Policy brief

HUMANITARIAN ACTION IN THE PLANETARY CRISIS

4 recommendations and 28 actions for humanitarians, researchers, policy makers and donors to protect people, animals, plants and ecosystems















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FOREWORD



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It is a privilege to support this important and timely policy brief on "Humanitarian Action in the Planetary Crisis" and to advocate for the adoption of the One Health approach in humanitarian settings.

Humanitarian crises, including natural disasters, armed conflicts, and displacement, continue to affect millions, with severe impacts on ecosystems, food systems, livelihoods, and human and animal health. The most significant consequences are often felt in low-resource countries, which are already vulnerable to multiple stresses. Addressing these challenges requires a multisectoral, collaborative approach, and the One Health framework offers a promising solution.

I have closely followed the development of this policy brief and participated in the initial workshop in Geneva in November 2023, as well as a panel discussion in May 2024 during the Geneva Health Forum. These engagements with experts and practitioners from academia, the humanitarian sector, and other diverse fields have been invaluable in fostering dialogue on how to implement the One Health approach in humanitarian contexts. This process has been highly participatory, involving a wide range of organizations and countries.

Recently, humanitarian actors have increasingly recognized the interdependence of human, animal, and environmental health, particularly in light of climate change, which amplifies the risks and challenges posed by crises. As a result, there is a growing commitment to integrating One Health into humanitarian strategies, ensuring more comprehensive and sustainable responses to complex emergencies.

The Conference of the Parties (COP29) discussions in Baku in November 2024 further emphasized the potential of applying One Health to humanitarian action, particularly regarding the impacts of climate change on vulnerable populations. The discussions highlighted how climate change exacerbates natural disasters, disease outbreaks, and conflicts, and how the One Health approach can foster better collaboration between sectors and enhance disaster prevention, preparedness, resource management, and resilience.

One Health offers exciting opportunities and challenges for humanitarian action. While traditionally focused on crisis response, humanitarian efforts are increasingly shifting toward disaster prevention, preparedness, and environmental sustainability.

Humanitarian actors, as operational players, are crucial to implementing One Health in practice, but this requires a common language and practical tools that address the complexities of humanitarian settings.

In October 2022, the Quadripartite—FAO, UNEP, WHO, and WOAH—launched the One Health Joint Plan of Action (OHJPA) to better prevent, predict, detect, and respond to health threats through integrated systems across human, animal, and environmental health sectors. The Quadripartite is organizing regional and national workshops to support countries in adapting the OHJPA to their local needs.

It is essential to connect humanitarian actions with the OHJPA to strengthen the implementation of this approach in crisis contexts. The OHJPA provides a framework to address the interconnected health threats in humanitarian settings, such as infectious diseases, malnutrition, and environmental degradation. By aligning efforts across sectors, we can ensure that interventions in one area complement those in others, such as linking disease surveillance with food security or environmental health.

This policy brief also offers valuable recommendations for researchers, which can inform the work of the One Health High-Level Expert Panel (OHHLEP) in identifying enablers and barriers to One Health implementation in different settings.

Geneva, as a hub for global health and humanitarian action, provides an excellent platform to translate the proposed actions in this brief into tangible field initiatives on effective implementation of the One Health agenda in humanitarian settings. However, these efforts require multisectoral collaboration and donor support to ensure lasting impact.



HUMANITARIAN ACTION IN THE CONTEXT OF THE GLOBAL ENVIRONMENTAL AND HEALTH POLYCRISES

The unprecedented impact of human activities on ecosystems and climate has pushed the Earth away from stable conditions, and it has now entered a new geological epoch called the Anthropocene (definition in Box 1). Six of the nine planetary boundaries (definition in Box 1) have already been breached (biosphere integrity, climate change, land system change, freshwater change, biogeochemical flows, novel entities), and global temperatures are on track to rise dangerously beyond the 1.5°C threshold. Our human societies and all life forms are at risk.^{1,2}

Climate change, natural disasters, and other environmental disruptions cause many current humanitarian crises (definition in Box 1) worldwide or exacerbate them in severity and scale (e.g., size of population and region affected, massive migration).^{3,4}

Certain parts of the world are becoming unlivable for people and their livestock and companion animals, forcing them to flee and leave their homes. Migrants, internally displaced persons (IDPs) or refugees are highly vulnerable to climate change and confronted with extreme food and water insecurity and climate-sensitive diseases (e.g., malaria, cholera, snakebite envenoming), on top of an increasing burden of mental health, violence and non-communicable diseases.⁵⁻⁸

Humanitarian crises have become increasingly complex, requiring strong partnerships and effective coordinated response. At the same time, young people affected by these humanitarian emergencies are more and more connected, informed (e.g., via social media, online learning platforms) and engaged in helping their community. They are not just recipients of humanitarian aid but want to be active players in shaping their futures. They also have increased awareness on the broader ecosystem-related factors influencing their health and wellbeing. This awareness is contributing to shift humanitarian aid towards more sustainable and integrated approaches.



