COMMENTS

EQUITY AS A PARADIGM FOR SUSTAINABILITY: EVOLVING THE PROCESS TOWARD INTERSPECIES EQUITY

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The concept of sustainability has evolved through a wide variety of definitions. Traditionally, sustainability was seen as a system of management which would allow humans to perpetually exploit the world's natural resources; that is, to manage resources so they would never be depleted. More recently, however, writers have argued the traditional concept of sustainability has failed because a truly sustainable system recognizes all resources and stakeholders for their inherent value. Equity is thus the essential ethic of a sustainable system. This article adopts this modern view of sustainability and identifies interspecies equity—the consideration of non-human animals based upon their inherent self-interests—as the embodiment and ultimate test of a truly sustainable system. By identifying the negative impacts of suppressing interspecies equity and citing examples of how to incorporate the sustainable ideal of interspecies equity, this article points the way toward a truly equity-based ethic of sustainability.

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I. INTRODUCTION

"The Glory of the human has become the desolation of the earth. This I would consider an appropriate way to summarize the twentieth century."

Thomas Berry, theologian[1]

The concept of sustainability grew out of a response to the massive and pervasive environmental destruction of the earth that resulted from industrialization. Sustainable development was first discussed in the 1970s[2] to articulate the necessary connection between environmental protection and economic development; however, the concept dates back to economic theories of the 1960s and was recognized as early as the 18th century.[3] Since sustainability's inception, ecologists, economists, biologists, attorneys, and environmental and social activists have been working on defining its terms and clarifying its underlying values. In recent years the concept of "sustainable development" has experienced its greatest ev-

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[1] DR. MICHAEL FOX, EATING WITH CONSCIENCE: THE BIOETHICS OF FOOD 105 (1997) (quoting Thomas Berry) [hereinafter BIOETHICS].

[2] BARBARA WARD & RENE DUBOS, ONLY ONE EARTH: THE CARE AND THE MAINTENANCE OF A SMALL PLANET (1972).

[3] Susan L. Smith, *Ecologically Sustainable Development: Integrating Economics, Ecology, and Law*, 31 WILLAMETTE L. REV. 261, 269 (1995). The 18th century economic thinkers, Thomas Malthus and David Ricardo, were pessimistic about the prospects for long-term economic growth due to scarcity of land and natural resources. DAVID W. PEARCE & KERRY TURNER, ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT 6-7 (1990).

olutionary change, resulting from the works of several contemporary authors who have sought to infuse into sustainability the concepts of environmental justice and equity.[4]

This comment focuses on interspecies equity as an emerging and necessary element of equitable decision-making. To date, interspecies equity has not been adequately addressed in legal instruments and treatises on sustainability. Nonetheless, interspecies equity is crucial to an equity-based sustainability and the development of sustainable communities.

Part II of this comment introduces the principles underlying traditional concepts of sustainability. Part III traces the evolution of sustainability toward equity-based principles. Part IV discusses a newly emerging concept of equity-based sustainability, interspecies equity, and demonstrates why interspecies equity is crucial for meeting the goals of sustainability. Part V gives a broad overview of the environmental and social consequences that result from treating non-human animal species inequitably. Finally, Part VI proposes methods for including interspecies equity in the dialogue on sustainable development.

II. EXPLOITATION-BASED SUSTAINABILITY

Traditional concepts of sustainability are exploitative-based and place human beings' quality of life above all competing concerns.[5] The first part of this section discusses the meaning of the term exploitation-based sustainability as it applies to non-human animals. The latter part gives a brief history of exploitation-based sustainability, illustrating how language used by treatises on sustainability clearly exploit animals[6] solely for the benefit they provide to humans.

A. Definition and Meaning

Sustainability grew out of the realization that the exploitation of the earth could not continue indefinitely.[7] To ensure the long-term viability of exploitation,[8] the concept of sustainability was born,[9] embodying a desire

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[4] Robin M. Collin & Robert W. Collin, *Where Did All the Blue Skies Go? Sustainability and Equity: The New Paradigm*, 9 J. ENVTL. L. & LITIG. 399, 432-33 (1994) [hereinafter *Blue Skies*]. Charles Lee, *Environmental Justice: Creating a Vision for Achieving Healthy and Sustainable Communities*, Sept. 1, 1996 (to be published in SOCIAL CHANGE AND HEALTH IMPROVEMENT: CASE STUDIES FOR ACTION (Benjamin Amick & Rima Rudd eds.)) [hereinafter *Environmental Justice*] (on file with author).

