



HEALTH AND THE ENVIRONMENT

PERSPECTIVES FROM INTERNATIONAL GENEVA

Healthy ecosystems are at the foundation of human health.

Our health depends upon ecosystem products and services, including the air we breathe, the water we drink and the food we eat. Well-functioning ecosystems are essential to limit diseases and stabilize the climate. Moreover, biodiversity underpins many significant medical and pharmacological discoveries.

Humanity's destruction of nature is driving up risks to our well-being and health.

Human-driven climate change, biodiversity loss and pollution threaten health on a global scale.

- ▶ Air pollution is responsible for an estimated 7 million premature deaths every year
- ▶ Contaminated drinking water cause about 485 000 diarrhoeal deaths each year.
- ▶ Destruction of wild habitat and intensified agriculture increase the emergence of zoonotic infectious diseases.
- ▶ Between 2030 and 2050, climate change is expected to cause 250 000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress.
- ▶ Exposure to pollutants such as pesticides, heavy metals, and endocrine-disrupting chemicals significantly increase health risks

International collaboration is crucial to address issues at the environment and health nexus.

Environmental challenges are transboundary in nature, as they impacts do not stop at borders. Impacts are also unevenly distributed around the global and among different groups, with vulnerable communities bearing the largest part of the burden. Thus, action at the global level and cooperation among countries and with various stakeholders is key to addressing these challenges.

Geneva plays an important role in carrying this work forward.

As a global hub for health governance and environmental governance, Geneva is an important place to harness and develop synergies in this field. Geneva not only hosts the World Health Organization, but many more UN and other international agencies, multi-lateral environmental agreements (MEAs), and NGOs which are actively working on these issues.

The Geneva Environment Network actively promotes increased cooperation and dialogue among its partners (over 100 environmental and sustainable development organizations) and shares resources for both experts and the wider public on key thematic issues, including on health and the environment.



COVID-19 AND THE ENVIRONMENT

UNDERSTANDING LINKAGES AND PREVENTING FUTURE PANDEMICS

Human-made environmental change plays a role in the outbreak of zoonotic diseases, such as COVID-19.

While the origins of COVID-19 are still under scrutiny, this global crisis is a reminder that our broken relationship with the natural world makes us vulnerable to pandemics. Habitat loss, intensive agriculture, and wildlife trade disrupt nature and increase contact between wildlife, livestock, pathogens and people. This in turn increases the risks of zoonoses (diseases that are transmissible from animals to humans). Moreover, climate change creates warmer, wetter conditions in which many zoonotic diseases thrive.

Protecting the environment is key to prevent future outbreaks of zoonoses.

As pandemics are becoming more frequent, a significant shift from reaction to prevention is needed to safeguard human health. Around 75% of emerging infectious diseases (including Ebola, HIV, influenza, COVID-19) are zoonotic. Addressing the root causes of such outbreaks is essential to reduce our vulnerability to pandemics. This requires to halt biodiversity loss and the destruction of nature, better regulate wildlife trade and consumption, and overall break silos and develop coordinated action under a One Health approach.

The pandemic has not durably shifted the negative trends of environmental degradation.

While CO2 emissions had dropped in 2020 and nature seemed to have come back to cities due to COVID restrictions, these changes were only temporary. Despite a temporary economic slow-down and a drop in CO2 emissions due to lockdowns and restrictions, these changes were quick to shift back. The economic hardships caused by the pandemic also generated push backs on environmental laws in various countries. Deforestation, and poaching also accelerated during these times.

The post-COVID recovery provides an opportunity to steer our societies in a more sustainable direction.

As governments are investing in stimulus packages to speed up economic recovery, experts are calling for a profound, systemic shift to a more sustainable economy that works for both people and planet. A green and fair recovery can create many jobs and ensure we set ourselves on a pathway to achieve the Sustainable Development Goals. A green recovery is also essential as a strategy to prevent future pandemics and address the global health challenges linked with climate change, biodiversity loss and pollution.

