WBGU

German Advisory Council on Global Change

Planetary Health:
What we need to talk about

The COVID-19 pandemic has shown us how vulnerable we are and how closely connected we are with Nature. Health cannot be taken for granted. Do we take the prerequisites for healthy living seriously enough? Or are we, as a civilization, systematically jeopardizing our health?

Healthy people as part of a healthy planet Earth

In recent decades, as prosperity has increased, human health has improved worldwide; yet not everyone has benefited. In poorer population groups, infectious diseases and maternal and child mortality still cause a great deal of avoidable suffering. Increasingly, however, the gains in prosperity are themselves having a negative impact on health: on the one hand as 'too much of a good thing' through the overconsumption of food and the displacement of physical activity from everyday life, on the other as harmful side effects in the form of air pollution and environmental toxins. As a result, lifestyle diseases such as overweight, diabetes, cardiovascular and respiratory diseases are on the rise worldwide.

Last but not least, our resource-intensive way of life, with its immense emissions of greenhouse gases, the destruction of natural habitats and increasing pollution of land and sea, has led to a planetary crisis. It threatens the natural life-support systems on Earth and thus the health of all people. Heat waves, disastrous floods and pandemics drastically demonstrate to us that our society is dependent on functioning ecosystems and a stable climate. The planetary crisis could furthermore threaten the cohesion of our societies and overburden healthcare systems.

But the crisis also gives us an opportunity to rethink our idea of prosperity and progress, to break habits and make our societies fairer, more sustainable and healthier. Because the increasing environmental and health problems often have common roots, synergies can be found in approaches to solving them. We are at a crossroads. Society, business and politics must assume responsibility and initiate a comprehensive transformation that leads to healthy human life on a healthy planet.

The WBGU is currently working on the interconnections between health and global environmental change and would like to put forward three assertions and ten sets of questions for discussion.

1 Our lifestyle is making us ill and is destroying the planet.
2 Healthy people can only exist on a healthy planet.
3 We must initiate a civilizational transformation for planetary health.

Key questions for planetary health

Healthy relationship between humans and Nature

The World Health Organization defines health not only as the absence of disease, but also as a person's complete physical, mental and social well-being. Health concepts that are even broader, such as One Health, EcoHealth and Planetary Health, additionally emphasize the degree to which the health of all organisms is interconnected and the importance of global ecosystems as a fundamental precondition for healthy living. After all, the air we breathe, the food we eat, the water we drink and the biodiversity that surrounds us all determine our health. As living beings, we humans are an inseparable part of Nature and, despite all technical achievements, we are ultimately dependent on it. This realization is not reflected in our economic practices and lifestyle. A new relationship with Nature based on an understanding of our deep interconnectedness, is a key to sustainability.

- What might a healthy relationship with Nature look like?
- How do we achieve a shift in attitudes in order to reach a fundamentally different way of dealing with Nature?

Healthy planet

Humans have altered 77% of the land surface and 87% of the oceans, causing a massive extinction of species. We have triggered a progressive change in the global climate by burning fossil fuels and by our intensive cultivation of soils and forests. We are endangering biodiversity, ecosystems and their services, and thus also human health. More heat waves and flooding, land degradation and water shortages are making whole regions increasingly uninhabitable. This results in damage to both physical and mental health, for example through the loss of the familiar social environment, through flight and migration. A phase-out of fossil-fuel use and the creation of adequate refugia for self-sustaining biodiversity covering 30-50% of the Earth's surface are urgently needed.

- How can we combine climate protection, adaptation to climate change and biodiversity conservation with health protection?
- How do we deal with the limits to how far we can adapt to environmental change – up to and including uninhabitability?

Healthy societies

All over the world, socially disadvantaged people and those living in poverty are exposed to particularly high health risks, and these risks are further exacerbated by global environmental and health crises. Currently, the number of people living in poverty is rising again worldwide due to the COVID-19 pandemic, violent conflicts and climate change. However, combating poverty alone is not enough to strengthen a society's resilience to environmental and health risks. In fact, it is the unequal distribution of wealth, access to social, educational and healthcare systems, and political rights that threatens social cohesion and resilience and thus exacerbates health risks. Healthy societies require transformative global structural policies that reduce inequalities, systematically promote social cohesion and enable sustainable development for everyone.

- How can our societies be shaped in such a way that health-promoting and sustainable living conditions become possible for everyone?
- What are the specific challenges for vulnerable groups, especially in low- and middle-income countries?

Healthy food systems

The way we produce food and feed ourselves destroys natural habitats and biodiversity, pollutes air, water and the soil, generates greenhouse gases, is cruel to animals and also directly harms our own health – e.g. by increasing resistance to antibiotics, via nitrates in groundwater and as a result of malnutrition. On the one hand, 800 million people are suffering hunger and 2 billion are lacking micronutrients; on the other hand, 2 billion people are overweight – causing a range of diseases. A more plant-based diet following the recommendations of the 'Planetary Health Diet', with lots of vegetables, fruit, nuts and legumes and little meat, brings numerous benefits: for human health, animal health, climate protection and biodiversity conservation. The potential of organic agriculture that values ecosystem services and produces varied and healthy foods is far from exhausted.

- What framework conditions are needed and what barriers must be overcome in order to initiate a food-systems transformation for sustainability and health?
- What role should multinational agricultural and food corporations play in the transformation of food systems? What is the role of smallholder farmers?

