

Opportunities for health engagement in European climate policies

Scoping study for the EPHA

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Key recommendations

- 1 Strengthen mental health considerations**, alongside physical health, including in policy documents, funding schemes, guidance documents and EU-funded research projects.
- 2 Utilise financing instruments to leverage change and improve resilience of health infrastructure and institutions** through increased implementation of sustainable climate adaptation actions, such as nature-based solutions.
- 3 Improve linkages between ecosystems, human and animal health**, such as in Nationally Determined Contributions and national resilience, adaptation and disaster risk reduction plans.
- 4 Integrate active mobility and its link to fitness** more centrally in high-level mobility and climate action policy documents for to achieve holistic, preventative health efforts.
- 5 Expand support for integrating Sustainable Urban Mobility Plans** at national and city level to promote active mobility for health and fitness and to encourage health-related goal setting.
- 6 Move higher in the waste hierarchy** to rethink production and the absolute reduction of resource consumption to reduce the health impacts of waste while bringing environmental benefits.
- 7 Increase consideration of global impacts of EU climate-related policies**, looking at e.g. worker health and safety in global supply chains.

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Foreword

Climate change is the single largest health threat facing humanity. The European Public Health Alliance (EPHA), a leading European NGO alliance advocating for better health, has for a considerable time now prioritised climate mitigation as part of its activities, especially in light of advocacy on air quality and sustainable food systems. Now, in line with its new strategic plan, EPHA is set to explore deeper and wider engagement on both climate mitigation and adaptation policies.

Over the last years, the European Union (EU) has stepped-up its attempts to address the climate emergency. The European Green Deal and associated initiatives represent a broad package of legislative, non-legislative, and financial measures covering a significant range of policy areas.

This study provides a very helpful set of analyses to aid us, and the wider health community, in navigating the busy European policy space, helping to identify the most promising entry points for our future work. Committed to maximising the co-benefits of our activities for health and climate, as well as other imperatives, we look forward towards building new partnerships in the public interest to achieve the vision of healthy societies on a flourishing planet.



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1 Climate and health: Two sides of the same coin?

While climate change is established as a growing global crisis, the impact on human health and well-being are only more recently being explored. The World Health Organization is creating momentum in this regard, with a recently issued health-driven call for climate action (WHO, 2021). Mental, psychosocial and physical health are in jeopardy as a consequence of both climate change related hazards (e.g. extreme heat, floods, droughts, wildfires, and hurricanes) as well as climate change-related global environmental threats (e.g. deforestation, overfishing, pollution, exposure to climate-related disasters) (*ibid*). In this context, vulnerable and disadvantaged populations across society often face disproportionately high threats as a result of pre-existing health conditions, socioeconomic status, demographics or geographic/socio-political characteristics (*ibid*). There is thus an urgency for climate and wider environmental policies to recognise these interlinkages and take action to advance progress towards environmental protections to reduce potential negative impacts.

The European Green Deal (EGD) and associated European Union policies represent a broad framework of legislative, non-legislative and financial measures addressing various aspects of the climate emergency and its consequences. Yet the link to various facets of mental well-being and physical health are often not explicitly or only minimally acknowledged within these policies.

This study acknowledges critical climate-environment-health interlinkages and aims to identify promising entry points for increased health advocacy in European climate policies. In doing so, the scoping exercise will support the EPHA's ambition to augment its engagement in European climate adaptation and mitigation policies and support its members and partners in directing their advocacy efforts in the climate mitigation and adaptation policy space, potentially allowing new partnerships to be built and opportunities to advance better health to be seized.

2 Approach

In order to assess gaps and opportunities for the inclusion of health considerations in EU climate-related policies, the most relevant policies¹ were identified. Based on a desk-based review, in-house expertise, and research findings (Castellari and Davis, 2021; Davis, 2018), twenty adaptation, mitigation and wider climate policies were identified (see

¹ A 'policy' is understood in this study as a set of ideas or plans that is used as a basis for making decisions in politics, which also usually includes a framework or specific measures for action; these can be regulations, strategies, action plans, agendas, decisions or frameworks (Castellari and Davis, 2021).

Table 1). At the request of the client, the analysis excludes policies focusing on the intersections of (1) air quality-mobility-buildings-climate and health and (2) food policy-sustainable-diets-climate and health.

Table 1. Reviewed EU climate change mitigation, adaptation, and wider policies

POLICY FIELD	EU POLICY INSTRUMENT
Climate	Climate Law Methane Strategy
Adaptation and disaster risk management	Adaptation Strategy Action Plan on the Sendai Framework
Biodiversity	Biodiversity Strategy for 2030 Restoration Law (proposal) The New Forest Strategy for 2030
Water	Floods Directive
Waste	Circular Economy Action Plan Waste framework Directive Landfill Directive Extractive Waste Directive Battery Regulation Urban Wastewater Treatment Directive
Mobility and transport	Sustainable and Smart Mobility Strategy Revision of the trans-European transport network guidelines Urban Mobility Framework Sustainable Urban Mobility Plan Guidance
Cross-cutting	European Green Deal Urban Agenda for the EU

The selected policies were reviewed for their explicit inclusion of 28 health-related keywords which were selected to encompass the diversity of health impacts and considerations across the examined policy fields:

health, fitness, illness, depression, anxiety, mood, immune, weight, obesity, ageing, chronic, well-being, wellness, heat, stress, sedentary, active, passive, lifestyle, safe(ity), accident, welfare, death, injury/injuries, drinking water, toxic, infectious, contamination.

The search took account of potential variations in single terms, using e.g. ‘contaminat’ to include contaminated, contamination, and contaminate, ‘safe’ to identify safe and safety, and ‘well-being’ and ‘wellbeing’ to account for different spellings. The context in which the keywords were used (and whether this links to health) was considered to determine which explicit uses to include in the final keyword count per policy.

Results were recorded in a common excel template outlining: (1) *explicitly mentioned health-related terms*; (2) *section of the policy in which the terms appear (general framing, objectives/targets, actions/measures, etc.)*; and (3) *the bindingness of the passage* as well as an expert assessment of how the search terms are framed within the respective policy. Keywords which were not included in any of the policy instruments were noted, as this also provides interesting insights for opportunities for increased advocacy - but excluded from the presentation of results in Chapter 3.

3 Integration of health concerns in climate policy

In the 20 analysed policies, health is included to varying degrees and within diverse framings. The most frequently used term across the policy instruments is health (included in all policies), followed by safe(ty) (15 policies) and well-being (11 policies). Table for the inclusion of key-words across the policies.

