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# A human right to healthy animals

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The United Nations has recognised a universal human right to a clean, healthy and sustainable environment. This right should include the right to healthy animals within that environment because (a) logically animals are part of the environment and (b) poor animal health can affect human health through mechanisms such as pathogen transfer, ecosystem damage, unsustainable resource utilisation and greenhouse gas emissions. Current definitions of health and identified risk factors for animal and human health include physical, mental and environmental social factors. This simple logic might be challenged from perspectives of (1) humans waiving their own right to health; (2) purported conflicting priorities; and (3) concerns that animals also have rights, but these challenges do not refute the underlying argument that the human right to a clean, healthy and sustainable environment includes a right to healthy animals.

## KEYWORDS

animal welfare, healthy environment, One Health, human right to a clean, healthy and sustainable environment, United Nations

## 1 Introduction

Human rights are a constantly evolving field of ethics and policy, as “natural rights” are increasingly recognised and respected in policy (Iriye et al., 2012). Within the United Nations (UN) system, human rights were first established on a policy footing by the UN Declaration of Human Rights in 1948 (UN, 2023a). Since then, the Declaration has inspired over 80 further international human rights declarations and treaties relevant to all or particular rights holders (UN, 2023b).

The UN has long recognised the human right to health. Article 25 of the Declaration states that “[e]veryone has the right to a standard of living adequate for the health and wellbeing of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security” (UN, 2023c). The International Covenant on Economic, Social and Cultural Rights has recognised the right to health as a human right (UN, 1966). Good health and wellbeing have also been recognised as part of sustainable development, which has a foundation in human rights (UN, 2015), most explicitly in Sustainable Development Goal 3: to ensure healthy lives and promote wellbeing for all at all ages (UN, 2015).

At the same time, the United Nations has a long record of marshalling environmental protection, from the 1972 UN Conference on the Human Environment in Stockholm, the establishment of the UN Environment Programme (UNEP) the same year; the World

Charter for Nature of 1982 (General Assembly resolution 37/7); the Convention on Biological Diversity, with principles that recognise the “intrinsic value” of every form of life regardless of its worth to human beings (in preambular paragraph 1); and the Rio Declaration in 1992, which stipulates that human beings “are entitled to a healthy and productive life in harmony with nature”. The anthropocentric focus of some of these documents was already being described as “look[ing] somewhat dated” at the same time that the idea of humans having a right to a healthy environment was seen as fraught with difficult questions (Handl, 2012).

More recently, the human right to a clean, healthy and sustainable environment has been explicitly recognised in Article 11 of the San Salvador Protocol, implicitly within Article 26 of the American Convention and is now recognised by the United Nations Human Rights Council (UN, 2021) and the United Nations General Assembly (UN, 2022). A clean, healthy and sustainable environment is necessary for the full enjoyment of not only health, but a wide range of human rights, including the rights to life, food, water and sanitation and development (OHCHR, UNEP and UNDP, 2023).

This paper considers how this right includes a right to animal health and welfare. Its main argument is simple: it demonstrates that a healthy environment logically and evidentially needs to include healthy animals, including good welfare. The paper then considers potential nuances and implications of this conclusion.

## 2 Animals within a healthy environment

### 2.1 A clean, healthy and sustainable environment includes healthy animals

While there is not yet an universally agreed definition of a clean, healthy and sustainable environment, the Special Rapporteur proposed principles for a healthy environment (Knox, 2018) and the Office of the High Commissioner for Human Rights, the United Nations Environment Programme and the United Nations Development Programme identified initial substantive and procedural elements of the right to such an environment (OHCHR, UNEP and UNDP, 2023) (Table 1).

A healthy environment is also defined partly by the concept of health which (as specified for humans) goes beyond the mere absence of disease or infirmity to include “physical, mental and social wellbeing” (WHO, 2023). It is a property of each of us as an

individual, of our communities and our environments, and their interactions (Prüss-Ustün et al., 2017; Shaffer et al., 2019; Saba et al., 2021; Kristensen et al., 2022; Malhi et al., 2022; Thoma et al., 2021). A healthy environment should be one that allows the fulfilment of other basic rights (IACtHR, 2017; Tigre, 2023), minimum standards of human dignity (McClymonds, 1992; Atapattu, 2002; Gruskin et al., 2007) and sustainable development (Hone et al., 2018; Chotchoungchatchai et al., 2020).

