

# For a Systematic Integration of Environment and Health

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**SUMMARY** | June 2023



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*This publication is based on a special report published by the German Advisory Council on the Environment (SRU) in June 2023. The full reasoning, further details and extensive references can be found in the German-language long text version (“Umwelt und Gesundheit konsequent zusammendenken”).*

# Summary

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Most people are aware that we are living in a time marked by different environmental crises. These include, in particular, biodiversity loss, climate change and excessive inputs of harmful substances. However, what many people do not realise is that an intact environment is a basic prerequisite for human health and well-being. Environmental protection can therefore also prevent disease and promote health. And when ecological boundaries are exceeded, this also has significant health impacts. Despite recent heat waves, droughts, heavy rainfall events and the COVID-19 pandemic, policymakers and society still do not take this connection seriously enough. The multiple environmental crises lead to fundamentally new systemic demands on politics and society and require profound change. In the upcoming transformations facing humanity and the planet, for example of the transport, energy, agricultural and food systems, as well as the measures for climate adaptation, it is important that opportunities for health be included and made use of consistently in all considerations. Integrating health in all policies (HiAP) requires cooperation between different scientific disciplines and sectors.

In Europe, about 15 % of deaths can be attributed to environmental risk factors. In Germany, too, many people continue to be affected by environment-related diseases—despite great progress in health-related environmental protection. For example, the European Environment Agency (EEA) has estimated that 28,900 attributable deaths in 2020 were due to exposure to particulate matter. Moreover, such exposure and the resulting diseases are often distributed unevenly in society. This also applies to access to nature, which is an important resource for human health and well-being.

People have a right to living conditions that enable health and well-being. Whether they are able to achieve or uphold these conditions also depends on political decisions that are made outside of the environmental or health departments. It is therefore important to use the potentials to be found in all sectors to protect the environment and health. In order for the health dimensions of environmental protection to be integrated more strongly than before into relevant policy decisions, various

legal and political measures are necessary (Fig. 1). The German Advisory Council on the Environment (SRU) has put forward a framework for orientation in this, its *Ecosalute Policy Guideline*.

## Environmental protection is also health protection

Leading a healthy life not only means treating diseases, but also preventing disease and promoting health. According to the Robert Koch Institute (RKI), 74 % of deaths in Germany are due to non-communicable diseases (NCDs). This means that non-communicable diseases, for example of the cardiovascular system, account for the majority of the burden of disease. What is more, such illnesses are often chronic and closely related to people's behaviour and living conditions. While people can change their behaviour themselves, changing living conditions is generally a matter for society as a whole and are very difficult for individuals to have any real impact on their own. Living conditions also include the diverse influences of the natural and built environment.

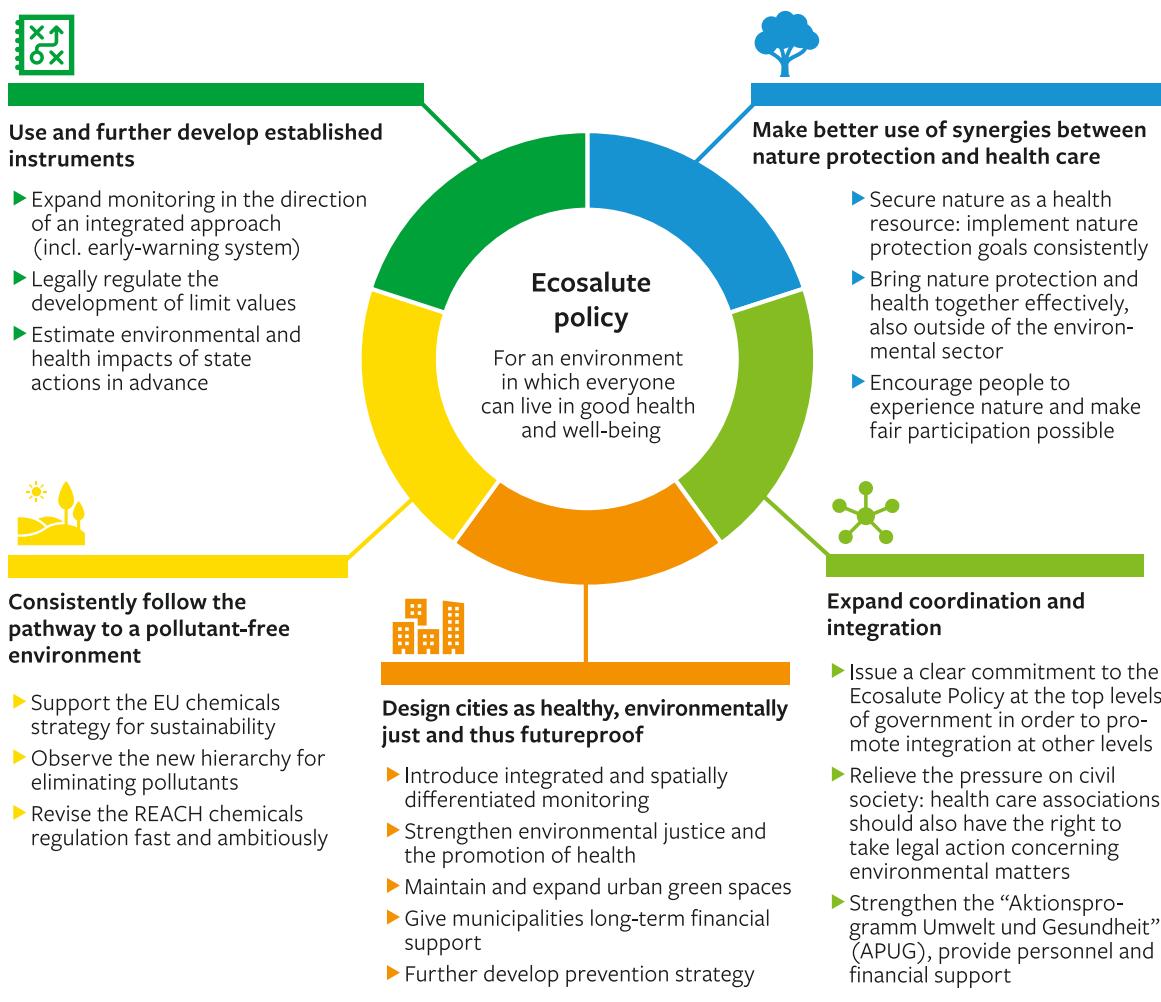
Air pollution caused by pollutants, in particular particulate matter—especially ultrafine particles—and nitrogen oxides, but also noise pollution, is of particular importance to human health. Climate change is associated with an increase in extreme weather events such as heat waves, which can also pose a threat to life and health.

