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Chapter 16: Animal Protection and Environmentalism: The Time Has Come to Be More Than Just Friends

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he animal protection movement and the environmental movement have historically operated separately and apart from each another. They have had different objectives, different constituencies, and, often, different approaches. A reference to these two movements in the same sentence is commonly followed by a description of some dispute—perhaps over invasive species control, hunting, or animal testing. The narrative that animal advocates and environmentalists are fundamentally at odds is well established and oft repeated.

This chapter offers a different take on the relationship between the animal protection and environmental movements. Whatever may have been true in the past, the reality today is that these two movements have a great deal in common—including in many instances shared aims, shared constituencies, and shared approaches.¹ Across the many substantive areas where the two movements and their respective legal and policy frameworks come together around the same subject matter—from industrial animal agriculture to species extinction to chemical regulation reform and beyond—there is more common ground than reason for discord. And for the lawyers who work to advance the values of animal protection and environmental protection, the kinship between the movements runs even deeper. Each aims to ensure the protection of the non-human "other," be it a tropical ecosystem or a piglet, deemed by the law to be mere property—and someone else's property, at that. In this sense alone, the two social movements share a special connection. Differences persist, and sometimes they are profound. But, as this chapter also will discuss, each movement has its own internal differences, and sometimes they, too, are profound.

Why is it important to highlight the opportunities for collaboration and shared reform between these two movements? The first reason is obvious and practical: to build broader and deeper collaboration, which adds new voices and, ideally, new resources to efforts that had been pursued by one or the other movement individually. Second, many people who self-identify as environmentalists also care deeply about the welfare of individual animals, and vice versa. Recognizing where the issue areas overlap and common interests exist simply acknowledges where many of the members and supporters of these movements already are, or may be headed. Third, these overlapping interests and common aims may point the way to shared legal and policy reforms that benefit animals, the environment, and humans.

Part I of this chapter highlights key commonalities and differences between the movements—substantive, procedural, and practical. Part II then exam-

^{1.} Indeed, every chapter in this book identifies connections between the two movements.

ines the prospects for greater collaboration and shared reform efforts. There is little doubt that the two movements have become intertwined in important ways. Given the enormous challenges that each faces in the 21st century, there is every reason to not only encourage inter-movement collaboration, but also think beyond alignment and coalition-building and consider undertaking mutually beneficial reforms based on shared principles.

I. Two Movements

What do the terms "animal protection movement" and "environmental movement" actually mean? The movements that swirl around the fields of animal law and environmental law, and infuse them with their passion and dynamism, can be hard to define given the fluid nature of social movements and the intense disagreements that take place within them.

The animal protection movement is comprised of people who believe that the lives and interests of animals² matter, if not always to human beings, then to the animals themselves. Animal advocates support the reduction or elimination of pain, suffering, abuse, and neglect, as well as eliminating the exploitation and unnecessary death of animals. This focus on animals includes farmed animals, animals used in research and testing, wildlife and captive wildlife, animals used in entertainment, and companion animals. Though decades younger than the environmental movement, the animal protection movement has gained substantial momentum in the United States and now has a global reach.

The animal protection movement has built national and international organizations, as well as grassroots organizations. The movement encompasses the work of advocacy and educational organizations, humane societies and shelters, dog and cat rescue groups, sanctuaries for farmed animals and captive wildlife, anti-vivisection societies, and others who work to change the way society views and treats animals. At the individual level,

^{2.} As used in this chapter, the word "animal" refers to any mammal, bird, amphibian, or living being other than a human. It is not intended as a scientific or philosophical definition. See Sonia S. Waisman, Pamela D. Frasch & Bruce A. Wagman, Animal Law Cases and Materials (5th ed. 2014). Whether the law considers a living being to be an "animal" in a particular context can be quite significant. For example, if a court deems the answer to be "no," then that being may not receive protections offered by state anti-cruelty laws. The federal Animal Welfare Act (AWA), 7 U.S.C. §2132(g), defines the term "animal" to specifically exclude rats, mice, and birds "bred for use in research," "horses not used for research purposes," and "other farm animals, such as, but not limited to livestock or poultry, used or intended for use as food or fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. . . . "This exclusion from the definition of "animal" under the AWA has had dire consequences for the beings listed.

the movement attracts lawyers and other legal professionals, veterinarians, physicians, psychologists, politicians, sports figures, celebrities, and grass-roots activists. The animal protection movement is actually a mixture of organizations and individuals who hold distinct but interconnected ideologies: those who are proponents of animal rights (i.e., *enforceable* legal rights for animals, and the abolition of all forms of animal use or exploitation), those who advocate for animal protection or welfare (acknowledging continued use of animals, but demanding humane treatment), and those who embrace both ideologies.³

The environmental movement comprises a vast range of advocacy and educational efforts involving pollution prevention; regulation of toxics and hazardous materials; natural resource and energy conservation; protection of land, ecosystems, and species; and healthy, sustainable interactions between people and the natural world. Environmentalism pulls in diverse subjects, from environmental justice for low-income communities and communities of color, to the safeguarding of public health, to the built environment, to ecotourism and improved livelihoods as vehicles for conservation, to the protection of biodiversity. Environmentalism reaches land, air, climate, and water—from the ocean to surface waters and groundwater—and the full scope of human activities that impact our land, water, and climate.

The environmental movement's work is identified with numerous nonprofit organizations: large organizations that are regional, national, or international in their reach, as well as countless local and grass-roots groups that advocate for their own community or watershed. Earth Day, an annual, global celebration of the movement, draws over 1 billion participants per year and is thought to be the largest civic observance in the world.⁴ Though environmental policy debates can spark intense disagreement, self-identified environmentalists are found throughout all sectors, industries, and government—and "environmentalism" is typically held as a value. A 2015 Gallup Poll found that 57% of Americans are either sympathetic to the environmental movement (41%) or active participants in it (16%).⁵ The environmental movement is a very big tent—so large, in fact, as to defy easy definition.

For simplicity's sake, the term "animal protection movement" will be used throughout this chapter to refer to all three of these approaches.

^{4.} Earth Day Network, *About Earth Day Network*, http://www.earthday.org/about-earth-day-network-3 (last visited May 3, 2015).

Gallup, Environment, http://www.gallup.com/poll/1615/environment.aspx (last visited June 25, 2015).
 In polling data, dated Mar. 5-8, 2015, a mere 11% of respondents said they were unsympathetic towards the movement, and 30%) were neutral.

A. Commonalities and Mutual Concerns

The animal protection and environmental movements have much in common, beginning with their issue areas. Not only do the substantive interests of animal advocates and environmental advocates significantly overlap, in many instances these interests are also well aligned—suggesting an opportunity to pursue aims jointly. Several key areas are surveyed below. Though there are others, the focus here is on animal agriculture, and in particular the use of "concentrated animal feeding operations"; species extinction; protection of native predators; and the need to reform chemical regulation and modernize the use of chemical testing.

Substantive Areas of Shared Interest

The most striking example of shared interests—and how those interests can align—relates to concentrated animal feeding operations (CAFOs),⁶ commonly referred to as "factory farms." The animals most commonly raised in CAFOs are pigs, chickens, turkeys, dairy cows, and their offspring. As was detailed more specifically in Chapter 4, the CAFO model of production has a range of consequences for animals, the environment, and people. In a CAFO, animals typically live their lives in industrial sheds, housed either individually or in groups that offer them no privacy and limit their mobility to the point that, as they grow, they cannot walk freely or even move without touching other animals. They have been bred to grow quickly, take up as little space as possible, and produce large amounts of meat, milk, and eggs. Animals housed in a CAFO building cannot graze in a field, feel the sun, breathe fresh air, or engage in the wide variety of behaviors and activities that come naturally to their species. If they become sick or injured, in many instances, they may not receive veterinary medical care or timely euthanasia.⁷

^{6.} The term "concentrated animal feeding operation" appears in the Clean Water Act, which expressly includes CAFOs within the definition of a "point source." 33 U.S.C. §1362(14), CWA §502(14). EPA's definition of CAFO is determined by the number of animals confined. A large CAFO will have an "inventory" of at least 1,000 beef cattle or 2,500 pigs each weighing over 55 pounds; 10,000 pigs each weighing less than 55 pounds; 700 mature dairy cows; 1,000 veal calves; 55,000 turkeys; 30,000 laying hens or broilers (chickens raised as meat) or 5,000 ducks if there is a liquid manure handling system; 82,000 laying hens or 125,000 broilers or 30,000 ducks, if there is not; 10,000 sheep or lambs; or 500 horses. See U.S. EPA, Regulatory Definitions of Large CAFOs, Medium CAFOs, and Small CAFOs, http://water.epa.gov/polwaste/npdes/afo/upload/sector_table.pdf (last visited May 3, 2015).

^{7.} See generally, e.g., Pew Commission on Industrial Farm Animal Production, Putting Meat on the Table: Industrial Farm Animal Production in America (2008) and a follow-up report released five years later, Johns Hopkins Center for a Livable Future, Industrial Food Animal Production in America: Examining the Impact of the Pew Commission's Priority Recommen-

CAFOs can also have significant environmental impacts. Water pollution from CAFOs and the row crops grown to feed CAFO animals is substantial. According to the latest compilation of data submitted by the states to the U.S. Environmental Protection Agency (EPA) pursuant to Clean Water Act reporting requirements, "agriculture" is the number one probable source of impairment of the nation's assessed rivers and streams. Far downstream, the nutrient runoff from animal operations and the row crops used to produce their feed contributes to massive, oxygen-starved dead zones that form in places like the northern Gulf of Mexico and the Chesapeake Bay. CAFOs also produce large amounts of hydrogen sulfide, ammonia, methane, nitrous oxide, and other harmful gases. Such pollutants may cause health problems for CAFO workers and nearby residents.

These impacts on animal welfare, water, and air are but some of the consequences associated with CAFOs. As noted earlier in this volume and documented in various reports and studies released over the past decade, the intensive confinement model of meat and dairy production is linked to a wide range of other impacts: e.g., significant anthropogenic greenhouse gas emissions; increased antibiotic resistance in humans due to the non-

- dations (2013); Union of Concerned Scientists, CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations (2008); The CAFO Reader: The Tragedy of Industrial Animal Factories (Daniel Imhoff ed., 2010).
- 8. Agriculture also is among the top three probable sources of impairment of the nation's assessed lakes, reservoirs, ponds, and wetlands. U.S. EPA, Watershed Assessment, Tracking & Environmental Results—National Summary of State Information, http://ofmpub.epa.gov/waters10/attains_nation_cy.control (last visited May 3, 2015). Groundwater pollution resulting from CAFOs is also receiving increased attention. See, e.g., Community Ass'n for Restoration of the Env't v. Cow Palace, LLC, No. 13-CV-3016-TOR, 2015 WL 199345, at *7 (E.D. Wash. Jan. 14, 2015) (noting, in RCRA citizen suit for groundwater pollution from dairy, that "Plaintiffs cite to several instances in which the Dairy applied considerably more nitrogen than the crop could possibl[y] use; for example, in 2012, although soil samples from the top two feet of the soil column showed nitrate levels in excess of what the alfalfa crop could use, the Dairy proceeded to apply 7,680,000 gallons of manure onto the already sufficiently fertilized field") (emphasis in original).
- 9. Agriculture is the largest relative contributor of nitrogen to the Gulf of Mexico and Chesapeake Bay ecosystems—larger than urban/suburban runoff and larger than atmospheric deposition. Interagency Working Group on Harmful Algal Blooms, Hypoxia, and Human Health, Scientific Assessment of Hypoxia in U.S. Coastal Waters 15 (Sept. 2010). "Although coastal hypoxia [oxygen deprivation] can be caused by natural processes, a dramatic increase in the number of U.S. waters developing hypoxia is linked to eutrophication due to nutrient (nitrogen and phosphorus) and organic matter enrichment resulting from human activities. Sources of enrichment include . . . nonpoint source runoff from croplands, [and] lands used for animal agriculture." Id. at 1.
- See National Research Council, Air Emissions From Animal Feeding Operations: Current Knowledge, Future Needs 50-56 (2003), available at http://www.nap.edu/catalog/10586/air-emissions-from-animal-feeding-operations-current-knowledge-future-needs; see also Victor Katch, Buyer Beware!, Michigan Today, Jan. 15, 2014, http://michigantoday.umich.edu/raising-the-steaks-buyer-beware/.
- See Institute for Agriculture and Trade Policy, Concentrated Animal Feeding Operations: Health Risks From Air Pollution (Oct. 2004), available at http://www.iatp.org/files/421_2_37388. pdf.

therapeutic use of antibiotics in CAFO animals to promote growth and protect them from crowded conditions; decimation of traditional farming communities in the United States; unsustainable use of scarce water resources; soil damage and sedimentation; and loss of biodiversity. A full examination of the many impacts of CAFOs is beyond the scope of this chapter. It suffices to say that while environmentalists and animal protectionists may focus on different aspects of the CAFO model of food production, most agree that it represents a damaging and ultimately unsustainable form of agriculture.

