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# Climate Change, One Health and Planetary Health

## EuroNet MRPB Policy Document

### Policy Small Working Group

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## Executive Summary

The interconnected crises of environmental degradation and climate change are escalating public health risks globally, with particularly severe consequences for vulnerable populations. Recognizing the interdependence of human, animal, and ecosystem health, this policy brief by EuroNet MRPH outlines recommendations for addressing the ecological crisis as a pressing public health emergency.

Environmental degradation directly affects human health through extreme weather events, pollution, and biodiversity loss. Indirect impacts include worsening air quality, food insecurity, and mental health challenges. To address these, frameworks such as One Health, EcoHealth, and Planetary Health emphasize interdisciplinary and holistic approaches, highlighting the need for a sustainable balance between human activity and ecological stability.

Key drivers of ecological harm include dependency on fossil fuels, unsustainable food systems, urbanization, industrialization, deforestation, and pollution. These activities exacerbate climate change, increase disease risks, and threaten global health security. Healthcare systems, while vital, also contribute significantly to environmental harm, accounting for around 5% of global greenhouse gas emissions. Transitioning to greener healthcare practices can significantly reduce their environmental footprint while enhancing public health outcomes.

EuroNet MRPH advocates for integrating health into climate and environmental policies. This includes prioritizing sustainability, equity, and long-term solutions over short-term gains. Specific recommendations include promoting education on environmental health, fostering interdisciplinary collaborations, and implementing sustainable practices within healthcare and organizational operations. Externally, the network calls for policies that ensure health co-benefits, raise public awareness, and promote climate justice.

The proposed operational framework includes the creation of an environmental health research group, promoting sustainable event practices, and collaboration with environmental health organizations. EuroNet MRPH also endorses initiatives like the Fossil Fuel Non-Proliferation Treaty, the Plant Based Treaty and the Wellbeing Economy Alliance to drive systemic change.

Addressing the ecological crisis through a health-centric lens is essential for fostering a sustainable and resilient future. EuroNet MRPH calls on policymakers, health professionals, and civil society to act collectively and urgently to safeguard both planetary and human health.

## Introduction

**Human health is deeply connected to the health of the animals, the environment and the broader ecosystems** in which we live. The deterioration of natural systems—whether through pollution (1–4), biodiversity loss, deforestation (5–8), or climate change—poses significant risks to global health and wellbeing. These environmental changes disrupt ecosystems that provide essential services such as clean air, water, and food, leading to new health challenges that extend beyond individual diseases or environmental hazards (9). Approaches such as One Health, EcoHealth, and Planetary Health emphasize the interdependence of human, animal, and environmental health, recognizing that our wellbeing is linked to the integrity of ecosystems(10).

**Environmental and ecological crises**, such as air and water pollution, deforestation, and habitat loss, have both direct and indirect health impacts. These range from the spread of infectious diseases to mental health consequences caused by environmental stress, displacement, and loss of livelihoods. These challenges disproportionately affect vulnerable populations, particularly those in low-income areas, who are often the least responsible for environmental degradation yet suffer its greatest consequences(11–14). Thus, addressing the health impacts of environmental degradation requires a comprehensive and forward-looking approach that integrates ecological, social, and health dimensions.

The **One Health** approach is a collaborative, multisectoral framework that optimizes the health of people, animals, and ecosystems, recognizing their interconnections. This approach has become increasingly important in managing the spread of zoonotic diseases, which have surged due to habitat destruction and climate change(10,15–18). **EcoHealth** complements this by focusing on the complex interactions between human societies, animals, and ecosystems. It incorporates traditional knowledge, particularly from indigenous peoples, who have long observed the impacts of environmental changes on health (10,16,18). **Planetary Health** links human health to the Earth's systems, identifying nine critical ecological thresholds that must not be crossed to maintain a stable environment, of which only three have not been fully crossed, raising concerns about potential tipping points that could lead to abrupt changes in ecosystems, ultimately affecting human health and wellbeing (9,10,16,18,19).

While all planetary boundaries are interconnected and crucial for maintaining Earth's stability, **climate change** presents a particularly complex set of health challenges, as it intersects with and exacerbates many of the other boundaries. The consequences of these changes are manifold and include increased injury and mortality from extreme weather events, rising heat-related illnesses, worsening air quality, water-borne diseases, vector-borne diseases, food insecurity, and mental health challenges. The increasing frequency of extreme weather events, shifting disease patterns, and the collapse of food and water security systems compound these health challenges. Furthermore, climate change and environmental degradation strain **healthcare systems** themselves (21-23).