Human exposure to pollutants has been decreasing for years, especially regarding substances that have been regulated for a long time, such as polychlorinated biphenyls and heavy metals. However, new pollutants are being released all the time and there is growing evidence that substances can also pose a health problem due to their persistence and ability to accumulate, such as per- and polyfluoroalkyl substances (PFAS).

Health-related environmental protection pursues two overarching goals: firstly, to protect people from environmental pollution and, secondly, to preserve impor-

o **Figure 1**

Overview of the recommendations for an ecosalute policy



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tant natural resources so that everyone can achieve better health and well-being in a self-determined manner.

## Environmental impacts also have a social dimension

Socially disadvantaged people in urban neighbourhoods often suffer above-average exposure to environmental pollution. These are mainly noise and air pollutants caused by road traffic. This is particularly problematic for population groups that are more susceptible to the

respective environmental impacts (e. g., small children, the elderly, people with pre-existing conditions). In addition, socially disadvantaged neighbourhoods often don't have enough high-quality inner-city green spaces and bodies of water. As people only have limited capacity to shape their environment in a way that is conducive to health, it is up to policymakers and people in the political arena to create healthy and fair environmental conditions for everyone.

The normative guiding principle of environmental justice provides orientation for policymakers and the administration. Environmental justice is concerned with

avoiding and reducing the socio-spatial concentration of health-relevant environmental burdens and ensuring equitable socio-spatial access to environmental resources. In order to achieve these goals, two dimensions of justice are focused on. Firstly, environmental justice refers to questions of distributive justice, i. e., how health-relevant environmental resources and risks are distributed across society and spatially. Secondly, it also raises questions of procedural justice, i. e., the extent to which those affected are involved in health- and environment-related political and administrative processes. When policymakers and the administration increase environmental justice, they improve the health opportunities of all people and contribute to ensuring that no one is disadvantaged because of where they live or their social situation.

## Scientifically quantify health impacts for political action

The impacts of environmental pollution on health are quantifiable. Diseases, injuries and risk factors limit the number of years that people live in good health. The concept of the environmental burdens of disease makes it possible to link and statistically evaluate environmental and health data. The methodology not only makes visible environment-related health burdens, but also shows what health gains can be achieved through environmental protection measures. Health gains also pay off in economic terms by saving medical care costs and reducing absenteeism in education and working life. Quantifying environmental health impacts can support policymaking and policy implementation. The data obtained from this can help, for example, to prioritise measures and use limited resources effectively.

## Examples of health-related environmental burdens

There are a number of health-related environmental burdens that should be urgently reduced. In the following, four selected examples are discussed that are highly significant for health: Particulate matter in outdoor air, antibiotic use in animal husbandry, PFAS and heat stress. These examples also show that very different sectors are responsible for health risks.

## High disease burden due to particulate matter

Although the European limit values are largely complied with in Germany, particulate matter in the outdoor air causes the highest environment-related burden of disease. Particulate matter contributes to respiratory diseases and can also affect other organs and organ systems such as the cardiovascular system. Particular attention is paid to the smallest particles, ultra-fine dust. This can penetrate particularly deeply into the human body and cause various negative effects on health. So far, there is no separate limit value for ultrafine dust. The main sources of particulate matter are traffic and combustion processes in industry and households. The highest pollution levels are measured in places close to traffic, mostly in cities. To improve air quality, therefore, measures must be taken that are aimed specifically at the transport sector. People must be encouraged to walk and cycle more, and to use public transport more, by making this easier. In addition, motorised traffic in the city should be reduced and decelerated. It is also recommended that the European particulate matter limits be brought more into line with the current recommendations of the World Health Organisation (WHO).