A healthy environment is, logically, one that protects the health of those with a right to health, although the recognition of the right to a clean, healthy and sustainable environment as a right in itself implies that it can be breached even without – or before – evidence of it causing clinical physical and mental health conditions in individual human patients. This implies that an environment can be healthy or unhealthy per se, with or even without evidence of it causing further health problems for humans.

Animals are parts of humans’ environment. This is true for both wild and domestic animals (and all the continuum between) and for both natural and anthropogenic environments (and, similarly, for the continuum between). Animals are integral to natural ecosystems (following millennia of coevolution with one another, microbes and other organisms), and they are found in agriculture and aquaculture, in our homes as pets, and as urban wildlife. Humans’ environment includes not only the animals with whom we interact directly, but others across global migration routes, food webs, biogeochemical cycles and trade.

Animals play essential roles in our environments. They can play roles within good, integrated subsistence farming (Dumont et al., 2019) and provide meaningful companionship for many people (Yeates and Savulescu, 2017). Within ecosystems they function as pollinators and seed dispersers; manage waste, populations and landscapes; provide carbon sinks and modulators of carbon, nitrogen, water and other biogeochemical cycles; and support adaptation to climate impacts (Wunderle, 1997; Kremen et al., 2007; Whelan et al., 2008; Beasley et al., 2012; Ghanem and Voigt, 2014; Valencia-Aguilar et al., 2013; Smith et al., 2015; Ćirović et al., 2016; Gutierrez-Arellano and Mulligan, 2018; Beasley et al., 2019; Fuster et al., 2019). Human health and animal health “are interdependent and bound to the health of the ecosystems in which they exist” (WOAH, 2023a). Animals are part of humans’ environment: logically, their health is part of the health of environment.

Animals’ fulfilment of these roles relies on their survival, abundance, resources, choices, interactions, relationships, resilience, and adaptations. These are animal health and welfare issues. In particular, sentient animals are agents within their environment, whose affective emotions and motivations determine their behaviour, their survival, their progeny’s genetics and their impacts on other animals and the ecosystems, and even future evolution and adaptation (Russo et al., 2006; Edelblutte et al., 2023; Yeates, 2022). Animals’ health and welfare are part of the health of the environment.

### 2.2 The impacts of poor animal health on humans’ environments and health

Animals’ health and welfare also impact upon the health of humans and other parts of humans’ environments. There is

TABLE 1 Elements of a clean, healthy and sustainable environment (after OHCHR, UNEP and UNDP, 2023).

Substantive elements	Procedural elements
Clean air	Access to information
Safe climate	Access to justice
Healthy ecosystems and biodiversity	Public participation
Safe and sufficient water	
Healthy and sustainable food	
Non-toxic environment	

increasing recognition of these links (e.g. Zinsstag et al., 2021; WFA, 2023) and prominent examples can illustrate and demonstrate the relationships between human, animal and environmental health and the importance of a wide concept of health – of humans and animals – that includes physical, mental, relational and environmental health.

One prominent risk to human health and a healthy environment is the presence in animals of zoonotic pathogens. Humans working with animals may be exposed to pathogens and contaminants within workplaces such as farms and live markets (Guan et al., 2003; Viegas et al., 2013; Winders and Abrell, 2021), which may also spread to affect local people (Hribar, 2010) and to other animals (Graham et al., 2019; WHO, 2021; Kuiken and Cromie, 2022; UNEP, 2022). Such impacts may be amplified where the people affected are in countries or regions that have less developed human health and veterinary infrastructures or adaptations (UNEP and OHCHR, 2023).