[5] Smith, *supra* note 3, at 262-63.

[6] The terms "animal" and "non-human animal" are used interchangeably throughout this comment.

[7] Smith, *supra* note 3, at 270 ("The proponents of sustainable development argued that exponential economic growth was infeasible in the long term not only due to limited land . . . but also due to the limited capacity of the water and the atmosphere to absorb the assaults of pollution resulting from development").

[8] Exploitation of "resources" can include minerals, vegetation, humans, and non-human animals.

[9] *Blue Skies*, *supra* note 4, at 423-33. "[M]uch of the literature of sustainable development does not specifically address the question of changing consumption values or behavior patterns. Instead, the literature implies that current values and patterns of consumption may

to sustain the ability to exploit resources from generation to generation. Accordingly, the traditional concept of sustainability is better characterized as perpetual exploitation, and shall be referred to as exploitation-based sustainability.

Exploitation-based sustainability places a human being's quality of life as the most paramount objective of sustainable development,[10] with the qualification that future generations of humans are entitled to a similarly high quality of life.[11] Exploitation-based sustainability regards all living and non-living systems other than the human species as means by which to maximize wealth. Although treatises on traditional sustainability specify respect and caring for the earth, this respect is usually confined to the benefit the earth and its systems provide to humans.[12] Accordingly, non-human animals are often referred to as living resources,[13] or even more euphemistically, as renewable resources.[14]

B. Brief History of Non-Human Animals and Exploitation-based Sustainability

In the early 1970s, when world economists were struggling to factor the environment into their understanding of economic development, international environmental law was born at the first global conference on the environment—the 1972 Stockholm Conference on the Human Environment, which produced the Stockholm Declaration.[15] The Stockholm Declaration proclaimed, among other things, that natural resources need to be managed and safeguarded for future generations of humans.[16] In 1980, the World Conservation Strategy (WCS) made the first attempt to address the critical environmental concerns raised by economic development and promote the principles of sustainable development.[17] The WCS defined conservation as "the management of the human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while

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be continued with minimal changes which will not fundamentally affect the quality of life. We submit that much of the literature based upon these premises invokes the word sustainability simply as a trick of argumentation rather than a normative philosophical ethic. In this sense, the literature of sustainability has been bastardized by a cloaked appeal to current unsustainable values." *Id.*

[10] Smith, *supra* note 3, at 262-63.

[11] *Id.*

[12] *See, e.g.*, Paul Hawken, *Natural Capitalism*, MOTHER JONES, Mar./Apr. 1997, at 42 ("Living systems feed us, protect us, heal us, clean us, clean the nest, let us breathe. They are the 'income' derived form a healthy environment.").

[13] *See, e.g.*, United Nations Convention on the Law of the Sea, Dec. 10, 1982, art. 61, 21 I.L.M. 1261, 1281 (1982).

[14] DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 286 (1998).

[15] Smith, *supra* note 3, at 270.

[16] United Nations Stockholm Conference on the Human Environment, Declaration on the Human Environment, U.N. Doc. A/CONF.48/14 and Corr. 1 (1972), *reprinted in* 11 I.L.M. 1416 (1972). Remaining proclamations state, among other things, that man has a fundamental right to freedom and equality; economic development needs to take place in a way that reduces poverty and improves environmental protection in developing nations; and planning is necessary to ensure protection of the environment. *Id.*

[17] Smith, *supra* note 3, at 271.

maintaining its potential to meet the needs and aspirations of future generations."[18] The WCS identified as one of its three key conservation strategies "the sustainable *use* of species and ecosystems."[19] In 1982, the United Nations General Assembly adopted the World Charter for Nature (WCN), which recognized sustainable development as its core concept.[20] The WCN's general principles identify "manag[ing natural resources] to achieve and maintain optimum sustainable productivity" as an essential conservation objective.[21]

