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ONE HEALTH AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT COOPERATION FRAMEWORK

GUIDANCE FOR UNITED NATIONS COUNTRY TEAMS

2023

ONE HEALTH AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT COOPERATION FRAMEWORK

GUIDANCE FOR UNITED NATIONS COUNTRY TEAMS 2023

PUBLISHED BY

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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UNITED NATIONS ENVIRONMENT PROGRAMME

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WORLD HEALTH ORGANIZATION

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WORLD ORGANISATION FOR ANIMAL HEALTH

ROME, 2023



Required citation:

FAO, UNEP WHO, and WOA. 2023. *One Health and the United Nations Sustainable Development Cooperation Framework . Guidance for United Nations country teams*. Rome. <https://doi.org/10.4060/cc5067en>

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Key messages

- United Nations Resident Coordinators and United Nations country team members are encouraged to include One Health in their national United Nations Sustainable Development Cooperation Frameworks (UNSDCFs) using the guidance provided herein.
- The UNSDCF should support mainstreaming One Health approaches into national development plans and enable better streamlining and integration of relevant One Health activities in order to contribute to the strengthening of overall health systems.
- One Health approaches are increasingly being taken up by countries, given the frequency and severity of threats linking the health of humans, animals, plants and the environment. One Health is an integrated, unifying approach that aims to sustainably optimize the health of people, animals, plants and ecosystems by acting together to manage health threats and promote good health.
- Implementing a One Health approach promotes stronger and more sustainable food systems which are necessary for the health of people, animals, plants and the environment. Furthermore, resilient and sustainable food systems are necessary for health of all.
- A One Health approach is vital to addressing ongoing multidimensional health challenges, including: emerging infectious diseases and pandemics like COVID-19; the burden of zoonotic diseases; the upsurge of food, land and water safety hazards; the impacts of pollution; the growing threat of antimicrobial resistance; and the degradation of natural ecosystems and biodiversity.
- In response to these multidimensional health challenges, the Quadripartite (FAO, UNEP, WHO and WOA¹) developed a shared vision for the transformations required to prevent and mitigate the impact of current and future health challenges at global, regional and country levels. This shared vision is part of the One Health Joint Plan of Action.

¹ Food and Agriculture Organization of the United Nations, United Nations Environment Programme, World Health Organization, and World Organisation for Animal Health. Note: During the 89th General Session of the World Assembly of Delegates, the World Organisation for Animal Health updated its acronym to WOA^H, it was originally OIE.

- To catalyse action, it is essential to integrate the One Health approach into relevant development initiatives, such as: pandemic prevention, preparedness and response; improved health systems; animal health and welfare; sustainable food system; and environmental integrity.
- It is also vital to consider for inclusion in the UNSCDF the three pathways of change outlined in the Joint Plan of Action, which are as follows:
 - 1: Strengthen policy, legislation, advocacy and financing
 - 2: Enable organizational development, implementation and sectoral integration
 - 3: Strengthen data, evidence and knowledge

Specific suggestions for each pathway are outlined in this guidance note.

Note: This guidance note does not cover antimicrobial resistance as there is a separate document for consideration of the Resident Coordinators and United Nations country teams (WHO, FAO and OIE, 2021).²

² WHO, FAO & OIE. 2021. Antimicrobial resistance and the United Nations sustainable development cooperation framework: Guidance for United Nations country teams. Geneva, WHO. <https://apps.who.int/iris/handle/10665/346658>



Acknowledgements

The content of this document was developed by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and the World Organisation for Animal Health (WOAH), (also known collectively as the Quadripartite). The Quadripartite would like to thank the headquarters, regional and country staff for their valuable engagement and input, and specifically the following individuals (in alphabetical order):

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Drafting Team: Sally Berman, lead in the development and drafting of the document, with support and contributions from Mehreen Azhar, Charles Bebay, Amina Benyahia, Tianna Brand, Katinka deBalogh, Fairouz Larfaoui, Cheng Liang, Orr Rozov, Brett Shapiro, Nadisha Sidhu and Chadia Wannous.



1. What is One Health and why is it important?

1.1 Background and definition

Since 2003, the world has seen over 15 million human deaths and nearly USD 4 trillion in economic losses due to disease and pandemics, including severe acute respiratory disease (SARS), Ebola, coronavirus disease (COVID-19) as well as immense losses from food and water safety hazards and antimicrobial resistance (AMR) (see Figure 1) (Institute for Health Metrics and Evaluation, 2020). Globally, risks from unhealthy environmental factors (such as air pollution, water contamination and exposure to hazardous compounds) are linked to 24 percent of the global deaths and 28 percent of the deaths of children under the age of five (WHO, 2018). Moreover, these factors pose threats to the health of animals, plants and ecosystems.

The term “One Health” became part of everyday language with the emergence of SARS in 2003 and subsequently with the spread of highly pathogenic avian influenza H5N1 in 2005.¹ The One Health approach² has evolved over the past two decades to address issues of concern at the human–animal–plant–environment interface, such as infectious diseases (including zoonoses), AMR and food safety and has expanded methods to optimize the health of humans, animals, plants and the environment. The COVID-19 pandemic and degraded environments are stark reminders of the health impacts on fundamental connections between people, animals, plants and our environment.

¹ Building on earlier initiatives, FAO, WHO and WOAHA came together in 2008 with the United Nations Children’s Fund, United Nations System Influenza Coordination, and the World Bank to develop a framework entitled “Contributing to One World, One Health - A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal-Human-Ecosystems Interface”, reiterating recommendations for a One Health approach to global health. A tripartite concept note was developed in 2010 (FAO *et al*, 2010).

² In 2004, the Manhattan Principles were set, detailing a collaborative, cross-disciplinary approach coined “One World - One Health”. These principles were taken up by several organizations and then referred to as a “One Health” approach. Later in 2019, the Manhattan Principles were updated to the Berlin Principles. (Wildlife Conservation Society, 2004; Gruetzmacher *et al*, 2021).

