World Organisation for Animal Health

*One Health Policy Briefs*

# 1. One Health

*The vital role of the animal health sector to tackle health threats at the animal-human-environment interface*


Executive Summary

The COVID-19 pandemic has strongly underlined the critical interdependencies between human health, animal health and the environment, thus accelerating discourse and action around the One Health approach. In addition to pandemics originating from zoonotic diseases, health threats such as antimicrobial resistance, food safety challenges and neglected zoonotic and vector-borne diseases require holistic, collaborative solutions.

The animal health sector has a vital role to play in tackling these global challenges. In this regard, the leadership of Veterinary Services and other animal health authorities is essential to protect global health. The World Organisation for Animal Health (WOAH) advocates for multisectoral partnerships to develop successful interventions to prevent, prepare for and respond to these health threats. The Organisation is calling for increased investment to enable Veterinary Services to scale up an under-resourced workforce and ensure effective implementation of One Health policies and strategies within the animal health sector.


Policy Recommendations

The World Organisation for Animal Health recommends the following policy-based solutions to strengthen the One Health approach, within the animal health sector and beyond, based on the global Quadripartite call to action issued in early 2023:

• Advocate prioritisation of intersectoral health governance, with the One Health approach as a guiding principle, in the international political agenda.

• Increase One Health implementation through support of One Health policies, strategies and plans, that are costed and prioritised in accordance with the Quadripartite OH JPA.

• Support countries to set up or strengthen national One Health governance and multisectoral cooperation, conduct OH situation analyses including stakeholder mapping and priority setting, and develop metrics for One Health monitoring and evaluation frameworks.

• Strengthen integrated One Health competencies in the animal health workforce through specific, recognised and harmonised education curricula and continuing education programmes.

• Support and maintain prevention of pandemics and health threats by focusing on the drivers of risk of zoonotic spillovers at the animal– human–environment interface.

• Foster and support the creation and exchange of scientific knowledge, evidence and technology relevant to the One Health approach.

• Raise funding and generate investment in One Health strategies and plans to ensure their widespread adoption.

• Foster engagement of the whole of society in One Health by implementing appropriate communication and advocacy interventions to reach stakeholders and communities at all levels of society.

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# 2. The importance of the One Health approach in tackling emerging and re-emerging zoonotic epidemics and pandemics

*The animal health perspective*


Executive Summary

Emerging and re-emerging zoonotic diseases are infections caused by pathogens that can be transmitted between animals and humans and whose occurrence or distribution has increased in a population or that have reappeared after a decline. It is estimated that over 75% of emerging infectious human diseases are zoonotic, giving animals a major role as reservoirs in the dynamics of these diseases. Wildlife represents the most significant reservoir of emerging zoonotic diseases (e.g. yellow fever and severe acute respiratory syndrome [SARS]). Livestock can also transmit emerging zoonotic diseases (e.g. bovine spongiform encephalopathy and avian influenza) and act as amplifiers for pathogen spillover from wildlife.

The appearance of emerging and re-emerging zoonotic diseases is associated with multiple drivers, some of which can be related to anthropogenic activities such as land use change and climate change. Understanding drivers and processes associated with emerging and reemerging zoonotic diseases is essential to prevent future disease outbreaks and anticipate related risks.

Given the multitude of variables involved in the dynamics of emerging zoonotic diseases, the One Health approach is essential for managing and preventing disease outbreaks. The World Organisation for Animal Health (WOAH) advocates for the implementation of One Health policies and strategies in the animal health sector, increased investments in Veterinary Services and multisectoral partnerships to prevent and control emerging and re-emerging zoonotic diseases.

The Quadripartite consisting of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and WOAH developed the One Health Joint Plan of Action (2022–2026) (OH JPA) to better tackle health threats collectively, with Action Track 2 focusing on reducing risks from emerging and re-emerging zoonotic epidemics and pandemics. WOAH advocates for policy alignment of Action Track 2 of the OH JPA in the animal health sector.


Policy Recommendations

WOAH recommends the following policy-based solutions to strengthen the prevention of emerging and re-emerging zoonotic diseases under the One Health approach:

**At policy and institutional level:**

• Develop or align national One Health action plans and policies with the OH JPA, adopting a multisectoral and whole-of-society approach, including public–private partnerships and ensuring gender equity.

• Enhance global governance of emerging and re-emerging zoonotic diseases with a focus on prevention and addressing drivers, including strengthening legal frameworks and legislation with adequate human and financial resources.

