

# One Health: Including Animal Rights, Conservation, Human Population and Diet

By [Michael W. Fox BVetMed, PhD, DSc, MRCVS](#)

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*Advancing social acceptance of animal rights and conservation has been protracted by vested interests for several decades. Their incorporation into the philosophy and praxis of One Health is integral to making progress in the realms of public health and economic security that have also been limited by lack of attention to the critical issues of diet, population, regenerative agriculture, and loss of natural biodiversity. Progress in One Health should not be conceptually limited or diverted by the profit-driven promotion of ever more vaccines, pharmaceuticals, and pesticides.*

*A more holistic and integrated approach to pest and disease management linking animal, environmental and human health would reduce over-reliance on vaccines, antibiotics, and pesticides in particular that can cause collateral harm to beneficial species, and, ultimately, to public health; but not negate the value of such agents when used in accord with the precautionary principle.*

Many wild and domesticated animal species have served us in myriad ways for millennia in times of peace and war: For food, clothing, fuel, labor, protection, hunting, herding, tracking, guiding, transporting, rescue, communication, companionship, entertainment, exhibition, competition, education, and, more recently, as assistance-providers and co-therapists; to test military weapons and to advance human health through biomedical testing, research and creating animal models of disease and genetically engineering them to serve as organ donors.

Species include bees and other insects; frogs, pigeons, hawks, cormorants, dolphins, elephants, rats, rabbits, cats, and dogs, cattle, sheep, pigs, poultry, equids, and camelids.

As the human population increased, so did the rate of animal use for various culturally accepted and often financially-driven purposes. It was not until the early nineteenth century that various forms of exploitation, involving mistreatment and suffering, began to be questioned and animal protection and welfare organizations established. But we have yet to fully acknowledge the empathy, trust, loyalty, and devotion other animals have given us without question, since our earliest relationships with them.

According to Prof. I.J.H. Duncan, “Up until the 17th century, philosophers regarded animals as being quite distinct from human beings; human beings had rationality whereas animals had none. This meant that animals had only instrumental value and could be used in any way that human beings desired. During the Enlightenment, philosophers started to realize that the distinction was not clear-cut; animals had some rationality. Bentham (1823) pointed out that rationality was not the important factor; animals could suffer and that was what mattered; animals had intrinsic value.

Also, during the 19th century, as part of Darwin’s theory of evolution by natural selection, it was seen that states of suffering and states of pleasure could also be adaptive. Although the foundation was now in place, the emergence of modern animal welfare science was delayed through the first 70 years of the 20th century by Behaviorism, which eschewed any consideration of subjective experiences.” (See Duncan I.J.H., « Animal Welfare: A Brief History » [PDF file], In: Hild S. & Schweitzer L. (Eds), *Animal Welfare: From Science to Law*, 2019, pp.13-19.)

Behaviorism amounts to the “mechanomorphizing” of animals as instinct-driven automatons to counter any anthropomorphizing of animal consciousness. I agree with Duncan that this spell was broken by two books in particular: I was fortunate to know and work closely with these two authors of these ground-

breaking books, the one addressing the cruelties of animal factory farms and the other raising legitimate, science-based issue of animal sentience: Harrison, Ruth, 1964. *Animal Machines*. Vincent Stuart, London, and Griffin, Donald. 1976. *The Question of Animal Awareness*. Rockefeller, New York.

Subsequently, several philosophers and attorneys argued the case for animals having rights but made little progress without the backing of veterinarians, ethologists and other biological scientists providing evidence of species' interests, behavioral, socio-emotional, and environmental needs, as well as physical and nutritional requirements. These are core bioethical principles of animal husbandry and humane stewardship that help ensure animals' health and well-being under the banner of duty of care, elements of which are now incorporated in Animal Welfare and Anti-Cruelty laws in various countries.

*The Cambridge Declaration on Consciousness*, publicly proclaimed in Cambridge, UK, on July 7, 2012 was a landmark contribution from the scientific community. Significant advances in understanding animal consciousness and sentience have been made since then. (See Jonathan Birch, Alexandra K. Schnell, Nicola S. Clayton, Dimensions of Animal Consciousness, *Trends in Cognitive Sciences*, 24: 789-801, 2020. <https://doi.org/10.1016/j.tics.2020.07.007>. ).

From a One Health perspective, environmental health/protection, as advocated by ecologists and conservationists, is linked with animal rights, animal health and well-being that mirror our own degree of physical and mental health and socio-economic well-being. The mental health benefits of contact with nature and animals are now being documented. ( <https://drfoxonehealth.com/post/the-healing-powers-of-animals-and-nature/>) All who oppose environmental and animal protection and rights may someday be found guilty of crimes against humanity by eroding the bioethical basis of One Health.

Books such as Rachel Carson's 1962 *Silent Spring*, Paul Erlich's 1968 *The Population Bomb*, Frances Moore Lappe's 1971 *Diet for a Small Planet*, and the Club of Rome's 1972 report, *Limits to Growth* helped galvanize public concern and sparked several non-profit organizations dedicated to addressing these connected concerns. But they did not turn the tide. The United Nations now projects that the world population, 8 billion as of 2023, would peak around the year 2086 at about 10.4 billion. ([https://en.wikipedia.org/wiki/Projections\\_of\\_population\\_growth](https://en.wikipedia.org/wiki/Projections_of_population_growth)).