To date, 461 national and international humanitarian organizations have signed the Climate and Environment Charter for Humanitarian Organizations, launched in 2021 by the International Federation of the Red Cross (IFRC) and International Committee of the Red Cross (ICRC) to promote action against climate change and other environmental crises. ¹² In 2022, the IFRC and the World Wildlife Fund (WWF) issued a joint report urging for Working with Nature to Protect People. ¹³

One Health and Planetary Health concepts, which recognize the interdependence between the health of people, domestic and wild animals, plants and ecosystems and promote systemic, integrated and transdisciplinary approaches to health (see definitions in Box 1), are gradually penetrating the narratives and practices of the humanitarian sector. 14-16 Yet, there is often confusion in the interpretation and applications of these concepts. 17 One Health and Planetary Health often remain too theoretical and at the higher policy level, lacking clear, practical applications and tools to promote their operationalization in the field. Studies quantifying the cost-effectiveness of integrated interventions at the interface of people, animals, and the environment have been limited, 18 and, to our knowledge, no guidelines and tools have been specifically designed for humanitarian settings (definition in Box 1) and their inherent complexities.



BOX 1: DEFINITIONS

Anthropocene: A new claimed epoch demarcated as the time when human activities began to have a substantial global effect on the Earth's systems.¹⁹

Disaster risk reduction: Strategies and policies aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.²⁰

Humanitarian crisis: Any circumstance where humanitarian needs are sufficiently large and complex to require significant external assistance and resources, and where a multi-sectoral response is needed, with the engagement of a wide range of international humanitarian actors. This may include smaller-scale emergencies in countries with limited capacities, where the threshold will be lower than in countries with strong capacities. An emergency is a situation that threatens the lives and well-being of large numbers of a population and requires extraordinary action to ensure their survival, care and protection.²¹

Humanitarian setting: A setting in which an event (e.g., natural disaster, man-made disaster, technological disaster, epidemic, famine) or series of events has resulted in a critical threat to the health, safety, security, and well-being of a community or other large group of people. The coping capacity of the affected community is overwhelmed, in-country infrastructures are disrupted, and external assistance is required. Humanitarian settings include conflict affected areas (e.g., Yemen, Central African Republic, Mali), natural hazard driven disasters, complex emergencies (e.g., eastern DRC, northeast Nigeria), refugee or internally displaced person (IDP) camps/settlements, including in protracted crises, refugees and IDPs in urban settings.^{22,23}

Nature-based solutions: Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.²⁴

One Health: An integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.²⁵

Planetary Health: A solutions-oriented, transdisciplinary field and social movement focused on analyzing and addressing the impacts of human disruptions to Earth's natural systems on human health and all life on Earth.²⁶

Planetary (or Earth system) boundaries: Boundaries proposed for climate, the biosphere, fresh water, nutrients and air pollution at global and sub-global scales. These domains were chosen for the following reasons: they span the major components of the Earth system (atmosphere, hydrosphere, geosphere, biosphere and cryosphere) and their interlinked processes (carbon, water and nutrient cycles), the 'global commons' that underpin the planet's life-support systems and, thereby, human well-being on Earth; they have impacts on policy-relevant timescales; they are threatened by human activities; and they could affect Earth system stability and future development globally.¹

Transdisciplinarity: A reflexive research approach that addresses societal problems by means of interdisciplinary collaboration as well as the collaboration between researchers and extra-scientific actors; its aim is to enable mutual learning processes between science and society; integration is the main cognitive challenge of the research process.²⁷

THE UNPRECEDENTED POLITICAL MOMENTUM ON ONE HEALTH AND PLANETARY HEALTH

The One Health and Planetary Health concepts have gained political recognition over the last few years. Below, we highlight relevant milestones in the international policy agenda.

2020

Quadripartite Partnership

Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Organization for Animal Health (WOAH) and the World Health Organization (WHO) formalized collaboration to address challenges affecting people, animals, plants and the entire ecosystems.²⁸

2022

United Nations General Assembly Resolution (New York, September 2022)

Recognized a clean, healthy, and sustainable environment as a universal human right.