Table 2. Frequency of keyword inclusion across reviewed policies

	health	well-being	heat	lifestyle	active	safety	accident	welfare	death	injury / injuries	drinking water	toxic	obesity	infectious	contamination	ageing
European Climate Law	Dark Blue	Light Blue				Light Blue		Light Blue							Light Blue	
Methane Strategy	Light Blue															
EU Adaptation Strategy to 2030	Dark Blue	Light Blue	Light Blue			Light Blue	Light Blue		Light Blue	Light Blue					Light Blue	
Action Plan on the Sendai Framework for Disaster Risk Reduction	Light Blue					Dark Blue	Dark Blue								Light Blue	
EU Forest Strategy for 2030	Dark Blue	Light Blue						Light Blue			Light Blue					
EU Biodiversity Strategy for 2030	Dark Blue	Light Blue				Light Blue		Light Blue				Light Blue		Light Blue	Light Blue	
Proposal for a new Nature Restoration Law	Dark Blue	Light Blue				Light Blue										
Floods Directive	Light Blue						Light Blue									
Circular Economy Action Plan	Light Blue	Light Blue				Light Blue					Light Blue					Light Blue
Waste Framework Directive	Dark Blue					Light Blue										Light Blue
Landfill Directive	Light Blue															
Extractive Waste Directive	Dark Blue					Dark Blue	Dark Blue					Light Blue				Light Blue
Battery Regulation	Dark Blue					Dark Blue	Light Blue									
Urban Wastewater Treatment Directive	Light Blue						Light Blue					Light Blue				
Sustainable and Smart Mobility Strategy	Light Blue	Light Blue				Dark Blue	Light Blue			Light Blue						
Revision of the trans-European transport network guidelines	Light Blue					Dark Blue	Light Blue									
Urban Mobility Framework	Light Blue	Light Blue		Light Blue	Dark Blue	Dark Blue	Light Blue		Light Blue	Light Blue						Light Blue
Sustainable Urban Mobility Plan Guidance	Dark Blue	Light Blue		Light Blue	Light Blue	Dark Blue	Light Blue		Light Blue							
European Green Deal	Light Blue	Light Blue				Light Blue	Light Blue					Light Blue	Light Blue			
Urban Agenda for the EU	Light Blue					Light Blue										

Note: The color-coding correlates to the number of times each keyword was explicitly included in the respective policies. Light blue indicates 1-3 inclusions; medium blue indicates 4-15 inclusions; dark blue indicates more than 16 inclusions. Details about the specific number of inclusions per policy can be found in Table 3 in the Annex.

The following keywords were either not explicitly included in any of the policies or – where included – did not have a health-link: stress, sedentary, depression, anxiety, mood, immune, weight, chronic, wellness, fitness, passive, illness. Mental health is mentioned in two policies (EU Biodiversity Strategy to 2030 and EU Forest Strategy for 2030).

3.1 European Climate Law

The European Climate Law (EC, 2021e) was adopted in 2021 as part of the European Green Deal with the target of net zero greenhouse gas emissions by 2050. The Law establishes a legally binding framework for European climate targets and action, including interim targets and

reporting standards. The Law addresses the protection of human health, welfare, and well-being as an objective of the European Green Deal in the recitals, and highlights the growing threats to health from climate change as a reason for EU climate action. Health is mentioned a medium number of times, while well-being, safety, and welfare are mentioned at a low frequency. The recitals also mention several specific health threats and the need to prepare for them, including increased risk of infectious diseases, heat stress and urban heat islands, and other climate related disaster risks as specific threats to human health and safety.²The protection of human health from climate related risks is foundational for the law, but is explicitly mentioned only within the recitals and no specific binding health-related provisions are included.

3.2 Methane Strategy

The Methane Strategy (EC, 2020e), adopted in October 2020, outlines how the EU plans to reduce methane emissions, focusing on energy, agriculture and waste as the three main sources of man-made methane emissions. The Strategy highlights the importance of reducing methane emissions to limit global warming, reduce pollution and improve air quality. Only the term health is used one time and appears in the general framing of the Strategy, which is non-binding. Human health is touched in the context of the health problems caused by a tropospheric ozone formation associated with methane emissions as well as the importance of change in diets, for reducing methane emissions.

3.3 EU Adaptation Strategy to 2030

The EU Adaptation Strategy to 2030 (EC, 2021b), adopted in 2021 as part of the European Green Deal, focuses on the topics of resilience and capacity building for ecosystems, humans, and animals, as well as cities, infrastructure, and buildings. Health is a part of the general framing of the Strategy in terms of the physical implications of a changing climate for both individuals as well as society more broadly. The Strategy explicitly mentions the following terms in both its general framing as well as in 4 out of the 48 listed actions: health, well-being, heat, accident, death, drinking water, infectious, and contamination (see

Table 2).

The foreseen effects of climate change - e.g., fires, heat, stress, urban heat islands and water stress - are framed in part around their potential impacts on human health: "Climate change related health threats are increasing; they are serious and can only be addressed across borders. They include death and injury from heat, floods, or forest fires; and the emergence and spread of infectious diseases and allergens linked to geographical shifts in vectors and pathogens" (EC, 2021b: 7). Water management – including sustainable water use and water security – is included as a dedicated chapter ('Ensuring the availability and sustainability of freshwater') to ensure water safety and reduce the threat of water pollution³. Soil health and drought are also outlined, which have an indirect link to human health-related issues in terms of sustainable agriculture and food safety. Furthermore, in light of the COVID-19 pandemic, the scarcity of the health system and other socio-economic factors relating to infectious diseases are outlined. Given the explicit inclusion of health-related considerations in the objectives, as well as in the

² "It is necessary to address the growing climate-related risks to **health**, including more frequent and intense **heatwaves**, wildfires and floods, food and water safety and security threats, and the emergence and spread of **infectious diseases**." (EC, 2021e: 2).

³ "The Commission will (...) help to guarantee a stable and secure supply of **drinking water**, by encouraging the incorporation of the risks of climate change in risk analyses of water management" (EC, 2021b: 17).

general framing and in foreseen measures for action, the Strategy is assessed as having a medium to high level of support for health-related challenges.

Looking towards solutions, the Strategy outlines the need for increased investments in nature-based solutions and disaster risk reduction and highlights the need for improved coordination of recovery operations from natural disasters that encourage the “build back better” principle⁴. Following the One Health approach of the World Health Organization, the Strategy also aims to ‘pool and connect data, tools and expertise to communicate, monitor, analyse, and prevent the effects of climate change on human health’ (EC, 2021b: 7). Nature-based solutions are frequently mentioned in the Strategy because of their large potential for sustaining healthy water, oceans and soils.