The animal protection and environmental movements are both deeply concerned with the loss of threatened and endangered animals—individually and at a species level. A species is deemed "endangered" when it is in danger of extinction throughout all or a significant portion of its range, and "threatened" if it is likely to become endangered in the foreseeable future.¹³ The effects of human activity on the earth's resources include deforestation, mass pollution, climate change, the overexploitation of other species, and the introduction of non-native species into environments where they cause problems.¹⁴ Although estimates vary, one Harvard biologist projected that we are losing 30,000 species annually, which equates to roughly three species per hour.¹⁵ "In fact, 99 percent of currently threatened species are at risk from human activities, primarily those driving habitat loss, introduction of exotic species, and global warming."¹⁶ A primary driver of these activities is CAFOs, the industrial system of food production, discussed above.¹⁷

These significant changes in the ecosystem have long-ranging effects for the environment, animals, and humans. Scientists have classified approximately 1.7 million animal and plant species on earth;¹⁸ however, it is esti-

- 12. See generally, e.g., sources at supra note 7; Henning Steinfeld et al., U.N. FAO, Livestock's Long Shadow: Environmental Issues and Options (2006) and U.S. Centers for Disease Control and Prevention, Antibiotic Resistance Threats in the United States 36 (2013) ("[s] cientists around the world have provided strong evidence that antibiotic use in food-producing animals can harm public health. . . .").
- 13. Endangered Species Act of 1973 §3(6), (20), 16 U.S.C. §1532(6), (20).
- 14. See MILLENNIUM ECOSYSTEM ASSESSMENT BOARD, ECOSYSTEMS AND HUMAN WELL-BEING (2005), available at http://www.millenniumassessment.org/documents/document.356.aspx.pdf [hereinafter MILLENNIUM WHITE PAPER].
- 15. Niles Eldredge, *The Sixth Extinction*, Action Bioscience (June 2001), http://www.actionbioscience.org/evolution/eldredge2.html#primer.
- 16. CENTER FOR BIOLOGICAL DIVERSITY, The Extinction Crisis, http://www.biologicaldiversity.org/programs/biodiversity/elements_of_biodiversity/extinction_crisis/ (last visited May 3, 2015). The annual loss of species has surpassed its natural "background" rate of extinction of one to five species per year and is now estimated to be between 1,000-10,000 times its original rate.
- 17. RICHARD A. OPPENLANDER, FOOD CHOICE AND SUSTAINABILITY: WHY BUYING LOCAL, EATING LESS MEAT AND TAKING BABY STEPS WON'T WORK (2013).
- IUCN Red List, Table 1: Numbers of Threatened Species by Major Groups of Organisms (1996-2014), http://cmsdocs.s3.amazonaws.com/summarystats/2014_3_Summary_Stats_Page_Documents/2014_3_RL_Stats_Table_1.pdf (last visited May 3, 2015).

mated that there are up to 8.7 million species (not including microscopic species).¹⁹ It is projected that by the year 2100, more than half of all animals and plants on earth will become extinct.²⁰

As species in an ecosystem become extinct, the ecosystem's biological diversity, or biodiversity (the variation of life/species) decreases. Biodiversity is vital because it helps ensure disease control, clean water, oxygen, climate stability, pollination of crops, food-chain stability, and nutritiously varied and abundant food. Biodiversity is not easily regained once it has been lost. Diminished levels of biodiversity result in a weaker environment, with ecological systems less equipped to handle stressors such as climate change, disease, or the introduction of non-native species. ²²

The International Union for the Conservation of Nature (IUCN) publishes the Red List of Threatened Species, which tracks "taxonomic, conservation status and distribution information on plants, fungi and animals," around the world. As of 2014, IUCN had evaluated over 76,000 (only 4%) of the identified species. Of the species evaluated, over 29% (22,413) are classified as threatened.²³ This number has increased steadily since IUCN's 1996 evaluation of threatened species. The fact that an increasing number of animals become threatened and go extinct every year has significant implications for the remaining animals. One of the most consequential is the loss of genetic diversity. Genetic diversity allows species to more easily adapt to changing conditions, and strengthens a population's resilience to disease.²⁴ While the magnitude of genetic diversity in wild species is unknown, there is a documented decrease in genetic diversity of species that have been overexploited. As species die off and genetic diversity decreases, the resilience of ecosystems diminishes, making it harder for other species to survive.²⁵

While human activity significantly impacts the environment, these impacts are most closely felt by the millions of individual animals whose very survival becomes more difficult. The destruction of habitat is the primary cause of endangerment for birds and amphibians, globally imperiling 86% of

Anthony D. Baronsky, Dodging Extinction: Power, Food, Money, and the Future of Life on Earth 9 (2014).

^{20.} See generally E.O. Wilson, The Future of Life (2002).

^{21.} The terms "biodiversity" and "genetic diversity" are often used interchangeably. However, here it is largely used to reference variance in species, whereas genetic diversity is primarily used to reference the genetic diversity within species.

^{22.} The Extinction Crisis, supra note 16.

^{23.} IUCN Red List, *supra* note 18. Species the IUCN classifies as "threatened" include critically endangered (CR), endangered (EN), or vulnerable (VU).

^{24.} Biology Online, *Genetic Diversity*, http://www.biology-online.org/dictionary/Genetic_diversity (last visited May 3, 2015).

^{25.} MILLENNIUM WHITE PAPER, *supra* note 14, at 12. The "resilience" of an ecosystem refers to the "level of disturbance" an ecosystem can experience without transforming to a different function or structure.

birds and 88% of amphibians,²⁶ and threatening 37% of mammals.²⁷ Thus, human activity that degrades the environment is a major concern, not only for ecosystems, but for the many species of animals, and the millions of individual animals who depend on that environment for their survival.²⁸ Curbing these losses—and ultimately reversing extinction trends—is a priority for both the animal protection movement and the environmental movement.

Native carnivores, such as wolves, coyotes, mountain lions, foxes, and bears, are an integral part of a healthy ecosystem. However, in the United States and around the world, populations of predators are declining, and in some cases threatened with extinction, due to governmental policies aimed at eliminating them. Wildlife Services, a branch of the U.S. Department of Agriculture's (USDA's) Animal Plant and Health Inspection Service, has killed millions of wild animals.²⁹ The stated reason for this mass slaughter is to protect the ranching industry from losses of livestock due to predation.³⁰ Most livestock losses, however, are not due to predation by wildlife, but rather result from weather, disease, and other causes. The extermination methods used, including steel-jaw leghold traps, snares, aerial gunning, lethal poisons, and denning (killing of infant animals in their dens with poison gas or manually), often cause suffering and slow deaths, and may kill non-targeted and even endangered wildlife species. These tactics have proven to be expensive, cruel, and damaging to the environment.

Experts in conservation biology agree that the presence or absence of predators has a significant impact on the other animals and plants in an ecosystem.³¹ For example, researchers studying gray wolves in North

^{26.} David S. Wilcove, Endangered Species Management: The U.S. Experience, in Conservation Biology for All 226 (Navjot S. Sodhi & Paul R. Ehrlich eds., 2010), available at http://www.conbio.org/images/content_publications/Chapter12.pdf.

^{27.} Id. at 227.

^{28.} Campaigns to combat extinction, and to educate the public on the subject and its drivers, abound. See, e.g., The Convention on Biological Diversity LifeWeb, Zero Extinction Campaign, http://lifeweb. cbd.int/campaigns/zeroextinction (last visited May 3, 2015); Center for Biological Diversity, Population and Sustainability, http://www.biologicaldiversity.org/programs/population_and_sustainability/index.html (last visited May 3, 2015); and Center for Biological Diversity, Take Extinction off Your Plate Program, http://www.takeextinctionoffyourplate.com (last visited May 3, 2015).

See, e.g., Tom Knudson, The Killing Agency: Wildlife Services' Brutal Methods Leave a Trail of Animal Death, Sacramento Bee, Apr. 28, 2012, http://www.sacbee.com/news/investigations/wildlifeinvestigation/article2574599.html.

See U.S. Dep't of Agric., Protecting Livestock From Predators, http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/wildlifedamage?urile=wcm%3apath%3a%2Faphis_content_library%2Fsa_our_focus%2Fsa_wildlife_damage%2Fsa_operational_activities%2Fsa_livestock%2Fct_protecting_livestock_predators (last visited May 3, 2015).

^{31.} Predator Defense, The Ecological Role of Coyotes, Bears, Mountain Lions, and Wolves, www.predatordefense. org/docs/ecological_role_species.pdf (last visited May 3, 2015). See also Joe Scott, Predators and Their Prey—Why We Need Them Both, Conservation Northwest Q. (Spring/Summer 2011), available at www.conservationnw.org/what-we-do/predators-and-prey/carnivores-predators-and-their-prey.

America have found that when wolves are eliminated from an ecosystem, this causes a chain reaction; ungulate populations such as elk tend to increase and overgraze plants, impacting the habitat of other species of wildlife, resulting in a loss of biodiversity and degradation of the ecosystem.³² Non-lethal methods, such as better fences, guard dogs, range riders, night penning of livestock, and training livestock herds to bunch up rather than scatter, have proven to be a more effective and less expensive way to deter predation.³³

Environmentalists and animal advocates are calling for a paradigm shift in the way that native carnivores are viewed and treated. Rather than eliminate carnivores to satisfy a small group of ranchers and agriculturalists, groups such as the Natural Resources Defense Council (NRDC) and Project Coyote are calling on Wildlife Services and state agencies to adopt management policies that are based on science and reason, use non-lethal methods to reduce human-wildlife conflicts, ³⁴ and respect the important role of "predators in sustaining healthy and resilient ecosystems." ³⁵

Fundamental to the regulation of toxic chemicals in commerce is the presence of a strong federal law governing toxics and sound underlying science—both of which are needed to give confidence to regulators, environmentalists, public health advocates, and industry. Unfortunately, there is widespread agreement that the federal law governing toxics, the Toxic Substances Control Act (TSCA) is broken—and, increasingly, that the animal-based toxicology on which regulatory decisions are made is dated and inadequate, in addition to being painful and cruel. Environmental advocates want a law that works, and animal advocates want a testing regime that minimizes or eliminates the use of animals in chemical toxicity testing.³⁶

Environmentalists have long been frustrated with the 1976 law, whose key provisions have changed little since it was enacted.³⁷ For chemicals deemed to be "existing" under TSCA—including roughly 60,000 that were grandfathered in at the time of the law's passage—EPA has the burden to dem-

^{32.} *Id.*; Daniel S. Licht, et al., *Using Small Populations of Wolves for Ecosystem Restoration and Stewardship*, 60 Biosci. 147-53 (2010), *available at* http://bioscience.oxfordjournals.org/content/60/2/147.full.