Responding to international requests to prevent health threats, minimize adverse impacts and promote health through the One Health approach, the Quadripartite, composed of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and the World Organisation for Animal Health (WOAH), are working in close partnership.³

The One Health High-Level Expert Panel,⁴ an advisory body to the Quadripartite, has produced the following definition of One Health:

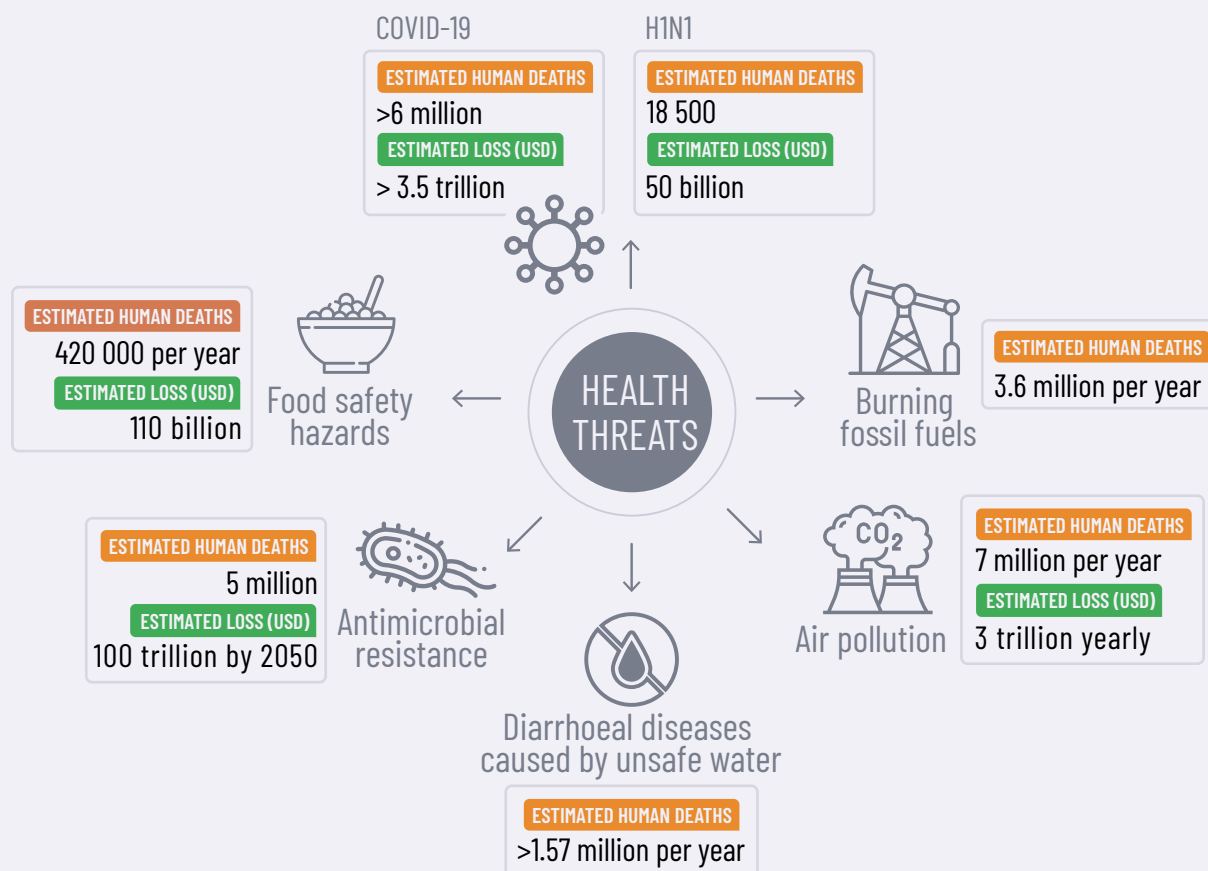
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of humans, animals, plants and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) are closely linked and interdependent.

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.

³ The Quadripartite signed a Memorandum of Understanding on 17 March 2022.
<https://www.woah.org/en/document/memorandum-of-understanding-between-fao-oie-who-and-unesp>

⁴ For more information, see: <https://www.who.int/groups/one-health-high-level-expert-panel>



FIGURE 1: EXAMPLES OF THE IMPACT OF RECENT HEALTH THREATS

Source:

Antimicrobial Resistance Collaborators. 2022. Global burden of bacterial antimicrobial resistance in 2019: A systematic analysis. *The Lancet*, 399(10325): 629–625. <https://pubmed.ncbi.nlm.nih.gov/35065702/>

Institute for Health Metrics and Evaluation. 2020. *GBD Compare Data Visualization*. In *IHME*. Seattle. Cited 19 May 2023. <http://vizhub.healthdata.org/gbd-compare>

Jaffee, S., Henson, S., Unnevehr, L., Grace, D., & Cassou, E. 2019. *The safe food imperative: Accelerating progress in low- and middle-income countries*. Agriculture and Food Series. Washington, DC, World Bank. <https://openknowledge.worldbank.org/bitstream/handle/10986/30568/9781464813450.pdf?sequence=6&isAllowed=y>

Joo, H., Maskery, B.A., Berro, A.D., Rotz, L.D., Lee, Y.K. & Brown, C.M. 2019. Economic impact of the 2015 MERS outbreak on the Republic of Korea's tourism-related industries. *Health Security*, 17(2):100–108. <https://doi.org/10.1089/hs.2018.0115>

WHO. 2015. *WHO estimates of the global burden of foodborne diseases: Foodborne disease burden epidemiology reference group 2007–2015*. Geneva, WHO. https://apps.who.int/iris/bitstream/handle/10665/199350/9789241565165_eng.pdf?sequence=1

O'Neill, J. 2016. *Tackling drug-resistant infections globally: Final report and recommendations*. London, Antimicrobial Resistance Review. https://amr-review.org/sites/default/files/160518_Final%20paper_with%20cover.pdf