3.4 Action Plan on the Sendai Framework for Disaster Risk Reduction 2015-2030

The Action Plan on the Sendai Framework for Disaster Risk Reduction 2015 - 2030 (EC, 2016) advocates for a reduction of disaster risk and frames health in terms of “enhanced preparedness and response capacities for disasters with health consequences” (EC, 2016: 4). Further keywords explicitly mentioned are well-being, safety, accident and infectious. The Plan also supports the use of ecosystem-based approaches as “positive and cost-efficient ways of supporting climate change adaptation and disaster risk reduction, while often providing significant co-benefits in terms of climate change mitigation or human health, safety and well-being” (EC, 2021: 13). As such, the plan highlights the need to strengthen linkages between disaster risk management, climate change adaptation, urban policies, and biodiversity conservation (EEA, 2021).

The Action Plan consists of four key areas: (1) understanding disaster risk, (2) strengthening disaster risk governance, (3) investments in disaster risk reduction, and (4) enhancing disaster risk preparedness. Area 1 relates to floods and the spreading of dangerous substances, which can lead to severe humanitarian disaster, while area 2 points the importance of safe and resilient cities, communities, and city services, such as hospitals and infrastructure in general. In area 3, ecosystem-based approaches for disaster risk reduction are highlighted for their potential provide significant benefits for human health⁵. Finally, health and disaster risk reduction is included as an own paragraph in area 4.

Preparedness for disaster risk reduction is included in the EU Framework on Health Security⁶ and the Early Warning and Response System. Furthermore, and international collaboration between the European Commission and other stakeholders have together developed the research network called the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R). This, and the research on Emerging Epidemics funded by the EU, act as preventive to a potential future pandemic. Health is highly prioritized in the Action Plan of the Sendai Framework for disaster risk reduction and is therefore considered having a medium to high support for health.

⁴ “The Commission will (...) address EU-level preparedness and response to climate-related **health** threats, including through the EU Framework on **Health** Threats and, as relevant, the planned HERA” (EC, 2021b: 15).

⁵ “The European Commission promotes ecosystem-based approaches (...) often providing significant co-benefits in terms of climate change mitigation or human **health, safety** and **well-being**” (EC, 2016: 13).

⁶ “Within the EU Framework on **Health** Security, ad hoc assessments of risks caused by serious cross-border threats of environmental origin are made available (...) through the **Health** Security Committee” (EC, 2016: 13).

3.5 EU Biodiversity Strategy for 2030

The EU Biodiversity Strategy for 2030 (EC, 2020a), which was adopted in 2020 as part of the European Green Deal, frames health in terms of being a benefit associated with healthy ecosystems and ecosystem restoration⁷. Eight health-related terms are explicitly used in the general framing of the strategy (non-binding), including: health, well-being, heat, safe, welfare, toxic, infectious, and contamination/contaminated.

Linkages are drawn throughout the Strategy between human health and biodiversity/ecosystem health, including for nutritious food that is dependent on agricultural and genetic diversity. Health-related issues are also indirectly addressed through risk of contaminated soil in agriculture and farming, a toxic and polluted environment, and infectious diseases with risk of future pandemics. The potentials of nature-based solutions are highlighted as being essential for climate adaptation and emission reduction and their promotion is explicitly outlined⁸. Green Infrastructure is also promoted within an urban context to help cool urban areas and mitigate the impact of natural disasters. The Strategy recognises the importance of investing in natural systems in order to – amongst other goals – recover from the COVID-19 crisis (EEA, 2021). The Strategy primarily addresses the human health in relation to ecosystem health and is therefore considered having a medium support for human health.

3.6 EU Forest Strategy for 2030

The EU Forestry Strategy for 2030 (EC, 2021a) was published in 2021 as part of the European Green Deal and building on the EU Biodiversity Strategy for 2030. The Strategy defines actions for building forest resilience, protection, and restoration (EC, 2022c). Human health is clearly emphasised in the framing of the Strategy as a co-benefit of healthy forests⁹ and as an argument for better management and increased forest resilience. Other health-related keywords explicitly mentioned are well-being, safety, welfare, and drinking water.

The Strategy addresses the importance of healthy forests for delivering ecosystem services, such as clean air and water regulation, as well as for farming¹⁰. Sustainable forest management techniques and support for local stakeholders are highlighted for their positive health benefits. Disaster risk reduction is also a part of the EU Forest Strategy to avoid forest fires and to use forests as a measure to prevent floods. The value of nature for mental health is also addressed.

The Strategy suggests to create an alliance between professionals of tourism and foresters, as well as nature protection services. This is to promote sustainable tourism with positive effects on human health. Furthermore, it is suggested a more strategic approach of forest monitoring in the EU, through the EU Forest Observation Reporting and Data Collection. Finally, there are ambitions to develop a ‘Citizens’ science programme for forest biodiversity’, which will engage the society in forest management practices that enhances biodiversity. The Forest Strategy for 2030 primarily addresses the human health in relation to ecosystem health and is therefore considered having a medium support for human health.

⁷ “The EU will enhance its support to global efforts to apply the One **Health** approach, which recognizes the intrinsic connection between human **health**, animal **health** and **healthy** resilient nature” (EC, 2020a: 22).

⁸ “The promotion of **healthy** ecosystems, green infrastructure and nature-based solutions should be systematically integrated into urban planning, including in public spaces, infrastructure (...)” (EC, 2020a: 12).

⁹ “(...) exposure to green and forested areas can greatly benefit people’s physical and mental **health**” (EC, 2021a: 15).

¹⁰ “(...) and other ecosystem services provided by forests that are vital for human **health** and **wellbeing**, such as clean air, water regulation, and habitat for the variety of living species they host” (EC, 2021a: 10).

3.7 Proposal for a new Nature Restoration Law

The proposal for a new Nature Restoration Law (EC, 2022a), which was adopted by the European Commission in June, has been sent to the European Parliament and Council for review. The European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI) is appointed to lead the work on the file and expected to review the document in January 2023, with final adoption provisionally expected in March 2024 (EU Issue Tracker Alert, 2022). Human health is framed in the proposal in relation to ecosystem health, mainly as an underlying argument in the background text¹¹. Four health-related keywords are included: health, well-being, heat and safe. Notably, the Law will be binding and require Member States to develop National Restoration Plans.

Improved conditions for human health are underlined as co-benefits of nature restoration, alongside jobs, income opportunities and enhanced quality of food and water. Furthermore, the proposal is a measure to increase ecosystem resilience in Europe and natural disaster risk reduction and control (e.g. floods and heat island effects)¹². The Proposal contains a comprehensive description and plan on the restoration of different ecosystems and land cover types which will serve as beneficial for human health. The proposal also addresses the importance of the One Health approach, emphasizing the connection between human health, animal health and healthy resilient nature. Given the emphasis on the health of ecosystems, the proposal is considered as having a medium level support for human health.