Non-Lethal Predator Control Program Could Provide Assistance to Lassen County Ranchers, Lassen Times, Mar. 3, 2009, http://www.projectcoyote.org/newsreleases/lassennewsarticle.pdf.

Natural Res. Def. Council, Reform Wildlife Services' Predator Control, http://www.nrdc.org/wildlife/animals/wolves/predatorcontrol.asp (last visited May 3, 2015).

^{35.} Project Coyote, Who We Are, http://www.projectcoyote.org/whoweare.html (last visited May 3, 2015).

Toxic Substances Control Act, 15 U.S.C. §§2601 et seq. (1976). See generally Donald B. Myers Jr.
 & Paul A. Locke, Modernizing U.S. Chemicals Laws: How the Application of Twenty-First Century Toxicology Can Help Drive Legal Reform, 20 N.Y.U. Envtl. L.J. 35 (2012).

^{37.} *Id.* at 38.

onstrate that they pose a hazard if it wishes to regulate their use.³⁸ This has turned out to be quite difficult, as EPA famously lost its bid to ban even asbestos under TSCA after years of litigation.³⁹ Today, we face a "toxic data gap," as relatively few of the over 80,000 chemicals in commerce to which humans, ecosystems, and wildlife are potentially exposed have been adequately tested.⁴⁰

At the same time, the issue of animal testing is of critical importance to the animal protection movement. Generally speaking, to predict whether a chemical, pharmaceutical, pesticide, or other substance will be harmful to humans, the substance is administered to fully conscious animals. The animals are watched to determine whether and how much harm is done, and the results are extrapolated to determine whether that substance will be harmful to humans. In the LD50 test (lethal dose 50%), for example, animals are forced to ingest the substance to determine what dose will kill 50% of them. 41 In the Draize test, the substance is placed into the animal's eye (usually rabbits are used), and then the level of damage is observed. 42 Damage may include redness, swelling or ulceration, as well as bleeding or blindness. The Draize skin test consists of applying a substance to animals' shaved skin, to determine the level of damage, which may include burning, itching, swelling, and inflammation.⁴³ Animal advocates have long opposed these tests as extremely painful and outdated.⁴⁴ These tests require a large number of animals, are expensive to conduct, and are slow to produce results. 45

- 38. Id. at 45-46.
- 39. Corrosion Proof Fittings v. EPA, 947 F.2d 1201 (5th Cir. 1991).
- 40. See Myers & Locke, supra note 36, at 38.
- See Canadian Centre for Occupational Health and Safety, OSH Answer Fact Sheets—What Does LD50
 Mean?, http://www.ccohs.ca/oshanswers/chemicals/ld50.html (last visited May 3, 2015); see also U.S.
 EPA, Ag 101—Lethal Dosage (LD50) Values, http://www.epa.gov/agriculture/ag101/pestlethal.html
 (last visited May 3, 2015).
- 42. Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM), ICCVAM-Recommended Protocol: Revised OECD Test Guideline 405 (Draize Test for Acute Eye Irritation/Corrosion), Appendix B, at B-4 (n.d.), available at http://ntp.niehs.nih.gov/iccvam/docs/ocutox_docs/aahe/appb-protocol.pdf; Merriam-Webster Dictionary, http://www.merriam-webster.com/dictionary/draize%20test; see also Chantra Eskes, Valérie Zuang & Thomas Hartung, The Way Forward for Eye Irritation Testing. Alt/Tox.org, Dec. 6, 2007, http://alttox.org/the-way-forward-for-eye-irritation-testing/.
- 43. See, e.g., American Anti-Vivisection Society, Animals in Science, How Animals Are Used, Testing, http://aavs.org/animals-science/how-animals-are-used/testing/ (last visited May 3, 2015); National Anti-Vivisection Society, Animals and Product Testing, http://www.navs.org/science/animals-in-product-testing (last visited May 3, 2015).
- 44. See, e.g., National Anti-Vivisection Society, Animals and Product Testing, http://www.navs.org/cruelty-free/animals-and-product-testing (last visited May 3, 2015); American Anti-Vivisection Society, Problems With Animal Research, http://aavs.org/animals-science/problems-animal-research/ (last visited May 3, 2015); New England Anti-Vivisection Society, Product Development and Drug Testing, http://www.neavs.org/research/testing (last visited May 3, 2015).
- 45. Id.

Nearly a decade ago, the U.S. National Research Council (NRC) assembled a committee of experts to consider how toxicity testing could be improved. The committee concluded that the current system of toxicity testing is outdated and cannot meet the demands of science and protection of the public in a cost-effective, ethical, and timely manner. In a report titled *Toxicity Testing in the 21st Century: A Vision and a Strategy*, ⁴⁶ the NRC proposed a new, transformative paradigm for chemical testing, one that moves away, over time, from using live animals and replaces them with alternatives, such as *in vitro* cell and tissue cultures, computer models and simulations, and other methods. ⁴⁷ Ultimately, these new methods will not only be more predictive of harmful effects in humans, they will also be faster and less expensive than the use of animals.

The NRC has cautioned that implementing its recommendations will require substantial resources, as well as the cooperation of regulatory agencies, scientists, industry, public health advocates, environmentalists, and the public. Animal protection and environmental organizations have met with these stakeholders to sort through many of the questions about how to develop non-animal scientific techniques that will be more cost-effective, faster, and better predictors of toxicity.

EPA has played a leadership role in working to implement the NRC "vision." Through its Office of Research and Development, for example, EPA entered into a five-year Memorandum of Understanding with two National Institutes of Health in an effort to "guide the construction and governance of a detailed research strategy to make the NRC Committee's vision a reality." Though much remains to be done, this science-driven process is an exciting opportunity to create progress for the protection of human health and the environment, while achieving a significant reduction in the use of animals in testing.

2. Similar Legal Hurdles

Given the commonalities and shared substantive interests that connect the environmental and animal protection movements, it is no surprise that the two movements also confront many of the same legal hurdles. The first and

TOXICITY TESTING IN THE 21st CENTURY: A VISION AND A STRATEGY, The NATIONAL ACADEMIES PRESS (2007), available at http://www.nap.edu/catalog/11970/toxicity-testing-in-the-21st-century-a-vision-and-a.

^{47.} AltTox.org, *Toxicity Testing Overview*, http://alttox.org/mapp/toxicity-testing-overview/ (last visited May 3, 2015).

^{48.} Tripartite Memorandum of Understanding on High Throughput Screening, Toxicity Pathway Profiling, and Biological Interpretation of Findings 3 (entered into Feb. 2008), *available at* https://toxtestingdc.files.wordpress.com/2010/06/20-memo-of-understanding-on-high-throughput-screening.pdf.

probably most important parallel is, in many instances, a lack of adequate legal tools to protect the values that are the focus of each movement.

It is true that environmental law and animal law are in very different places in their evolution. As explained in earlier chapters, environmentalists can draw on a wide array of laws—many of which include robust citizen-suit provisions backed by 40 years of jurisprudence validating their implementation—that are the envy of the animal lawyer. And the nation's premier environmental law, the National Environmental Policy Act (NEPA), mandates an environmental analysis and consideration of alternatives for every major federal action. The environmental movement also has in EPA a federal administrative agency dedicated to its issues. And even traditional common law tools, such as nuisance claims, bolster the environmentalist's toolkit. By any measure, environmentalists have at their disposal an impressive set of legal and institutional tools, as well as access to a mature regulatory structure.

And yet, times have changed. It is not as easy being green as it used to be, at least not for the lawyers. The environmental movement, now at middle age and showing wear, is asking itself whether it has the *right* legal tools to face the environmental challenges not of the early 1970s, but of the early 21st century. Environmental advocates are running into legal barriers as they take on the great environmental issues of the day, and as a surfeit of environmental laws omits or exempts many of the activities causing environmental harm. These include big-ticket topics as varied as global climate

^{49.} See generally supra Chapters 1 and 9.

^{50.} National Environmental Policy Act, 42 U.S.C. §§4321-4347, NEPA §§2-209. NEPA requires federal agencies to take a "hard look at environmental consequences." *E.g.*, Natural Res. Def. Council v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972).

^{51.} E.g., Owens v. Contigroup, Inc., 344 S.W.3d 717 (Mo. App. 2011) (upholding multimillion dollar jury award for nuisance caused by hog operations); *Texas Family's Nuisance Complaint Seen as Win Against Fracking*, (National Public Radio, May 2, 2014) (describing jury verdict of almost \$3 million in nuisance lawsuit challenging fracking and natural gas operations).

change,⁵² nonpoint-source water pollution,⁵³ toxic chemical exposures,⁵⁴ and the diverse environmental and public health impacts of industrial agricultural operations.⁵⁵ And as for EPA, the number of lawsuits filed against it by environmental advocates indicates that the Agency is far from being in lockstep with the movement.⁵⁶

The animal protection movement, too, finds itself searching for the right legal tools to advance its mission—though unlike the environmental movement, animal advocates for the most part never had these tools in the first place. The Animal Welfare Act (AWA), for example, is notoriously limited in its reach, lacks a citizen-suit provision, and is administered by USDA, an