WOAH. 2016a. Chapter 3.1: Veterinary services. In *Terrestrial Animal Health Code*. Paris, WOAH. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2016/en_chapitre_vet_serv.htm

WOAH. 2016b. Chapter 3.2: Evaluation of Veterinary Services. In: *Terrestrial Animal Health Code*. Paris. Cited 22 May 2023. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2016/en_chapitre_eval_vet_serv.htm

WHO. 2020. Middle East respiratory syndrome coronavirus (MERS-CoV). In *WHO Health topics*. Geneva. Cited 18 May 2023. <https://www.who.int/emergencies/mers-cov/en/>

WHO. 2022a. Air pollution. In *WHO Health topics*. Geneva. Cited 18 May 2023. <https://www.who.int/health-topics/air-pollution>

WHO. 2022b. Coronavirus disease (COVID-19). In *WHO Diseases*. Geneva. Cited 18 May 2023. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

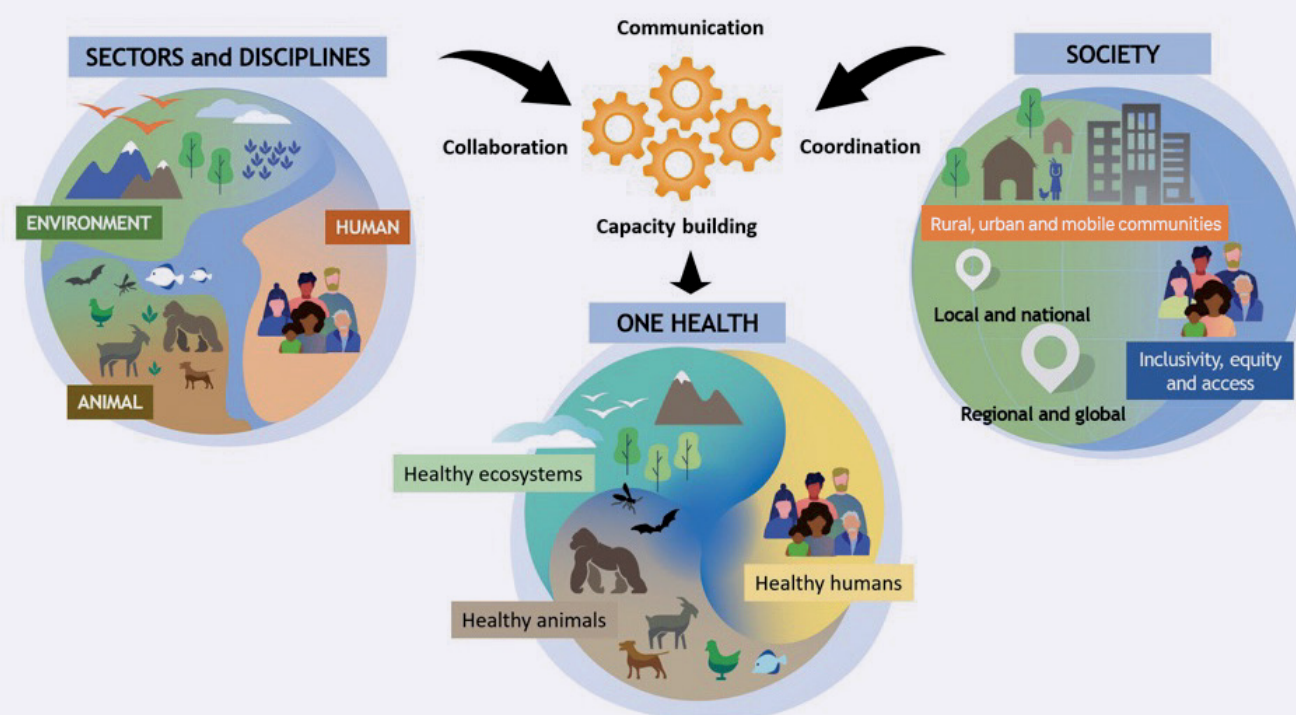
In essence, One Health is an approach that considers the interconnections of and the impacts on the health of all living things (see Figure 2). In this regard, a One Health approach cuts across boundaries of animal, human, plant and environmental health systems and sectors, for effective prevention, preparedness, control and mitigation of disease threats and to promote health, sustainability and equity. Thus, a One Health approach allows a more in-depth analysis of the drivers of disease emergence and re-emergence. This analysis can enable more effective risk management strategies and evidence-based policies to strengthen and develop sustainable health systems. Moreover, One Health considers the health and sustainability of the natural resource base all living beings depend on and provides theories, tools and methods that help us to understand health interconnections and trade-offs and make decisions in the face of complexity and uncertainty.

1.2 The One Health Joint Plan of Action

The Quadripartite has developed a One Health Joint Plan of Action (2022–2026) (OH JPA) to outline the commitment of the four organizations to collectively advocate for and support the implementation of One Health at national, regional and global levels. The OH JPA provides guidance for the inclusion of a One Health approach at country level and within the UNSDCF. The OH JPA was officially launched in October 2022. (FAO *et al.*, 2022).

The OH JPA lays out six interdependent action tracks that collectively contribute to achieving sustainable health and food systems, reduced global health threats, and improved ecosystem management (see Figure 3):

- Action track 1: Enhancing One Health capacities to strengthen health systems
- Action track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics
- Action track 3: Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases
- Action track 4: Strengthening the assessment, management and communication of food safety risks
- Action track 5: Curbing the silent pandemic of AMR
- Action track 6: Integrating the environment into One Health.