Quadripartite One Health Joint Plan of Action (2022–2026): working together for the health of humans, animals, plants and the environment (Geneva, October 2022)²⁸
Publication.

2024

World Health Assembly - WHA77 (Geneva, May 2024)

Member states adopted a resolution that recognizes climate change as a major threat to global public health informing the WHO's Fourteenth General Programme of Work for 2025- 2028 (GPW14).

The WHA approved critical amendments to the International Health Regulations (2005) to enhance global preparedness, surveillance, and response to public health emergencies and continued negotiations on a global pandemic agreement.

Roadmap for Planetary Health (Kuala Lumpur, May 2024) Published by The Planetary Health Alliance (PHA) for measuring, communicating, educating, building governance structures, and balancing business interests with Planetary Health.³⁰

One Sustainable Health by all Conference (Dakar, October 2024)

Convention on Biological Diversity -COP16 (Cali, November 2024)

This conference guided global action for nature, focusing on protecting the planet and restoring degraded ecosystems that provide vital services for human health.

UN Climate Change Conference -COP29 (Baku, November 2024)
The "Human Capital, Health, Children and Youth for a Climate Resilient
Future" initiative focused on health workforce capacity-building,
advocacy, and developing climate-resilient and sustainable lowcarbon health systems.



2021

WHO Roadmap for Neglected Tropical Diseases (Geneva, January 2021) Underlined the need for a One Health approach to tackle the environmental and zoonotic drivers of these diseases, which affect more than 1 billion of the poorest people in the world.²⁹

2023

UN Climate Change Conference - COP28 (Dubai, November 2023) Signature of the Declaration on Climate and Health reaffirms the interconnection of climate and health.

*Alongside National Biodiversity Strategies and Action Plans (NBSAPs), Health National Adaptation Plans (HNAPs) within Nationally Determined Contributions (NDCs) are key policy instruments for protecting public health in the face of climate change and contribute to the ambitious goals of the Paris Agreement. One Health plays a significant role in panels such as the Science Policy Panel on Chemicals, Waste and Pollution Prevention (SPP), whose establishment is supported by UNEP³¹ and WHO³² as well as in civil society as the Geneva Health Forum (GHF).



INTERNATIONAL GENEVA: CATALYZING THE HUMANITARIAN TRADITION AND ONE HEALTH

International Capital of Global Health

Geneva is recognized as a leading center for global health and humanitarian action. Home to the World Health Organization (WHO) and over 300 governmental and non-governmental organizations, the city is a cornerstone for initiatives tackling public health crises and humanitarian challenges.

Each May, Geneva becomes the focal point of global health governance, as the World Health Assembly convenes health ministers from 194 WHO member states to address international health priorities and establish policy agendas. Further enhancing its global leadership, Geneva plays a central role in advancing the One Health approach, fostering transdisciplinary research, education, and collaboration to address the interconnected challenges of human, animal, and environmental health. 10,17,33-35

By bringing together diverse expertise across sectors, Geneva provides a unique platform to foster dialogue, promote partnerships, and develop evidence-based solutions to tackle humanitarian and global health challenges worldwide.



Geneva Health Forum

Founded in 2006 by the Geneva University Hospitals (HUG) and the University of Geneva (UNIGE), the Geneva Health Forum (GHF) serves as a neutral and inclusive platform to address pressing global health issues. Engaging a wide array of stakeholders—including policymakers, academics, civil society representatives, and private sector leaders—the GHF promotes dialogue and collaboration essential for improving health policies and access to care worldwide.

The forum's key thematic areas include Health and the Environment, as well as Humanitarian Action. It also collaborates with prominent Genevabased organizations, such as the World Health Organization (WHO), the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (IFRC), and Médecins Sans Frontières (MSF), reinforcing its pivotal role in the global health landscape.



TOWARDS THE OPERATIONALIZATION OF ONE HEALTH AND PLANETARY HEALTH IN HUMANITARIAN SETTINGS

This policy brief and the recommendations and actions we propose result from a sequential process combining multiple methods with an international perspective: an online survey, two meetings in Geneva, and an online consultation.

August to September, 2023 International Survey

The survey reached over 400 humanitarian organizations in 35 climate-vulnerable countries to review their awareness and integration of One Health and Planetary Health. Results were discussed in the Expert Meeting and Workshop.

2023

November 1-2, 2023 Expert Meeting and Workshop

The first international and transdisciplinary expert meeting and workshop on "Operationalizing One Health and Planetary Health in Humanitarian Settings" connected academics and humanitarians, laying the groundwork for this policy brief.