- 52. The federal Clean Air Act continues to be the environmental tool of choice for responding to climate change, but regulation from EPA has come slowly and engendered intense resistance from some states and industry. E.g., West Virginia v. EPA, D.C. Cir. No. 14-1146 (pet. filed Aug. 1, 2014) & In re Murray Energy Corp., D.C. Cir. No. 14-1112 (pet. filed June 18, 2014), and No. 14-1151 (pet. filed Aug. 15, 2014) (pending challenges, consolidated for oral argument, to EPA's proposed rules to regulate greenhouse gas emissions from power plants). Attempts to combat climate change by way of common law tools such as nuisance and public trust have, to date, failed. See, e.g., American Elec. Power Co. v. Connecticut, 131 S. Ct. 2527 (2011) (holding that federal common law public nuisance claims brought against large carbon dioxide emitters are displaced by the Clean Air Act and the EPA actions authorized by the Act); Alec L. v. Jackson, 863 F. Supp. 2d 11 (D.D.C. 2012) (dismissing climate change case brought under public trust doctrine), aff'd, Alec L. ex rel. Loorz v. McCarthy, 561 Fed. Appx. 7 (D.C. Cir. 2014), cert. denied, 135 S. Ct. 774 (2014).
- 53. The federal Clean Water Act fails to place regulatory controls on nonpoint source pollution, the greatest overall threat to the nation's waters. See, e.g., Environmental Law Institute, Almanac of Enforceable State Laws to Control Nonpoint Source Pollution 1 (1998) ("Nonpoint source discharges, which consist generally of polluted runoff from farms, forests, land development and other activities, are not regulated under the federal Clean Water Act's National Pollutant Discharge Elimination System permitting program. Instead they are addressed primarily through non-regulatory means, such as planning, incentive and cost-share mechanisms, voluntary Best Management Practices (BMPs), and other approaches."); Oliver A. Houck, The Clean Water Act TMDL Program: Law, Policy, and Implementation (2d ed. 2002) (noting in the context of discussing Clean Water Act "total maximum daily load" program that nonpoint sources are the dominant source of pollution in every state and the near-exclusive source in some western states) (citations omitted).
- 54. Congressional action to modernize the Toxic Substances Control Act has been stalled for years amid intense disagreement among stakeholders. E.g., Jerry H. Yen, Proposed Reform of the Toxic Substances Control Act (TSCA) in the 113th Congress: S. 1009 Compared With S. 696 and Current Law 1 (Cong. Res. Serv. Report No. R43136, Oct. 23, 2013) ("a diverse set of stakeholders generally concur that TSCA needs to be updated, although there is disagreement about the extent and nature of any proposed revisions"). See also discussion at supra notes 36-48 and accompanying text.
- 55. Despite the far-reaching impacts of industrial agriculture on the environment, people, and animals, there persists in American law what one law professor has succinctly characterized as "a vast 'anti-law' of farms and the environment." J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 Ecology L.Q. 263, 266-67 (2000) ("farms are virtually unregulated by the expansive body of environmental law that has developed in the United States in the past 30 years").
- 56. From 1995 through 2010, the U.S. Department of Justice defended EPA in nearly 2,500 environmental lawsuits. Local and national environmental groups brought just under one third (30%, combined) of these cases. U.S. Government Accountability Office, Environmental Litigation: Cases Against EPA and Associated Costs Over Time 13-17 (Aug. 2011). Nor has EPA been in lockstep with industry; private companies and trade associations (48%, combined) were responsible for nearly half of the lawsuits brought during that time period. Id.

agency heavily criticized for its close relationships with the sector it is charged with overseeing.⁵⁷ And, much as environmental protection laws tend not to reach farms and agricultural operations, there is precious little in the way of legal protection afforded to farmed animals.⁵⁸

Another shared obstacle for the two movements is the difficulty faced by public-interest litigators in satisfying the requirement of demonstrating "standing" to sue in federal court pursuant to Article III of the Constitution.⁵⁹ The doctrine of standing, much of it elaborated in the crucible of environmental protection lawsuits,⁶⁰ is a constant concern for animal and environmental advocates.

This leads us to the most important legal barrier common to these two movements—and one that truly binds them. Animal welfare advocates and environmental advocates are usually seeking to protect what the law views as mere property—be it personal property or real property, privately or publicly held property, living or dead property. A wetland, a stand of elms, a riparian ecosystem, a pig in a CAFO, and a deer killed in a hunt are treated as property under the law.⁶¹ People are generally free under the law to make whatever use they like of the animals and natural resources in their possession, minimally limited by cruelty laws and legal prohibitions against nuisance and waste. These uses, often for commercial advantage, can harm or destroy individual animals, resources, and ecosystems—sometimes on a large scale.⁶² The shared aim of ensuring protection for the non-human "other," notwithstanding the competing wishes of the property owner, represents a powerful link

- 57. See, e.g., Emily Gallagher, Who Runs the USDA?, Animal Legal Def. Fund, Aug. 6, 2012, http://aldf. org/blog/who-runs-the-usda/; Stephen Wells, Captive Orcas Finally Have the Attention of Congress—But Is the USDA Listening?, Animal Legal Def. Fund, June 19, 2014, http://aldf.org/blog/captive-orcas-finally-have-the-attention-of-congress-but-is-the-usda-listening/; USDA Criticized for Helping "Industrialize" Organic Farming, PRWeb, May 10, 2006, http://www.prweb.com/releases/2006/05/prweb383656.htm. See also Animal Legal Def. Fund, Inc. v. Secretary of Agric., 813 F. Supp. 882, 887 (D.D.C. 1993) (chiding USDA for issuing "wide open regulations" and delegating its rulemaking authority to the regulated entity).
- 58. Animal Legal Def. Fund, Farmed Animals and the Law, http://aldf.org/resources/advocating-for-animals/farmed-animals-and-the-law/ (last visited May 3, 2015). No federal law exists to establish husbandry standards for animals in CAFOs and AFOs. The federal Humane Transport Act (28 Hour Law), 49 U.S.C. §80502, covers the transport of animals interstate; the federal Humane Methods of Livestock Slaughter Act, 7 U.S.C. §\$1901-1907 covers only slaughter, and the AWA, 7 U.S.C. §2132(g), specifically excludes farmed animals from its protections. The majority of state anti-cruelty laws exempt farmed animals, or standard, normal, or customary practices from their protections.
- 59. See generally supra Chapter 9.
- See, e.g., Sierra Club v. Morton, 405 U.S. 727 (1972); Hunt v. Washington State Apple Advertising Comm'n, 432 U.S. 333 (1977); Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992).
- 61. See generally supra Chapter 10.
- 62. Widespread harm can take place all at once, or by way of "death by a thousand cuts," as is arguably the case with the filling and elimination of small wetlands and headwater streams around the United States as a byproduct of commercial and residential development and agriculture. Broad-scale environmental protection, of necessity, is very concerned with cumulative harms and additive impacts.

between the animal protection and environmental protection movements. On this basis alone, the two movements enjoy a special kinship.

Another barrier routinely encountered by both movements is the inability to obtain and ensure public access to important information. Maximizing transparency by industry as well as government is essential. The more the public understands what is happening to animals and to the environment and why, and what the practical alternatives are, the more the public will be motivated and empowered to support reform. Full public participation in government decisionmaking, access to justice via the courts, citizen empowerment—all of these depend on the free flow of information. ⁶³

The principle of access to information is already well established in environmental law. The Toxics Release Inventory (TRI), for example, was created in the mid-1980s pursuant to the Emergency Planning and Community Right-to-Know Act (EPCRA) to provide communities with information on toxic chemical releases. ⁶⁴ TRI disclosure requirements create a strong incentive for covered industries to exercise care in their handling and use of chemicals. Government, similarly, must satisfy various environmental reporting requirements; states, for example, are bound to report in detail under the Clean Water Act on the nature and extent of their waters that are impaired by pollutants, ⁶⁵ and NEPA compels federal agencies to study likely environmental impacts resulting from major projects and other federal actions and consider alternatives to the proposed action. ⁶⁶ Permitting requirements—under the Clean Water Act and Clean Air Act, for example—also provide legal "hooks" for citizens to obtain valuable information. In contrast, the principle of access to information is lacking in animal law.

And yet obstacles to open information-sharing are commonplace. Disputes over the scope of protecting "confidential business information" (CBI) remain a barrier to reforming TSCA, a matter of great importance to both

^{63.} See generally Carl Bruch & Meg Filbey, Emerging Global Norms of Public Involvement, in The New Public: The Globalization of Public Participation 2 (2002) ("Public involvement is generally recognized to include three elements, or 'pillars': public access to information, public participation in decision-making processes, and public access to judicial and administrative redress. . . . Access to information can be either 'passive' or 'active.' Passive access to information ensures that governmental and other entities must provide information to the public, but generally only upon receiving a specific request. Active access to information imposes affirmative obligations on governmental authorities to collect and publicly disseminate certain information.").

^{64.} Emergency Planning and Community Right-to-Know Act (EPCRA) §313, 42 U.S.C. §11023 (toxic chemical release forms). U.S. EPA, *Toxics Release Inventory (TRI) Program*, http://www2.epa.gov/toxics-release-inventory-tri-program (last visited May 3, 2015).

^{65.} E.g., 33 U.S.C. §§1313(d), 1315(b) & 1324, CWA §§303(d), 305(b) & 314 (listing of impaired waters and submission of total maximum daily loads, water quality reporting, and clean lakes reporting).

^{66.} See supra note 50 and accompanying text.

animal and environmental advocates.⁶⁷ Despite the requirement that most sectors of the economy must report to EPA on their greenhouse gas emissions, Congress each year exempts large factory farms from this legal mandate by way of the appropriations process.⁶⁸ And industry has challenged EPA's public release of CAFO-specific information (including physical addresses and other operational details) as violating the Freedom of Information Act.⁶⁹ Ultimately, when it comes to agricultural policy, secrecy is baked in; the U.S. Department of Agriculture is prohibited by federal law from disclosing farm-specific information provided to it by agricultural producers in connection with federal farm subsidy programs.⁷⁰

The concern that environmentalists and animal protectionists share regarding access to agricultural information does not end with their objections to information being withheld. In recent years, a wave of "ag-gag" laws proposed at the state level actually criminalizes efforts by activists and investigative reporters to photograph or videotape at a factory farm without the facility owner's permission. These laws are intended to protect industry by targeting investigators and whistleblowers who might expose cruelty or violations of food safety laws. Animal and environmental organizations are working together to challenge the legality of such statutes—especially with respect to violations of constitutional rights.⁷¹

- 67. See, e.g., American Bar Association Section of Environment, Energy, and Resources, TSCA Trade Secret and Confidential Business Information Briefing Paper 2 (Mar. 2014) ("There is a natural tension when addressing CBI protection in the context of TSCA, one goal of which—essential to the central objective of chemical risk management—is to collect and disseminate information about the properties and risks of thousands of chemical substances. Unless protected from disclosure as CBI under TSCA section 14, this information may be publicly available (in some form) and utilized by a host of regulatory bodies, including state agencies and foreign regulators. The CBI provisions of the existing law and the changes proposed by recent legislation must be understood in this context.").
- 68. See generally supra Chapter 5.
- 69. A federal district court recently granted summary judgment to defendant EPA and environmental intervenors, holding that industry plaintiffs lacked standing. American Farm Bureau Fed'n v. EPA, No. 13-cv-1751 (D. Minn. Jan. 27, 2015). An appeal is pending. Animal advocates face a similar hurdle. See Animal Legal Def. Fund v. U.S. Food & Drug Admin., 2013 U.S. Dist. LEXIS 120417 (N.D. Cal. Oct. 23, 2013) (denying FDA access to hen population information at egg facilities due to CBI exception).
- 70. 7 U.S.C. §8791. For a critique, see Rena Steinzor & Yee Huang, Agricultural Secrecy—Going Dark Down on the Farm: How Legalized Secrecy Gives Agribusiness a Federally Funded Free Ride, Center for Progressive Reform Briefing Paper No. 1213 (Sept. 2012).
- 71. Animal Legal Def. Fund v. Otter, 44 F. Supp. 3d 1009 (D. Idaho 2014) (animal and human rights organizations, journalists, and workers' associations challenged Idaho's ag-gag law, IDAHO CODE \$18-7042, on the grounds that it violates their constitutional rights of freedom of speech and the press, and equal protection, and that federal laws protecting whistleblowers preempt Idaho's law under the Supremacy Clause); Animal Legal Def. Fund v. Herbert, No. 2:13cv00679 RJS, 2013 WL 4017889 (D. Utah filed July 22, 2013) (animal rights groups, journalists, a citizen charged with violating the Utah ag-gag law, and an undercover investigations consultant challenged Utah's ag-gag law, Utah Code Ann. \$76-6-112 (West 2012), which makes recording and disclosing the

These common legal obstacles, particularly with respect to access to information, hamper the effectiveness of each movement. At bottom, both movements are best served by ensuring the free flow of information concerning human impacts on animals and the natural environment, and the reasons why those impacts are occurring. The more that the public grasps and appreciates the status quo, the more the public may be willing to support or even call for reform.