FIGURE 2: THE ONE HEALTH APPROACH

Source:

FAO, UNEP, WHO & WOA. 2022. *One Health Joint Plan of Action (2022–2026): Working together for the health of humans, animals, plants and the environment*. Rome, FAO. <https://doi.org/10.4060/cc2289en>

Without serious efforts to use a One Health approach, the loss of lives and livelihoods to zoonotic pandemics will continue, the effects of food safety hazards will grow, environmental deterioration will increase, the health of animals and other living beings will deteriorate, and AMR will risk becoming a pandemic (FAO, 2021). The frequency and impact of health risks are rising owing to changes in socio-environmental factors that have made the human–animal–plant–environment interface more complex and more prone to the emergence of pathogens with pandemic potential. As such, maintaining a state of continual pandemic preparedness is not an option: It is a necessity for the global community to prevent and mitigate mortality, morbidity and loss of livelihoods caused by such events. The time to act is now. It is time for the necessary resources to be allocated to change behaviours and practices to prevent damages and losses and mitigate the risks affecting the health of humans, animals, plants and the environment.

FIGURE 3: THE SIX OH JPA ACTION TRACKS*Source:*

FAO, UNEP, WHO & WOA. 2022. *One Health Joint Plan of Action (2022–2026): Working together for the health of humans, animals, plants and the environment*. Rome, FAO. <https://doi.org/10.4060/cc2289en>

As evident from Figure 1, zoonotic diseases, food-borne diseases, AMR and environmental pollution have enormous impact on the health of humans in terms of death and economic loss. While these numbers refer to human deaths, there are many negative impacts on the health of animals, plants and the environment (OECD, 2016).

The application of a One Health approach is critical for achieving the United Nations 2030 Agenda for Sustainable Development and the related Sustainable Development Goals (SDGs).

The next section illustrates possible One Health country action.

2. How can the United Nations enhance its One Health work at the country level through the United Nations Sustainable Development Cooperation Framework?

2.1 One Health and the Sustainable Development Goals

As the common country analysis and the UNSDCF are the main United Nations analysis and planning mechanisms at country level, it is essential that the One Health approach be included in the development of both, given its importance to achieving the SDGs.

The UNSDCF is the fundamental joint planning mechanism of United Nations activities at country level. The Common Country Analysis provides the background information and analysis on which the UNSDCF is developed, with both making clear linkages with the SDGs. Together, these two planning tools serve as the foundations on which United Nations country teams develop effective and coordinated support to the countries they serve.

The human health component of the One Health approach is reflected in SDG 3 (Good Health and Well-Being), SDG 1 (No Poverty) and others. The health of plants, animals and the environment is reflected in the SDGs which address clean water and sanitation (SDG 6), climate action (SDG 13), life below water (SDG 14) and life on land (SDG 15). Furthermore, the health of all living systems relies on the achievement of the SDGs tied to adequate services and resources, including food security and agricultural production (SDG 2), as well as sustainable cities and communities (SDG 11). Lastly, the effective implementation of a One Health approach implicates the achievement of SDG 17: Partnerships for the Goals (see Figure 4).

FIGURE 4: ONE HEALTH AND THE SDGS

Source: Authors' elaboration.

The United Nations, and the Quadripartite in particular, call for the integration of a One Health approach with its six interdependent action tracks that contribute to achieving sustainable health and food systems, reducing global health threats and improving ecosystem management.

2.2 One Health and its three change pathways

Based on the theory of change of the OH JPA, it is suggested that countries embark on a range of activities to address challenges through a One Health approach, across the following three change pathways:

- **Pathway 1:** Strengthen policy, legislation, advocacy and financing
- **Pathway 2:** Enable organizational development, implementation and sectoral integration
- **Pathway 3:** Strengthen data, evidence and knowledge.

Appendix 1 provides suggested smart indicators across the three change pathways.

Pathway 1: Policy, legislation, advocacy and financing. This pathway encompasses all aspects of policy development, political will, enabling regulatory frameworks, investment, and the institutionalization of intersectoral governance.

The main elements in this pathway include the following:

Advocacy: The success of One Health is not guaranteed only through strong policies, collaboration mechanisms, implementation and funding. Many actors and the general public need to be aware of the importance of a One Health approach in driving the behaviour change necessary to achieve better health outcomes and well-being. Awareness-raising and advocacy need to take place at the country level through videos, webinars, public events and diverse media such as radio programming. This is particularly true in the case of communicating impending pandemics, implementing urgent prevention measures, empowering communities, among others. Adopting a One Health approach at the country level can also help leverage sustainable investment to address the challenges and avoid fragmentation of funds.

Examples of promotion, advocacy and awareness-raising activities are national engagement in the celebration of the following worldwide awareness events:

- World Wildlife Day, 3 March
- World Environment Day, 5 June
- World Food Safety Day, 7 June
- United Against Rabies Forum and World Rabies Day, 28 September
- One Health Day, 3 November
- World Antimicrobial Awareness Week, 18-24 November.



Policy and strategy development: A country should embark on reviewing, establishing and maintaining suitable policies, strategies, plans and regulatory frameworks to support the One Health agenda. Policies may help to address difficult questions regarding whose health is to be prioritized. One Health policies, strategies and plans are developed to reflect shared commitments to enhance the health of the environment, animals (wildlife and domestic), plants and humans. They guide the planning, monitoring and evaluation of all activities under the One Health approach countrywide. They generally focus on the prevention and control of diseases and other public health threats through multidisciplinary collaboration, research, and community services, as well as the sustainability of health systems.

Regulatory framework development: One Health touches upon a diversity of legal areas, each of them with specific regulatory needs. These include human health, phytosanitary legislation, food safety, animal health and welfare, biodiversity or sustainable wildlife management, among many others. Each of these areas should be regulated by sector-specific legislation that incorporates the international law commitments applicable to each country, as well as the standards and recommendations approved by the international reference standard-setting organizations, including the International Plant Protection Convention, WOAHA and the Codex Alimentarius Commission. Furthermore, each individual legal instrument should pay attention to its interface with, and potential impact on, other areas relevant for One Health. Finally, coordinating One Health mechanisms, composed of different entities and stakeholders, would benefit from an appropriate legal underpinning that clarifies the roles and responsibilities of each sector.