• Develop or strengthen community engagement policy and strategy and joint risk communication on zoonotic diseases.

• Strengthen One Health surveillance at national level to prevent and control the spillover of pathogens at the human–livestock–wildlife interface. Increase investments to strengthen veterinary laboratory capacity to achieve timely and effective detection of emerging and reemerging zoonotic diseases.

• Promote monitoring and mitigation of drivers of zoonotic disease emergence, spillover and spread, such as land use change due to unsustainable livestock intensification and deforestation.

**At programmatic level:**

• Establish or strengthen a technical working group on emerging zoonotic diseases under the national One Health Multisectoral Coordination Mechanism to facilitate the implementation of the OH JPA.

• Develop standard operating procedures for joint outbreak investigations and conduct regular joint risk assessments of possible emerging zoonotic diseases at national level.

• Share data on drivers associated with zoonotic spillovers between sectors and countries to strengthen prevention, surveillance and control of emerging and re-emerging zoonotic diseases.

• Develop and update guidelines for responsible and prudent use of antimicrobials at national and sub-regional levels, aligned with WOAH international standards.

• Advance the creation of reliable and easily accessible vaccination protocols for domestic animals to achieve high coverage and herd immunity, reduce the risk of mutations and limit the need for antimicrobials.

• Promote biosecurity measures along the food chain, aligned with WOAH international standards.

• Share guidelines and best practices to reduce interaction between wild and domestic animals to prevent the spread of diseases and protect animal health.

**At technical level:**

• Promote and establish One Health joint training for the veterinary workforce, building joint risk assessment and risk communication capacities to prevent, detect and control the emergence and re-emergence of zoonotic diseases.

• Involve sub-national technical staff, local authorities, Indigenous Peoples and local communities in the decision-making process to adapt prevention, surveillance and control activities to the local context.

• Promote research of the characteristics of pathogens, spillovers, drivers and the global burden of animal diseases associated with emerging and re-emerging zoonotic diseases, to develop targeted prevention and control measures.

# 3. Controlling endemic zoonotic, neglected tropical and vector-borne diseases in the animal sector with a One Health approach

Executive Summary

Endemic zoonoses (EZ) are infectious diseases, disproportionately affecting low- and middle-income countries and people living in proximity with their animals. They include rabies, brucellosis and echinococcosis, amongst others. The majority of EZ are classified as neglected tropical diseases (NTDs) because they mainly affect poor and marginalised human and animal populations in low- and middle-income countries, and therefore they are almost absent from the global political and research agenda. EZ usually do not spread fast or wide, further contributing to their low priority. Some of the EZ and NTDs are vector-borne diseases (VBDs), transmitted by vectors such as mosquitoes. Climatic conditions in some African, Asian, and Middle and South American countries are the perfect breeding ground for the rise and persistence of these diseases, with climate change accelerating the prevalence, especially in low- and middle-income countries.

Recognising that these diseases are best controlled by applying a multisectoral approach, the World Organisation for Animal Health (WOAH) advocates adopting the One Health approach to ensure that they are addressed comprehensively. The approach provides opportunities to join forces with local Veterinary Services, communities, governments and other relevant stakeholders to promote multisectoral inclusive partnerships and enhance disease prevention, surveillance and control.

The Quadripartite consisting of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and WOAH developed the One Health Joint Plan of Action (2022–2026) (OH JPA) to integrate systems and capacity to better tackle health threats at the animal–human–environment interface collectively, with Action Track 3 of the plan focusing on controlling and eliminating EZ, NTDs and VBDs with a One Health approach. WOAH is advocating policy alignment of Action Track 3 in the animal health sector.

Policy Recommendations

WOAH recommends policy-based solutions to strengthen the prevention, surveillance and control of EZ, NTDs and VBDs under the One Health approach:

**At policy and institutional level:**

• Integrate the One Health approach at local and national levels to strengthen multisectoral collaboration and coordination between governments, competent authorities, organisations, Indigenous Peoples and local communities.

• Develop or strengthen joint risk communication and community engagement policy and strategy on EZ, NTDs and VDBs.

• Increase investment in local Veterinary Services for early detection and diagnosis of EZ, NTDs and VBDs in animals.

• Allocate sufficient resources to support data collection on EZ, NTDs and VBDs at national and local levels, including animal disease burden data, to improve the quality of reported data and promote reporting of animal health data to WAHIS and GLEWS+.

**At programmatic level:**

• Ensure that a national One Health Multisectoral Coordination Mechanism is in place, facilitating the implementation of the One Health Joint Plan of Action, which encompasses EZ, NTDs and VBDs.