## Spread of antibiotic resistance through animal husbandry

The spread of antibiotic resistance is one of the major challenges facing health care both nationally and internationally. Resistance is making many bacterial infectious diseases increasingly difficult to treat, and we no longer have any active substances against some multi-resistant pathogens.

The excessive use of antibiotics in animal husbandry promotes the emergence and spread of resistant strains of bacteria. It is therefore important that the use of antibiotics in this area be further restricted. Transparent use of active substances and husbandry conditions that are in line with animal welfare will help. In addition, so-called reserve antibiotics, i. e., active substances that are used in humans when standard treatments fail, should not be used in animal husbandry. The contribution of animal husbandry to the development of antibiotic resistance highlights the relevance of the One Health approach, i. e., the need to consider the health of humans, animals and their environment together.

## Health risks of chemicals in the example of PFAS

People come into contact with a plethora of chemicals that can pose a risk to health. PFAS are a prominent example of this. More than 4,500 representatives of this group of substances are currently in use. They are used in a variety of products, for example as textile coatings, in fire-fighting foams or in food packaging. PFAS are generally difficult to almost impossible to degrade, accumulate in organisms and can now be detected in all environmental media and in humans. Individual representatives of the substance group have been shown to have a negative impact on human health, for example on fertility and the immune system of children. The use of individual PFAS, including their salts, precursor compounds and polymers, has already been restricted by the European Chemicals Regulation. However, this often leads those who use such substances to switch to similar compounds that have been insufficiently studied in

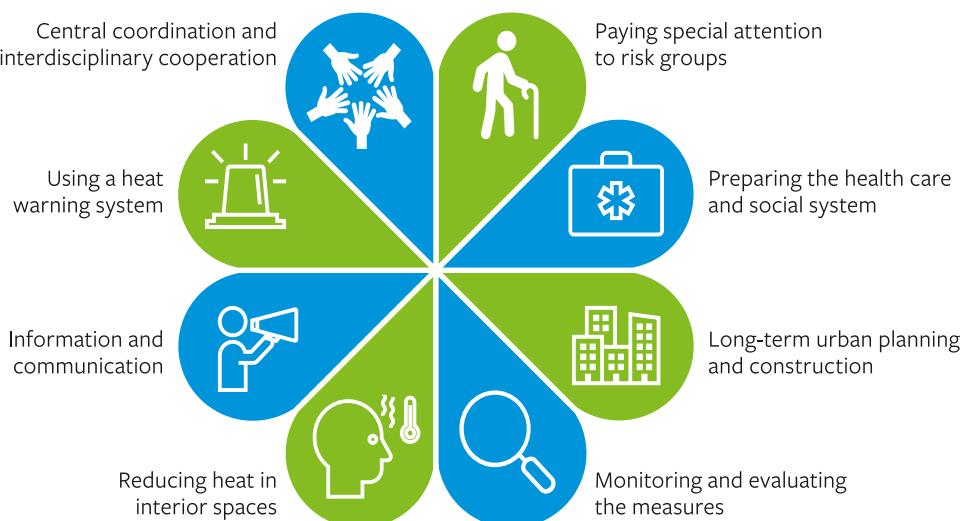
terms of their toxicology. This is why the SRU supports the proposal to regulate PFAS as a group of substances with the aim of restricting all non-essential uses of PFAS. Such a proposal was submitted by national authorities from five European countries to the European Chemicals Agency (ECHA) on 13 January 2023.

## Health effects of heat

Climate change is increasing the frequency and intensity of heat waves in Germany. In the summer of 2022, an estimated 4,500 people died from heat in Germany. High temperatures can cause illnesses such as heat exhaustion, heat cramps or heat stroke, but can also trigger or worsen respiratory, cardiovascular and kidney diseases. Pregnant women, children, the elderly, and the sick are particularly vulnerable. Homeless people and people who work outdoors have above-average exposure. Climate change mitigation and adaptation measures are effective ways to limit heat stress in the future.

Figure 2

Core elements of the WHO recommendations for the development of heat action plans



Heat action plans, which bundle different climate adaptation measures, are a central instrument in heat protection (Fig. 2). According to the Conference of Health Ministers, municipalities and the Länder (federal states) are to draw up heat action plans nationwide by 2025—taking into account regional specifics. The SRU supports this plan. The Federal Government can support municipalities and Länder by providing personnel and financial resources, advice and information, and by creating the legal framework for heat protection in Germany.