The prevalence and virulence of zoonotic pathogens depend partly on the exposure, immune responses, interactions and shedding of animal hosts. These depend on their health and welfare, including their diet, stocking densities, intra- and interspecific interactions, the opportunity to build-up natural microflora and immunity, and background metabolic immunomodulators such as concomitant health compromises, genetic predispositions to high growth, and environmental stressors (UNEP, 2020; Otte et al., 2007; Galindo-González, 2022, Kock and Caceres-Escobar, 2022). These are animal health and welfare issues. Animal health and welfare compromises can further increase the risks of mutations to more virulent or cross-species serotypes of pathogens such as avian influenza (Dhingra et al., 2018; Lycett et al., 2019; Horwood et al., 2023; Shi et al., 2023; Xie et al., 2023) and the development and spread of pathogens resistant to antimicrobials required to protect human (and animal) health (WHO, 2021), especially if combined with increased risks of transfer such as stocking densities, manure concentration, or the reduction of other selection pressures due to the down-modulation of animal immune systems associated with hypopituitary axis activation (i.e. stress).

Wild animals' health and welfare compromises also create human health risks. Animals' habitat loss and population decline can lead to animals' behavioural responses that increase the risks of wild animals or pathogens coming into contact with human or domestic animals (Gibb et al., 2020; UNEP, 2020; Fourpaws, 2023). Such environmental damage may be linked to practices that also cause harms to animals more directly, for example through agricultural use of agrochemicals, nitrogenous pollution that can lead to eutrophication of waterways (Price et al., 2015; World Bank, 2017) and greenhouse gas emissions from high populations of industrially farmed chicken, pigs, fish and cows (Mekonnen and Hoekstra, 2012; Higuera et al., 2023). Poor health in wild animals may also reduce their ability to maintain ecosystems and play a part in providing ecosystem services, including pollination (e.g. Gazzea et al., 2023) and carbon sequestration, as recorded for example in elephants (Sandhage-Hofmann et al., 2021; Berzaghi et al., 2023) and cetaceans (Pershing et al., 2010; Martin et al., 2021; Martin et al., 2023; Durfort et al., 2022; Pearson et al., 2023). Furthermore, poor wild animal health and welfare can serve as an indicator of an unclean or unhealthy environment (Neo and Tan, 2017; García-Fernández et al., 2020; Tavalieri et al., 2020; Imagawa et al., 2023). Poor animal

health and wellbeing, including that associated with habitat loss, is also a key contributory factor or mechanism for biodiversity loss, and thriving biodiversity and healthy habitats and ecosystems is a key factor for human health and the enjoyment of human rights (UNEP and OHCHR, 2023).

Poor animal health and welfare can also reduce humans' food security, and thus the health of vulnerable people (OHCHR, 2018). Nutrition threats for herded or grazing animals can threaten the food security of indigenous herders (UN, 2021) or cause indirect impacts such as soil degradation due to overgrazing as a response by those animals (Lai and Kumar, 2020). The scale of animal use is also a risk for food security with land, water or human-edible food such as grain or fish being used to feed farmed animals prevented from engaging in normal healthy foraging and hunting behaviour (Van Zanten et al., 2018; Muscat et al., 2020; Shannon and Waller, 2021). Protecting animal health and welfare could form part of defining "a safe and just operating space where human, animal and planetary well-being is assured" (Muscat et al., 2021).

The human right to a healthy environment therefore includes animals not only because animals are part of that environment, but also on the scientific basis that poor animal health and welfare is a risk factor for poor human health and environmental damage. The human right to a clean, healthy and sustainable environment logically and evidentially includes a right to having healthy animals in that environment. The concept of what constitutes healthy animals should logically be consistent with the WHO definition of human health, *mutatis mutandis*, to include physical, mental and social wellbeing, recognising that, for animals, "welfare" is a commonly used and scientific term (Appleby and Sandøe, 2002; McMillan and Yeates, 2019; Williams, 2021).

### 3 Challenges and refinements

While the main thrust of this paper seems apodictic, it is worth exploring some potential challenges to the view that healthy animals are a human right which may refine, if not refute, the underlying argument that the human right to a clean, healthy and sustainable environment includes a right to healthy animals. (In this, I will ignore wider challenges to rights theory, such as their universal applicability to all humans, which are beyond the scope of the paper.)

#### 3.1 Rights waivers

One potential objection is that humans should be allowed (the right to) to waive their right to healthy animals when choosing environments that threaten their health. This might allow them to choose, for example, to consume animal products with a risk of foodborne illness, to work within farming systems or markets with high pathogen or contamination loads, or to keep dangerous exotic pets.