3.8 Floods Directive

The EU Floods Directive (EC, 2007), which came into force in 2007, addresses necessary measures and management plans to avoid and minimise severe consequences from flooding events on human health, environment, cultural heritage, economy, and infrastructure¹³. Health is a direct part of the Directive, as accidents and consequences for human health is at high risk when floods occur. The two following keywords are explicitly mentioned: health and accident. Health is directly included in the general provisions of the Directive. The Floods Directive addresses human health and resilience extensively.

The Directive addresses the concern of accidental spreading of polluting and hazardous substances as a significant threat for human health in the context of floods, as well as threats to human life and well-being more broadly. Health is therefore either directly or indirectly a part of many of the disaster risk reduction measures specified in the Directive, and it is therefore considered having a medium to high support for health.

3.9 Circular Economy Action Plan

The Circular Economy Action Plan (EC, 2020b), adopted in March 2020 as part of the European Green Deal, outlines the EU's strategy for a circular economy and the aim to prevent waste and keep used resources in the EU economy for as long as possible. The Action Plan announces

¹¹ "Pollinators are essential for the functioning of terrestrial ecosystems, human **wellbeing** and food security, by pollinating wild and cultivated plants" (EC, 2022a: 23-24).

¹² "Urban green spaces (...) provide vital ecosystem services, including natural disaster risk reduction and control (e.g., floods, **heat** island effects), cooling, recreation, water and air filtration, as well as climate change mitigation and adaptation" (EC, 2022a: 23)

¹³ "'flood risk' means the combination of the probability of a flood event and of the potential adverse consequences for human **health**, the environment, cultural heritage and economic activity" (EU, 2007: 29).

initiatives along the entire life cycle of products, including the design of products, circular economy processes and promotion of sustainable consumption. Five health-related terms are explicitly used with a low frequency: health, well-being, contamination, drinking water and toxic and are present in various parts of the Communication, which is non-binding. 'Safety' appears with medium frequency (10 mentions).

The Plan touches upon diverse contexts related to health. However, it in particular concentrates on safety of the design, processing and recycling of primary and secondary raw materials as well as products in general¹⁴. The majority of these references can be observed in the context of measures proposed by the Plan. Although only once, the Plan also refers to the need for a monitoring framework to measure well-being beyond gross domestic product (GDP)¹⁵ and the presence of microplastics in drinking water. In addition, the Plan frames various challenges of the circular economy transition, such as the growing need to define the 'safe operating space' in the context of the management of natural resources and the health impacts associated with waste exports to developing countries.

3.10 Waste framework Directive

The Waste Framework Directive (EC, 2008), adopted in November 2008, presents waste management principles and sets the basic concepts and definitions related to waste, recycling and recovery. The Directive provides an explanation on what is considered waste, secondary raw materials and by-products. Three health-related terms are explicitly used, including: health (23 mentions), safety (3 mentions) and contamination (3 mentions). They are present in various parts of the Directive, which combines binding and non-binding elements, but are most concentrated in the framing of the Directive and the measures it puts forward.

The Directive focuses on health which is also explicitly referred to in its key objective in Article 1. Indeed, the Directive aims to protect human health by minimising the impacts of waste management and resource use.¹⁶ It also mentions safety in the context of environmentally safe materials and waste treatment permits which are to include safety measures. Overall, the Directive related to human health in very limited and broad contexts all focused on the health impacts of waste, including hazardous and bio-waste, and failing to address more specific aspects of mental and physical health.

3.11 Landfill Directive

The Landfill Directive (EC, 1999), amended in July 2020, sets out strict operational requirements, including on permitting and waste acceptance for landfill sites with the objective to protect both human health and the environment and support the transition to circular economy. One health-related term is explicitly used with a low frequency, namely health. It is predominantly present in the non-binding preamble framing the context of the Directive.

The Directive has very limited synergies with health. Four explicit mentions of 'health' are made in the context of minimising landfilling of waste to prevent or reduce related human health

¹⁴ 'Actions on product design, quality and **safety** of secondary materials and enhancing their markets will contribute to making "recycled in the EU" a benchmark for qualitative secondary materials.' (EC, 2020b: 15)

¹⁵ 'This plan (...) foresees the further development of a sound monitoring framework contributing to measuring **well-being** beyond GDP.' (EC, 2020b: 3)

¹⁶ 'This Directive lays down measures to protect the environment and human **health** by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.' (EC, 2008: 8)

impacts¹⁷ with a view toward following the waste hierarchy and improving the overall waste management processes. However, the Directive fails to address more specific aspects of mental and physical health.

3.12 Extractive Waste Directive

The Extractive Waste Directive (EC, 2006), adopted in March 2006, sets out measures, procedures and guidance to prevent or reduce as far as possible any adverse effects of extractive waste on the environment. Of special concern are the effects of waste management from the extractive industries on water, air, soil, fauna and flora and landscape, and any resultant risks to human health. These measures cover the waste management resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries. Three health-related terms are explicitly used with a very high frequency, including: health, safety, and accident. The terms 'toxic' and 'contamination' appear only one time each. They are present in various parts of the Directive, which combines binding and non-binding elements – but are especially concentrated in the framing of the Directive and measures it puts forward.

The Directive focuses in particular on ensuring all necessary measures to prevent or reduce the adverse effects on human health caused by the management of extractive waste, including the management of waste facilities after their closure and major accidents¹⁸. In particular, accidents receive a lot of attention in the Directive, including their prevention, responses to, plans and processes associated with them. In this context, the Directive also refers to the safety and health of workers and the toxic effects of processes in some extractive industries and resultant contamination of soil, air, surface water or groundwater from waste facilities.

3.13 Battery Regulation

The Batteries Regulation (EC, 2020d), proposed in December 2020, aims to ensure that batteries placed in the EU market are sustainable and safe throughout their entire life cycle. Two health-related terms are explicitly used with a high frequency, including: health and safety. They are present in various parts of the Regulation, which is currently non-binding but will combine binding and non-binding elements with health-related mentions. However, they are particularly concentrated in the framing of the Directive and the measures it puts forward.

The Regulation examines the various aspects of the health impacts and safety of batteries in relation to their manufacturing, operation, use, storage and discarding¹⁹. It highlights in particular the role of actors involved in the batteries value chains, such as manufacturers and economic operations, and their composition, such as potential hazardous substances²⁰. The Regulation also highlights the importance of enhancing strategic autonomy and resilience in preparation for potential supply disruptions due to health or other crises. Finally, it mentions the human health risks to be addressed by supply chain due diligence policies, yet without detailing its particular aspects. Even though the frequency of mentions of health and safety is high, the

¹⁷ 'Waste management in the Union should be improved, with a view to (...) protecting human **health**, ensuring prudent, efficient and rational utilisation of natural resources (...)' (EC, 2006)

¹⁸ 'This Directive provides for measures, procedures and guidance to prevent or reduce as far as possible any adverse effects on the environment (...) and any resultant risks to human **health**, brought about as a result of the management of waste from the extractive industries.' (EC, 2020d: 8)

¹⁹ 'This Regulation establishes requirements on sustainability, **safety**, labelling and information to allow the placing on the market or putting into service of batteries, as well as requirements for the collection, treatment and recycling of waste batteries.' (EC2020d: 45)

²⁰ 'The use of hazardous substances in batteries should be restricted in order to protect human **health** and the environment and to reduce the presence of such substances in waste' (EC, 2020d: 26).