## Nature is a key resource for human health

Human health and well-being are fundamentally dependent on nature. Ecosystems not only secure the supply of food and other material goods, but they can also protect against environmental hazards and harmful environmental influences, for example floods or air pollutants. In addition, ecosystems with a high level of biodiversity can reduce the risk of the emergence and spread of certain diseases. These include, in particular, infections that can be transmitted by parasites such as mosquitoes, ticks or fleas. Contact with nature can also increase the diversity of microorganisms that colonise the human body. Taken together, these microorganisms form the human microbiome. Increasingly, scientific studies suggest that a diverse microbiome strengthens the human immune system. Spending time in nature can also trigger positive emotions, relieve stress and restore people's ability to focus and concentrate. What is more, spending time in green surroundings often involves physical exercise and positive interactions with others. Nature can thus promote physical, mental and social well-being in a number of different ways, which makes it an important health resource (Fig. 3).

## Make better use of synergies between nature conservation and health

The positive health effects of nature are threatened, among other things, by intensified land use and biodiversity loss. In addition, increasingly nature-estranged lifestyles mean that people have fewer opportunities to benefit from nature's health-promoting potential. Many environmental problems, such as climate change and chemical pollution, but also dietary patterns that rely heavily on animal products, can damage nature and

human health. Therefore, nature conservation often benefits human health as well, while environmental health protection often also serves nature.

## Safeguard nature as a health resource: Consistently implement nature conservation goals

The positive health effects of nature can only unfold in the long term if nature is effectively protected. Therefore, the German government should—also in the interests of human health—consistently implement global, European and national nature conservation goals. In 2022, the Kunming-Montreal Global Biodiversity Framework was adopted as an important global framework for the protection of biodiversity. At the EU level, the existing EU legislation on nature conservation, the EU Biodiversity Strategy for 2030 and the planned EU Nature Restoration Law are particularly significant for biodiversity protection. In addition, Germany has its own ambitious programmes to halt the loss of biodiversity, such as the National Biodiversity Strategy, the National Peatland Protection Strategy and the Natural Climate Action Programme. Implementing these strategies and goals at national level requires sufficient funding and human resources, among other things.

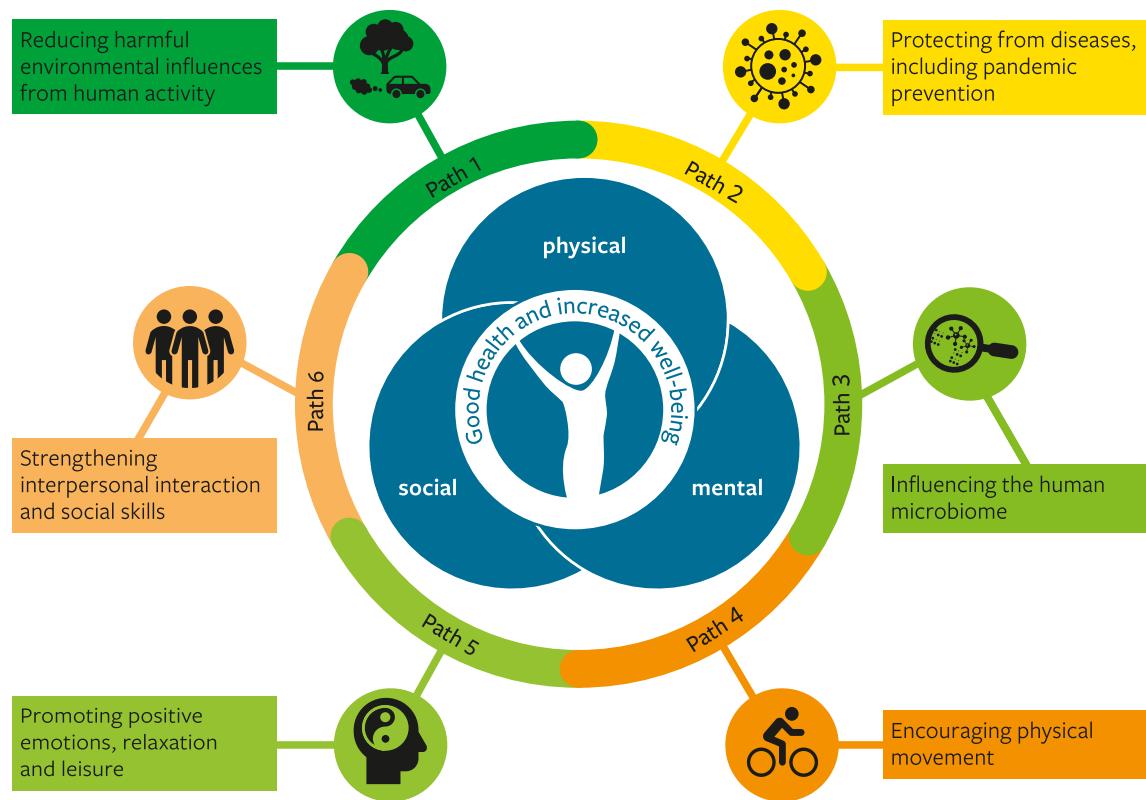
In order to restore impaired ecosystems, long-term and large-scale measures are often required. In coordination with the Länder, the Federal Government should urgently improve the enabling legal, financial and administrative conditions for this. Land should be made available, restoration measures taken should be legally secured in the long term and, where necessary, restrictions to existing rights of use should be financially compensated. Financial resources for more effective nature conservation could be tapped into by reducing environmentally harmful subsidies.