BOX 1: ONE HEALTH STRATEGIC PLAN FOR PREVENTION AND CONTROL OF ZOOONOTIC DISEASES IN KENYA

The development of the One Health strategic plan for prevention and control of zoonotic diseases in Kenya (2021–2025) was led by the Zoonotic Disease Unit (ZDU), a collaborative platform established in 2011 involving line ministries of animal health and public health, supported by FAO, WHO and WOAHA. The goal of the plan is to reduce the burden of zoonotic diseases in Kenya, in line with the National Action Plan for Health Security. ZDU not only guided the development of the plan but ensured linkages to broader policy documents; hence, ZDU facilitated the preparation of zoonotic disease-specific control strategies such as: the national strategy for prevention and control of anthrax in humans and animals (2021–2025), the national strategy for prevention and control of brucellosis in humans and animals (2021–2025), and the rabies elimination strategy (2014–2000).

Since its adoption, Kenya has successfully applied One Health on many occasions. For example, field public and animal health services reported massive animal deaths and human cases of Rift Valley fever in several counties. Following the alert, a multisectoral and multidisciplinary field investigation and response team provided control efforts to contain the outbreak, resulting in saving animal and human lives (Hassan *et al.*, 2018).

Source:

Onyango, D.O., Fascendini, M., Wieland, B., Ikiror, D., Sircely, J. & Tefera, S. 2019. One Health policy context of Ethiopia, Somalia and Kenya: One Health Units for Humans, Environment, Animals and Livelihoods (HEAL) Project. Nairobi, International Livestock Research Institute. <https://cgspace.cgiar.org/rest/bitstreams/183816/retrieve>

Notes: Hassan, A., Muturi, M., Mwatondo, A., Omolo, J., Bett, B., Gikundi, S. et al. 2018. Epidemiological investigation of a rift valley fever outbreak in humans and livestock in Kenya, *American Journal of Tropical Medicine and Hygiene*, vol. 103(4) 1649–1655. <https://doi.org/10.4269/ajtmh.20-0387>

Pathway 2: Organizational development, implementation and sectoral integration.

This pathway encompasses all aspects of the implementation of One Health, including the scaling up of capacity development at regional and country levels, community engagement and mobilization for action, multisectoral coordination, collaboration and communication, and the equitable integration of sectors.

This main elements of this pathway include the following:

One Health coordination: Countries are encouraged to establish multisectoral coordination mechanisms to support the One Health agenda and to ensure that policymakers and experts from human, animal, plant and environment sectors collaborate closely toward a joint vision for optimal health for all. A strong coordination mechanism, underpinned by a proper regulatory framework, may drive effective policy processes, facilitate the allocation of roles and responsibilities, and guide implementation. Such a mechanism may utilize different One Health tools, systems and approaches to establish One Health mechanisms and for context analysis, evidence-based approaches and operationalizing One Health. A multisectoral coordination mechanism (sometimes referred to as a One Health Platform), facilitates interaction and negotiation across the relevant sectors.

Capacity development: State and non-state institutions need to be strengthened to address health issues. In several countries, a Workforce Development Strategy outlining One Health core competency gaps has been adopted and guides the capacity-development programmes at national and subnational levels.

Community engagement: Community engagement and empowerment are vital for translating One Health approaches (programmes, policies and legislation) into practice. Community members should play an essential role in implementing and monitoring changes at local level in the health of humans, animals, plants and the environment.

Prevention programmes: Prevention is always better than a cure, especially if it addresses the drivers of disease before it occurs, or to reduce the chance of its occurrence. Risk assessments are needed that integrate human, animal, plant and environmental health aspects, including risks posed through the loss and degradation of ecosystems and the services they provide.⁵ Prevention may also entail integrated surveillance systems, information-sharing, early warning systems, behaviour changes (e.g. mask-wearing/not transporting animals) affecting the public, and changes to animal production practices such as the adoption of biosecurity measures or vaccinations.

National programmes might include pandemic prevention through environmental programmes that aim to: (i) preserve and restore habitat, biodiversity and ecosystems; (ii) mitigate against climate change; (iii) prevent waste and effluent impacting the environment; (iv) adopt climate-smart agriculture; and (v) reduce public health risks

⁵ For example, mapping of disease risk hotspots that integrate ecosystem risk factors, addressing environmental causes of vector-borne diseases.



associated with the marketing of wild animals as well as promote surveillance systems for wildlife health.

Emergency management: A multisectoral team would take action to respond to an emergency situation arising from an urgent health issue (e.g. outbreak of Ebola, AMR, biodiversity loss, food safety crisis). The team would plan and intervene with field investigations, risk communication, community engagement, and would strengthen laboratory capacities and the provision of medication, vaccines and other supplies. This may entail establishing or improving emergency operation centres and emergency sector coordination.

Good practices: The sharing of good practices is essential in the implementation of a One Health approach across the various sectors. Good practices should be an integral component of risk management and should integrate One Health approaches adopted by practitioners and the general public and mainstreamed into national ways of working.

BOX 2: CONNECTING THE HUMAN, ANIMAL AND WILDLIFE HEALTH SECTORS FOR EARLY DISEASE DETECTION AND RESPONSE IN INDONESIA

Prior to 2016, three ministries – the Ministry of Agriculture, the Ministry of Health and the Ministry of Environment and Forestry – were working to monitor disease. The disconnected ministries and their systems did not support effective collaboration and rapid response to control zoonotic diseases. For example, at that time, the provinces reported and responded to less than 10 percent of rabies cases over a protracted response period (on average more than 72 hours) in four One Health pilot areas in Indonesian provinces.