Regulation fails to address them in a variety of contexts, including detailing specific aspects of mental and physical health associated with the batteries.

3.14 Urban Wastewater Treatment Directive

The Urban Wastewater Treatment Directive (EC, 1991), adopted in May 1991, aims to protect the water environment from the adverse effects of urban wastewater and certain industrial discharges. Four health-related terms are explicitly used with a very low frequency, namely health, safety, toxic and drinking water. They are predominantly present in the non-binding Annex providing more details behind the objectives and measures outlined in the main text of the Directive.

Although the terms are mentioned in various contexts, the Directive has very limited synergies with health. The Directive refers to the toxic materials present in sludge disposed of to surface waters and their safe treatment and disposal. The Directive also recognises the importance of protecting the health of staff working on waste treatment and refers to the quality and composition of freshwater required for drinking water. The Directive fails to address more specific aspects of mental and physical health.

3.15 Sustainable and Smart Mobility Strategy

The Sustainable and Smart Mobility Strategy (EC, 2020c), published in 2020, includes 82 initiatives to deliver on the Green Deal for how the EU transport system can achieve its green and digital transformation and become more resilient to future crises. The Strategy explicitly frames health and safety as reasons for changes in mobility policy, particularly following the COVID-19 crisis.²¹ Cleaner, active mobility is presented as contributing to good health and well-being.

Safety is the most used term, appearing 21 times. Health mentioned 13 times and the terms well-being, death, injury, and active appear with a low frequency. The Strategy presents a number of flagship initiatives to accomplish these goals as well as non-binding objectives, aims and targets rather than specific measures. The Strategy presents a shift to cleaner forms of transport to improve overall health, without being explicit about the link. One flagship is called “Making interurban and urban mobility more sustainable and healthy.” However, the emphasis is on sustainability and emissions reductions more than health. Safety is emphasised as a major benefit and goal in its own right more than overall health due to the continued high number of deaths and injuries particularly in road transport. One of the flagships is called “Enhancing transport safety and security”. It lays out an explicit goal of achieving “close to zero” deaths in all modes of transport in the EU by 2050. Active mobility is also promoted as an important goal and is presented as being healthier, but without clarifying the link with health. The Safety flagship specifically mentions the need to make active mobility safer.²² The “inter-urban and urban mobility” flagship mentions the need to

²¹ Whilst mobility brings many benefits for its users, it is not without costs for our society. These include greenhouse gas emissions, air, noise and water pollution, but also **accidents** and road crashes, congestion, and biodiversity loss – all of which affect our **health** and **wellbeing**” (EC, 2020c: 1).

²² “measures to give more space to various forms of **active** mobility will help prevent **deaths** and serious **injuries** for vulnerable road users” (EC, 2021d: 22).

increase the modal shares of walking and cycling, but no explicit link is made to the health benefits for fitness of active mobility anywhere in the document.

Overall, the Strategy makes a general link between active mobility and health, but not very explicitly and rather focuses on the potential of emissions and noise reductions to drive improved health and well-being, as well as improved safety and accident avoidance. The mental and physical health benefits of active mobility for users are not mentioned nor addressed.

3.16 Revision of the trans-European transport network guidelines

The proposed revision of the trans-European transport network guidelines from 2021 aims at building an effective, EU-wide and multimodal transport network across the EU. The TEN-T revisions aim to make transport greener by providing the appropriate infrastructure basis to alleviate congestion and to facilitate an increase in the share of rail, short sea shipping and inland waterways in view of a more sustainable modal composition of the transport system, facilitate seamless and efficient transport, fostering multimodality and interoperability between the TEN-T transport modes and better integrating the urban nodes into the network, as well as to increase the resilience of TEN-T to climate change and other natural hazards or human-made disasters.

The Regulation has safety as a central concern and mentions a large number of framing, objectives and specific measures to improve the safety of transport infrastructure. Human health is mentioned as an objective of the regulation in a few places, including for the users and “citizens living around the network” (EC, 2021d: 35). Accidents are mentioned as a major problem for the “efficiency” and functioning of the trans-European transport network (EC, 2021d: 24).

Active mobility is listed as a priority area for action on projects of common interest and a requirement in ‘urban nodes’. Increasing modal share of active modes “shall be given attention” (EC, 2021d: 63). Safety is clearly the main priority of legislation and the term is mentioned a large number of times, while the other terms of health, accident, and active are only mentioned a low number of times. Promotion of active mobility is to some extent encouraged, but the health benefits of these mode are not mentioned. Therefore, the Law is assessed as having a low level of support for health.

3.17 Urban Mobility Framework

The New Urban Mobility Framework (EC, 2021c) published in 2021, presents a more ambitious approach to sustainable urban mobility plans (SUMP) and related mobility indicators, including a non-binding EC Recommendation to be published in 2022 on how to set up a SUMP and minimum requirements for a SUMP (see separate entry). This framework gives

us a more detailed approach to health and active mobility, with an explicit link between active mobility and health being highlighted.²³

The framework has a more balanced use of terms than the previous mobility policies, with a high number of uses of both safety and active. The terms well-being, death, injury, lifestyle, and ageing appear a limited number of times. Health appears a medium number of times. The framework promises a renewed focus on walking, cycling and micromobility, in part because of the health co-benefits of active lifestyles; this is additionally linked as contributing to the implementation of Europe's Beating Cancer Plan.²⁴ The framework outlines a number of concrete initiatives in terms of research and development, the TEN-T network, and SUMP, which will implement measures to promote active mobility and improve the safety of mobility infrastructure. Safety and health are the most frequently used key terms, with active mobility also being heavily pushed. The framework also mentions specific user categories such as the ageing and disabled as needing specific consideration in the design of multi-modal mobility. Mental health is not a feature.

3.18 Sustainable Urban Mobility Plan Guidance

The European Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan (SUMP) (EC, 2022a) are a second version of these guidelines, which have been revised in line with the evaluation of the original 2013 guidelines. The SUMP is a guidance document from the European Commission and thus non-binding, but their development is supported by the Commission, and they are sometimes used as a guideline or condition for funding of urban planning or mobility projects, e.g. through European Structural and Investment Funds, Horizon 2020, Connecting Europe Facility as well as other financial instruments.