However, this objection faces two weaknesses. Firstly, while we might respect individual humans' autonomy over their personal health, individual behaviours *also* create or exacerbate risks for

other rights-holders. Insofar as elements of human rights cannot be legitimately waived when they reach beyond rights-holder's sphere (Aall, 2011) and a healthy environment and animal health and welfare are a shared need of all rights-holders, this at least limits respect for autonomy to exceptional circumstances (if any exist) where unhealthy behaviours cause no collateral risks to others' health rights. Secondly, meaningful waivers require people to have the capacity to make informed, valid decisions and meaningful options to reduce their personal health risks, which they might not have due to a lack of accurate, trusted, transparent information about how animals are kept or the impacts of different products, retailer or caterer choice architecture, or the lack of opportunity due to poverty or limited work options. This at least limits any waivers to cases of full individual information, competence and autonomy.

### 3.2 Conflicting priorities

A second challenge might be that protecting animals' health and welfare creates excessive burdens in terms of behaviour, economic or policy changes. This objection might be rejected as a point of fact where we consider that the rights of vulnerable human and nonhuman populations require the safeguarding of animals' welfare (Macdonald, 2021). In other cases, it might be rejected on a point of principle where we consider rights to preemptorily trump other motivations: i.e., this objection could apply only where protecting animal health would breach human rights that are as important and fundamental as the right to health. In such cases where there are apparent conflicts between fundamental rights, this does not mean we should reject the right to health, but instead refine our understanding of all rights to identify a set of interlocking and non-conflicting rights. For example, we might recognise a right to "adequate food" in terms of access to adequate nutrition and means for its procurement, rather than an unfettered entitlement to (over)consume harmful products for personal taste. Within such an interlocking set, the rights of humans can be complementary to and integrated with one another, and with environmental protection and animal welfare.

Less strongly, protecting animal health might be seen as contrary to legal paradigms that allow unfettered exploitation of animals. However, recent policies and precedents might suggest there is already a transformation to greater protection of animal health and welfare. Many countries already include explicit legal or constitutional respect for animal welfare or protection (World Animal Net, 2014) and many have included animals within constitutional environmental protections (Stilt, 2020). For example, the Constitutional Court of Colombia ruled in 2016 that the Atrato River was protected as part of humans' healthy environment *and* as including other living organisms deserving of protection in and of themselves. Of UN member states, over 80% have recognised the right to a healthy environment (A/HRC/43/53 (2019), Annex II; Tang and Spijkers, 2022), 79% have recognised animal welfare legally or constitutionally (Fasel and Butler, 2023), and 100% have recognised the link between animal welfare,

environment and sustainable development (which includes human health) within the UNEA Resolution 5/1 (UNEA, 2022).

### 3.3 Animal rights and instrumentalisation

Another challenge might come from the concern that a human right to healthy animals might be seen as implying rights for animals. This might either be rejected *a priori* or, more weakly, be seen as paradoxical within a "human rights" paradigm that has traditionally been articulated in terms of human (and sometimes male) superiority or exceptionalism (Sparks, 2020). It is beyond the scope of this paper to analyse the potential extension of human rights to animals, or other concepts of multispecies justice. This paper is about how protecting animals' health and welfare is compatible with human rights. It is a "false dilemma fallacy" to think that we always need to choose and illogical to reject a rights-based argument on the grounds it recognises the rights of certain rights-holders (especially if that is purely a matter of semantics).

A related concern would be that recognising the requirement for animals to be healthy within human rights paradigm undermines the inherent nature of animal rights by reducing the value of animal health to human interests. However, this objection seems misplaced, similar to that above, in that it assumes we have to choose between recognising intrinsic or instrumental value of animals. In an interconnecting web of rights (and responsibilities), the fulfilment of rights (and responsibilities) is not only required in itself but also valuable for others. To recognise instrumental value is not to ignore or reject intrinsic value.