Although economic vitality and growth have always been principles underlying sustainable development, a well-known document emerged giving exclusive weight to economic concerns, excluding all non-economic interests. The 1987 United Nations World Commission on Environment and Development's report entitled *Our Common Future*, more commonly known as the Brundtland Report,[22] defines sustainable development as a responsibility to future generations.[23] However, the Report is so vague that commentators suggest it uses "sustainable development" as a synonym for "sustainable economic growth."[24] Sustainable economic growth is inconsistent with the concept that the earth's ecological systems and natural resources have a finite carrying capacity.[25] Commentators also view the Brundtland Report "as focusing on maximizing material wealth to the exclusion of aesthetics, preservation, community, and other non-material values."[26] In 1991, the revised World Conservation Strategy defined sustainable development as "improving the quality of human life while living within the carrying capacity of supporting ecosystems."[27] The 1992 Rio Conference's Rio Declaration[28] was bolder, asserting that "[h]uman beings

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[18] *Id.* (quoting THE INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES ET AL., WORLD CONSERVATION STRATEGY: LIVING RESOURCE CONSERVATION FOR SUSTAINABLE DEVELOPMENT 1 (1980)).

[19] Smith, *supra* note 3, at 272 (emphasis added). The other objectives are the maintenance of essential ecological processes and life-support systems and the preservation of genetic diversity. *Id.* These conservation objectives were considered the essential principles of sustainable development. *Id.*

[20] *Id.*

[21] *Id.* (citing *World Charter for Nature*, G.A. Res. 37/7, U.N. GAOR, 37th Sess., U.N. Doc. A/RES/37/7 (1982), *reprinted in* 22 I.L.M. 455 (1983)). The other key principles are the "1) protection of essential natural processes, [and] 2) protection of biodiversity through safeguarding habitats to conserve genetic diversity and providing special protection to unique areas, representative samples of ecosystems, and rare and endangered species." Smith, *supra* note 3, at 272 n.38.

[22] UNITED NATIONS WORLD COMM'N ON ENV'T & DEV., OUR COMMON FUTURE 352-56 (1987).

[23] *Id.* at 8.

[24] Smith, *supra* note 3, at 277.

[25] *Id.* (stating the belief that the earth's ecological systems and natural resources have a finite carrying capacity is central to the concept of sustainable development).

[26] *Id.*

[27] INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE & NATURAL RESOURCES ET AL., CARING FOR THE EARTH: A STRATEGY FOR SUSTAINABLE LIVING 10 (David A. Munro & Martin W. Holdgate eds., 1991).

[28] United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev. 1, *reprinted in* 31 I.L.M. 874 (1992).

are at the center of concerns for sustainable development."[29] These international documents encapsulate a long history of sustainability embodying homocentric, rather than biocentric, principles.[30]

More recently, the human-centered view of the world has evolved to recognize that humans have no greater right to life on this planet than other beings.[31] Consequently, writers on sustainability are beginning to incorporate an ethic of interspecies equity into the tenets of sustainability. The next section illustrates how several contemporary authors set the stage for incorporating interspecies equity into sustainability by demanding a more thorough and pervasive treatment of the concept of "equity."

III. EQUITY-BASED SUSTAINABILITY

Although no clear and precise definition exists for "equity-based sustainability," certain concepts emerge which infuse a rigorous treatment of equity into sustainable community building. The first part of this section discusses those underlying tenets. The latter part of this section demonstrates that the next step in the evolution of equity-based sustainability must be toward interspecies equity.

A. Definition and Meaning

Several contemporary authors explore the concept of equity in depth to incorporate concepts of environmental justice into sustainable community development.[32] Robin and Robert Collin state that "[i]f the environmental movement is to embrace sustainability, then it must begin to include issues of equity."[33] Bryan Downes identifies the distinct category "equity" as crucial in planning for sustainable development.[34] Treatises point to "equity,"[35] "social equity,"[36] economic equity,[37] and "equity and social justice"[38] as core concepts of sustainability. However, who is "equal," or what classes are considered "equal," is not always clear.[39]

Several tenets for defining equity have emerged. Perhaps the most important tenet of an equitable system is the commitment to examining

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[29] *Id.* at 3.

[30] Smith, *supra* note 3, at 278-79.

[31] This worldview can be classified as "ecocentric." For a discussion of ecocentrism, see PEARCE & TURNER, *supra* note 3, at 14.