The key contributors to ecological degradation are grounded in **fossil fuel dependency**, the **current food system**, **industrialization**, **transportation**, and **urbanization**. These sectors create significant environmental pressures such as greenhouse gas emissions, habitat destruction, and pollution (9,24). For example, fossil fuel use is a leading cause of greenhouse gas emissions, driving global warming and climate change, which in turn impacts public health, particularly through air pollution and heat-related health issues (25). Similarly, agriculture—particularly animal farming and monoculture cropping—accelerates climate change and degrades ecosystems, generating substantial greenhouse gas emissions, accounting for approximately a third of all human-induced emissions, mainly from animal-based products. Additionally, livestock production requires vast amounts of land, water, and feed, leading to deforestation, habitat and biodiversity loss, and soil degradation. requires vast amounts of land, water, and feed, leading to deforestation, habitat loss, and soil degradation and contributing importantly to the rise of antimicrobial resistance (AMR) (26-31). The expansion of urban areas and the growing transportation sector exacerbate these problems by increasing emissions, leading to worse air quality and contributing to health conditions such as respiratory diseases and cardiovascular issues (31).

The healthcare sector contributes to environmental harm, primarily through fossil fuel reliance, pharmaceutical production, and waste generation, accounting for about 5% of global greenhouse gas emissions (42,43). To ensure that health systems remain resilient in the face of these ecological challenges, urgent action is required to integrate sustainability into healthcare practices and reduce the sector's environmental footprint.

To address these challenges, a fundamental shift is needed. **Mitigation** and **adaptation** strategies, along with measures to address **loss and damage**, must be integrated into health policies and practices. This involves both reducing the environmental causes of health risks and preparing health systems and the whole society to respond to the impacts of climate change and other ecological threats. This resilience should be focused not only on adapting to the immediate health impacts through strategies and responses but also by addressing the root causes of ecological harm.

The primary drivers of ecological degradation are deeply rooted in our current **economic system**, which is based on the relentless pursuit of **infinite economic growth** within the constraints of a finite planet. This growth-driven economic model, with GDP per capita as one of its key metrics, has been one of the strongest drivers of **CO2 emissions** from fossil fuel combustion in recent decades (31). This system prioritizes short-term economic gains over long-term environmental and social sustainability, leading to the over-extraction of natural resources, unchecked consumption, and the degradation of ecosystems. . To address the ecological crisis, a fundamental shift toward a sustainable economic model that respects ecological limits is essential (44,45).

Central to this system is the fossil fuel industry, which has used its economic power to block climate action, downplay renewable energy solutions, and perpetuate the necessity of fossil fuels for energy security (46). Similarly, the animal agriculture industry plays a key role in maintaining the status quo, resisting necessary dietary shifts toward plant-based alternatives. Despite the clear benefits of transitioning to plant-based diets – such as reduced greenhouse gas emissions, deforestation, water use, pollution, and enhanced land use efficiency – the livestock sector continues to benefit from disproportionate subsidies and lobbying power (47). Transforming this system would be possible by shifting public subsidies and investments from fossil fuels and industrial animal agriculture to sustainable energy and food systems, removing subsidies for environmentally harmful industries, and creating policies that limit their influence on decision-making.

Furthermore, **co-benefits** emerge when addressing these primary drivers, as many solutions not only mitigate environmental harm but also bring significant health advantages (48). For instance, transitioning to **clean energy**, reducing **fossil fuel consumption**, and promoting **sustainable agriculture** not only curb greenhouse gas emissions and climate change but also improve **air quality**, which helps reduce **respiratory diseases** and other cardiovascular conditions (48). Similarly, these shifts can contribute to better **nutrition** and **food security**, ensuring access to healthier and more sustainable food systems (48). **Urban planning** that prioritizes **green spaces**, **public transport**, and **sustainable infrastructure** offers additional benefits by improving **mental health**, promoting **physical activity**, and reducing **pollution**, which leads to a decrease in health issues related to sedentary lifestyles, pollution, and stress (48). These strategies serve to address climate-related risks while fostering healthier, more resilient communities.

These co-benefits underscore the synergies between environmental and health policies, emphasizing that addressing ecological degradation is not only crucial for protecting ecosystems but also for improving human wellbeing. By adopting policies that prioritize environmental sustainability, we can create healthier, more equitable societies, reinforcing the interconnectedness of planetary health and human health.