The terms 'safety' and 'health' are heavily embedded in the document and both mentioned a very high number of times. The exact scope of health is left open to some extent, so it can be interpreted in a way responsive to local needs and conditions. The promotion of active mobility is also a central theme. One section of the Guidance particularly highlights the need to develop customised targets related to public health.²⁵ An example related to an increase in the proportion of the population which is achieving the recommended 30 minutes of physical activity daily is used relating to active mobility. The document refers then to more details in a "topic guide" on linking health to SUMP.

Although the document itself does not outline a lot of specific links between active mobility and health, there is a clear expectation that this will be a part of the SUMP that are produced, especially in association with the associated topic guide.²⁶ There is quite a bit of focus on safety

²³ "**Active** mobility modes can be part of multimodal trips (especially for the first and last mile) and offer a door-to-door mobility solution on their own as well. They have great potential to improve human **health** thanks to physical activity and alleviate congestion thus reducing carbon dioxide and emissions, air and noise pollution". (EC, 2021c: 9).

²⁴ "**Active** mobility modes such as walking and cycling are low-cost and zero-emission forms of mobility which can also bring about **health** co-benefits associated to more **active lifestyles**. In order to develop their full potential, they should be properly addressed in urban mobility policies ... including a special focus on people with reduced mobility. This will also support the implementation of Europe's Beating Cancer Plan" (EC, 2021c: 9).

²⁵ A good SUMP often includes targets related to public **health**, which can be closely linked to targets about road **safety**, air and noise pollution, or the increased use of **active** modes of transport (EC, 2022a: 101).

²⁶ In contrast to traditional planning approaches, SUMP places particular emphasis on ... the coordination of policies between sectors (especially transport, land use, environment, economic development, social policy, **health**, **safety**, and energy), and broad cooperation across different layers of government" (EC, 2022a: 10).

and air quality, but there is an ingrained acknowledgement of the health aspects of active mobility and mobility in general in the guide.

3.19 European Green Deal

The European Green Deal (EC, 2019), published in 2019, provides a roadmap of actions and foreseen laws, strategies, and action plans to jointly tackle climate change and other environmental challenges and protect the health and well-being of citizens. Health, well-being, safety, accident, welfare, toxic, and obesity are explicitly mentioned within the introduction and in the context of policy design and sustainability mainstreaming across policies.

The European Green Deal covers health-related challenges directly to a small extent, and indirectly to a larger extent through other strategies and regulations. For instance, it specifies that minimum 30% of the InvestEU Fund should be used to tackle climate change related issues (EC, 2019: 15) and that the European Social Fund+ will be an important contribution in the adaptation to climate change in society (EC, 2019: 19). The Commission will furthermore empower regional and local communities through the Climate Pact (EC, 2019: 23).

As a part of the Farm to Fork Strategy the Commission will help consumers do healthy, nutritious, and sustainable food choices (EC, 2019: 12). Additionally, the Commission will strengthen the measures for achieving cleaner air and revise corresponding standards for them to a larger extent be aligned with recommendations from the World Health Organization (EC, 2019: 14). To protect the EU citizens from hazardous and potentially toxic chemicals, the Commission will come out with a Chemicals Strategy for Sustainability (EC, 2019: 15)²⁷. Based on the primarily indirect focus on health throughout the document, the European Green Deal is considered as having a low to medium level of support for health considerations.

3.20 Urban Agenda for the EU

The Urban Agenda for the EU was launched in 2016 with the Pact of Amsterdam (MEP, 2016) and represents a multi-level and transdisciplinary working method promoting cooperation amongst diverse stakeholder groups for sustainable urban development. The Urban Agenda was established to stimulate growth, liveability, and innovation in Europe (EC, 2022b) and aims to make cities safe and resilient, implementing SDG 11 (UN, 2022)²⁸. The Urban Agenda makes explicit reference to green infrastructure and nature-based solutions in the context of adaptation to climate change and disaster risk reduction (EEA, 2021).

In the Pact of Amsterdam (MEP, 2016), health is indirectly addressed through priority themes, including air quality, housing, and the sustainable use of land and nature-based solutions. Climate adaptation is also included, covering both social and ecological resilience. The theme “Sustainable use of land and nature-based solutions” emphasizes the importance of green urban areas for quality of life. In the Report from the Commission to the Council on the Urban

²⁷ “All parties including industry should work together to combine better **health** and environmental protection and increased global competitiveness. (...) The Commission will review how to use better the EU’s agencies and scientific bodies to move towards a process of ‘one substance – one assessment’ and to provide greater transparency when prioritizing action to deal with chemicals” (EC, 2019: 14).

²⁸ “The Urban Agenda for the EU also gives an important impetus to several other international agreements. This is particularly the case for the Agenda 2030’s Sustainable Development Goal 11 calling for “cities and human settlements” to be “inclusive, **safe**, resilient and sustainable” and other urban related goals” (EC, 2017: 3).

Agenda for the EU (EC, 2017), health-related issues are included in the general framing of the document. The Urban Agenda for the EU itself does not explicitly include many health-related keywords and is therefore considered as having a low level of support for health.

4 Gaps and opportunities

Building on the policy framework analysis, this chapter identifies opportunities and gaps for actions supporting the climate-health nexus in the areas of adaptation and mitigation. In addition, potential windows of opportunity are outlined regarding agenda setting on emerging overarching issues and advocacy on existing policy-making processes.

4.1 Climate change adaptation

The EU Adaptation Strategy already outlines a variety of climate-related health impacts and measures, which will be implemented via different instruments and tools. For example, the Climate-Adapt web platform serves as reference tool and knowledge resource for adaptation and will be further developed to boost knowledge exchange on good practices. Within its case study database, additional health-focused adaptation case studies could be added to highlight these synergies more strongly. New health-related institutions or platforms present opportunities for framing health-related adaptation, e.g. the Health Emergency Preparedness and Response Authority (HERA) and The European Climate and Health Observatory. Furthermore, the Horizon Europe Mission on 'Adaptation to Climate Change' is a still young process with a focus on urban adaptation implementation in at least 150 EU cities. While the Mission has already been launched and an implementation plan has been developed (EC, 2021f), upcoming related processes – such as setting up an Adaptation Mission Implementation Platform and developing indicators to monitor progress on adaptation - provide opportunities to strengthen the inclusion of health-related aspects, such as the (co)benefits of nature-based solutions.