Healthy healthcare systems

Lifestyle-related chronic diseases today account for the biggest burden of disease in most countries. Poverty-related infectious diseases remain common in low-income countries, leading to a double burden on healthcare systems. In many places, these systems are underfunded, understaffed and fail to provide basic healthcare services, especially in rural areas. At the same time, resilient healthcare systems are needed to address the health consequences of the climate crisis and to combat epidemics effectively. The health sector's environmental impact should also be reduced. In the meantime, the growing profit orientation in healthcare systems leads not only to unmet needs in some areas, but also to unnecessary medical interventions and high workloads. This comes at the expense of the people who work in the system as well as those who are treated within it. Strengthening health promotion and prevention could not only avert a great deal of human suffering, it would also be more cost-effective overall and more resource-efficient than the prevailing 'repair mentality'.

- How can incentives be created in the healthcare system to give greater priority to health promotion and prevention?
- What does a health-promoting, environmentally friendly and resilient healthcare system look like? How can access be provided to all people worldwide?

Healthy living environments

Most of today's cities are designed in a way that promotes heat islands, air pollution and physical inactivity. Furthermore, urban areas are key to overcoming the planetary crisis because of their high demand for resources and energy. An additional 2.5 billion people will be living in cities by the middle of the century. How this growth is shaped will determine whether a sustainable future is possible. The way we plan, build and redevelop cities – and rural areas – in the future will shape social structures, lifestyles and energy, water and mobility systems. In this process, nature-based solutions can combine the protection of climate, biodiversity (also in cities) and health. Locally adapted, more efficient water and sanitation concepts can reduce the incidence of water-borne diseases. Healthy living environments enable lifestyles that prevent the development of physical and mental illnesses and are associated with a smaller ecological footprint.

- How can our urban and rural living environments be transformed in such a way that health-promoting and sustainable lifestyles are the easier option for everyone?
- How can a networked form of spatial planning be implemented that gives Nature enough space and protects the environment for humans and biodiversity?

Healthy mobility

The transport sector is responsible for a substantial share of global greenhouse-gas emissions and energy consumption; it also leads to air pollution and land sealing. Private motorized transport contributes to physical inactivity and, together with local pollutant emissions and noise, is a major risk factor worldwide for heart attacks, strokes, diabetes, obesity, cancer and mental illness. A transport shift towards pedestrian- and bicycle-friendly mobility and the development and expansion of public transport systems linking urban and rural areas combines health protection with environmental protection. Case studies and locally adapted concepts exist, but have not yet been sufficiently implemented.

- How can changes in living conditions, health awareness and the built environment lead to climate- and health-friendly mobility behaviour?
- New virtual possibilities have partly replaced motorized and active mobility and changed social interactions – how can they be used in the long term for the benefit of health and the environment?

Healthy production and consumption patterns

Today's resource-intensive production and consumption patterns are major drivers of climate change and ecosystem destruction. At the same time, the way we run our economy has a significant impact on our lifestyles and health. Competitive pressure and stress characterize relationships at work and in everyday life. Health-endangering substances and materials harm employees and accumulate in the biosphere and the food chain. However, companies and consumers often fail to take sufficient responsibility for the environmental and health impacts of their actions – particularly in view of supply and value chains across borders.

- How can economic systems and material cycles be designed in such a way that ecological sustainability and human health play a central role?
- How can we ensure a precautionary way of handling new materials, potentially health-damaging substances or harmful radiation?

Policy for planetary health

The close relationship between health and the environment requires governance strategies, instruments and institutions that systemically dovetail these two legally protected goods. Civil society and businesses should also play an active role here. At present, while existing environmental policy and environmental law aim to protect health to some extent, e.g. in the control of air pollution and chemicals, some issues, such as adaptation to climate change, still receive too little attention. Up to now, environmental influences and damage have played a minor role in health policy and health law. Nor do development, economic or foreign policy address environmental and health protection systematically, let alone systemically. To date, approaches such as One Health, EcoHealth or Planetary Health, which link the two policy areas, are not yet anchored in international or national law or used as governance concepts by policy-makers. The recent recognition of the right to a healthy environment by the UN Human Rights Council is triggering a discussion on these approaches. The COVID-19 pandemic should be used as an opportunity to bring together health promotion, prevention and precautionary environmental planning.

- How can a planetary health approach be designed and institutionally integrated into policies and legal areas at different levels (national, EU and international)?
- How can policy-makers help to overcome power asymmetries and strengthen the willingness and capacity of companies and individuals to assume responsibility?

Education and science for planetary health

Education and science are key levers for sustainable development and healthy, sustainable lifestyles. Rethinking and changing everyday individual and collective behaviour patterns to promote sustainable development and planetary health make it necessary to raise social awareness. Political discourses on the interaction of environmental factors, human behaviour and health can make an important contribution in this context. This places demands not only on school education, but also on vocational and higher education, science and science funding.

- How can educational and science systems worldwide be strengthened and networked across regions and system boundaries to enable responsible decisions that protect individual and planetary health?
- How can institutional capacities such as science-policy dialogue platforms be systematically built up around a planetary understanding of health?

The WBGU considers it essential to raise political and societal awareness of the close link between our interaction with the planet and our health. The WBGU is currently preparing a report on this topic. The assertions made and questions posed above are intended to stimulate debate on further steps towards a healthier and more sustainable world.

German Advisory Council on Global Change (WBGU)

The WBGU is an independent scientific advisory body set up by the German government. The WBGU provides policy-makers with recommendations for action and research and is currently working on the interconnections between health and global environmental change.

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