What this paper does do is provide grounds and space for a compatible and consistent set of rights across humans, animals and nature, by recognising that such rights would be important in themselves and for respecting other rights (and, reciprocally, that respecting any rights requires the respect of other and others' rights). Such a set of rights would not seem paradoxical within wider concept of rights, grounded in an idea of multispecies ecological justice, especially one that links the rights of animals to the grounds of human rights (e.g. Cavalieri, 2003; Yeates, 2014; Peters, 2018; Bhakuni, 2021). Such a shift might be seen as the next stage in the evolution of human rights ideals, reminiscent of the shift from the phrase "All men are born free and equal" to "All human beings are born free and equal" credited to Hansa Mehta of India (UN, 2023b). In any case, this objection is not an objection against recognising humans' rights to having healthy animals in their environment.

## 4 Discussion

This paper has argued for the basic idea that humans' right to a clean, healthy and sustainable environment includes a right to healthy animals within in, in line with the WHO concept of health, extended from humans to animals. The protection of humans, animals and their environments can be seen as parts of an interrelated and integrated responsibility.

The recognition of such a right should entail its respect and implementation. Part of ensuring the human right to a clean, healthy and sustainable environment is therefore ensuring animals' basic health and welfare needs are met. We should protect the health and welfare of animals and the environment in itself and as part of human rights. This means that evidence of harms to human health or other rights, or of the potential for such harms, provides a significant and sufficient rationale for prioritising the protection of the environment and of the health of animals within it. It does not mean that it is not a necessary condition, in that the right to a healthy environment (healthy animals included) is a right in itself that is not limited to cases where there is evidence of such an impact.

Animal health and welfare can be seen as complementary aspects of a concern that includes animals' physical, mental and environmental factors. World Health Organization (WHO)'s definition of (human) health above is complementary to the World Organisation for Animal Health's Terrestrial Animal Health Code (WOAH, 2023b) which defines animal welfare as "the physical and mental state of an animal in relation to the conditions in which it lives" and the European Food Safety Authority's characterisation of animal health as covering "animal diseases, as well as the interplay between animal welfare, human health, environmental protection, and food safety" (EFSA, 2023).

Substantively, animals would therefore need to be protected, where possible and proportionate, from excessive endemic and epidemic infections, malnutrition, stress and suffering. Domestic animals would need adequate veterinary care; nutrition; appropriate company, heterogeneity, and stocking densities; sufficient exposure to natural microbe level to build up their microflora and immunity; minimal severe or prolonged stress; and genetics that do not predispose them to health problems. It would also include ensuring animals are themselves in clean, and sustainable healthy environments because animals' health can be affected by similar risk factors as humans', including contaminants (Saegerman et al., 2006), pathogens and parasites (Marcogliese, 2008; Bordes and Morand, 2011), resource deprivations and climatic impacts on habitats, food, water and vector distribution (Lacetera, 2019; Domenici and Seebacher, 2020; Cheng et al., 2022), including risks for wildlife of infections from domestic animals (Kuiken and Cromie, 2022), as well as risks from humans' infections, psychopathy, unhealthy behaviour and environmental impacts, and from other animals under human control (e.g. Tu et al., 2004). It would also require protection of animals' parental, dependent, gregarious or mutualistic relationships with other animals or organisms (e.g. Herrera, 1985; Aslan et al., 2013). They will need protection from the health and wellbeing impacts of nature loss, pollution and climate change. Such protection for animals would also help protect the people who depend on them.

While the right discussed here does not define what level of animal health and welfare is required to respect human rights, it does give some indications. Firstly, it suggests that these should be in line with the definitions and standards of the WHO and WOAH, which include but go beyond the avoidance of infectious diseases in humans and animals. Secondly, it does not require that animals or environments to be completely sterile or abiotic, both because this is

impossible and because this can have negative animal health impacts, for example on immune system or microbiome development. The aim should, rather, be in line with the WHO's Constitution that envisages "the highest attainable standard of health as a fundamental right" (WHO, 1946). Thirdly, it would imply preventing risks to people and animals not directly involved in human-animal interactions, for example the risks to ecosystems and communities. Fourthly, it is not limited to cases where there is already evidence that poor animal treatment has caused human health compromises: the right to a clean, healthy and sustainable environment has now been recognised as a right in itself, which can therefore be breached even without – or before – evidence of clinical physical and mental health conditions in individual humans and, by extension, animals. Fifthly, while our policies might differ for different animals (e.g. wild versus domestic), the right would encompass all animals.