3. Similar Practical Barriers

a. Industry and Ideological Opposition

Animal protection and environmental lawyers are a stubborn and passionate lot when it comes to advancing their causes. But their opposition can be just as stubborn and passionate.

Depending on the issue, this opposition could come from corporations and other businesses carrying out operations in the affected industry, or aggrieved individuals, or foundations that are philosophically opposed to, for example, what they see as excessive government regulation or insufficient protection of personal property rights.

Industry opposition to animal and environmental advocates can be voiced by the affected individuals and commercial entities themselves or by the many groups and associations that represent their interests—e.g., the American Farm Bureau Federation (Farm Bureau), the U.S. Chamber of Commerce, or the many associations that speak for members who are agricultural producers, developers, oil companies, chemical manufacturers, etc. Whether these large players engage in litigation, either directly or through amicus curiae briefs, or put forth advertising or media campaigns, they bring a strong voice and, often, financial backing. Most animal and environmental advocates perceive a vast disparity in resources between their organizations and the industries whose activities are the subject of their concern.

While industry opposition to animal or environmental aims may not necessarily be consciously intended to cause harm, or even to espouse a philosophy,⁷² most businesses seek to maximize profit and efficiency, mini-

truth about agricultural operations a crime, in violation of the First Amendment, the Supremacy Clause, and the Fourteenth Amendment).

^{72.} Despite a lack of ill intent, some businesses may unwittingly turn the other cheek to the impacts of their production and disposal systems, as this passage illustrates:

I was driving through Maine one late summer day when I stopped to admire a river running through a pretty wooded area. I noticed big, slick bubbles of industrial discharge corroding the vegetation along the riverbank, and I wondered: Who wants this to happen? Not the

mize costs, and out-compete others.⁷³ Political leaders, policymakers, and media tend to support what amounts to a pro-industry ideal. The role of animals and the environment in this equation is *to be used*, without consideration of the damage done.⁷⁴ Animals, rivers, mountains, valleys, and even farm and industrial workers have little or no voice or power in this system.

The reach and power of the corporations that dominate the meat industry is evidenced by the almost total lack of laws that protect farmed animals. No federal law protects animals while they are in the CAFO or otherwise being raised for food. The AWA does not apply to farmed animals.⁷⁵ Other federal laws are equally inapplicable to animals for the 99% of their short, miserable lives in the CAFO.⁷⁶ The meat industry holds sway with many legislators at the state level, and, not surprisingly, the majority of U.S. states expressly exempt farmed animals, or standard animal husbandry practices, from their anti-cruelty provisions, even though the husbandry practices may be painful and cruel.⁷⁷

Opposition to the aims of the animal movement and the environmental movement is not limited to affected industries. The movements are also opposed on ideological grounds, especially by proponents of a smaller federal government, less regulation, and enhanced personal property rights. Think tanks, foundations, public interest law firms, and other organizations advance what they see as their own public policy agenda, which can be very much at odds with the goals of the animal and environmental movements.

owners of the company, the shareholders. Not the managers or employees, who want to live in a healthy environment. Not the board of directors, not the community, not the government. I could not think of anyone connected with the company emitting the effluent who wanted the result I saw. This was an unintended consequence of the corporate structure. The very aspects of the company's design that made it so robust, so able to survive changes in leadership, in the economy, in technology, were the aspects that led to this result[:] pollution that no one wanted, and everyone would pay for.

ROBERT A.G. MONKS & NELL MINOW, POWER AND ACCOUNTABILITY 3 (1991), available at http://www.corporations.org/system/pna/.

- 73. This perspective is explained elegantly by attorney and author Andrew Kimbrell in *Cold Evil: The Ideologies of Industrialism, in* CAFO: The Tragedy of Industrial Animal Factories 17-21 (2010).
- 74. Id.
- 75. Animal Welfare Act, 7 U.S.C. §2132(g). ("The term 'animal' . . . excludes . . . (3) other farm animals, such as, but not limited to livestock or poultry, used or intended for use as food or fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber."). See also supra note 2.
- 76. See supra note 58. The 28 Hour Law requires that animals transported across state lines for slaughter be unloaded every 28 hours for food, water, and rest. It excludes poultry, and until recently was not applied to trucks, which are the most common form of transportation for livestock. The Humane Methods of Livestock Slaughter Act applies only to animals undergoing slaughter, and requires that livestock be rendered insensible to pain prior to being slaughtered. This law excludes poultry and declares that ritual slaughter is humane.
- Joyce Tischler, U.S. Lags Far Behind Europe in Protections for Farmed Animals, Animal Legal Def. Fund, Aug. 15, 2011, http://aldf.org/blog/u-s-lags-far-behind-europe-in-protections-for-farmed-animals/.

These are the harsh realities that confront environmentalists and animal protectionists. In the face of significant industry resources and coordination, the movements must develop strategies that help them to level the playing field. They may take the issues directly to the voters, through ballot measures and citizens' initiatives. This approach has enabled animal activists to ban battery cages for egg-laying hens, veal crates for calves, gestation crates for pigs, and tail docking of cattle in several states.⁷⁸ Other strategies are litigation and lobbying, and yet another is appealing directly to business' economic interest in keeping their growing number of animal welfare and environmentally minded customers happy.

Limited Funding and Staffing Resources

Most of the animal protection and environmental organizations today were established in the latter half of the 20th century by people who sought to protect the natural environment or animals, but had little or no knowledge of how to fundraise in support of this work. Having passion for social change is not enough; nonprofit organizations rely on support from individual donors and foundations to survive. Building and maintaining a nonprofit agency with stable funding is challenging, and nonprofit organizations in both movements face a continual struggle and plenty of competition as they strive to raise the funds necessary to implement their programs. In times of economic downturn, donors may be less able to donate, and some nonprofits must close their doors or cut staff. Moreover, nonprofits that rely on government grants have seen major sources of income dissipate in the past few decades.

Both movements rely on talented and committed advocates (and volunteers) to conduct their work. These individuals do so because they are passionate about the cause, but nonprofits are perennially understaffed. Moreover, staff salaries typically cannot compete with the salaries for comparable positions in government, or industry, or for attorneys in private law practice, which can also place the nonprofit at a disadvantage.

4. Similar Internal Debates

Passionate social activists often disagree with one another—passionately. In the animal rights/protection movement, there is a long-standing debate between activists who believe that abolition of the oppression and abuse of

^{78.} Rebecca F. Wisch, State Ballot Measures, Propositions, and Citizen Initiatives (1998 to Present), Animal Legal & Historical Ctr. (2014), *available at* https://www.animallaw.info/topic/state-ballot-measures-propositions-and-citizen-initiatives-1998-present.

animals is the only ethical and effective course of action, and those who argue that abolition in the near future is unattainable and, therefore, that incremental change is the more effective course of action.⁷⁹ The same kinds of tensions are evident within the environmental movement, where some "mainstream" organizations work closely with lawmakers and industry to effectuate change incrementally through compromise, while other groups are quicker to sue, engage in civil disobedience, or otherwise challenge the status quo. These sorts of moral/practical debates are important, in that they help to shape a movement, but they can also be divisive when the debate becomes vituperative and advocates refuse to work cooperatively with others who disagree with their approach and tactics.

Internal tensions are another example of commonality between the environmental and animal protection movements. They are also evidence that spirited disagreement is not necessarily a bar to collaboration, shared goals, or success.

Similar Need to Improve Communication of Problems and Solutions

Arguably the most effective, far-reaching tool for both of these movements is outreach to the public and the ability to provide accurate, meaningful education. A question frequently heard in discussion among animal and environmental advocates is: how can we more effectively reach a broader audience?⁸⁰ How do we educate the public, convince them to care, and persuade them to take action?

Animal and environmental advocates often grapple with complex legal, scientific, philosophical, and economic issues. They must gather the requisite evidence, articulate the problem clearly, and offer solutions in language that informs, persuades, and inspires. The success of both of these movements

^{79.} See, e.g., Jonathan R. Lovvorn, Animal Law in Action: The Law, Public Perception, and the Limits of Animal Rights Theory as a Basis for Legal Reform, 12 Animal L. 133 (2006); The Great Ape Project: Equality Beyond Humanity (Paola Cavalieri & Peter Singer eds., 1993) (a collection of essays that advocate for the extension of legal rights to great apes); Steven M. Wise, Hardly a Revolution—The Eligibility of Nonhuman Animals for Dignity-Rights in a Liberal Democracy, 22 Vt. L. Rev. 793 (1998); Telephone interview by Joyce Tischler with Steven Wise, President, The Nonhuman Rights Project (Dec. 6, 2010) ("I could take all these animal cases and it would be only a slight drop in the bucket of animal abuse. I would spend an entire career nibbling at the edges. The only way I could make a substantial impact was to focus on making systemic change.").

^{80.} See generally BILL MOYER, DOING DEMOCRACY: THE MAP MODEL FOR ORGANIZING SOCIAL MOVEMENTS (2001). A lifetime social activist, Bill Moyer analyzed the stages that social movements go through, and how success or failure can be acknowledged. One can look to the civil rights movement of the 1960s for examples of effective communications that mobilized support for the movement, including marches and demonstrations, boycotts, and sit-ins.

rests on their ability to build momentum for change by engaging members of the general public. And, they must do so on a limited budget, and often in the face of characterizations of their work as extremist or radical, or as potentially damaging to the economy, jobs, or livelihoods.

B. Differences and Areas of Disagreement

It is exciting to note the many areas where environmentalists and animal protectionists find common ground. However, one cannot ignore that, traditionally, the two movements have disagreed in fundamental ways. These disagreements have occurred at both the movement level and with respect to particular issues.

Movement-Level Differences

While animal activists engage in internal debates about abolition versus regulation, certain animal activists refuse to work with environmentalists, assuming that the latter have goals that would not serve the best interests of the animals. These animal rights activists prefer to take direction from the civil rights movement (i.e., legal rights, abolitionism), and are unwilling to make the philosophical compromises that would enable them to work with the decidedly more incremental approach typically taken by environmentalists.

Similarly, on the environmental side, there can be reluctance to place too much weight on the value of individual animals' lives, if doing so will conflict with broader ecosystem protections. Another tension results from the presence of a sizable constituency within the environmental movement—the so-called "hook and bullet groups"—that advocates for hunting and fishing. Factor in the vast majority of environmentalists who eat meat, and there are pronounced differences between many environmentalists and animal advocates.

Politics also comes into play. Although the birth of modern environmental law is intimately associated with a conservative Republican president—Richard Nixon signed into law NEPA, the Marine Mammal Protection Act, and the Endangered Species Act, and he also established the Council on Environmental Quality (CEQ) and EPA—the environmental movement today is commonly viewed as a movement of the political left.⁸¹

^{81.} However, exceptions abound. Sportsmen's groups are an important part of the environmental constituency, and they are less likely to be associated with the left. Also, in 2013, the Environmental Law Institute awarded its prestigious annual Environmental Achievement Award to George P. Shultz and Thomas F. Steyer, jointly, to recognize their leadership to reduce climate change and advance clean energy. The citation for the award notes their "outstanding bipartisan leadership" in preserving A.B. 32, the California Global Warming Solutions Act, and in creating the Californians for Clean Energy

Animal rights and protection, on the other hand, often reaches across the aisle, finding strong advocates across political parties. For example, retired Republican Sen. Robert Dole (Kan.) championed amendments to the federal Animal Welfare Act that codified increased protections for animals used in research and testing. 82 And in February 2015, Reps. Earl Blumenauer (Or.) and Mike Fitzpatrick (Pa.), a Democrat and a Republican, respectively, announced the reconvening of the Congressional Animal Protection Caucus to build support for animal welfare legislation. 83 Many animal advocates are concerned that there could be an increased and unhelpful politicization of their issues if they become too aligned with environmentalists and their positions.