May 28, 2024

Panel Discussion at the Geneva Health Forum

Draft recommendations and action points were shared at the 2024 GHF Conference. Expert panel and audience discussions helped refine the proposals, later followed by a global consultation for further insights.

2024

June to July, 2024 Global Consultation

The consultation generated contributions from stakeholders across diverse regions and sectors. This set of recommendations embody a shared vision for a more inclusive and sustainable integration of One Health and Planetary Health into humanitarian strategies.



KEY RECOMMENDATIONS

For Humanitarians

Recognize the interdependence between the health of people, domestic and wild animals, plants and ecosystems in humanitarian settings, promoting actions based on evidence and transdisciplinary collaborations to protect and promote health, livelihoods and ecosystem services while contributing to the transformational global movement that addresses the roots of health inequities and climate injustice.

For Researchers

Conduct transdisciplinary and operational research to identify, measure the burden and understand the determinants and root causes of complex public health issues affecting people, animals, plants and ecosystems. Equip humanitarians with methods and tools for better cross-sectoral collaborations and evidence on the incremental benefits of these collaborations³⁶ to prevent, anticipate, and control these public health issues in humanitarian settings.

For Policy Makers

Adopt and implement multisectoral structures and frameworks that incorporate collaboration between human, animal, and environmental health sectors to improve surveillance, prevention, and disaster preparedness, as well as to strengthen emergency response capabilities in humanitarian settings.

For Donors

Recognize the complexity and diversity of public health and livelihood issues involving people, animals, plants and ecosystems in humanitarian settings, allocating more funds to transdisciplinary research, breaking silos of vertical programs and linking short and long-term interventions.



For Humanitarians

Recommendation

Recognize the interdependence between the health of people, domestic and wild animals, plants and ecosystems in humanitarian settings, promoting actions based on evidence and transdisciplinary collaborations to protect and promote health, livelihoods and ecosystem services while contributing to the transformational global movement that addresses the roots of health inequities and climate injustice.

- 1 Adopt a more systemic One Health and Planetary Health view on complex problems affecting vulnerable communities living within humanitarian crises and promote cross-sectoral humanitarian action involving all relevant stakeholders (i.e., human, animal, and environmental actors at all levels and non-traditional partners, such as those in waste management and energy sectors).
- Promote evidence-based and locally acceptable interventions that engage communities and evaluate the impact of these interventions on the health of people, domestic and wild animals, plants and ecosystems.
- Maintain an active dialogue with academia and mobilize relevant experts in One Health and Planetary Health (e.g., via working groups, communities of practice, conferences, and courses) to identify converging research interests and needs, and develop partnerships and mechanisms for collaborations and evidence-based operations in the field.
- 4 Recognize and evaluate humanitarian action's environmental impact and establish strategies to minimize this impact, while promoting environmental sustainability and local community empowerment and ownership. Extend the « do no harm » humanitarian principle beyond human populations, making sure that humanitarian NGOs also respect and promote animal and plant health and conservation, and ecosystem services in the areas where they operate, essentially linking health and the sustainable use of natural resources.³⁷
- 5 Extend humanitarian action beyond traditional crisis response by incorporating or reinforcing crisis prevention and resilience-building strategies using nature-based solutions (definition in Box 1).²⁴
- 6 Advocate for and support the implementation in humanitarian settings of the United Nations Human Rights Council landmark (A/HRC/RES/48/13, A/RES/76/300) recognizing that a clean, healthy and sustainable environment is a human right.^{38,39}
- 7 Consider risks and co-benefits for people, animals, plants and ecosystems when designing and implementing a Disaster Risk Reduction (DRR) (definition in Box 1) assessment or intervention in any phase of the SENDAI framework.⁴⁰

For Researchers

Recommendation

Conduct transdisciplinary and operational research to identify, measure the burden and understand the determinants and root causes of complex public health issues affecting people, animals, plants and ecosystems. Equip humanitarians with methods and tools for better cross-sectoral collaborations and evidence on the incremental benefits of these collaborations³⁶ to prevent, anticipate, and control these public health issues in humanitarian settings.