Following the introduction of a One Health approach to the government in 2016, the three vertical ministries and the Coordinating Ministry for Human Development and Cultural Affairs (CM-HDCA) began to realize the need for a new online platform to share data and information on wildlife, animal health and public health. This resulted in the development of an integrated online One Health information-sharing platform called SIZE – “*System of Information on Zoonosis and Emerging Infectious Diseases (EID)*”. The platform supports technical ministries and related stakeholders in sharing and analysing data and producing information rapidly and accurately in order to make decisions to prevent and control targeted zoonoses and EID. The three ministries, the CM-HDCA and others participated in its development.

Owing to this cross-sectoral collaboration, the number of human rabies cases in the four pilot areas decreased and the approach is being extended to anthrax, highly pathogenic avian influenza, and other priority zoonotic diseases such as COVID-19, influenza virus, leptospirosis and tuberculosis.

SIZE is fully adopted by the government and has received support from several government bodies and is integrated in the National Data Centre. In October 2021, Indonesia held the first country pilot workshop using the Surveillance and Information Sharing Operational Tool, which resulted in a three-year development plan to strengthen the national coordinated surveillance system.

Source:

Republic of Indonesia, Ministry of Agriculture. 2020. *SIZE 2.0, the right application for the detection and rapid response of new infectious diseases*. Jakarta, Directorate General of Livestock and Animal Health. Cited 19 May 2023.
<https://ditjenpkh.pertanian.go.id/berita/1082-size-2-0-aplikasi-tepat-untuk-deteksi-danrespon-cepat-penyakit-infeksi-baru>

BOX 3: USING NATURE AND ITS HEALTH AS AN ALLY TO TACKLE THE RISKS OF CLIMATE CHANGE IN COLOMBIA

In Colombia, 70 percent of drinking water comes from the *páramos*, a fragile ecosystem high in the Andes. These Andean moorlands are present in only 2 percent of Colombia's territory but regulate overall water provision for over a third of the population of the country. Climate change is predicted to reduce the extent of the *páramos* ecosystem by up to 75 percent.

The United Nations Development Programme, the UNEP and its specialized biodiversity centre (World Conservation Monitoring Centre), and the Convention on Biological Diversity Secretariat came together to create the United Nations Biodiversity Lab, a free, open-source platform that enables governments and others to access state-of-the-art maps and data on nature, climate change and human development to create innovative solutions to address our planetary emergencies. On this platform, the Maps of Hope initiative was created wherein spatial data are used by local stakeholders and governments to map essential life support areas for nature, climate and sustainable development in countries around the world, recognizing that the health of nature and humans underpins the future of our societies, economies and the planet.

Colombia created a regional Essential Life Support Areas (ELSA) map as a key tool for building consensus on how and where to safeguard a sustainable urban water supply from these mountainous ecosystems for nearly 15 million people. Colombia is the only country to contextualize a regional ELSA map within its national ELSA work. Its Map of Hope was designed to support the development of the country's post-2020 strategies for nature and integrated development in this biodiversity hotspot.

The United Nations Biodiversity Lab is freely available online to governments and other stakeholders as a digital public good.

Source:

UN Biodiversity Lab. 2022. Mapping Nature for People and Planet. New York, UN Biodiversity Lab. https://unbiodiversitylab.org/wp-content/uploads/2022/01/ELSA-Brochure-English_final.pdf

Pathway 3: Data, evidence and knowledge. This pathway encompasses the strengthening of the scientific evidence base, knowledge translation into data for evidence, technical tools, protocols and guidelines, information and surveillance systems.

The main element of this pathway is the following:

Tools for One Health coordination: For the success of a multisectoral coordination mechanism, it is necessary to have adequate data on which to base evidence-based decision-making and priority-setting, as well as an appropriate legal underpinning and context analysis. Appendix 2 contains a list of resources that have been created by the Quadripartite organizations. The tools to support the coordination of One Health in a country are:



- Assessment workshops such as International Health Regulations (IHR) and Performance of Veterinary Services (PVS) National Bridging Workshops⁶
- Tripartite Zoonoses Guide and its tools (e.g. Multisectoral Coordination Mechanisms Operational Tool, Joint Risk Assessment Operational Tool)⁷
- FAO One Health Monitoring Tool (OHMT)⁸
- Environment Sector Country Mapping and Needs Assessment Tool⁹ (FAO and partners).

BOX 4: ONE HEALTH IN EGYPT – THE FOUR-WAY LINKING PROJECT

In 2010, FAO, WHO and WOAHA jointly launched the Four-Way Linking Project and convened the Four-Way Linking Task Force (combining four functional information streams – epidemiology, laboratories, and animal and human health) to bring together the sectors and conduct routine situation assessments and technology transfer regarding H5N1. Egypt was the first country to successfully implement the project, followed by Viet Nam and Indonesia. The Four Way Linking Task Force is now self-sustaining and is well placed to become the technical advisory body to governmental decision-makers, to ensure that science-based information is available to support national policy decisions to reduce H5N1 risks – and risks of other zoonotic influenza as put in evidence by their proactive joint H7N9 response – to animal and public health in Egypt. The Task Force was expanded to include other key players and thus a One Health Technical Advisory Group was established in 2017 to facilitate the collaboration among sectors and serve as a platform for sharing information and best practices on current and new events.

The Advisory Group has played a critical role in discussing the ongoing efforts by the animal, human and environmental sectors to address priority zoonotic diseases, including COVID-19 and AMR, and in identifying key actions and recommendations

Source:

Moussa, M. 2021. OHTAG meeting identifies key actions and prioritize recommendations to address PZDs including COVID-19 and AMR. Cairo, United Nations in Egypt.

<https://egypt.un.org/en/143631-ohtag-meeting-identifieskey-actions-and-prioritize-recommendations-address-pzdsincluding>

⁶ PVS-IHR National Bridging Workshops are held to facilitate the collaboration between animal and public health sectors through an assessment and planning process. The outcomes of the workshops include a joint road map to enhance collaboration and compliance of both health systems with their respective sector-specific international standards. For more information see: <https://doi.org/10.1371/journal.pone.0245312> and <https://extranet.who.int/sph/ihr-pvs-bridging-workshop> or <https://www.woaha.org/en/what-we-offer/improving-veterinary-services/pvs-pathway/targeted-support/one-health-integration/>. For specific tools on animal health, refer to PVS Orientation Training, PVS Self-Evaluation, PVS specific content, PVS strategic planning support, Veterinary Legislation Support, emergency preparedness, and Public-Private Partnerships.