Another important difference between the movements is the extent to which they have embraced the role of science. Animal advocates have traditionally advanced arguments based primarily on social justice, an appeal to compassion and conscience, and emotion to promote rights and stronger protections for animals. Environmentalists, on the other hand, tend to rely on science to seek to demonstrate the need for stronger protections for the environment.⁸⁴ The emotional appeals of animal advocates are at times a point of embarrassment for environmentalists.

2. Issue-Specific Differences

a. The Role of CAFOs in Climate Change

Industrial food animal production is a major contributor to climate change, as well as other environmental problems. The industrial livestock-climate

- & Jobs Network. Environmental Law Institute, George P. Shultz and Thomas F. Steyer Receive 2013 Environmental Achievement Award From Environmental Law Institute, http://www.eli.org/award-dinner/2013-award-recipient (last visited May 3, 2015).
- 82. Animal Welfare Institute, *Senator Robert Dole*, https://awionline.org/content/senator-robert-dole (last visited May 3, 2015).
- 83. E.g., Animal Welfare Groups Welcome Reps. Mike Fitzpatrick and Earl Blumenauer as New Co-Chairs of Bipartisan Congressional Animal Protection Caucus, ASPCA, Feb. 4, 2015, http://www.aspca.org/about-us/press-releases/animal-welfare-groups-welcome-reps-mike-fitzpatrick-and-earl-blumenauer-new.
- 84. For example, the website of the Safer Chemicals, Healthy Families coalition pressing for reform of toxic chemical laws provides information on "chemicals linked to serious environmental and health problems, including cancer and reproductive disorders" and invites visitors to "[c]heck out our fact sheets which draw from the leading peer-reviewed science." See http://saferchemicals.org/get-the-facts/ (last visited May 3, 2015). Science undergirds many, if not most, environmental debates. The lengthy ongoing legal and policy dispute over the proper scope of the Clean Water Act with respect to streams and wetlands is intertwined with and deeply dependent on the underlying science. See, e.g., U.S. EPA Office of Research and Development, Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report) (Jan. 2015) (surveying more than 1,200 publications from the peer-reviewed scientific literature and summarizing the scientific evidence regarding the effects that streams, non-tidal wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans).

connection is the subject of Chapter 5, which explores in depth the nature of the problem and potential legal avenues through which animal protection lawyers can engage in hopes of improving animal welfare over the long run. As the World Preservation Foundation (WPF) points out, "the livestock industry and public demand for animal-based foods are some of the most significant common denominators driving biodiversity loss, climate change, deforestation, food and water security and oceanic ecosystems collapse." Citing the WPF report, James McWilliams argues that the impact of livestock production is equal to burning coal, natural gas, and oil, and that a "global vegan diet (of conventional crops) would reduce dietary emissions by 87 percent, compared to a token 8 percent for 'sustainable meat and dairy." Pointing to this close connection between livestock production and climate change, Jeremy Rifkin, president of the Foundation on Economic Trends, has openly expressed his frustration with the lack of response from environmentalists. 87

Despite a growing body of evidence, the environmental movement has not to date prioritized mitigation of greenhouse gases attributable to the CAFO model of food production.⁸⁸ Instead, the environmental movement has focused almost exclusively on greenhouse gas emissions attributable to energy production and transportation. Animal activists have criticized environmentalists for sidestepping the clear link between animal agriculture and climate. Some have suggested that the environmental movement is too closely tied to the ranching industry, and, as such, is unwilling to risk partnerships that it deems valuable on other environmental issues. Others have suggested that environmentalists fear stirring up industry opposition, for example from the farm lobby, which is a powerful presence at the federal and state levels. McWilliams suggests that humans have a primal

^{85.} World Pres. Found., Reducing Shorter-Lived Climate Forcers Through Dietary Change: Our Best Chance for Preserving Global Food Security and Protecting Nations Vulnerable to Climate Change (n.d.), available at http://www.worldpreservationfoundation.org/Downloads/ReducingShorterLivedClimateForcersThroughDietaryChange.pdf.

^{86.} James McWilliams, *Agnostic Carnivores and Global Warming: Why Enviros Go After Coal and Not Cows*, Freakonomics, Nov. 16, 2011, http://freakonomics.com/2011/11/16/agnostic-carnivores-and-global-warming-why-enviros-go-after-coal-and-not-cows/.

^{87.} See Earth Day Warning: The Link Between Meat Eating and Climate Change, Animal Legal Def. Fund, Apr. 18, 2007, http://aldf.org/press-room/press-releases/earth-day-warning-the-link-between-meat-eating-and-climate-change/.

^{88.} See Linnea Laestadius, Meat Consumption and Climate Change: The Role of Non-Governmental Organizations, Climatic Change (June 12, 2013) (concluding that advocacy efforts to reduce domestic meat consumption in light of climate change remain quite limited, particularly among environmental nongovernmental organizations (NGOs) in the United States and Canada). But see Don't Eat a Cow, Man!, Sierra Club Atlantic Chapter, Mar. 1, 2009, http://atlantic2.sierraclub.org/content/donteat-cow-man (the Atlantic Chapter of the Sierra Club has tackled this issue directly by advocating for a plant-based diet).

response to being told what to eat, and thus, environmentalists may view the promotion of a plant-based diet as a dead-end approach. The documentary film *Cowspiracy* focuses on this apparent "oversight" and even attempts to embarrass environmentalists.⁸⁹

At bottom, animal protectionists see environmentalists ignoring an anthropogenic driver of the climate crisis; environmentalists see a risk of diluting the necessary focus on the burning of fossil fuels in an already difficult political climate. Although some proponents of environmental protection are now highlighting the livestock-climate link, 90 the overall disconnect continues to be a point of contention between the two movements.

b. Hunting, Trapping, and Fishing

Hunting has long been a controversial issue, with advocates and opponents claiming that their views are based on sound science and protection of the environment. Environmental organizations are not in lockstep with one another on hunting and trapping. Most will oppose hunting if it harms the environment or sensitive habitat; some will oppose it on other grounds, such as the protection of whales who are not endangered; some support hunting; and others take a stance of neutrality. Environmentalists generally will not oppose hunting if it means killing animals from species that are not threatened or endangered, or where hunting involves traditional "game" animals. The typical environmental view of animals is that they are a renewable resource, and may be killed if done in a sustainable manner.

Thus, the National Wildlife Federation (NWF) states: "Hunters and anglers are a core constituency to preserving our conservation legacy. Since 1936, [NWF] has been at the forefront on issues concerning hunters and anglers, protecting and enhancing fish and wildlife habitat for all species." The Sierra Club supports hunting, with certain exceptions, stating:

^{89.} Cowspiracy: The Sustainability Secret (Kip Andersen 2014), http://www.cowspiracy.com/. Environmental advocates are interviewed in the film and are surprisingly unaware of the significant connection between livestock production and climate change.

^{90.} See the Center for Food Safety's Cool Foods Campaign, available at http://www.centerforfoodsafety. org/video/2519/cfs-videos/food-and-climate/3212/be-climate-smart-with-cool-foods (last visited May 3, 2015); and the Center for Biological Diversity's Take Extinction Off Your Plate project, available at http://www.takeextinctionoffyourplate.com/ (last visited May 3, 2015).

^{91.} National Wildlife Federation, *Hunters & Anglers*, http://www.nwf.org/Sportsmen.aspx (last visited May 3, 2015).

Acceptable management approaches include both regulated periodic hunting and fishing when based on sufficient scientifically valid biological data and when consistent with all other management purposes and when necessary [for] total protection of particular species or populations. Because national parks are set aside for the preservation of natural landscapes and wildlife, the Sierra Club is opposed to sport hunting in national parks.⁹²

However, the Sierra Club opposes the use of traps and snares.⁹³ In 2001, the board of directors of Ducks Unlimited adopted a policy position on the hunting of waterfowl: "Ducks Unlimited, Inc. supports the sustainable use and harvest of renewable resources based on sound science. We support waterfowl hunting, when conducted in an ethical and sustainable manner, as a legitimate and acceptable use of a renewable resource."⁹⁴

On the other hand, animal protection groups, such as the American Society for the Prevention of Cruelty to Animals (ASPCA), generally oppose hunting 95 and trapping. 96 The Humane Society of the United States appears to take a more nuanced approach:

The HSUS actively works to eliminate the most inhumane and unfair sport hunting practices, such as the use of body-gripping traps and snares; bear baiting; the hound hunting of bears, bobcats, mountain lions and wolves; contest killing events; and captive-hunting on fenced properties. We oppose live pigeon shoots and other forms of staged hunting where the animals are bred or stocked simply to be shot as living targets. We also oppose the trophy hunting of rare or endangered populations and the use of lead ammunition, since less toxic alternatives are workable and available in the marketplace.⁹⁷

- 92. Sierra Club, Wildlife and Native Plants (Board policy adopted Dec. 1994), http://www.sierraclub.org/policy/wildlife/wildlife-and-native-plants (last visited May 3, 2015).
- 93. Sierra Club, *Policy on Trapping of Wildlife* (Board policy adopted May 2012), https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/Trapping-Wildlife.pdf (last visited May 3, 2015).
- 94. See Ducks Unlimited, Hunting Position Statement (passed May 2001), http://www.ducks.org/hunting/du-and-hunting/du-hunting-position-statement (last visited May 3, 2015).
- 95. "The ASPCA is opposed to hunting animals for sport, even if the animals killed in this way are subsequently consumed. The ASPCA does recognize that wildlife management may be necessary in situations where animal and human interests collide, but urges that management strategies be nonlethal wherever possible and never include avoidable suffering or distress." See https://www.aspca.org/about-us/aspca-policy-and-position-statements/hunting (last visited May 3, 2015).
- 96. "The ASPCA is opposed to the farming, ranching, trapping, shooting or otherwise killing of fur-bearing animals for clothing and accessories." See https://www.aspca.org/about-us/aspca-policy-and-position-statements/fur (last visited May 3, 2015).
- 97. Humane Soc'y of the United States, Statement on Wild Animals—Hunting, http://www.humanesociety.org/about/policy_statements/statement_wild_animals.html#Hunting (last visited May 3, 2015). "There is no justification for any form of trapping except live trapping in those rare cases in which such live trapping demonstrably benefits animals or provides necessary benefits to ecological systems. This kind of trapping may be accepted only after less intrusive alternatives have been attempted and

While most animal protectionists self-identify as pro-environment, when compelled to choose between protection of the environment and the protection of the individual animals in the environment, animal advocates generally stand on the side of the animals, arguing that sentient beings have a right to remain alive. Animal advocates object to the treatment of sentient beings as mere resources, renewable or otherwise.