## **EuroNet MRPH Position**

The European Network of Public Health Medical Residents, a non-profit, international, independent, and non-governmental association, asserts that the ecological crisis, which includes climate change, biodiversity loss, and environmental degradation, is one of the greatest global health threats facing the world in the 21st century. Addressing these interconnected crises requires placing health at the centre of all climate action. As future public health professionals, we have a responsibility to advocate for policies that address both the immediate health impacts of environmental crises and the underlying socio-economic and environmental determinants of health.

We stand by the principle that health must be seen in its broadest, most inclusive sense—one that integrates human, animal, and environmental health. By doing so, we promote a holistic vision of wellbeing that prioritizes sustainability, equity, and justice for all, recognizing the interdependent nature of human and ecological health. This position implies that we must seek evidence-based, creative and inclusive solutions, promoting social and environmental wellbeing and justice with one voice. We also stress that long-term solutions must take precedence over short-term gains and must aim to safeguard the health of future generations.

## **Call to Action**

At EuroNet MRPH, we are committed to advocating for and protecting the health and wellbeing of all species and ecosystems, acknowledging that human health cannot be sustained without a healthy planet. We aim to build sustainable and resilient health systems and societies, actively supporting mitigation efforts, promoting adaptation strategies, addressing loss and damage from global environmental changes and integrating the principles of One Health and Planetary Health into public health policy.

## **Internal Actions**

- **Educate**
  - Organize workshops, conferences and webinars on Environmental Health, Planetary Health, One Health, and Climate Change and Health for EuroNet MRPH members.
  - Share recent research findings, educational opportunities (such as workshops, webinars and conferences), and key policy developments on environmental health issues through internal communication channels, including a dedicated section in newsletters.

- **Collaborate**
  - Establish partnerships with environmental health organizations, academic institutions, and civil society groups working on Environmental Health, Planetary Health, One Health, and Climate Change and Health. To enhance our impact on environmental and planetary health, our public health organization will actively engage with existing networks such as the Planetary Health Alliance (PHA), Global Climate & Health Alliance (GCHA), Healthcare without Harm, the Global Green and Healthy Hospitals (GGHH) network, the Alliance on Transformative Action on Climate and Health (ATACH) and the Health and Environment Alliance (HEAL), among others. Also, recognizing the central role that the economic system plays in the environmental crisis and the importance of ecological economics as a proposed framework within the Planetary Health paradigm, we collaborate with the Wellbeing Economy Alliance to advocate for an economic model that prioritizes human and ecological well-being. By participating in collaborative, multidisciplinary, initiatives and leveraging shared resources, we aim to contribute to research, advocacy, and policy development that addresses the intersections of climate change, environmental health, and public health outcomes. Additionally, we will disseminate the work and findings of these organizations to raise awareness and educate our community on effective practices and policies. Our goal is to foster synergies among these organizations to drive transformative action, promote best practices, and amplify the collective voice for a healthier, more sustainable future
  - Encourage cross-collaboration between national chapters of EuroNet MRPH, and between EuroNet MRPH's members, facilitating interdisciplinary research and initiatives that explore the relationships between health, the environment, and society.
  
- **Promote Sustainable Practices**
  - Promote environmental responsibility within healthcare settings by advocating for comprehensive sustainability practices—including the use of renewable energy, sustainable waste management, reducing water consumption, minimizing the use of harmful chemicals, and promoting sustainable procurement. This also includes incorporating climate-smart healthcare practices that reduce the carbon footprint of healthcare delivery, support biodiversity, and foster resilience to environmental changes. These efforts should be integrated into medical education, healthcare facilities, and clinical practices to ensure that environmental sustainability is a core element of healthcare operations

- **Ensuring environmental sustainability in EuroNet MRPH's Meetings**
  - Integrate sustainability into all EuroNet MRPH events by reducing the carbon footprint of activities, encouraging virtual participation and sustainable travel, providing local plant-based meals, and selecting eco-friendly venues. To ensure that environmental sustainability is consistently prioritized in our organizational practices, we will incorporate explicit requisites for considering environmental factors in all meeting agendas and decision-making processes. This will involve creating a checklist of sustainability criteria that must be reviewed for every project and initiative. Additionally, we will ensure that the scientific part in our meetings include a cross-sectional look at environmental health, Planetary Health, One Health, and Climate Change and Health. By integrating these considerations into our operational framework, we will promote a culture of environmental accountability and ensure that our actions align with our commitment to protect the health and wellbeing of all species and ecosystems.
  