• Set up intersectoral technical working groups on EZ, NTDs and VBDs at country level with legal mandate and sufficient resources to support prevention, surveillance and control measures and to improve coordination, communication and implementation of relevant activities between veterinary, public health and environment sectors in areas with high prevalence of EZ, NTDs and VBDs.

• Support the scale-up of EZ, NTD and VBD eradication and control programmes, such as the rabies vaccination programmes for animals in line with the ZERO by 30 strategic plan.

• Promote scientific research on EZ, NTDs and VBDs, the animal burden of disease and links among infections in human, animal and vector populations, as well as research and development of affordable diagnostics for animals to improve early detection of diseases.

**At technical level:**

• Provide training and education of local veterinary workforces, local authorities, Indigenous Peoples and local communities in relation to disease prevention and health promotion.

• Involve sub-national technical staff, local authorities, Indigenous Peoples and local communities in the decision-making process to adapt the activities to the local context.

• Train media on the burden and priority areas for investment in control and elimination of EZ, NTDs and VBDs to project accurate information at national level and beyond.

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# 4. Addressing food safety risks in the animal health sector

*'From farm to fork' with a One Health approach*


Executive Summary

Food is a primary determinant of animal and human health. It is a basic human right to have access to safe, nutritious and healthy food. Preventing, detecting and controlling foodborne hazards of animal origin is important to protect humans from foodborne illnesses and infections.

The World Organisation for Animal Health (WOAH) informs policy and decision-making and develops international standards to ensure the safety of food of animal origin. WOAH works with Veterinary Services who, together with other competent authorities, ensure that animal health and food safety standards are met on farms and at slaughterhouses. For example, WOAH supports the capacity of Veterinary Services to conduct inspections on farms and in slaughterhouses. Integrating a One Health approach to risk analysis throughout the food chain ensures that food safety risks can be identified and addressed.

WOAH actively contributes to the Codex Alimentarius Commission, which publishes a collection of standards, guidelines and codes of practice. The Commission was established in 1963 by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) to protect consumer health and promote fair practices in food processing. WOAH is the reference organisation for standards relating to animal health and zoonoses in the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). The SPS Agreement facilitates the reduction of hazards at the human–animal–environment interface and enhances transparency of sanitary and phytosanitary measures around the world.

The Quadripartite Collaboration on One Health, consisting of FAO, WHO, the United Nations Environment Programme (UNEP) and WOAH, developed the One Health Joint Plan of Action (2022–2026) (OH JPA) to integrate systems and capacity to better tackle health threats collectively. Action Track 4 focuses on the assessment, management and communication of food safety risks through a One Health approach. WOAH is advocating for policy alignment of Action Track 4 in the animal health sector.


## Policy Recommendations

WOAH recommends the following policy-based solutions to strengthen the One Health approach and tackle food safety threats within the animal health sector and beyond.

**At policy and institutional level:**

• Implement relevant WOAH Standards and collaborate with national Food Safety Authorities to implement relevant Codex Alimentarius Standards.

• Harmonise standards relevant to food safety developed by WOAH and the Codex Alimentarius Commission while taking into consideration the recommendations of the Quadripartite.

• Promote stronger public–private sector collaboration to develop innovative solutions, enhancing food control systems, strengthening food safety capacity and facilitating food safety dialogues and interventions.

• Provide investments and resources to manage and execute risk management, develop and update food standards, enhance laboratory testing of food, increase inspections and educate value chain employees.

**At programmatic level:**

• Support meetings and update national food safety legislation based on WOAH and Codex Alimentarius standards and in the requirements of importing countries.

• Improve coordination on food safety at the national and regional levels between competent authorities, such as veterinary, public health, agricultural and environment institutes as well as other relevant stakeholders.

• Promote national, regional and local cross-sector collaboration of competent authorities responsible for animal health, food safety and public health in line with the One Health approach.

• Support Veterinary Services in ensuring the responsible use of veterinary pharmaceutical products such as antimicrobials.

• Foster and support creation and exchange of scientific knowledge, evidence and technology for food safety in relation to the One Health approach and the Farm to Fork strategy.

**At technical level:**

• Strengthen Veterinary Services via capacity building activities, with an emphasis on implementation of measures applicable at farm level and throughout different stages of the food chain, in collaboration with national Food Safety Authorities, to decrease the risk of unsafe food.

• Facilitate behaviour change through communication strategies and clear messages for each actor in the food chain.