## Bring nature conservation and health together effectively outside the environmental sector

The positive health effects of nature should be given greater consideration in all relevant sectors. Among other things, there is a need to identify joint fields of action for nature and health protection in urban and landscape planning, agriculture and forestry, water

o Figure 3

Positive health effects of nature



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management and preventive flood management and other disaster risk reduction. This also applies in particular to climate protection and climate adaptation measures.

At EU level, it is essential for the conservation of biodiversity and its health-promoting potential that the Common Agricultural Policy (CAP) be given a stronger ecological orientation. To this end, the Federal Government should exploit the newly enabled national scope for further greening. In future, the CAP should also be used to financially reward or compensate for large-scale renaturation on agricultural land.

Internationally, it is also appropriate to link nature conservation more strategically with health concerns. For example, in addition to proven infection prevention

strategies (e. g., hygiene, control of animal vectors, restriction of wildlife trade), nature conservation and the associated preservation of biodiversity should be established as another pillar of pandemic prevention.

## Promote nature experiences and enable equitable participation

Many of the positive health effects of nature require people to experience it directly. Contact with nature should therefore be promoted even more intensely than before for people of all ages. This means expanding corresponding educational, leisure and recreational opportunities. It would be beneficial, for example, to create more spaces where people can experience nature and make these attractive for different user groups.

For nature experiences to potentially benefit everyone, it is necessary that green spaces and water bodies be close to home, i. e., created in all urban neighbourhoods. These green spaces should be easily accessible and of high quality. Outside cities, near-natural ecosystems and diverse cultural landscapes are of supra-regional importance for experiencing nature. They should be preserved and managed in a way that promotes biodiversity, also to the benefit of human health.

## The *Ecosalute Policy Guideline*—A Framework for Environmental Health Policy

If the challenges described above are to be addressed, health-related environmental policy needs a framework for orientation. In the course of its history, health-related environmental policy has produced a great number of concepts, guiding principles and ideals, some of which have been formulated openly and explicitly and some of which have implicitly underpinned political action. These provide us with important insights into the relationship between environment, health and society, so it makes sense to link them together. To this end, the SRU has formulated some new guiding principles, which are outlined in its *Ecosalute Policy Guideline*, which is a core element of this report. The word “ecosalute” is derived from the ancient Greek “oikos” (meaning “house”), as in “ecology”, and from the Latin “salus” (meaning “health”).

The *Ecosalute Policy Guideline* vision builds on central ideas expressed in existing concepts such as One Health, EcoHealth or Planetary Health. At its core, it aims to create an environment in which everyone can live well and in good health. To this end, the mission statement includes the following principles:

- *Environmental protection is a prerequisite for health and freedom:* If people are to live their lives in freedom and dignity, they not only need a free, democratic and socially just society, but also an environment that supports their health in the best possible way. Access to a clean, healthy and sustainable environment is recognised as a universal human right. Health-related environmental policy in Germany should work to ensure that this right becomes a reality for all people in the Federal Republic, in Europe and worldwide, as well as for future generations.
- *Protection of the local and planetary environment:* Human health is influenced by the environmental conditions with which it is in direct interaction. Health-related environmental policy therefore begins with protecting the local environment. However, as this local environment is also influenced by environmental changes at the planetary level, health-related environmental policy must also ensure that planetary boundaries are respected.
- *Environment as a risk and an opportunity for health:* Environment-related disease prevention is based on the idea that health must be protected from harmful environmental influences. In addition, however, the positive influences of the natural and built environment must also be reinforced. Environment-related disease prevention and environment-related health promotion complement each other.
- *Nature as a health resource:* Humans are connected to other organisms (e. g., plants, animals and micro-organisms) and the ecosystems in which and through which they live. Their preservation is crucial to protect and promote human health.
- *Health-related environmental policy for all:* The state of the environment has an impact on health equity, and people are different in terms of their vulnerability to harmful environmental influences. In addition, a person’s socio-economic resources and privileges influence the extent to which they can protect themselves from harmful environmental influences and cope with the consequences of these. The goal of health-related environmental policy should therefore be to create living conditions that are as safe and health-promoting as possible for all people.
- *Health-related environmental policy with all:* Health-related environmental protection is the task of the state and policymakers. However, the levers that can make the environment healthier often lie outside the environmental department. Health-related environmental protection must therefore be a central concern of all policy areas and levels. Policymakers in all sectors should set appropriate framework conditions for an environment- and health-friendly life and economy. A healthy environment for all can only be achieved working together with civil society.

## Apply and further develop instruments for an ecosalute policy

In health-related environmental protection, a number of important instruments have been established over the decades to identify, monitor and reduce environmental pollution. These include, in particular, monitoring, setting limit values and assessing the impacts on the environment and on human health. These instruments have proven their worth but must be continuously developed. Further instruments and measures that can serve to translate the *guiding principles of ecosalute policy* into practice are presented below in each case by topic. This concerns the fields of action—sustainable chemicals policy, environmental and health-related urban development and health-related environmental protection—as a cross-cutting political task.