Both the EU Adaptation Strategy and the EU Action Plan on the Sendai Framework for Disaster Risk Reduction 2015-2030 mention that there should be a better coordination of recovery operations from natural disasters that encourage the 'build back better' principle. For instance, funds and other necessary instruments should be immediately available when needed: "Dedicated funds and instruments, both at EU and national level, such as from the EU Solidarity Fund, can contribute to post-disaster emergency and recovery operations" (EC, 2021b). The EU Action Plan on the Sendai Framework further highlights that Structural and Investment Funds (ESIF) can be targeted for increased resilience of the health systems and infrastructure. The EU Resilience Approach is of particular interest in this context, calling for an increased preparedness and better response to a crisis or disaster. An interesting forum and target audiences could be reached via the European Forum for Disaster Risk Reduction, a multi-stakeholder forum to exchange experiences between governments and stakeholders, or the EU Health Security Committee, which was mandated to reinforce the coordination and sharing of best practice and information on national preparedness activities.

Risk management and disaster risk reduction related to floods are implemented via the EU Floods Directive and linked to the Common Implementation Strategy (CIS) of the Water Framework Directive, which focuses mainly on water quality. A key tool in this context are the river basin management plans, which are reviewed and updated every six years - also including mandatory public consultation processes. Furthermore, the Global Flood Partnership Network provides an opportunity for contributing to the development of effective global flood tools to

strengthen preparedness and response to reduce global damages. Bringing together scientists, operational agencies and flood risk managers, this multi-disciplinary partnership can provide a window for increasing health considerations within flood and DRR discussions.

The three analysed biodiversity policies present similar opportunities regarding a strengthened integration of health considerations via increased funding, research and implementation of nature-based solutions and green infrastructure. Specifically, ecosystem health and resilience are correlated with the ability to provide the ecosystem services essential for human health and well-being. Physical and mental health are explicitly targeted to differing degrees in this context, with further linkages to food systems, invasive alien species, water/soil/air pollution, and infectious diseases/pandemics scattered throughout the documents. Given the foreseen impacts on all of these topics due to climate change and thus on human health, the potential to harmonise their framing and inclusion across all three policies and their actions should be considered. For example, the concept of One Health is acknowledged in the context of reducing the chances of another global pandemic, but is largely lacking in terms of the potential of e.g. nature-based solutions to jointly address both human, climate and ecosystem health. Potential venues for action include the Zero Pollution Stakeholder Platform and the Green Deal Going Local²⁹ activities within the Zero Pollution Action Plan for Air, Water and Soil.

Additional opportunities are presented by the Biodiversity Information System for Europe (BISE) and Nature Restoration Law review process. BISE is currently being adapted by the European Environmental Agency and can be targeted for strengthening the interlinkages between ecosystem resilience, human resilience, and nature restoration – not least within the pages on protected areas/Natura 2000, restoration and nature-based solutions. In addition, the proposal for a new Nature Restoration Law will be reviewed by the European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI) in January 2023, providing a strong opportunity to increase health considerations in the general framing and document text as well as within the conditions for the National Restoration Plans to be developed by the Member States.

Urban areas are at the centre of climate-health discussions, given that they face unique climate change related challenges (e.g. heat waves, floods, water scarcity and quality problems) and concentrated human health impacts. The potential of nature to mitigate and/or minimise these challenges is recognised in all three biodiversity policies as well as in the Urban Agenda, yet the human health-link could be further strengthened. The Urban Greening Plans to be developed by all EU cities with more than 20,000 inhabitants provides a strong opportunity to make these links more explicit and include measures to eliminate the use of pesticides and increase access to high quality green spaces (including urban forests, parks and gardens, farms, green roads, urban meadows, etc). While the Urban Agenda was adopted in 2016, new commitments provide fresh opportunities for increased inclusion of health. For example, a new thematic partnership on Greening Cities has also been launched in 2022 alongside the New European Bauhaus, which brings in cultural and human dimensions of green transformation. Furthermore, the European Commission promised to deliver a Strategy on a sustainable built environment as laid out in in the Circular Economy Action Plan II (CEAP), but this has currently been shelved and it is unclear if or when it will be pursued again in the future.

²⁹ https://cor.europa.eu/en/engage/Pages/green-deal.aspx?utm_source=SharedLink&utm_medium=ShortURL&utm_campaign=Green%20Deal%20Going%20Local

4.2 Climate change mitigation

The analysed urban mobility policies contain a reasonable level of support for active mobility. The Urban Mobility Framework and the SUMP Guidance are the most explicit in acknowledging the link between active mobility and fitness and health promotion. However, it is notable that the higher level policy documents - e.g. the Sustainable and Smart Mobility Strategy, the TEN-T network guidance, the European Green Deal, and the Climate Law - do not make this link, despite the central, and growing role of sedentary lifestyles as one of the biggest societal health problems. There is an understandable focus on accident prevention and road safety in most documents, but it is worth rebalancing the focus to more active health promotion as well. The mental health benefits of active mobility are not acknowledged at all, despite significant research indicating potential benefits in this area. Further work is thus still needed in terms of higher-level integration of the concept of active mobility as a promoter of health into broader EU policies. At the more detailed level, in the lower-level guidance documents, it is to some extent acknowledged, at least in the urban context. However, especially the Sustainable and Smart Mobility Strategy does not highlight this link sufficiently. There are no initiatives that have the physical or mental health benefits of active mobility clearly as a goal, and these goals should be given higher priority in future revisions of the strategy and its implementation.

The inclusion of health-related targets and the central role of active mobility in the SUMP guidance is clearly positive and can be broadly interpreted by cities. The main challenge now will be to ensure that as many cities as possible develop and implement SUMPs and are supported in this work by relevant funding instruments, for example under the RRF, cohesion and structural funds. Funding of other transport infrastructure could be linked helpfully to the successful planning and implementation of SUMPs. Member State engagement with SUMPs is also important to support the final implementation of these plans. It will also be important to ensure that projects developed under the TEN-T network maximise the provisions for safety and to integrate multi-modal options for active mobility as much as possible in their final implementation. The revision of the TEN-T Regulation offers an opportunity to align the development of the TEN-T network to the European Green Deal objectives and the climate targets of the EU Climate Law. The elements of active mobility could be more strongly integrated into the TEN-T legislation as binding elements of infrastructure design.

The analysed waste policies exhibit a low to moderate level of support for health. Many of them acknowledge the general impacts on human health of given waste-related processes or issues. In most waste mitigation-related policies which were analysed, the focus on health and safety naturally links to waste, considering the risks associated with the waste management and treatment processes. However, they either fail to explore specific aspects of physical and mental health or focus on only one aspect related to health. For example, the Extractive Waste Directive focuses heavily on the accidents associated with the waste management processes and the Batteries Regulation on the safety and health impacts of batteries. On the other hand, both the Landfill Directive and the Urban Wastewater Directive mention various health-related terms but in a very limited and superficial manner. Various aspects of mental health are completely absent from the waste policies analysed despite the impact that waste can have on mental health both in the Global North and the Global South regions associated with trade with the EU. Indeed, with the exception of one reference in the Circular Economy Action Plan, health-related impacts of waste exports to the countries in the Global South associated with the relevant value chains, are largely absent from the analysed policies.