- 1 Build a global, regional or national repository of existing studies, interventions and local knowledge related to One Health and Planetary Health in humanitarian settings using scientific and grey literature or other sources of information, including unpublished experiences and consultations. Assess these initiatives' diversity, scope of application, and impact, and identify lessons learnt (i.e., what did and did not work) for humanitarian action.
- 2 Promote North-South and South-South scientific collaborations and partnerships, giving the young generation of researchers in affected countries opportunities to develop a career in humanitarian One Health and Planetary Health.
- 3 Conduct operational research with humanitarian actors to demonstrate the impact and added value of transdisciplinary collaborations and interventions in humanitarian settings. Identify, develop and test necessary indicators to measure this impact on the health of people, animals, plants and ecosystems, and collaboration's added value and barriers (e.g., lives and livelihood saved, faster response and recovery, cost-effectiveness).
- 4 Conduct transdisciplinary and solution-oriented research developing methods and tools and defining indicators (e.g., environmental, ecological, epidemiological, socio-cultural) to better prevent, detect, monitor and respond to health issues affecting people, animals, plants and ecosystems in collaboration with communities and by valuing indigenous knowledge and competencies.
- 5 Support the implementation of the 2022-2026 Quadripartite One Health Joint Plan of Action (OH JPA)²⁹ in countries confronted with humanitarian crisis (e.g., by creating a companion document providing evidence-based guidance for humanitarian settings).
- 6 Support the development and integration of One Health and Planetary Health training and courses, tools, and actions in the programs for health system strengthening when implementing the WHO framework for climate resilient and low carbon health systems⁴¹ in humanitarian settings.
- 7 Define indicators and generate evidence on health and environment co-benefits for example through climate change mitigation, food system strengthening and biodiversity enhancement considering specificities of each humanitarian setting.

For Policy Makers

Recommendation

Adopt and implement multisectoral structures and frameworks that incorporate collaboration between human, animal, and environmental health sectors to improve surveillance, prevention, and disaster preparedness, as well as to strengthen emergency response capabilities in humanitarian settings.

- 1 Create Inter-Ministerial coordination for One Health policy and assign task forces within relevant ministries to facilitate collaboration on health security at the animal-human interface, environmental protection, and emergency preparedness, ensuring coordinated responses in humanitarian settings and emerging crises caused by climate change and biodiversity loss.⁴²
- 2 Incorporate climate change adaptation and resilience into humanitarian health policies by developing strategies for air quality, water sanitation, and waste management, as well as public health emergency protocols linked to environmental factors to protect and support vulnerable populations.
- 3 Develop multisectoral training programs for health, animal, and environmental personnel to equip them with the necessary skills for intersectoral work and to enhance overall health emergency preparedness, prioritize crisis response, environmental health, and interagency coordination.
- 4 Enhance public health emergency preparedness using evidence-based practices that are consistent with international frameworks such as the International Health Regulations (2005) and The Quadripartite One Health Joint Plan of Action. Ensure that health policies are informed by the most recent scientific evidence on climate, biodiversity, and health, and encourage collaborative research and development activities with academic and international partners.
- 5 Decentralize information systems for efficient accessibility and disaggregated data sharing.
- 6 Promote transparency and accountability of the national budget, Official Development Assistance (ODA) expenditures, project information, and outcomes to ensure that resources are used effectively. Promote inclusion and ensure meaningful participation of local communities and marginalized groups in the One Health policy making process.
- Respect Human Rights of all populations facing a health risk in emergencies and protracted crisis to ensure that One Health policies and programs are not discriminatory (no one is safe until everyone is safe) and allow access to humanitarian actors involved in One Health and Planetary Health activities to join communities at risk in hard-to-reach areas ensuring safety of all health facilities, medical transport, and health staff.
- 8 Integrate One Health and Planetary Health approach into Disaster Risk Reduction and Climate Change Adaptation policies and programs, especially via nature-based solutions that have co-benefits for people, animals, plants and ecosystems.

For Donors

Recommendation

Recognize the complexity and diversity of public health and livelihood issues involving people, animals, plants and ecosystems in humanitarian settings, allocating more funds to transdisciplinary research, breaking silos of vertical programs and linking short and long-term interventions.

- 1 Stimulate humanitarian action increasingly based on prevention and anticipation of emergencies and actions targeting the root causes—often at the environmental level—of these emergencies.
- 2 Prioritize funding research and interventions in areas affected by or prone to humanitarian crises resulting from climate change, environmental disasters, outbreaks, and other threats associated with the global environmental and health poly-crises.
- 3 Contribute to the creation of pooled funds and, while ensuring accountability, allow more flexibility in using these funds in complex humanitarian crises to improve the localization of efforts and the efficiency of prevention, anticipation, and response.
- 4 Encourage the co-design, co-development, and co-implementation of research and interventions by scientists, humanitarians, local communities and other relevant stakeholders, promoting the development of mechanisms to measure the level of engagement and meaningful participation of these stakeholders and the perceived benefits of their collaborations.
- 5 Support transdisciplinary, operational, solution-oriented research and interventions that have a measurable impact on the health of people, animals and plants and on ecosystem services, breaking the silos of vertical programs. Stimulate quantitative and qualitative research (e.g., anthropological, behavioral and social research) and innovative methods adapted in complex humanitarian settings.
- 6 Support local and early-career researchers, NGOs and communities, promoting ownership and sustainability of research results and links between short- and long-term interventions at the human-animal-environment interface in humanitarian settings.