Monitoring serves in particular to identify and observe risks and to check the effectiveness of protective measures. It should be further strengthened and developed into an integrated system that identifies risks at an early stage. To this end, it is helpful to establish new technologies such as non-target screening (NTS). In addition, results from different monitoring programmes should be brought together to a greater extent, for example to detect multiple impacts such as noise and air pollutants earlier and better than before.

Limit values give concrete form to qualitatively defined standards of protection, such as “harmful environmental effects”, in laws. They simplify and standardise administrative action on health-related environmental protection. When limit values are set, the state of scientific knowledge must always be evaluated and taken into account. At the same time, however, the setting of limit values must be democratically legitimised if it is to serve to firmly establish legally anchored protection and precautionary requirements. Accordingly, limit values are created in a knowledge-based process in which scientific and technical knowledge, the handling of uncertainty and political considerations of reasonableness and proportionality are taken into account. However, all this takes place largely in a “black box”. Legal procedural regulations could ensure that the procedures for setting limit values always meet the necessary requirements of transparency and participation, and that they are in line with the scientific state of the art. These regulations should be laid down in the respective sectoral laws or in an overarching “standard-setting procedure law”.

In order to predict the health impacts of an environmental intervention, data on the vulnerability of the affected local population groups, the existing multiple exposures and mixed exposures, and the socio-spatial situation are necessary. Environmental assessments, especially the Strategic Environmental Assessment (SEA) and the Environmental Impact Assessment (EIA), should place a greater focus on these health-related factors. However, to ensure that their efforts remain proportionate, the amount of data to be collected should depend on the type of project, population density or special circumstances of the individual case. The data could be taken into account in planning and licensing procedures where there is scope for assessment, discretion or consideration, or where indeterminate legal concepts are applied that are not specified by limit values.

Ideally, a regulatory impact assessment should support knowledge-based policy action and enable social actors to participate in the drafting of legislation. For this purpose, regulatory impact assessment must already take place in the drafting phase and be publicly documented and discussed at an early stage. The Federal Government should therefore already apply impact assessment to draft bills. In the medium term, regulatory impact assessment should be further developed along the lines of the EU’s impact assessment procedure.

## Sustainable chemical management for reaching a pollutant-free environment

Along with climate change and biodiversity loss, the pollution of air, water and soil is one of the major environmental crises of our time. In its action plan “Towards Zero Pollution for Air, Water and Soil”, the European Commission has therefore placed protection against environmental pollution on an equal footing with protection against the consequences of climate change and biodiversity loss. Chemicals play a central role in harmful substance inputs. For Germany and Europe, environmental observations and environmental surveys show that humans and the environment are exposed to various chemicals, both old and new. At the same time, the production capacities of chemicals in Europe and especially worldwide are growing unabated. If we want to move towards a pollutant-free environment, then we must go down new paths in the direction of sustainable chemistry.

## Focus on inherently safe and sustainable chemicals

To this end, in October 2020 the European Commission proposed a new toxic-free hierarchy in its Chemicals Strategy for Sustainability (Fig. 4). This hierarchy focuses primarily on inherently safe and sustainable chemicals and consistently pursues the goal of minimising the use of substances that are hazardous to health and the environment. This approach is also an important basis for the EU's circular economy policy. The SRU welcomes this new orientation. Such a framework for the development of inherently safe and sustainable chemicals is particularly important for Germany as a country with a strong chemical industry. The example of PFAS emphatically shows that a more precautionary design for regulating chemicals is necessary to achieve the goal of a toxic-free environment.

## Rapid and ambitious revision of the REACH chemicals regulation

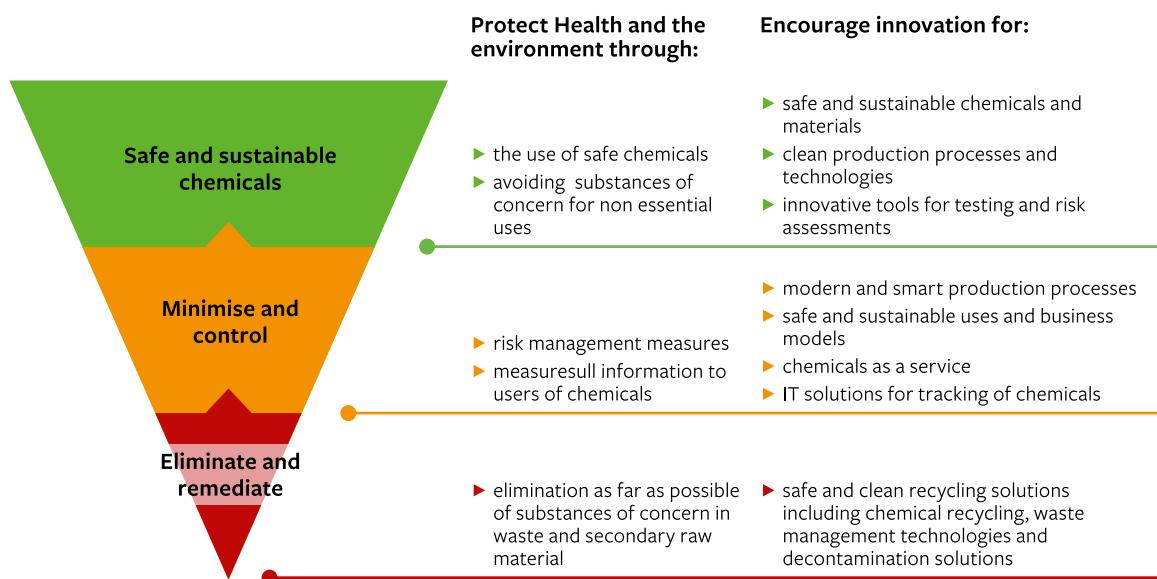
The Chemicals Strategy for Sustainability provides, inter alia, for a revision of the REACH European chemicals