Invasive Species Versus Native and Endangered Plants and Animals

As discussed in Chapter 14, most invasive species were introduced into the environment as a result of human activity. From the perspective of many environmentalists, invasive species are a threat to native wildlife and must be removed from the ecosystem. This generally means killing them. Animal protectionists protest such efforts, focusing on the cruelty involved in killing these animals, the right of these animals to remain alive, and a belief that the invasive species ought not to be punished, since it is not the animals' fault that humans introduced them into new environments.⁹⁸

The conflicting viewpoints around invasive species raise uncomfortable questions for both movements. Will animal advocates avoid involvement in resolving these conflicts; will they refuse to reach compromises that allow for the killing of invasive animals who are damaging native species and ecosystems? And, can environmentalists value not only the ecosystem, but also the lives of individual invaders? One encouraging development has been emerging agreement between the two movements on invasive species *prevention*—i.e., a shared focus on preventing the establishment of non-native invasive species in the first place.⁹⁹

exhausted, and it must be done responsibly, efficiently, and by a humane method that captures the animal alive without injury." *Id.*

^{98.} See "Refuges" No Sanctuary for Feral Pigs, PETA, July 12, 2011, http://www.peta.org/blog/refuges-sanctuary-feral-pigs/.

^{99.} See, e.g., Invasive Fish and Wildlife Prevention Act, H.R. 996, 113th Cong. (2013). This bill, supported by animal protection and environmental groups, would establish an improved regulatory process to prevent the introduction and establishment in the United States of non-native wildlife and wild animal pathogens and parasites likely to cause harm to the economy, the environment, people, or animals.

II. Charting a Shared Course for the Future

A. The Need for Enhanced Collaboration

Despite the differences between the movements, collaboration already exists. Today, environmental and animal protection organizations work together far more closely than in previous decades. Joint campaigns, educational activities, and lawsuits abound, including, for example, a lawsuit challenging the U.S. Navy's use of sonar and explosives, which create undersea noise and harm/ kill marine mammals;100 a symposium focused on the impacts of CAFOs on animals, the environment, and public health;¹⁰¹ a campaign and lawsuit challenging a California county's current contract with Wildlife Services to annually kill hundreds of predators without assessing the environmental impacts or considering alternatives to the slaughter; 102 constitutional challenges to state ag-gag laws that make it a crime to photograph and video in order to document cruelty occurring inside CAFOs;¹⁰³ joint offerings of monetary rewards for information leading to the identification, arrest, and conviction of persons illegally killing wildlife; 104 successfully suing the National Marine Fisheries Service to substantially increase protected habitat for North Atlantic right whales;105 and lawsuits against the U.S. Food and Drug Administration (FDA) for its failure to assess the environmental impacts of controversial additives to farmed animal feed. These and other joint activities enable animal advocates and environmentalists to share common ground, learn from each other, discuss differences, and build trust. Through such collaborative efforts, good working relationships among environmental and animal advocates, scholars, policy experts, and other practitioners

Natural Res. Def. Council, Inc. v. National Marine Fisheries Serv., 409 F. Supp. 2d 379 (S.D.N.Y. 2006).

^{101.} Factory Farming: Impacts on Animals, Humans, and the Environment, Animal Legal Def. Fund, Mar. 28, 2015, http://aldf.org/animal-law-symposium/.

^{102.} Animal Legal Def. Fund v. Mendocino County, No. SCUK-CVPT-14-67916 (Super. Ct. Mendocino County 2014). Plaintiffs include Animal Legal Defense Fund, the Center for Biological Diversity, Natural Resources Defense Council, Project Coyote, and the Animal Welfare Institute. See http://aldf.org/cases-campaigns/current-cases/.

^{103.} See supra note 71 and accompanying text.

^{104.} Groups Seeks Public's Help to Protect Hawaiian Monk Seals, Humane Soc'y Wildlife Land Trust, Dec. 12, 2014, http://www.hswlt.org/news/press-releases/group-to-help-monk-seals-2014. html?credit=web_id328513016.

^{105.} Press Release, Humane Soc'y of the United States, Feds Agree to Protect More Habitat for East Coast's Most Endangered Whales by 2016 (Nov. 24, 2014), available at http://www.humanesociety.org/news/press_releases/2014/11/feds-agree-protect-more-habitat-east-coast-most-endangered-whales-2016. html#.VHNQeNKuhFA.facebook.

^{106.} Humane Soc'y of the United States et al. v. Hamburg, No. 3:14-cv-04933 (N.D. Cal. filed Nov. 6, 2014); Center for Food Safety et al. v. Hamburg et al., No. 3:14-cv-04932 (N.D. Cal. filed Nov. 6, 2014).

have been established, and traditional lines between the two movements are breaking down. There is every reason to believe that the breadth and depth of these shared efforts will grow.

The animal and environmental movements are not defined only by the nonprofit organizations that provide leadership and direction, run campaigns, lobby, and file lawsuits on their issues. Nor, to be sure, are the movements defined by their lawyers. Rank-and-file animal protectionists and rank-and-file environmentalists are the base and the soul of these movements, but they probably do not perform animal protection or environmental work for a living. Strategies to help bring these people across the historical divide between the movements should be explored. This groundwork can be done, for example, at festivals, conferences, and other large public gatherings. Vegfest, an annual vegetarian festival that takes place in cities around the United States, features animal and environmental groups and issues—in addition to great food. Various green festivals abound, and Earth Day provides an annual occasion for parties, gatherings, and meetings where the connection among these issues can be highlighted.

For attorneys and law students, major national conferences provide a chance to explore this intersection and to network with like-minded colleagues—e.g., the annual Public Interest Environmental Law Conference at the University of Oregon School of Law and the annual Animal Law Conference at Lewis & Clark Law School. Additionally, animal law is joining environmental law on the curricula of law schools in the United States and abroad. At Lewis & Clark Law School, one of the leading environmental law schools in the United States, the Center for Animal Law Studies (CALS) also offers the most comprehensive animal law curriculum in the world, including courses on environmental and animal law advocacy. CALS regularly attracts students interested in both animal and environmental law. And, classes on animals in agriculture allow students to explore the intersection of animal, environmental, and food policy law.

^{107.} At the 2014 Animal Law Conference, for example, the authors of this chapter, together with Professor David Cassuto of Pace Law School, convened a panel presentation on "Animal Protectionists & Environmentalists: The Benefits of Collaboration."

^{108. &}quot;There are 150 law schools in the U.S. and Canada, and 11 in Australia and New Zealand that have offered a course in animal law." Animal Legal Def. Fund, Animal Law Courses, http://aldf.org/animal-law-courses/ (last visited May 3, 2015).

Lewis & Clark Law School, Center for Animal Law Studies, http://law.lclark.edu/centers/animal_law_studies/curriculum/ (last visited May 3, 2015).

^{110.} Id.

B. Beyond Collaboration

I. A New Vision for Systemically Improving the Well-Being of Animals, the Environment, and Human Beings

A premise of this chapter is that it is in the best interest of both the environmental movement and the animal protection movement to seek new opportunities to work together, or at least to work in alignment with each other in areas of shared interest. As we have discussed, that is already happening, and there is room to increase both the depth and breadth of collaboration. Improved collaboration can be seen as a *means* to an end—i.e., environmentalists can more effectively achieve their environmental goals by drawing on the voice, enthusiasm, and resources of animal advocates, and animal advocates can more effectively achieve their animal protection goals by drawing on the voice, enthusiasm, and resources of environmentalists. But what about the *end* itself—can we also revisit the underlying goals, or how those goals are framed? Might there be shared goals to pursue, or at least shared principles to guide these joint efforts?

While environmental organizations and animal organizations are sometimes at odds on specific issues, the reality in 2015 is that many animal advocates consider themselves environmentalists, and many environmentalists see themselves as animal advocates. The disconnect between the two movements is not as significant as it used to be, and some of this new overlap could be the result of a gradual generational shift. Certainly areas of disagreement, even strong disagreement, persist. But to suggest that these disagreements are a bar to meaningful collaboration or even shared goals assumes too much. After all, disagreements within each movement can be fierce.

There is an opportunity to build on gathering public sentiment—particularly in the area of food system reform—to promote a new vision for systemically improving the well-being of animals, the environment, *and* people. Nearly as important as where such a transformative vision ultimately may lead in terms of legal or policy reform is the set of principles that are necessary to embrace to guide the way. Some of these principles are outlined below.

Prioritize the mutual well-being of animals, the environment, and humans. Promoting the mutual well-being of the environment, animals, and human beings is itself a value. Many people already view themselves as advocates of environmentalism and animal protection, and where these values overlap, why is there necessarily a need to choose one over the other? The label for this area of overlap—e.g., another dimension of big-tent environmentalism, 111 a subset of animal protection, or something altogether new—seems less important than the fact of its existence. Environmental protection and animal protection intersect in an essential way, and yet this interconnectedness has never been fully realized in law or policy. What such laws and policies would look like is ripe for discussion. It is no longer sensible to maintain animal protection, environmental protection—and, for that matter, public health—in separate silos, each to be advanced and promoted in isolation from, or at the expense of, the others.

Compromise will be required, as it will be impossible to fully promote the mutual well-being of animals, the environment, and humans in every instance. Indeed, there will be times when values conflict and one must be deemed to outweigh the other. Underlying these conflicts will be a lingering tension between, on the one hand, the view of animals as individuals with inherent value, and, on the other hand, the view of animals as resources to be defined by their use to humans and their place in ecosystems. The two movements will have to work around this tension as best they can. Nevertheless, opportunities where it *is* possible to advance multiple values should be pursued. At a minimum, situations where advancing one of these interest areas would unnecessarily undermine the other should be avoided.

Rely on sound science. Both movements share the language of science, and any recommendations for joint legal and policy reform should be defensible under the latest research from a range of scientific disciplines—from toxicology to animal behavior to neurology to climatology to ecology. Advocates in both movements bring intense passion, but sound science provides the surest footing for effective advocacy. Understanding the latest science is already

^{111.} The rigid notion that the welfare of individual animals must always be sacrificed at the altar of species-level, or ecosystem-level, protections overlooks the breadth of the environmental movement. This is not a novel idea: some foundational environmental laws already define the term "environment" very broadly. The Toxic Substances Control Act, to take one example, defines "environment" to include "water, air, and land and the interrelationship which exists among and between water, air, and land and all living things." 15 U.S.C. §2602(5).

^{112.} It may be time to revisit what is meant by the broad and flexible concept of "sustainability" when it comes to the interaction of animal protection and environmental protection. Sustainability is a touchstone for most environmentalists, signaling the wise use and protection of resources now and by future generations, and yet animal protectionists tend to see it as supporting a reflexive, pro-hunting stance.

shaping environmental debates around, for example, greenhouse gas regulation and the legal scope of protections afforded by the Clean Water Act. And the animal protection movement has professionalized and now relies more heavily than in the past on science-based evidence to support its arguments. For example, increasing awareness of animals' cognitive and emotional capacities is strengthening claims that animals deserve enhanced protections, and rights, under the law. Environmentalists and animal advocates both have an opportunity to invoke science in making their case—to lawmakers, regulators, judges, and the public.

Where the science points to the conclusion that cutting-edge approaches to toxicity testing could be better for animals, people, and the environment; or that the non-therapeutic use of antibiotics necessitated by intensive confinement of farmed animals is a threat to the medical effectiveness of antibiotics in humans; or that greenhouse gases from livestock production are a significant contributor to anthropogenic climate change; there may be an opportunity to fashion reform solutions that benefit everyone.

Consider the economics. The economic implications of promoting legal and policy reform around animal protection, environmental protection, and public health safeguards must be considered. Environmentalists and animal advocates are rightly wary of placing dollar values on natural resources and the lives of individual animals. When push comes to shove, history has shown that economic development will usually outweigh both environmental and animal protection. Nevertheless, opponents of the kinds of reform contemplated in this chapter will rely on economic analyses and likely seek to reframe debates over increased environmental and animal protection in terms of revenue foregone and jobs lost. At a minimum, then, the two movements must be prepared to critically analyze economic arguments that are biased in favor of industry and strive to find economic analyses that broaden the discussion. For example, certain costs involved in maintaining the current CAFO system are both externalized and hidden. When these costs are

^{113.} See supra note 84 and accompanying text.