CONCLUSION AND CALL FOR ACTION



Benoit Miribel

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One Sustainable Health for
All Foundation

This policy brief reflects the transformative power of transdisciplinary and international collaboration to address the complex challenges of the Anthropocene. It is set within the unprecedented context of growing complexity, where neither the dynamic nature of global health challenges and emergencies, nor the need for constant adaptation, can be ignored.

The concepts of One Health, Planetary Health emphasize the interconnectedness of the health of people, animals, plants and ecosystems and their optimization. This integrated perspective adds value through closer collaboration between different sectors to address the root causes of emerging health threats in humanitarian contexts – and beyond. By broadening the scope beyond immediate responses, these approaches advocate for a proactive stance in preventing and mitigating future crises.

However, the dynamic nature of global health challenges requires this policy brief to be viewed as an evolving document. It is designed to adapt and expand as new data, tools, narratives and experiences emerge. This fluidity is essential to keep pace with the rapidly changing landscape of global health emergencies and the ongoing development of integrated health strategies.

The One Sustainable Health (OSH) approach integrates concomitantly One Health- Planetary Health with the Sustainable Development Goals (SDG 2030) and offers a space for various International Working Groups (IWG) among which the IWG9 "One Health in Humanitarian Settings".

We urge humanitarians, researchers, policymakers, donors and all the stakeholders concerned to take the recommendations and actions presented in this brief to heart. Humanitarians are urged to actively advocate for the adoption of comprehensive framework that could integrate One Health - Planetary Health - OSH approaches within and outside their organizations, encouraging multi-level and multi-sectoral collaborations. Researchers are encouraged to focus on operational research to fill the knowledge-to-action gap, while listening to and engaging with communities. Policy makers are required to adopt inclusive frameworks and governance models for the health of people, animals, and ecosystems, while ensuring their coherence with local, national, and global policies. Public and private donors are urged to support sustainable and holistic initiatives through innovative and flexible funding schemes, and by recognizing their critical role in empowering local responders and affected communities.

We can all be part of the change for the protection and resilience of ecosystems and communities. Let this policy brief be a catalyst for action and creative collaboration across disciplines, sectors, actors and nations.

ACRONYMS

AFD	Agence Française de Développement
CBD	Convention on Biological Diversity
СОР	Conference of the Parties (under the UNFCCC)
DRR	Disaster Risk Reduction
FAO	Food and Agriculture Organization of the United Nations
GHF	Geneva Health Forum
HNAPs	Health National Adaptation Plans
HUG	Geneva University Hospitals
IAFM	Inter-Agency Field Manual
IASC	Inter-Agency Standing Committee
ICRC	International Committee of the Red Cross
IDPs	Internally Displaced Persons
IFRC	International Federation of the Red Cross and Red Crescent Societies
IRC	International Rescue Committee
NBSAPs	National Biodiversity Strategies and Action Plans
NDCs	Nationally Determined Contributions
OSH	One Sustainable Health
SNSF	Swiss National Science Foundation
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
VSF	Vétérinaires Sans Frontières (Veterinarians Without Borders)
WHA	World Health Assembly
WHO	World Health Organization
WOAH	World Organization for Animal Health
WWF	World Wildlife Fund