According to Compassion in World Farming an estimated 70 billion farm animals are reared for food in the world each year. Approximately two out of every three farm animals in the world are reared on a factory farm. (<https://www.animalmatters.org/facts/farm>

Diseases from animals to humans is not only a foreign problem. Industrial agriculture, the exotic pet trade, fur farming and live animal markets in the US pose significant risks for zoonotic disease spillover events, and the US lacks a comprehensive strategy for mitigating the danger, according to a report from experts at Harvard Law School and New York University. An estimated 25 million birds pass through some 130 live markets just in the Northeast every year, and there is evidence of outbreaks of highly pathogenic avian influenza at live bird markets and that swine flu spilled over to people at live animal markets in the past. ( See <https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf0>.

Clearly, family planning to reduce population growth and reduced production and consumption of farmed animals go hand in hand to save biodiversity and the collective contribution to the extinction and climate crises. Aside from the documented health benefits of cancer and other disease-limiting diets that are plant-based/ vegan, Oxford University scientists have calculated the environmental consequences of our dietary choices under current U.K. climatic conditions. A plant-based diet would result in 75% fewer greenhouse gas emissions (i.e., lower carbon footprint) than those who eat more than 3.5 ounces of meat daily, with

less harm to land, water, and biodiversity. The study found that, compared to meat-heavy diets, vegan diets resulted in 75 percent less land use, 54 percent less water use, and 66 percent less biodiversity loss. (For details see Scarborough, P., Clark, M., Cobiac, L. *et al.* Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts. *Nat Food* 4, 565–574 (2023). <https://doi.org/10.1038/s43016-023-00795-w>).

This is yet another confirmation of the ethical imperative of reducing meat production and consumption and reliance on animal produce as dietary staples, which is in accord with the theory and praxis of One Health. From a veterinary perspective, those involved in the farm animal sector can contribute to the long overdue transition to humane and sustainable agriculture. Transitional agriculture calls for a dramatic reduction in the numbers of animals being produced and harvested from land and sea for human consumption, and in using good land to raise feed for livestock and poultry.

Reclamation and restoration/re-wilding, especially of wetlands and grasslands taken over by industrial agriculture and sheep and cattle ranching would be more feasible with consumer support of humane and ecologically sensible dietary choices: Plant based, ideally Organically Certified, and less or no meat and other animal-derived foods. This would do much to help rectify climate change and reduce zoonotic and food-borne diseases.

In restoring bio-regionally indigenous plant and animal species, including predators, ecological/environmental and public health would be improved. Selected, locally adapted breeds of farmed animals could be conserved when integrated with wildlife, guard dogs as needed, to transition to more sustainable and regenerative land and water use. The veterinary profession can lead the way in monitoring and preventing zoonotic diseases transmitted by domesticated and wild animals, and help prevent the horizontal spread of diseases between the wild and the domesticated.

These initiatives, along with climate-controlled hydroponic and other enclosed food production systems and technologies, including cellular, for local food production, are enlightened responses to unpredictable climate change and uncertain crop yields with local floods and droughts of increasing frequency, intensity, and duration. We face massive forest fires and loss of oxygen-producing, carbon-sequestering trees; ocean warming, acidification, and loss of oxygen-producing, carbon-sequestering plankton; Arctic warming disrupting the jet stream and possible collapse of the climate-stabilizing Atlantic Ocean current with increased fresh water input from ice melt, along with global petrochemical and sewage pollution of aquatic ecosystems that also influence climatic stability, we and all life on Earth face a challenging future.

Commercial fishing that depletes global fish stocks and threatens the livelihoods of indigenous coastal fishing communities, along with ecologically damaging commercial shrimp and salmon farming, all need to end; and whaling cease. Public funding via government subsidies and World Bank and other bank “development” loans given to all animal-based and associated industries should be limited to humane, sustainable food production and support transitional, regenerative agriculture. Human resources, priorities, intelligence and political will are now being tested as we all face a rapidly changing climate that may take millennia to ever stabilize.

In the summer of 2023 some 40 million people in Kenya, Somalia, South Sudan, and Ethiopia face a hunger crisis on an unimaginable scale. Climate-related drought is one of the major causes of the crisis— together with conflict and high food prices. Reducing food waste is one of the biggest opportunities for lowering greenhouse gas emissions in the world. The establishment of a United Environmental Nations is beginning to crystallize as responsible nation states come together to protect biodiversity, ensure food, fuel, and water security, and associated humanitarian crises and internecine strife: But have yet to address the core issues of population growth and raising billions of animals for food.

The physician's Hippocratic injunction, "First do no harm," is the bioethical principle of *ahimsa*, non-harming, applicable to all our relationships with other living organisms. (See Fox, M.W. *Bringing Life to Ethics: Global Bioethics for a Humane Society*. 2001. Albany NY. State University of New York Press.) The path of least harm to ourselves, to the environment and to health-promoting natural biodiversity in striving to prevent diseases, pests, and predators, calls for a more judicious use of safe vaccines, antibiotics, pesticides, bioremediation (including soil and gut microbiome restoration), and biocontrol (as by introducing specific pathogens or predators to control crop pests and invasive species). Overuse and misuse of pharmaceutical and petrochemical products continue to cause more harm than good when the precautionary principle is ignored, harming beneficial animals, plants, and micro-organisms, and spawning the evolution of resistant "superbugs and "superweeds."

FOR ALL WHO ARE INTERESTED IN THE ONE HEALTH MOVEMENT see Official Journal of [The World Medical Association, Inc. Nr. 2, June 2023 vol. 69](#): 'One Medicine–One Health': An Historic Perspective by One Health Initiative team, [Pages 18 -27 \[https://onehealthinitiative.com/wp-content/uploads/2023/06/WMJ\\_2023\\_02\\_one\\_health\\_one\\_medicine.pdf\]](#)