As specified, the majority of waste policies analysed refer to the health impacts of waste management and associated processes highlighting the importance of reducing those impacts. However, it largely fails to acknowledge the importance of moving higher up the waste hierarchy

and the potential health benefits of rethinking our production and absolute reduction of resource consumption.

5 Recommendations for targeted advocacy

On the basis of the outlined analysis, the following recommendations have been derived to highlight key areas where the health narrative could be strengthened, not least to deliver health co-benefits.



The worsening climate crisis is rapidly contributing to emerging climate-related mental health issues, including the immediate impacts of and the future concerns about the state of the environment. While the importance of mental health and increase of 'climate anxiety' is widely recognised, particularly following the COVID-19 pandemic, the topic is grossly underrepresented in EU policies. Only the Biodiversity and Forestry strategies include mental health considerations, and it is worth noting that the following key terms did not appear in any of the reviewed policies: stress, depression, anxiety, mood, or wellness. ***Mental health needs to be explicitly considered alongside physical health within the framing and actions of EU climate policies, including in supporting funding schemes, guidance documents, and EU-funded research projects.***



Financing instruments are an important tool to leverage change and improve the resilience of health infrastructure and institutions across Europe. Of particular relevance are EU financing instruments such as the Structural and Investment funds (ESIF), New European Bauhaus, and the European Social Fund are suitable for supporting local and regional level health-positive actions. ***Funding requirements and incentives should target an increased implementation of sustainable climate adaptation actions, including nature-based solutions, climate-resilient urban areas and health infrastructure.***



The One Health approach is based on the understanding that health of humans, animals and the environment are closely linked, and has come to the forefront of discussions since COVID-19. The approach aims to foster interdisciplinary cooperations across multiple sectors, disciplines and communities across multiple governance levels. While a number of screened policies refer to the approach – e.g. the EU Adaptation Strategy - the potential to bring health into different arenas in response to current policy gaps in policy remains largely untapped. ***The interlinkages between ecosystem, human and animal health should be addressed and strengthened in e.g. Nationally Determined Contributions and national resilience, adaptation and disaster risk reduction plans.***



Sedentary lifestyles are a significant contributor to the most pervasive chronic diseases and challenges in Europe today, including cardiovascular disease, cancer, and poor mental health. Building activity into daily routines has been shown to be one of the most important factors in overcoming sedentary lifestyles, with active mobility being an important part of this. Although the EU has made an active link between fitness and active mobility in its Guidance on Sustainable Urban Mobility Plans and the Urban Mobility Framework, this link has not been made in higher level mobility policy guidance and

the TEN-T network guidance. This could have important implications outside of urban areas and in terms of national uptake of active mobility. ***The EU should integrate active mobility and its link to fitness as a more central feature in its high-level mobility policy documents to contribute to a more holistic, preventive effort to improve health across all regions of the EU, as well as to climate action.***



Sustainable Urban Mobility Plans (SUMPs) contain the tools necessary to promote active mobility for health and fitness, including encouragement to set health related goals. Yet not enough cities have adopted SUMPs due to a lack of support structures at national level, lack of direct funding and capacity building, and institutional awareness. ***Further support is needed for integration at national level, as well as continued and expanded support from the European Commission to encourage the wide adoption of SUMPs should be encouraged in as many cities as possible.***



The overarching link between human health and waste management is present across different policies. However, it emphasises the prevention and reduction of health-related impacts of the currently existing waste management practices such as waste treatment and landfilling. In order to bring about environmental benefits while also reducing the health impacts of waste in general, ***there is a need to more strongly focus on the mutually reinforcing benefits of moving higher in the waste hierarchy towards rethinking our production and absolute reduction of resource consumption.***



Some of the analysed policies consider the health and safety of workers, yet the emphasis in the context of supply chains appears to be concentrated at the European level despite many of the health issues being primarily present in the Global South. ***A full consideration of the health and climate nexus should consider the global impacts of EU climate-related policies.***



A number of network and initiatives already exist which focus on health and climate, such as the German Alliance on Climate and Health (Deutsche Allianz Klimawandel und Gesundheit, KLUG) which has the aim to raise awareness about the health impacts of climate change and needed surrounding societal transformation. KLUG recently also initiated the movement “Health for Future”. ***Fostering targeted exchanges, capacity building opportunities, and joint initiatives with these networks would bring more weight to the integration of the health-climate-environment nexus within global discussions and support a more centralised pooling of evidence and resources.***

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Annex

Table 3: Number of times keywords were explicitly included in the reviewed policies

Policy/keyword	health	well-being	heat	lifestyle	active	safe(ty)	accident	welfare	death	injury / injuries	drinking water	toxic	obesity	infectious	contamination	ageing
European Climate Law	9	2	2	0	0	1	0	1	0	0	0	0	0	1	0	0
Methane Strategy	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EU Adaptation Strategy to 2030	18	2	6	0	0	4	1	0	2	1	3	0	0	1	1	0
Action Plan on the Sendai Framework for Disaster Risk Reduction	21	1	0	0	0	5	8	0	0	0	0	0	0	2	0	0
EU Forest Strategy for 2030	23	3	1	0	0	0	0	1	0	0	1	0	0	0	0	0
EU Biodiversity Strategy for 2030	37	3	1	0	0	1	0	1	0	0	0	1	0	2	3	0
Proposal for a new Nature Restoration Law	25	3	1	0	0	3	0	0	0	0	0	0	0	0	0	0
Floods Directive	7	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Circular Economy Action Plan	3	1	0	0	0	10	0	0	0	0	2	1	0	0	3	0
Waste Framework Directive	23	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0
Landfill Directive	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extractive Waste Directive	24	0	0	0	0	21	49	0	0	0	0	1	0	0	1	0
Battery Regulation	28	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0
Urban Wastewater Treatment Directive	1	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0
Sustainable and Smart Mobility Strategy	13	3	0	0	2	21	0	0	2	2	0	0	0	0	0	0
Revision of the trans-European transport network guidelines	5	0	0	0	3	35	3	0	0	0	0	0	0	0	0	0
Urban Mobility Framework	7	2	0	1	21	20	0	0	2	4	0	0	0	0	0	1
Sustainable Urban Mobility Plan Guidance	38	3	0	1	14	40	10	0	7	0	0	0	0	0	0	0
European Green Deal	13	2	0	0	0	4	1	0	0	0	0	3	1	0	0	0
Urban Agenda for the EU	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0

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