REFERENCES

- ¹ Rockström, J., Gupta, J., Qin, D., Lade, S. J., Abrams, J. F., Andersen, L. S., ... & Zhang, X. (2023). Safe and just Earth system boundaries. *Nature*, *619*(7968), 102-111.
- ² Richardson K. et al. (2023) Earth beyond six of nine planetary boundaries. *Sci. Adv. 9*, eadh2458.
- ³ Baxter, L., McGowan, C. R., Smiley, S., Palacios, L., Devine, C., & Casademont, C. (2022). The relationship between climate change, health, and the humanitarian response. *The Lancet, 400*(10363), 1561-1563.
- ⁴ Slim, H. (2023). Humanitarians and the Climate Emergency: The Ethical, Practice and Cultural Challenges. [Internet]. Global Public Policy Institute [2023.06.28; 2023.12.15]. Available from: https://gppi.net/2023/06/28/humanitarians-and-the-climate-emergency
- ⁵ Sutradhar, I., & Zaman, M. H. (2021). One Health approaches to improve refugee health. *The Lancet Global Health*, 9(12), e1646-e1647.
- ⁶ Cantor, D., Swartz, J., Roberts, B., Abbara, A., Ager, A., Bhutta, Z. A., ... & Smith, J. (2021). Understanding the health needs of internally displaced persons: a scoping review. *Journal of Migration and Health*, *4*, 100071.
- ⁷ Ochoa, C., Bolon, I., Durso, A. M., Ruiz de Castañeda, R., Alcoba, G., Babo Martins, S., ... & Ray, N. (2020). Assessing the increase of snakebite incidence in relationship to flooding events. *Journal of Environmental and Public Health*, 2020(1), 6135149.
- ⁸ Potet, J., Singh, S., Ritmeijer, K., Sisay, K., Alcoba, G., Jouberton, F., ... & Coldiron, M. (2023). Snakebite envenoming at MSF: A decade of clinical challenges and antivenom access issues. *Toxicon: X*, 17, 100146.
- ⁹ Mobula, L. M., Nakao, J. H., Walia, S., Pendarvis, J., Morris, P., & Townes, D. (2018). A humanitarian response to the West African Ebola virus disease outbreak. *Journal of International Humanitarian Action*, 3(1), 1-6
- ¹⁰ Bolon, I., Mason, J., O'Keeffe, P., Haeberli, P., Adan, H. A., Karenzi, J. M., ... & Ruiz de Castañeda, R. (2020). One Health education in Kakuma refugee camp (Kenya): From a MOOC to projects on real world challenges. One Health, 10, 100158.
- ¹¹ Slim, H. (2024). Saving humans is not enough. Humanitarian purpose needs to change. *The New Humanitarian*. https://www.thenewhumanitarian.org/opinion/2024/09/09/saving-humans-not-enough-humanitarian-purpose-needs-change
- ¹² ICRC & IFRC. (2023). Climate Charter—Sign the Charter. Climate Charter. https://www.climate-charter.org/
- ¹³ IFRC & WWF (2022). Working with Nature to Protect People. https://www.ifrc.org/document/working-nature-protect-people
- ¹⁴ Trentesaux, M. (2021) How can the "One Health" approach help change humanitarianism? https://defishumanitaires.com/en/2021/11/02/how-can-the-one-%20health-approach-help-change-humanitarianism/
- ¹⁵ Smiley, S., McIver, L., Schwerdtle, P., Lugli, M., Claire, A., España, JCA., ... & Cornish, S. (2021). Lancet Countdown on Health and Climate Change: policy brief for Médecins Sans Frontières 2021 https://scienceportal.msf.org/assets/7375
- ¹⁶ Vétérinaires sans Frontières. (2020). One Health Implementation in the Global South. A holistic approach to address the challenges of Livestock-Dependent communities. *Technical paper*. https://www.avsf.org/en/publications/one-health-implementation-in-the-global-south-vsf-international-technical-paper/