regulation and contains a number of proposals in this regard. For example, it recommends tightening the sanctions for companies that do not submit the required registration dossiers in compliance with the regulation. In addition, it recommends extending the so-called generic approach to further groups of substances with properties hazardous to health and the environment. This means that the procedures for restricting the use of these substances can be carried out more quickly and easily. There are to be exemptions for essential uses that are necessary for health, safety or the functioning of society. In addition, the criteria for the group of substances of very high concern that may be subject to authorisation are to be extended to include further hazardous properties. Last but not least, it is proposed that a supplementary assessment factor in the evaluation of chemicals be introduced that takes greater account of the environmental and health risks posed by the occurrence of mixtures of chemicals in the environment.

The SRU supports these recommendations. They are necessary to overcome the large information deficits in the registration of chemicals and to improve the precautionary and efficient assessment of chemicals as well as the assessment of the environmental and

oFigure 4

The new toxic-free hierarchy in chemicals management



Source: European Commission 2020e, p. 5, modified

health risk from mixtures of chemicals. The Federal Government should therefore support the planned revision of REACH within the framework of the European legislative process and press for rapid implementation.

## Cities as hubs of a health-related environmental policy

Around two thirds of the people in Germany live in cities, half of them in cities with more than 100,000 inhabitants. Particularly in large cities, environment-related health burdens such as heat, noise or air pollutants are more relevant. In addition, many cities lack health-promoting resources such as green spaces or bodies of water close to where people live. Moreover, environmental pollution and environmental resources in cities are often socio-spatially unevenly distributed. This can result in different health opportunities. People who live in socially disadvantaged neighbourhoods also have lower life expectancy on average for these reasons. At the same time, however, cities are central to sustainable development because of their high population density and economic power, and they offer opportunities to create living environments that promote health and environmental justice. To make this happen, the federal and state governments can support cities and municipalities by establishing the appropriate framework conditions.

## Strengthen health-related environmental protection and environmental justice in urban planning

Municipalities with more than 100,000 inhabitants and a population density of more than 1,000 inhabitants per square kilometre should be obliged to set up spatially differentiated and integrated, action-oriented monitoring of environment, health and social situation, and also receive the necessary support for this. In addition, it would make sense for the federal and state governments to provide the public health service with sufficient resources in the long term so that local health departments can play a more active role in urban planning processes. This also includes drawing up a sectoral health plan (Fachplan Gesundheit) in order to introduce their own objectives with a local reference from a health-related perspective. A healthy environment is not only

developed for the city's inhabitants, it must also be planned with them. Participation is therefore an essential element of integrated urban development planning. It is important to actively include the interests of all population groups in formal and informal public participation. Further recommendations of the SRU relate, among other things, to anchoring the aspect of environmental justice more strongly in different kinds of German planning law and in environmental assessments. Furthermore, the SRU recommends improving the organisation and cooperation at federal and state level on the topic of "environment and health, taking social aspects into account".

## Maintain and expand urban green spaces

Green spaces—as green infrastructure—are an important addition to the built infrastructure of a city. They are of great importance for the health and quality of life of city inhabitants. It is therefore necessary that green spaces be maintained and further developed. However, this need coincides with an increasing demand for housing. When new housing is built as part of redensification measures, this often happens at the expense of urban green spaces. However, if new housing is built on the outskirts of the city, the urban space expands even further, affecting peripheral urban ecosystems and soil functions. The concept of what is referred to as "double inner development" (doppelte Innenentwicklung) aims to develop land reserves in existing settlements towards building on the one hand, and green and open spaces on the other. This means that urban land potential such as gaps between buildings, brownfield sites or opportunities in the existing building stock can be used, for example, to create living space. At the same time, green spaces such as parks or landscaped squares with a lot of greenery should be preserved and qualitatively upgraded (in a multi-functional manner) and, if possible, connected to one another.