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# 5. Tackling antimicrobial resistance using the One Health approach

*The animal health perspective*


Executive Summary

Antimicrobial resistance (AMR) is a global health threat for humans, animals and plants, because it impairs our ability to treat infections. It is associated with misuse of antimicrobials in various sectors, including agrifood systems and human and veterinary medicine. AMR spreads through animal and human populations, plants and the environment and can alter the effectiveness of treatments for animal, human and plant diseases. It is estimated that 1.27 million people died in 2019 from an infection caused by a drug-resistant bacterium. AMR is one of the top ten worldwide health risks to humans and animals, and threatens livelihoods and food security on a global scale. If AMR continues unchecked, many more infections will become untreatable and life-threatening. AMR is present in all countries but its burden is disproportionately high in low- and middle-income countries, particularly in Africa, Asia and Latin America.

The World Organisation for Animal Health (WOAH) is well placed to lead the fight against AMR in the animal health sector. WOAH collaborates with national Veterinary Services to promote better practices of antimicrobial use, use of alternatives to antimicrobials (e.g. vaccines), biosecurity measures and good animal husbandry practices for the prevention, control and treatment of infectious and zoonotic diseases. To prevent the spread of AMR, WOAH has developed a Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials. One of the main objectives is to strengthen knowledge through surveillance, which is put into practice through the global online database on antimicrobial use in animals (ANIMUSE). WOAH integrates a One Health approach to address AMR comprehensively, as all sectors on the animal– human–environment interface are affected and must collaborate to tackle the global health threat.

The Quadripartite Collaboration on One Health, consisting of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and WOAH, developed the One Health Joint Plan of Action (2022–2026) (OH JPA) to integrate systems and capacity to better tackle health threats collectively. Within Action Track 5, which focuses on AMR, WOAH advocated for policy alignment of the animal health sector.


Policy Recommendations

WOAH recommends the following policy-based solutions to strengthen the One Health approach and tackle AMR within the animal health sector and beyond, based on the global Quadripartite call to action.

**At policy and institutional level:**

• Adopt the One Health multisectoral and multidisciplinary approach to address AMR as it impacts domestic animals, wildlife, humans and plants alike.

• Allocate sufficient resources to support AMR data collection at national and farm levels to improve the quality of reported data and promote reporting of antimicrobial use and animal health data to ANIMUSE and WAHIS.

• Provide financial and technical assistance to Veterinary Services in low- and middle-income countries in relation to AMR.

• By 2030, as outlined in the Muscat Manifesto, reduce overall use of antimicrobials in agriculture and livestock by at least 30%, including through employing antimicrobial susceptibility testing methods that are in accordance with international standards.

• Support the function of and participation in the AMR Multi-Stakeholder Partnership Platform to catalyse a global movement for action against AMR by fostering cooperation among a diverse range of stakeholders at all levels across the One Health spectrum.

**At programmatic level:**

• Strengthen and promote animal vaccination to limit the need for antimicrobials and encourage the use of alternatives to antimicrobials.

• Develop and update guidelines for responsible and prudent use of antimicrobials at national and sub-regional levels aligned with WOAH international standards.

• Engage with the private sector, including the pharmaceutical industry, through public– private partnerships to facilitate the adoption of best practices for the production, distribution, sale, use and disposal of antimicrobials in animals.

• Promote joint use of resources between sectors, such as the use of medicine quality control laboratories by the public health and animal health sectors.

• Advocate for responsible use of antimicrobials in animals, avoiding non-veterinary medical use of antimicrobials in healthy animals (e.g. to promote growth and productivity), and explore alternatives to enhance productivity such as improved breeding programmes and animal nutrition.

• Promote research and development of new veterinary medicinal products, including autologous vaccines, alternatives to antimicrobials and rapid, low-cost diagnostic tests for AMR.

**At technical level:**

• Enhance capacity of national Veterinary Services, via training and education about existing and new AMR laboratory methodologies (e.g. whole genome sequencing) and biosecurity practices.

• Promote communication and sharing of data among the animal, human and environment sectors to inform integrated interventions against AMR.

• Improve awareness and understanding of AMR through effective communication, education and training of animal health providers, animal owners, the public and other relevant stakeholders.