⁷ The FAO-WOAH-WHO guide “Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries” supports countries’ efforts to prevent and control zoonotic diseases, and other threats at the human–animal–ecosystems interface that require a One Health approach, such as food safety and AMR. The Operational Tools provide detailed guidance to support implementation of specific recommendations within the Tripartite Zoonoses Guide, including: Joint Risk Assessment (JRA), Surveillance and Information Sharing (SIS) and Multisectoral Coordination Mechanisms (MCM).

⁸ This tool is designed to collect qualitative and quantitative information to generate results to inform One Health policy development, revision and planning.

⁹ Piloted in Bangladesh, Indonesia, Lao People’s Democratic Republic, Mongolia and Thailand.

2.3 One Health and the UNSDCF: Looking ahead

Disease and other health risks have resulted in millions of human deaths, and USD trillions in economic loss and degradation to the environment. Resident Coordinators and United Nations country team members are invited to consider the inclusion of One Health in their national UNSDCFs using the guidance provided herein.

Resident Coordinators and United Nations country teams are called upon to:

1. Integrate One Health approaches within existing relevant development initiatives such as: pandemic prevention, preparedness and response; improved health systems; sustainable food systems; animal health and welfare initiatives and environmental integrity.
2. Include One Health outcomes in the UNSDCF and utilize aspects of the three pathways of change in the country plan.



Appendices

Appendix 1: Suggested smart indicators for One Health implementation

Term	Description
Pathway 1	<p>Policy, legislation, advocacy and financing – encompasses all aspects of policy development, political will, enabling regulatory frameworks, investment and the institutionalization of intersectoral governance.</p> <ul style="list-style-type: none"> • One Health communication and advocacy strategy is adopted to foster political support and social mobilization, and report on One Health achievements and challenges • One Health funding mechanisms are established • A budget line for One Health is included in national budgets • New or revised policies, plans and regulations are disseminated • One Health workplans are jointly agreed and adopted based on the Joint Plan of Action • One Health high-level policy document or framework is adopted, outlining at least the vision, priorities, institutional arrangements, high-level coordination structure and composition (executive and operational/technical structures), reporting line, monitoring system, and alignment with other national policy documents such as the National Development Plan and the National Action Plan for Health Security. • Enabling legal framework is established to empower stakeholders to operationalize One Health efficiency (e.g. ability of government organizations to establish collaborations with relevant partners through memoranda of understanding, standardization of the interventions of the private sector and local communities)
Pathway 2	<p>Organizational development, implementation and sectoral integration – encompasses all aspects of the implementation of One Health, including the scaling up of capacity development at regional and country levels, community engagement and mobilization for action, multisectoral coordination, collaboration and communication, and the equitable integration of sectors.</p> <ul style="list-style-type: none"> • One Health coordination mechanism is agreed and established • Multisectoral information-sharing mechanisms and systems are in place • Mapping of national infrastructure is routinely updated and all relevant sectors and disciplines are engaged in and contribute to key One Health programmes • Flagship One Health programmes are implemented. Examples include prevention of diseases and health issues (e.g. rabies, zoonotic tuberculosis, zoonotic trypanosomiasis, AMR, food-borne diseases) • Emergency management programmes are implemented effectively • One Health capacity is developed in national institutions (e.g. a One Health Workforce Development Strategy is adopted and provides the needs of One Health core competencies, capacity-development programmes at national and subnational levels are available)
Pathway 3	<p>Data, evidence and knowledge – encompasses the strengthening of the scientific evidence base, knowledge translation into data for evidence, technical tools, protocols and guidelines, information and surveillance systems.</p> <ul style="list-style-type: none"> • National disease surveillance, early warning and monitoring tools and systems are in place • An early warning system integrating One Health Intelligence across sectors is in place • Joint risk assessments are routinely conducted

Appendices

Appendix 2: One Health resources

Term	Link
General	<ul style="list-style-type: none"> • FAO One Health web page • In Brief: United Nations Sustainable Development Cooperation • One Health website (TBD) • One Health High-Level Expert Panel • One Health Joint Plan of Action • United Nations Sustainable Development Cooperation Framework Guidance • WHO One Health website • WOAH One Health website
Thematic resources	<p>Resources are listed along the six action tracks.</p> <p>1. Enhancing One Health capacities to strengthen health systems</p> <ul style="list-style-type: none"> • FAO Virtual Learning Centers • Laboratory leadership competency framework <p>2. Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics</p> <p>3. Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases</p> <ul style="list-style-type: none"> • Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services zoonotics report • Joint WOAHO-FAO Scientific Network on Animal Influenza • Performance of Veterinary Services (PVS) Pathway • Preventing the next pandemic – Zoonotic diseases and how to break the chain of transmission • Road map for zoonotic tuberculosis • United Against Rabies Forum • WHO guidelines on management of Taenia solium neurocysticercosis • WOAH Training Portal • WOAH World Animal Health Information System • WOAH World Animal Health Information System Portal • Zika Strategic Response Plan, Quarterly update, July–September 2016 • Zoonotic potential of international trade in Convention on International Trade in Endangered Species of Wild Fauna and Flora – listed species 2021 <p>4. Strengthening the assessment, management and communication of food safety risks</p> <ul style="list-style-type: none"> • FAO Food Safety Strategy • WOAH Food Safety • WHO Global Strategy for Food Safety 2022–2030