- ¹⁷ Ruiz de Castañeda, R, Villers, J., Guzmán, C. A. F., Eslanloo, T., de Paula, N., Machalaba, C., ... & Bolon, I. (2023). One Health and planetary health research: leveraging differences to grow together. *The Lancet Planetary Health*, 7(2), e109-e111
- ¹⁸ Bucher, A., Dimov, A., Fink, G., Chitnis, N., Bonfoh, B., Zinsstag, J. (2023). "Benefit-cost analysis of coordinated strategies for control of rabies in Africa." Nature Communications 14: 5370.
- ¹⁹ Whitmee, S., Haines, A., Beyrer, C., Boltz, F., Capon, A. G., de Souza Dias, B. F., ... & Yach, D. (2015). Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *The Lancet*, *386*(10007), 1973-2028.
- ²⁰ UNDRR: Disaster Risk Reduction Terminology. https://www.undrr.org/drr-glossary/terminology.
- ²¹ UNICEF (2020). Core Commitments For Children In Humanitarian Action. ISBN: 978-92-806-5179-9. https://www.unicef.org/media/130411/file/CCS%20(English,%20full).pdf
- ²² IAFM (2018). Inter-Agency Field Manual on Reproductive Health. https://iawgfieldmanual.com/manual
- ²³ ELRHA Enhancing Learning and Research for Humanitarian Assistance. Glossary. https://www.elrha.org/support/hif/hif-glossary/
- ²⁴ UNEP (2022). Resolution adopted by the United Nations Environment. Assembly on 2 March 2022. 5/5. Nature-based solutions for supporting sustainable development. https://digitallibrary.un.org/record/3999268?ln=en&v=pdf
- ²⁵ One Health High-Level Expert Panel (OHHLEP), Adisasmito, W. B., Almuhairi, S., Behravesh, C. B., Bilivogui, P., Bukachi, S. A., Casas, N., ... & Zhou, L. (2022). One Health: A new definition for a sustainable and healthy future. *PLoS pathogens*, *18*(6), e1010537.
- ²⁶ Planetary Health [Internet]. Planetary Health Alliance; 2021. https://www.planetaryhealthalliance.org/ planetary-health
- ²⁷ Jahn, T., Bergmann, M., & Keil, F. (2012). *Transdisciplinarity: Between mainstreaming and marginalization*. Ecological Economics, 79, 1-10.
- ²⁸ FAO, UNEP, WHO, and WOAH. (2022). *One Health Joint Plan of Action (2022-2026). Working together for the health of humans, animals, plants, and the environment*. Rome. https://doi.org/10.4060/cc2289en
- ²⁹World Health Organization (2020). *Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases* 2021–2030. Geneva: World Health Organization. https://www.who.int/publications/i/item/9789240010352
- ³⁰ Planetary Health Alliance (2024). Planetary Health Roadmap and Action Plan babfa360f16e6c7f017963cd1ed79502.pdf
- ³¹ UNEP (2022) United Nations Environment Assembly of the United Nations Environment Programme. (2022). *Science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution* (Resolution 5/8). Fifth session, Nairobi (hybrid), 22 and 23 February 2021 and 28 February–2 March 2022.
- ³² WHO (2023). Impact of chemicals, waste and pollution on human health: Report by the Director-General (EB154/24). 154th Executive Board session, 18 December 2023. Provisional agenda item 22.
- ³³ Ruiz de Castañeda, R., Bolon, I., Stauffer, M. et al., Catalysing One Health with Swiss Diplomacy: Three recommendations for leveraging Switzerland's science and diplomacy to prevent, prepare, and respond to future pandemics, Geneva Science-Policy Interface Policy Brief, 2022, DOI: 10.13097/archive-ouverte/

unige:163487. https://www.gspi.ch/news/policy-brief-catalysing-one-health-with-swiss-diplomacy

- ³⁴ Swiss Academies of Arts and Sciences (2022), About td-net. https://transdisciplinarity.ch/en/about-td-net/
- ³⁵ Zinsstag, J. B., Ruiz De Castañeda, R., Comte, É., Tschopp, R., Bonfoh, B., Nkwescheu, A. S., ... & Bolon, I. (2023). Evolution and impact of the One Health approach in Switzerland and worldwide. *Revue Medicale Suisse*, *19*(836), 1407-1411.
- ³⁶ Zinsstag, J., A. Kaiser-Grolimund, K. Heitz-Tokpa, R. Sreedharan, J. Lubroth, F. Caya, M. Stone, H. Brown, B. Bonfoh, E. Dobell, D. Morgan, N. Homaira, R. Kock, J. Hattendorf, L. Crump, S. Mauti, V. Del Rio Vilas, S. Saikat, A. Zumla, D. Heymann, O. Dar and S. de la Rocque (2023). Advancing One human-animal-environment Health for global health security: what does the evidence say?. *The Lancet*.
- ³⁷ Zinsstag, J., Meyer, J.M., Bonfoh, B., Fink, G., Dimov, A. (2024). One Health in Human-Environment Systems: Linking Health and the Sustainable use of Natural Resources. *CABI One Health* 3: 1: 1-11.
- ³⁸ United Nations Human Rights Council. (2021). The human right to a clean, healthy and sustainable environment (A/HRC/RES/48/13). https://undocs.org/en/A/HRC/RES/48/13
- ³⁹ United Nations General Assembly. (2022). The human right to a clean, healthy and sustainable environment (A/RES/76/300). https://undocs.org/en/A/RES/76/300
- ⁴⁰ UNDRR (2015). Sendai Framework for Disaster Risk Reduction 2015-2030. https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030
- ⁴¹ WHO (2023). Operational framework for building climate resilient and low carbon health systems. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO
- ⁴² Group of Chief Scientific Advisors SAPEA Science Advice for Policy by European Academies (2024). One Health Governance in the European Union. Scientific Opinion. S. A. Mechanism. 16: 108. https://scientificadvice.eu/advice/one-health-governance-in-the-european-union/

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