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# 6. Incorporating environmental considerations into the animal health sector


Executive Summary

The degradation of our environment poses significant risk to animal health but is rarely considered in national policies and training for Veterinary Services. There are developments that provide insights and lessons learned, such as the adoption of environmental policies that encourage farmers to implement agricultural solutions to restore wildlife habitats. Nevertheless, land-use changes, habitat loss, misuse of antimicrobials and environmental contamination increase disease transmission and threaten animal health. Climate change disrupts ecosystems and impacts biodiversity, affecting animal health directly and indirectly in different ways, including heat stress and the lack of water and food sources. Therefore, the World Organisation for Animal Health (WOAH) advocates ecosystem protection and transformation for more sustainable production systems, and One Health capacity building of the animal health workforce, integrating an environmental perspective and increased multisectoral collaboration.

A healthy environment with functioning ecosystems is essential for the health of animals. The environment and animal health sectors must join forces on One Health issues through multisectoral partnerships and collaboration. Addressing climate change mitigation and adaptation strategies in livestock production is vital for protecting animal health and ensuring long-term sustainability. Integrating animal health into environmental and disaster risk reduction policies, as well as scaling up investments in prevention and preparedness, are essential steps to reduce the impacts of environmental degradation on animal health and ensure climate resilient and environmentally friendly animal health systems and services.

The Quadripartite Collaboration on One Health consisting of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and WOAH developed the One Health Joint Plan of Action (2022–2026) to integrate systems and capacity to better tackle health threats collectively, with Action Track 6 focusing on including the environment in One Health.

In this policy brief, WOAH advocates policy alignment of Action Track 6 within the field of animal health and provides guidance on how to incorporate environmental considerations into the animal health sector.


## Policy Recommendations

WOAH recommends the following policy-based solutions to strengthen the linkage of environment and animal health sectors under the One Health approach:

**At policy and institutional level:**

• Strengthen intersectoral cooperation and multi-level governance to include the environment in addition to human and animal health.

• Establish institutional engagement for the transformation of production systems, including agroecology and sustainable fish and livestock farming.

• Include animal health in Nationally Determined Contributions and other climate commitments, such as halting biodiversity loss and restoring nature.

• Integrate animal health into environment, biodiversity, climate change and disaster risk reduction plans and policies.

• Scale up financial investments for climate mitigation and adaptation and biodiversity restoration to prevent and prepare for epidemics and pandemics.

• Develop incentives for individual behaviour change to implement mitigation and adaptation measures for health threats at the human– animal–environment interface.

• Integrate the knowledge and considerations of Indigenous Peoples and local communities in policies and strategic plans.

**At programmatic level:**

• Establish a One Health Multisectoral Coordination Mechanism (OH MCM) with environment and animal sectors on a par with the public health sector.

• Through the OH MCM, ensure that budget allocation is equitably shared among all sectors for adequate implementation of One Health activities.

• Promote climate-resilient and sustainable animal health infrastructure and technologies.

• Strengthen community awareness and engagement in relation to the One Health approach.

**At technical level:**

• Develop tools and techniques for animal (including wildlife) disease surveillance that consider environmental variables (e.g. weather patterns, temperature, air quality, soil composition).

• Develop capacities of the veterinary healthcare workforce and its educational institutions to build and sustain climate- and disaster-resilient health systems.

• Develop and promote opportunities to strengthen the animal food system within environmental and biodiversity limits, including agroecology and sustainable fish and livestock farming.

• Enhance collaboration in research and development between the environment and animal health sectors.

• Establish collaborations with Indigenous Peoples and local communities in relation to designing and implementing One Health activities.

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***One Health Policy Briefs***

*Full documents available here:*

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| 1 | One Health | | https://www.woah.org/app/uploads/2024/04/en-one-health-policy-brief-.pdf |
| 2 | The importance of the One Health approach in tackling emerging & re-emerging zoonotic epidemics & pandemics | | https://www.woah.org/app/uploads/2024/06/oh-tackling-zoonotics-pandemics.pdf |
| 3 | Controlling endemic zoonotic, neglected tropical & vector-borne diseases in the animal sector with a One Health approach | | https://www.woah.org/app/uploads/2024/06/en-controlling-endemic-zoonotic-vbds-in-the-animal-health-sector.pdf |
| 4 | Addressing food safety risks in the animal health sector | | https://www.woah.org/app/uploads/2024/06/addressing-food-safety-risks-in-the-ah-sector-with-a-oh-approach.pdf |
| 5 | Tackling antimicrobial resistance using the One Health approach | | https://www.woah.org/app/uploads/2024/06/tackling-amr-using-the-one-health-approach.pdf |
| 6 | Incorporating environmental considerations into the animal health sector | | https://www.woah.org/app/uploads/2024/06/en-incorporating-environmental-considerations-into-the-ah-sector.pdf |