Even basic standards will require eliminating or significant modifying "unhealthy" human behaviours that create or exacerbate health risks for humans, animals and our environment, such as live animal trade and industrial animal farming (Jones et al., 2013; Hu et al., 2017; UNEP, 2022). As an illustration, animal welfare compromises caused by farming or trade practice can be associated with increased prevalence of pathogens such as *Yersinia* (Alpigiani et al., 2016), *Campylobacter* (Alpigiani et al., 2017), *Leptospira* (Kamaruzaman et al., 2022), *Salmonella* (Iannetti et al., 2020), *Proteobacteria* (Di Marcantonio et al., 2022), influenza (Henritzi et al., 2020) and coronaviruses (Alexakis et al., 2023; Kristianingrum et al., 2023; Liu et al., 2023; Rao et al., 2023).

While the necessary changes may apply primarily to the behaviour of keepers, consumers and corporations, it may also require changes on others whose behaviour affects those practices, such as through the consumption or overconsumption of products that damage animals' health and environments (Willett et al., 2019). More positively, ensuring basic standards will require the improvement of animal healthcare infrastructures, both to ensure that nutritional, veterinary and other services are available and affordable for owners, and to ensure that these services are focused on ensuring animals and their environments are clean, healthy and sustainable. This means that protecting animal health and welfare also requires policy and structural change, with adequate consideration of animal health and welfare within agreements, policymaking and implementation processes.

Protecting animals is therefore relevant to procedural aspects of the right to a healthy environment (Knox, 2018), adapted for animals (Box 1), and in line with the WHO's principles that "[t]he extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health," and that "[i]nformed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people" (WHO, 2023). Policies should protect people who protect animals from discrimination, threats, harassment, intimidation and violence, in line with the Aarhus Convention and the Escazú Agreement. They should increase public information on animal welfare compromises

**BOX 1** Principles for the protection of animal health and welfare.

1. States should ensure animals' health and welfare in order to respect, protect and fulfil human rights.
2. States should ensure a safe, clean, healthy and sustainable environment for humans and animals
3. States should prohibit discrimination and ensure equal and effective protection against discrimination in relation to the enjoyment of a safe, clean, healthy and sustainable environment
4. States should provide a safe and enabling environment in which individuals, groups and organs of society that work on human rights, animal health and welfare or environmental issues can operate free from threats, harassment, intimidation and violence.
5. States should respect and protect the rights to freedom of expression, association and peaceful assembly in relation to environmental and animal health and welfare matters
6. States should provide for education and public awareness on environmental and animal health and welfare matters.
7. States should provide public access to environmental information by collecting and disseminating information and by providing affordable, effective and timely access to information to any person upon request
8. To avoid undertaking or authorizing actions with environmental or animal welfare impacts that interfere with the full enjoyment of human rights, States should require the prior assessment of the possible environmental and animal health and welfare impacts of proposed projects and policies, including their potential effects on the enjoyment of human rights.
9. States should provide for and facilitate public participation in decision-making related to the environment and animal use and take the views of the public into account in the decision-making process.
10. States should provide for access to effective remedies for violations of rights and domestic laws relating to the environment and animals
11. States should establish and maintain substantive environmental and animal welfare standards that are non-discriminatory, non-retrogressive and otherwise respect, protect and fulfil human rights.
12. States should ensure the effective enforcement of their environmental and animal welfare standards against public and private actors
13. States should cooperate with each other to establish, maintain and enforce effective international legal frameworks in order to prevent, reduce and remedy transboundary and global environmental and animal harm
14. States should take additional measures to protect the rights of those who are most vulnerable to, or at particular risk from, environmental harm, taking into account their needs, risks and capacities.
15. States should ensure that they comply with their obligations to indigenous peoples and members
16. States should respect, protect and fulfil human rights in the actions they take to address environmental and animal health and welfare challenges and pursue sustainable development.

and allow meaningful participation of the public and animal advocates in policymaking that affects animals and in practices to improve animal welfare. This might imply a need for product labelling and transparency about farming and trade practices. Such policies should be implemented and enforced effectively and protect and ensure animal health and welfare at least in line with agreed WOAAH and civil society standards and without exclusions and exemptions for agriculture or commonly kept taxa. They should ensure robust and integrated prior assessments of policies' environmental impacts, animal welfare impacts across all relevant domains (Mellor et al., 2020; Rae et al., 2023) and preparedness for human and animal health risks (Traore et al., 2023). Policies should also achieve equitable sharing of the harms from animal welfare compromises, so that harms to animal or environmental health limit profits, in line with the UN's Guiding Principles on Business and Human Rights (UN, 2011).