Term	Link
	<p>5. Curbing the silent pandemic of antimicrobial resistance</p> <ul style="list-style-type: none"> • Antimicrobial resistance and the United Nations sustainable development cooperation framework: guidance for United Nations country teams • International instruments on the use of antimicrobials across the human, animal and plant sectors • National Action Plans for AMR for Asia • Strategic framework for collaboration on antimicrobial resistance – Together for One Health • Tripartite project for the implementation of the National Action Plans, called: Working Together to Fight Antimicrobial Resistance (Latin America) • WOAAMR • WHO guidelines on use of medically important antimicrobials in food-producing animals <p>6. Improving the integration of the environmental dimensions into One Health</p> <ul style="list-style-type: none"> • Biodiversity and health • ChemObs – Integrated health and environment observatory for management of chemicals and related disease burdens • Convention on Biological Diversity – WHO State of Knowledge Review • Preventing disease through healthy environments • Safety and quality of water used in food production and processing • Technical brief on water, sanitation, hygiene and wastewater management to prevent infections and reduce the spread of AMR (FAO, WHO, WOAAMR) • UNEP Environmental AMR document • UNEP report on environmental dimensions of AMR • WOAAMR Wildlife Health Programme and Framework
<p>Cross-cutting tools</p>	<p>These selected tools reflect either all six action tracks or span the One Health continuum.</p> <ul style="list-style-type: none"> • Building Tripartite International Guidance Tools for the National Implementation of One Health: Surveillance and Information Sharing Operational Tool (SIS OT) • CDC disease prioritization tool • FAO/WHO food control system assessment tool • IHR-PVS National Bridging Workshops, a tool to operationalize the collaboration between human and animal health while advancing sector-specific goals in countries • Joint External Evaluation (JEE) tool • Joint FAO-WOAAMR-WHO global early warning system for health threats and emerging risks at the human–animal–ecosystems interface • Joint Risk Assessment (JRA) Operational Tool • Multisectoral One Health Coordination Mechanism (MCM OT) • One Health Monitoring Tool (OHMT) (forthcoming) • Taking a multisectoral, One Health approach: A tripartite guide to addressing zoonotic diseases in countries • United Nations Information Portal on Multilateral Environmental Agreements

References

FAO. 2021. The FAO Action Plan on Antimicrobial Resistance 2021–2025. Rome.

<https://www.fao.org/family-farming/detail/en/c/1456387>

FAO, World Organisation for Animal Health & World Health Organization. 2010. Sharing responsibilities and coordinating global activities to address health risks at the animal–human–ecosystems interfaces: A Tripartite Concept Note. Rome, FAO. <https://www.fao.org/3/ak736e/ak736e00.pdf>

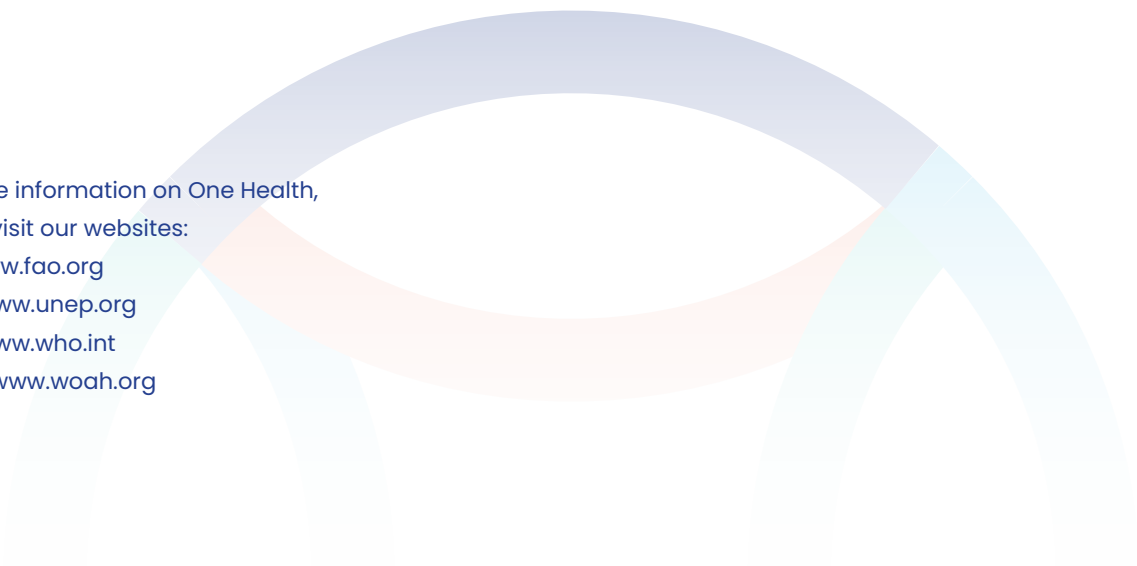
Gruetzmacher, K., Karesh, W. B., Amuasi, J. H., Arshad, A., Farlow, A., Gabrysch, S., et al. 2021. The Berlin principles on one health–Bridging global health and conservation. *Science of the Total Environment*, 764, 142919. <https://www.sciencedirect.com/science/article/pii/S0048969720364494?via%3Dihub>

Institute for Health Metrics and Evaluation. 2020. GBD Compare Data Visualization. Seattle, University of Washington. <http://vizhub.healthdata.org/gbd-compare>

OECD (Organisation for Economic Co-operation and Development). 2016. *The Economic Consequences of Outdoor Air Pollution*. Paris, OECD. https://www.oecd-ilibrary.org/environment/the-economic-consequences-of-outdoor-air-pollution_9789264257474-en

World Health Organization. 2018. Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. <https://www.who.int/publications/i/item/9789241565196>

Wildlife Conservation Society. 2004. The Manhattan Principles on “One World, One Health”. <https://oneworldonehealth.wcs.org/About-Us/Mission/The-Manhattan-Principles.aspx>



For more information on One Health,
please visit our websites:

FAO: www.fao.org

UNEP: www.unep.org

WHO: www.who.int

WOAH: www.woah.org