^{114.} See, e.g., Marc Bekoff, The Question of Animal Emotions, in Mental Health and Well-Being in Animals 15, 17 (2005); The Cambridge Declaration on Consciousness, Cambridge Univ. (July 7, 2012), available at http://fcmconference.org/img/CambridgeDeclarationOnConsciousness.pdf; Gregory Berns, Dogs Are People, Too, N.Y. Times, Oct. 5, 2013, available at http://www.nytimes.com/2013/10/06/opinion/sunday/dogs-are-people-too.html?pagewanted=all&_r=0; Marc Bekoff, Minding Animals: Awareness, Emotions and Heart (2002); Jaak Panskepp, Affective Neuroscience: The Foundations of Human and Animal Emotions (1998); Jeffrey M. Masson & Susan McCarthy, When Elephants Weep: The Emotional Lives of Animals (1996); and David O. Wiebers, Healing Society's Relationship With Animals, Sunrise Mag., June-July 1995, at 164-65, 167.

^{115.} In the environmental field, however, natural resource damage assessment (NRDA) and cost-benefit analysis (CBA) do play prominent roles in the public discourse.

brought into the equation, they show that the CAFO system is economically unsustainable, which offers an opportunity for the two movements to work together to promote greater public awareness.¹¹⁶

Insist on broad, informed public engagement. A hallmark of both movements—and really, one of their triumphs—has been to promote the broad sharing of information and the ability of the public to meaningfully participate in governmental decisionmaking on the basis of that information. "Good governance" approaches that ensure transparency, promote information sharing and public engagement, and support access to justice should be a feature of any shared legal and institutional reforms pursued by the two movements.

Underlying this principle is the need to educate the public on animal and environmental concerns, and also how they come together. After all, it is the motivated layperson, not nongovernmental organizations (NGOs)¹¹⁷ or their scientists, lawyers, and policy experts, who will be the engine driving long-term policy change at the federal and state levels. For example, joint efforts will lend greater credibility to the outreach needed on how the food system works, how animals within it are treated, what the environmental consequences are, who benefits from existing frameworks, and what the economically viable alternatives are. Many of us still do not consider where our food comes from, or how chemicals are tested. We assume that animals could not be that bad off, and that at the very least, the laws on the books must surely protect animals from suffering and cruelty, and humans from pollution. By working together, we can rally a larger, more robust base of support for improved laws and regulations.

Accept incremental change and promote broad-based implementation. There will always be advocacy organizations and individuals within each movement that seek immediate abolition of the harm and resist compromise. That is the nature of any social movement. Yet policy change often occurs slowly, and it can materialize in unpredictable ways and when least expected. Therefore emphasizing pragmatism and welcoming incremental change over the long term is essential. Making sustainable changes to societal norms, laws, and institutions takes time and patience. These two movements are not housed solely within the NGOs that promote their values. It is important to engage the movement base, as well as people outside of the movements. When for-profit corporations producing consumer products

^{116.} See generally, e.g., DAVID R. SIMON, MEATONOMICS (2013).

^{117.} NGOs operate in many countries. They are neither part of the government nor traditional for-profit business. Some have charitable tax-exempt status; others do not. American animal protection and environmental organizations are generally NGOs.

harm animals or the environment through their practices, the consumers of those products are in a unique position to demand reform and influence the decisionmaking of those companies. While businesses that use animals may not respond to NGOs' demands, they are often more receptive to the demands of their customers. For example, Smithfield Foods, the largest producer of pork in the United States, announced that it is phasing out the use of gestation crates, and urged its suppliers to do the same, in response to demand from its customers. And in late 2014 at the Climate Summit in New York City, numerous large companies made or renewed commitments to zero net deforestation. Joint consumer campaigns by animal and environmental advocates can lead to a more informed base of consumers, who then reach out to industry.

2. Future Directions

This is the exciting part: thinking about where concerted joint efforts and renewed attempts to articulate and pursue shared goals could lead with respect to long-term legal, policy, and institutional reforms that benefit animals, the environment, and people.

A promising starting point is the industrial system of food production. Environmentalists and animal protectionists tend to agree that CAFOs damage the environment and harm animals. This straightforward acknowledgment points toward multiple opportunities to create broad-based joint challenges to the system. For example, the available science supports a common understanding, and the two movements can work together to encourage new governmental reports or scholarly studies that offer greater detail about the short- and long-term effects of this prevailing intensive confinement system. The economics of the CAFO system have rightfully earned the title "voodoo economics," given that costs, such as the cost to clean up waterways damaged by CAFO animal waste, are not borne by the industry that creates the harm. Further, governmental subsidies to CAFO producers are hidden from public view, and, if openly analyzed through our joint effort, the true cost of meat can be more effectively conveyed and acknowledged.

The lack of transparency in this form of agriculture is a concern to both movements, as well as other constituencies that value an open democracy. A

^{118.} See, e.g., Christopher Doering, Smithfield Urges Farmers to End Use of Gestation Crates, USA Today, Jan. 7, 2014, http://www.usatoday.com/story/news/nation/2014/01/07/hog-crates-ban/4362353/.

^{119.} See, e.g., New York Declaration on Forests, Action Statement, and Action Plans (provisional copy) (Sept. 23, 2014) (noting that a "groundswell of new corporate zero deforestation policies have been announced by consumer goods companies in the last year").

joint, long-term effort could more effectively obtain and share information about how the animals inside factory farms are housed and treated, the use of questionable chemicals such as ractopamine in animal feed,¹²⁰ and the disposal of CAFO waste and subsequent degradation of the environment. Joint campaigns that demand an end to secrecy surrounding food production—or, to put it in positive terms, that assert a right to know where one's food comes from—would highlight the need for open and truthful sharing of information, so that an informed populace can have meaningful choices in deciding what to purchase and eat.

Working together on food system reform could also provide animal protectionists and environmentalists with the opportunity to reach beyond their traditional, core constituencies and engage with other social movements. For example, CAFOs can harm farm workers, who are often immigrants and have little power to negotiate for better working conditions. Farming communities situated near CAFOs bear the brunt of the degradation of water and air quality, and loss of real estate value. Public health advocates are concerned about the negative effects on human health of the use of antibiotics in farmed animal feed for growth promotion. Many individual farmers who are under contract to raise animals for large companies are frustrated with their contractual arrangements, from the loss of control over their working conditions, to the reality of a livelihood that barely supports their families. Groups concerned about genetically modified food, the availability of certifiable organic food, locally raised food, and similar issues, are also natural reform allies.

Animal protection lawyers and environmental lawyers, each specialists in their own field, are already filing lawsuits that seek remedies for both the environmental and animal protection problems caused by CAFOs. Joint legislative and regulatory efforts at the federal and state levels could focus greater attention on the appropriations that support the current CAFO system, and could help to encourage economic and tax incentives that offer more healthful and less harmful alternatives.

Joint communication efforts could help to bridge the wide gap between how the CAFO system works and how the American consumer perceives the

^{120.} Ractopamine hydrochloride is used to stimulate animal growth and produce leaner meat. FDA has approved its use for pigs, cattle, and turkeys. It has been found to have significant negative health impacts on the animals, and residues of the drug have been found in the meat, causing concern about negative impacts on the health of humans consuming the meat. One hundred sixty countries either ban or restrict the use of ractopamine in animal feed. See Press Release, Animal Legal Def. Fund, Public Interest Groups Challenge FDA on Use of Controversial Animal Growth Drug (Dec. 20, 2012), available at http://aldf.org/press-room/press-releases/public-interest-groups-challenge-fda-on-use-of-controversial-animal-growth-drug/.

operation of the food system. Combining knowledge and resources, the two movements can more accurately portray the CAFO system for what it is: a brutal industrial system that mechanizes animals, degrades the environment, and harms human health through unsustainable practices.

Climate change is now recognized as the most pressing environmental, animal, and human protection concern of our generation. Dealing with this problem effectively demands a realistic assessment of the causes, which include animal agriculture, and a holistic approach to seeking solutions. This is an opportunity for environmentalists and animal advocates to work together to shape a food system that is realistically sustainable; internalizes the true costs of industrial agriculture; respects and protects air quality, water quality, farming communities, and workers; and values the lives and well-being of animals.

Although the food system provides an obvious area for shared efforts in the future, there are others. The new, science-driven paradigm for transforming chemical testing put forth by the National Research Council requires broad-based support in order to become a reality. It is in the best interests of environmentalists and animal protectionists to set aside former disagreements about animal testing, take an honest look at the state of the science and its trajectory, and work together to assure policies and practices that can serve all stakeholders.

Over the long term, the federal institutional structures responsible for administering and implementing relevant laws may need to be reconsidered. EPA was established in 1970, bringing under one roof most of the federal governmental efforts to protect and conserve the environment, and affirming that safeguarding a healthy natural environment is a core American value. A comparable federal animal protection agency to oversee the laws implicated in the protection of animals could also be established. Perhaps such an effort could start with a federal council, similar to the White House Council on Environmental Quality (CEQ),¹²¹ or a federal commission, modeled after the U.S. Commission on Civil Rights.¹²² More than 90 federal statutes impact some aspect of animal protection,¹²³ and these laws are administered by a wide variety of agencies, including USDA, the Bureau of Land Management, National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and others. Given the current

^{121.} CEQ is described at http://www.whitehouse.gov/administration/eop/ceq/.

^{122.} The U.S. Commission on Civil Rights is described at http://www.usccr.gov/.

^{123.} See Henry Cohen, Cong. Research Serv., Brief Summaries of Federal Animal Protection Statutes (2009), available at https://www.animallaw.info/sites/default/files/aruscohen2009fedlaw-summaries.pdf.

deadlock in Congress, this is impractical in the near term, but it merits discussion. Bringing oversight for these laws under the auspices of a single federal institution would acknowledge the important role that animals play in our society, and the growing recognition of their cognitive and emotional abilities. It would also help to correct the often contradictory approaches of the various agencies that currently enforce these federal laws, and affirm the core American value of protecting animals.

Perhaps there should be even bolder long-term efforts to increase legal recognition for natural resources and animals. Modifying the property status of the non-human "other" as a matter of law for purposes of particular statutes or ordinances is another potentially powerful tool to help ensure greater protections. While one approach would be to argue that animals and the environment should be accorded legal or quasi-legal rights, another approach would be to frame and communicate the issue as a common-sense, incremental effort to acknowledge that certain injuries are being left un-remedied. Even a child comprehends that her dog—or the river that she swims in—has value and meaning far in excess of a table, a car, or any other inanimate object, and thus is deserving of greater protection. A new dialogue on animal and environmental rights could raise consciousness and further legitimize the topic in public discourse.

Conclusion

This chapter offers a new, holistic vision for the future of the environmental and animal protection movements. As the authors of this chapter have come to know each other, as friends and colleagues, we have learned that both on an individual and institutional level, we have a lot in common. This has led us to reach out to others in our respective movements, and we are delighted to find that we are not alone; many of the ideas expressed here resonate with others, as well. We are eager to explore what such a new paradigm would look like, how it would work, and what we could accomplish together. Combining the resources, imagination, and experiences of these two movements has the potential to create a renewed vitality and greater potency of support for the protection of the earth and all of its inhabitants, animal as well as human.