Responsibilities to protect human rights may fall primarily on state governments, who "have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures" (WHO, 2023). In addition, other organisations also play roles in protecting animal health and welfare, including international organisations such as the WOAAH, Food and Agriculture Organisation of the UN, the UN Environment Programme, WHO, World Trade Organization, investors and development finance institutions. We might see this as part of a wider "Universal Declaration of Human Responsibilities" that includes protecting the health and welfare of animals and the environment, and recognises not only human rights but also our responsibilities.

A useful procedural comparison might be the situation in the European Union (EU), which recognises the need to pay full regard to animal welfare in Article 13 of the Lisbon Treaty of 2009 on the Functioning of the European Union (which also includes an explicit recognition that animals are sentient beings) and places a responsibility on the EU and its Member States to prevent maltreatment, pain and suffering. In this framework, animal welfare is not a competence at the EU level in its own right, but an objective of the EU policies, alongside principles such as non-discrimination, equal treatment and transparency. Animal welfare is also an integral part of the European Union's Farm to Fork (F2F) strategy, which aims to make agriculture practices in Europe more sustainable through an integrated food policy that covers the full supply chain. The responsibility is at state level, with several countries including animals in their constitution, including Austria, Germany and Italy.

This implementation of the right to healthy animals might also promote increased collaboration between human, animal and environmental health sectors. For example, the links of planetary health, (human) public health and veterinary medicine may help understand how to apply methodologies of a given discipline to others, for example combining economics, behavioural ecology and ethology to consider how humans' and animals' resources could be met now and for future generations within genuinely sustainable solutions. The right to healthy animals would also seem compatible with approaches to a circular economy, by re-integrating animals into healthy natural relationships with their environments. Circular economy approaches must be based on respect for social foundations (Raworth, 2017), and these include "essential rights for humans and animals, such as the right to healthy and safe food,

labour protections and farm animals expressing their species-specific behaviour [and] ensuring farm workers, fisherfolk and land managers – the frontliners of a circular bioeconomy – a prosperous livelihood” (Muscat et al., 2021).

This approach appears compatible with other approaches such as One Health that emphasise the link between animal welfare, human wellbeing, biodiversity and the environment (Zinsstag et al., 2023). The One Health High Level Expert Panel (OHHLEP) has described the foundational principles of One Health (OHHLEP, 2021; Adisasmito et al., 2022), which include “the inclusion and engagement of communities and marginalized voices”, “a harmonious balance between human–animal–environment interaction”, “acknowledging the importance of biodiversity, access to sufficient natural space and resources, and the intrinsic value of all living things within the ecosystem”, and “stewardship and the responsibility of humans to change behaviour and adopt sustainable solutions that recognize the importance of animal welfare and the integrity of the whole ecosystem, thus securing the wellbeing of current and future generations”. The OHHLEP have also highlighted the importance of preventing pandemics (OHHLEP, 2023), which includes a need to protect animal health and welfare (Fourpaws, 2023; WFA, 2023).

The One Health concept complements the development of the “One World, One Health” concept, in support of the 17 Sustainable Development Goals (SDGs), which call for all countries to build a global partnership and implement strategies that improve health and education, reduce inequality, protect the environment and support socially and environmentally sustainable economic growth. There is increasing recognition of the links of animal health and welfare with sustainable development (e.g. EFSA, 2023; Keeling et al., 2019) that illustrates a close mutually reinforcing relationship between animal welfare, human welfare (good health, reduced poverty and hunger) and biodiversity conservation.

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## Data availability statement

The original contributions presented in the study are included in the article/supplementary material. Further inquiries can be directed to the corresponding author.

## Author contributions

JY: Writing – original draft.

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## Conflict of interest

The author is employed by the World Federation for Animals, a membership organization of animal protection and environmental organizations from around the world, working on UN policy and other issues.

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