be seen however, systems change is needed.

There are signs that the transport and energy systems are on track to undergo the change; earlier this year, wind and solar energy overtook fossil fuel-based energy production in Europe for the first time. Sustainable Urban Mobility Plans (SUMPs) are being rolled out across Europe with the EU Urban Mobility Plan to decrease city-related transport emissions, and improve mobility equity. Decarbonisation of health care, which accounts for 4.4% of global carbon emissions (Health Care Without Harm & ARUP, 2022), is gaining speed, as large nations such as the United Kingdom commit to drastically reducing health care environmental impact (NHS England, 2022).

Europe has seen some progress in energy efficiency, including of buildings, through renovations, insulation and design, as well as a move away from fossil fuels and towards cleaner alternatives for heating and cooling. Yet, much work still needs to happen, and recent warnings, such as from the United Nations Environmental Programme, have showed that the world is off track, and the window is rapidly closing. The Stockholm Resilience Centre recently stated that the planet has crossed 6 of 9 planetary boundaries needed for humanity to continue to thrive on Earth. The food sector remains a difficult to decarbonise sector, following decades of incentives for cost-effective, intense production. Sustainable Urban Mobility Plans may be transforming urban transport, but internal combustion engines still produce short and long-lived climate forces, and alternative fuels, marketed as a low-emission solution will lock-in a future for internal combustion while continuing to produce emissions. Industries based on extraction and uncontrolled growth still dominate the political debate and action, impeding genuine political action. A fundamental reevaluation of these initiatives is essential to prevent fragmented measures, while also incorporating comprehensive impact assessments and facilitating informed discussions.

**These systems are interconnected. Interconnected systems require intersectoral collaboration. Just transitions also require intersectoral collaboration. True breaking down of silos.**

## The Destination

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**Climate change is happening now, impacting health and public health now. Collaborative, intersectoral action is needed urgently.**

Silos need to be broken, stakeholders need to be included, and equity and justice need to be the focus. Planetary Health provides a framework with which Public Health can make the interlinkages between sectors and identify co-benefits, which provides the basis on which to protect health and to ensure the transition is just. Populations traditionally excluded from decision-making, including people at the extremes of age, marginalised ethnic groups, Indigenous peoples, and the Global South, as well as those who stand to suffer the most from climate change, all need to be part of the decision-making process.

Environmental inequalities need to be tackled head on, and efforts across multiple sectors, towards common goals need to be implemented, to ensure robust action, but also increase buy-in and shared responsibility.

**This needs to happen urgently, with fierce leadership and commitment.**



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