In order to support municipalities in maintaining and expanding green spaces, the Federal Government should further advance urban planning law. The SRU recommends developing a "green space ordinance" (Grünraumverordnung) together with the Länder and municipalities that is based on research findings. An ordinance of this kind could contain benchmarks for the design of green spaces, for example with regard to quality or accessibility. It could more clearly specify

undefined legal terms, support green space development in local urban planning considerations and guarantee a minimum level of green infrastructure even in socially disadvantaged neighbourhoods. In addition, the Federal Government should adapt planning law. The development plan is not only suitable as an instrument for developing the built but also the green infrastructure of a city. Due to its interdisciplinary and at the same time binding character, it is an excellent tool for preserving existing green spaces as far as possible and for setting in motion a trend reversal towards further expansion of the green infrastructure. Development plans can be prepared through cross-city green space concepts in land use plans. The advantage of land use planning is also that it can incorporate contributions from existing sectoral planning, such as local landscape planning, stormwater management planning, clean air planning or climate adaptation planning, which is planned for the future. Therefore, the federal legislator should make it easier for municipalities to draw up development plans that serve green space development. In urban areas for which no development plan exists, green and open spaces should only be allowed to be built on if a sufficient supply of green spaces continues to be ensured for the area. The SRU therefore recommends that the Federal Government adapt Section 34 (1) of the Federal Building Code (BauGB) to the challenges of green space development and specify it with the help of orientation provided by the aforementioned Green Space Ordinance.

## Introduce the joint task of climate protection and climate adaptation

The SRU welcomes the fact that the Federal Government is providing financial support to municipalities to address the major challenge of climate adaptation. However, care should be taken in the funding programmes to ensure that funds are also made available for staff. Furthermore, with regard to the provision of green space and urban water bodies, funds are not only required for their creation, but also for their maintenance and upkeep. It is therefore preferable to have a steady funding system that improves planning security for the municipalities. It would make sense to create “climate protection and climate adaptation” as a new joint task area for this purpose. This is also supported by the fact that, especially in the area of climate adaptation, there is a need for greater cooperation between the Federal Government, the Länder and the municipalities in terms of content and procedures.

## Strengthening the lifeworld approach through the Prevention Act

The Prevention Act is an important approach towards strengthening prevention and health promotion. It focuses on the living environments, in particular the social spaces where people live, learn and work. The law lays the foundation for the development of a comprehensive prevention strategy. In the further development of the strategy, the potential of situational prevention, which serves to create healthy living and working conditions, should be better utilised. More clearly than before, all those responsible must be involved in and committed to joint action. For example, actors from the fields of environment, health, social affairs and urban planning should be more closely involved in developing the prevention strategy further.

## Health-related environmental protection as a cross-cutting political task

Health-related environmental protection requires integrative approaches that can bridge different policy fields and departmental boundaries. For this, the challenges and the conditions for the success of policy integration must first be considered.

## Expand coordination and integration

Experiences with the HiAP approach and environmental policy integration point to several barriers to integration in practice. The strong institutional differentiation across different policy levels and fields makes policy integration difficult, because the professional responsibility and self-interest of each individual institution lead to silo thinking and bureaucratic competition. In addition, it is fundamentally difficult to adequately depict and deal with multi-layered problem contexts institutionally. This requires a broad awareness of health-related environmental risks, especially in the ministries and authorities that regulate the risk-causing sectors.

Integrative health-based environmental protection is based on three conditions for success. First, a clear

commitment by policymakers promotes inclusive approaches at all policy levels. Second, adapted institutional responsibilities can strengthen health-related environmental protection. For example, the control of environmental regulations should not lie exclusively with authorities from the sector causing the pollution, but also with environmental authorities. Thirdly, political pressure from civil society supports policy integration. The SRU therefore recommends extending the rights of associations to sue under environmental law to associations that advocate for the protection of public health.

## Strengthening the “Aktionsprogramm Umwelt und Gesundheit”

The Aktionsprogramm Umwelt und Gesundheit (APUG (Action Programme Environment and Health)) could function as a central instrument to coordinate health-related environmental protection at federal level. For this reason, it should be significantly strengthened. So far, the institutions involved in APUG have no resources specifically designated for this purpose. The SRU recommends a clear political commitment to APUG, which must also be reflected in financial and human resources. In addition, the new interdepartmental transformation team for “Human Wellbeing and Capabilities; Social

Justice”, which was created within the framework of the German Sustainability Strategy, should contribute to the integration of the topics of environment and health. Finally, APUG’s communication activities can make an important contribution to improving public knowledge about the elementary connections between environment and health. The SRU therefore advises that the existing information and communication activities as well as the public relations work of APUG be expanded, especially in the digital field.

## Conclusion

Environmental protection has always served human health. In view of the current crises, people’s dependence on an intact environment is becoming increasingly clear. It is not only a matter of preventing pollution of the environment, which can also endanger people. It is also important that we pay greater attention to the role that nature plays in our health and well-being. Policymakers and society need to rethink approaches to these issues and recognise how strongly human health and the environment are interconnected. Only if political action in all relevant departments and at all levels takes greater account of this connection will it be possible to design an environment that enables health and well-being for all. To achieve this, the social dimension of health-related environmental protection must also be given more attention.

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