



WVA Position on the Environmental Pillar of One Health

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The World Veterinary Association (WVA) acknowledges the critical role of a healthy environment for humans, plants and animals.

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Climate change, biodiversity loss, pollution, neglected and emerging zoonotic diseases underscore the urgent need to strengthen the environmental pillar of the One Health approach.

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The environmental pillar is an essential core component of the One Health framework, and its importance cannot be overstated. Healthy marine and terrestrial ecosystems, blue economy³, air and soil, and the protection of biodiversity are foundational to the health and well-being of humans, wild and domestic animals and flora. Environmental factors such as pollution, climate change, habitat destruction, and contamination with antimicrobial agents are contributing to the increasing frequency and severity of health challenges faced by both humans, animals and flora.

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Scientific and policy evidence emphasise that protecting and restoring healthy ecosystems to address the environmental determinants of health is essential for reducing zoonotic spillover risks and preventing future pandemics at the source (primary prevention) by strengthening the environmental dimension of the One Health approach.^{1,2}

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The WVA calls for a cross-sectoral approach that strengthens environmental health as part of the broader One Health framework and emphasizes the need for integrated strategies that encompass wildlife, ecosystems, climate and the broader environment.

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Key Issues requiring veterinary input

1. **Climate Change:** Climate change exacerbates health risks by influencing disease patterns, animal migration, and the spread of zoonotic diseases. Extreme weather events, such as floods, heatwaves and droughts, exacerbate the risk of many diseases with significant impacts on animal and human health. Veterinarians play an essential role in providing guidance on animal health and welfare during climate-related events.
2. **Biodiversity and Ecosystem Health:** The loss of biodiversity and the destruction of ecosystems are major drivers of disease emergence. Healthy ecosystems act as natural barriers to disease transmission, especially zoonotic diseases. The protection and restoration of biodiversity are essential to reducing the risks of emerging infectious diseases and ensuring ecosystem services that benefit both human and animal health. Veterinarians contribute by working in domestic, marine and wildlife medicine by identifying and highlighting health risks arising from ecosystem disruption.

3. **Pollution:** Pollution from plastics, chemicals, and waste products directly impacts the health of wildlife, livestock, and human populations. Pollution by pharmaceuticals and pathogens in the environment contributes to disease transmission and the spread of antimicrobial resistance (AMR), with long-term effects on both public health and veterinary practice. Tackling pollution is essential to preventing health crises and ensuring sustainable animal husbandry and wildlife conservation efforts. Veterinarians address animal disease due to toxic exposure, identify toxic risks that threaten water, feed and food safety, and create awareness around human and animal health risks due to pollution
4. **Water, Soil, and Air Quality:** The quality of natural resources—water, soil, and air—has a direct impact on both environmental, animal and public health. Contaminated water and soil contribute to the spread of zoonotic diseases, while poor air quality exacerbates respiratory conditions in animals and humans. Addressing pollution in these vital resources is a key focus area for One Health initiatives. Veterinarians assess environmental factors associated with animal disease and recognise the importance of clean air, clean water and healthy soils for animal health and feed production.
5. **Wildlife and Emerging Infectious Diseases:** The interaction between wildlife habitats and human activities—such as deforestation, urbanization, and agriculture—has increased the frequency of zoonotic disease outbreaks. Preserving wildlife and their habitats is essential to reducing the risk of zoonotic disease spillover. Veterinarians work directly with wildlife health, wildlife preservation and the prevention of disease spill-over and spill-back from/to wildlife.

Recommendations

1. **Policy Integration:** Governments and international organizations must integrate the environmental pillar into national One Health policies and strategies. This includes creating regulations that address environmental health, climate change, pollution control, biodiversity conservation and ecosystem restoration. The One Health framework should be a guiding principle in addressing the root causes of health challenges rather than just responding to disease outbreaks.
2. **Increased Investment:** There is an urgent need for greater financial investment in environmental health research and the implementation of practical on-the-ground projects that address the intersection between environmental sustainability and public and animal health. This includes supporting the development of policies that promote sustainable agriculture, reduce deforestation and curb pollution, with specific focus on their impact on animal and human health.
3. **Cross-Sectoral Collaboration:** To effectively address environmental challenges, veterinary professionals, environmental scientists, ecologists, and public health experts must work together. This interdisciplinary collaboration will foster innovative solutions to the complex environmental issues affecting both animal and human health. Enhanced coordination between sectors will improve data sharing, resource allocation and policy development.
4. **Strengthening Surveillance Systems:** Surveillance systems should be developed and strengthened to monitor environmental contaminants, disease agents, and AMR across wild

and domestic animal populations, as well as the environment. This will help in early detection and prevention of emerging health risks, allowing for proactive action rather than reactive responses.

5. **Education and Public Awareness:** There is a critical need for public education on the links between environmental health, biodiversity, and the health of animals and humans. This includes raising awareness of how human actions impact the environment and the consequences for public and animal health. The WVA supports the development of educational initiatives that emphasize the importance of a healthy environment in disease prevention, the prevention of AMR, and in maintaining overall health and well-being.
6. **Promoting Preventive Measures:** Preventive actions should be prioritized over reactive measures. The focus should be on mitigating environmental risks through better practices in agriculture, waste management, and urban development. In veterinary practice, the role of veterinarians in advising on animal health and welfare in the context of climate change, pollution, and ecosystem disruption is vital.

Background

The WVA recognizes the environmental pillar as an essential element of the One Health approach and calls for stronger action to protect ecosystems, reduce pollution, combat climate change, and promote the conservation of wildlife in alignment with the United Nations Sustainable Development Goals. We advocate for integrated strategies that consider the environment as fundamental to both human and animal health while also recognizing that environmental degradation carries economic costs through increased disease burden, loss of livelihoods, and strain on health and food systems. This is a critical moment in addressing global health challenges, and together, we can create a healthier, more sustainable and economically resilient world for animals, humans, plants, and the environment.

References

1. N4H UNEP website for Primary Prevention (from the Source): <https://nature4health.org/approach>
2. PREZODE (pandemic prevention): <https://prezode-initiative.org/en/>
3. Blue economy: <https://www.oecd.org/en/topics/sub-issues/water-governance/blue-economy.html>