- **Support Prevention and Resilience**
  - Promote health education that emphasizes the co-benefits of prevention strategies, fostering individual, community, and environmental wellbeing in an integrated manner.
  - Advocate for healthcare systems that are resilient to the impacts of climate change, including the ability to manage extreme weather events, infectious diseases, and environmental stressors. This includes pushing for comprehensive climate adaptation strategies, from infrastructure to public health surveillance.
  
- **Creation of a Research Group on Environmental Health, Planetary Health, One Health, and Climate Change and Health**
  - We propose the creation of a dedicated Research Group within EuroNet MRPH focused on Environmental Health, Planetary Health, One Health, and Climate Change and Health. This group will drive research, knowledge sharing, and innovation at the intersection of environmental change and health. Actions will include facilitating research projects that explore the health impacts of climate change, biodiversity loss, and pollution, while encouraging interdisciplinary approaches that integrate medicine, ecology, sociology, and other fields. The group will act as a hub for exchanging ideas and research findings across member countries, fostering collaboration with external academic and public health institutions. We will promote the publication of research in peer-reviewed journals and disseminate findings at international conferences and policy platforms. Additionally, the group will provide capacity-building opportunities for members to enhance their research skills in environmental health and climate science, ensuring they are prepared to lead investigations and contribute to evidence-based policymaking. Pilot projects will also be developed to test innovative health interventions, such as sustainable healthcare practices, early-warning systems for climate-sensitive diseases, and community-based adaptation strategies, to mitigate the health impacts of climate change.

## External Actions

- **Advocate for Climate and Health Policies**
  - Collaborate with our partners and policymakers to ensure that health considerations are at the core of climate policies, both at the national and international levels. This includes advocating for health-focused elements in Nationally Determined Contributions (NDCs) under the Paris Agreement and supporting the inclusion of health outcomes in biodiversity protection plans.
  - Advocate for policies that prioritize health co-benefits, such as improved air quality, healthier and more sustainable diets, and sustainable transport systems, to address the root causes of environmental harm and public health risks.
- **Raise public awareness**
  - Actively engage in public forums, conferences, and campaigns to raise awareness about the profound impacts of climate change, biodiversity loss, and environmental degradation on human health and the need for urgent action.
  - Engage in campaigns that raise awareness of the interconnectedness of human and planetary health, targeting both policymakers and the general public, helping to drive behaviour change and policy support
- **Promote social and environmental justice**
  - Advocate for climate justice policies that protect vulnerable populations, such as low-income communities, women, children, indigenous peoples, and the elderly, from the disproportionate health impacts of climate change and environmental degradation.
  - Support movements aimed at reducing inequalities, such as divestment from fossil fuels and investment in renewable energy solutions, while promoting traditional knowledge and practices that foster community autonomy and resilience in managing health and ecosystems
- **Endorsement of global initiatives**
  - **Fossil Fuel Non-Proliferation Treaty (49)**: A global initiative to phase out fossil fuels and support a just transition to renewable energy sources.
  - **The Plant-Based Treaty (50)**: A call for the adoption of sustainable, plant-based diets that reduce the environmental impact of food production while promoting public health.
  - **Stop Ecocide International (51)**: An international movement to recognize the destruction of ecosystems as a crime, holding those responsible for severe environmental degradation accountable.
  - **End tax exemption for jet fuel (52)**: A proposal to remove tax exemptions for aviation fuel, promoting fair taxation and reducing the environmental impact of air travel.
  - **Open letter from health professionals on the plastics treaty (53)**: A collective statement from health experts urging strong, legally binding action on plastic pollution through the Global Plastics Treaty.

- **Manifesto for an urgent ban of ‘forever chemicals’ PFAS (54):** A call to ban the production and use of PFAS, persistent chemicals that accumulate in the environment and pose serious health risks.
- **Ban PVC petition (55):** A campaign advocating for the banning of PVC, a toxic plastic that releases harmful chemicals throughout its lifecycle, posing environmental and health hazards.
- **Manifesto for a Sustainable Healthcare System and Healthier EU Citizens (56):** A declaration for transforming the healthcare sector into a sustainable, resilient system by reducing its environmental footprint, advancing circular economy practices, and addressing pollution, climate change, and biodiversity loss.

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