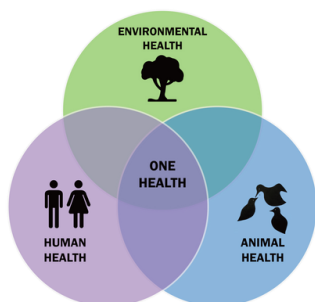


ONE HEALTH

FOSTERING CROSS-SECTORAL COLLABORATION FOR BETTER HEALTH OUTCOMES

The One Health approach recognizes that the human, animal and environmental health are inter-dependent.

Human lives rely on and are deeply linked to the environment. Thus, unhealthy animals and ecosystems create health risks for humans.



One Health promotes cross-cutting collaboration to ensure better health outcomes for all.

Because interactions between people, animals and plants are complex, this collaborative, multisectoral and transdisciplinary approach is critical to address health risks and challenges. The World Health Organization (WHO), the Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE) and the UN Environment Programme (UNEP) are working together to mainstream One Health so that they are better prepared to prevent, predict, detect, and respond to global health threats and promote sustainable development. They also convene an advisory panel, the One Health High Level Expert Panel (OHHLE).

Adopting a One Health approach is essential to address contemporary health challenges.

One Health is key to foster well-being, reduce health risks, and contribute to sustainable development. It is particularly relevant for addressing the following global issues:

► **Zoonoses and emerging diseases**

One Health is a powerful approach to prevent zoonoses outbreaks by controlling pathogens at their animal source and preserving natural habitats.

► **Food safety**

One Health can help prevent food-borne illnesses by considering animal and plant health throughout the food chain.

► **Antimicrobial resistance (AMR)**

One Health can support effective responses to AMR by addressing the overuse of antibiotics in animal production and agriculture, and poor management of waste from farms.

► **Biodiversity and conservation**

One Health explores the interlinkages between biodiversity, ecosystem services and human health, which is essential to comprehensively address risks to human health.

► **Climate change**

One Health can help us assess the increasing health risks from climate change to support better mitigation and adaptation strategies.



PLASTICS AND MICROPLASTICS

REDUCING HEALTH AND ENVIRONMENTAL IMPACTS OF PLASTICS THROUGHOUT THE LIFE CYCLE

People are exposed daily to plastics and the chemicals they contain.

While scientific gaps remain on exact numbers, research clearly shows that humans are exposed to microplastics through inhalation, ingestion, and direct skin contact. Recent studies have found microplastics in human blood, lungs, and placenta.

Micro- and nanoplastics in the human body may have harmful effects on health.

Studies on animals indicate that plastic particles can cross the gut barrier and travel through the body. While this field of study is rather recent, there is concern that this exposure could have harmful effects on health. Additionally, plastics increase disease risk by acting as a vessel for human pathogens which have a particularly strong bond to plastic waste.

Plastic contains chemical additives, many of which are known to be harmful.

A growing body of evidence points to the health risks posed by plastic additives. These include endocrine disrupting chemicals (EDCs), which are linked to infertility, obesity, diabetes, prostate or breast cancer, among others. Other health conditions linked to additives include reproductive, growth, and cognitive impairment and neurodevelopment disorders.

Plastics present health risks throughout its lifecycle, with vulnerable groups being most at risk.

Beside exposure from environmental sources and during use of plastic products, health impacts are observed all along the plastic value chain. Examples include pollution at extraction sites, workers exposure to chemicals, air pollution from waste incineration, and water and soil contamination. Moreover, plastic pollution disproportionately and negatively affect vulnerable communities.

A global response is necessary to address the environmental and health impacts of plastics.

In March 2022, the UN Environment Assembly adopted a resolution launching the negotiation process toward a global agreement to end plastic pollution. This provides an opportunity to develop a global coordinated response to eliminate unnecessary plastics and develop transition to a chemically safe circular economy for plastics. While health concerns do not feature prominently in the resolution, the treaty could still help prevent health threats from plastics and the widely used hazardous chemicals embedded in them.

Negotiations will start later this year, with the aim of reaching an agreement by the end of 2024. Join the Geneva Beat Plastic Pollution Dialogues to stay tuned with the process.