[32] *See generally* Robert W. Collin & Robin M. Collin, *Equity as the Basis of Implementing Sustainability: An Exploratory Essay*, 96 W. VA. L. REV. 1173 (1994) [hereinafter *Equity as Sustainability*]; *Blue Skies*, *supra* note 4, at 399; *Environmental Justice*, *supra* note 4.

[33] *Blue Skies*, *supra* note 4, at 445.

[34] Bryan T. Downes, *Toward Sustainable Communities: Lessons From the Canadian Experience*, 31 WILLAMETTE L. REV. 359, 364 (1995).

[35] *Id.* at 363.

[36] *Id.* at 364 (citing Susan Wismer, *Assessing Sustainable Development in an Urban Context*, *in* ETHICAL DIMENSIONS OF SUSTAINABLE DEVELOPMENT AND URBANIZATION: SEMINAR PAPERS 8 (Mary A. Beavis ed., 1990)).

[37] Smith, *supra* note 3, at 280.

[38] *Id.*

[39] Because these treatises are almost exclusively human-centered, one can presume that interspecies equity is not included within the definitions of equity.

historical inequities that have led to the persistent disenfranchisement of certain groups.[40] Charles Lee discusses equity, the principle underlying environmental justice,[41] as the equal access of all members of a community to their individual and collective optimal states of well-being[42] without preventing historically exploited and disenfranchised populations from doing the same.[43] Collin and Collin state "[i]f the scientific task of the future is to address pathologies of industrial development, then the task will need to address historical inequity and oppression of the *victims of industrialization* who have frequently been excluded from industrial policy making."[44] Although the articles from which these quotes were taken focus on inequities between groups of humans, the analysis can be applied to all less empowered populations who are the victims of industrialization. This challenges us to look at all potential inequities in society, across race, gender, generation, economic status, and species. A core concept of equity-based sustainable development is its commitment to seek out, expose, and remedy inequities.[45]

Equity-based sustainability encompasses a community decision-making model that incorporates all interests and excludes none. These communities incorporate dialogue that "include[s] all voices, allow[s] for conflict, emphasize[s] what inclusiveness gains, and [does] not allow race, gender, privilege and other conflicts to go unaddressed."[46] Applying the above directives across species, non-human species are the biggest losers in the history of industrialization and are unempowered in our society.[47] Achieving true equity, therefore, requires an examination into society's disturbing speciesist[48] mentality and necessitates inclusive dialogue from all parties on the topic.

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[40] Environmental justice, the main focus of the works of the Collins and Lee, is an attempt to address the disparate burden of environmental dangers suffered by communities of low-income and color.

[41] Lee, explaining environmental justice, states "[c]ommunities which suffer [sic] environmental inequities also suffer the negative effects of social inequity." *Equity as Sustainability*, *supra* note 4, at 1.

[42] Lee identifies the four factors that compose the health of individuals and communities as physical, social, cultural, and spiritual. *Id.* at 2.

[43] Lee discusses the gross environmental harms that exploited and disenfranchised populations have historically suffered and the vital role that these populations have played in redefining and transforming the environmental movement to make it less racist and more equity-based. *Id.* at 1-3.

[44] *Blue Skies*, *supra* note 4, at 452-53 (emphasis added).

[45] These communities are viewed in the context of developing sustainable communities. *See infra* Part VI.

[46] *Equity as Sustainability*, *supra* note 4, at 1175.

[47] *See infra* Part V.A.

[48] Speciesism is defined as "1. a belief that different species of animals are significantly different from one another in their capacities to feel pleasure and pain and live an autonomous existence, usually involving the idea that one's own species has the right to rule and use others. 2. a policy of enforcing such asserted right. 3. a system of government and society based upon it." MAJORIE SPIEGEL, THE DREADED COMPARISON: HUMAN AND ANIMAL SLAVERY 7 (1988).

B. *The Seed of Interspecies Equity*

A number of treatises have advanced toward incorporating an interspecies ethic into sustainable development. However, the deeper meaning and scope of true interspecies equity has received little attention. One of the more progressive treatments of equity-based sustainability can be found in the works of Robin and Robert Collin, who use the term "interspecies equity" in stating that "among the values that must be promoted are intergenerational and *interspecies equity*."[49]

Sadly, a duality continues to persist in the treatment of non-human species which encompasses the exploitation-based ethic as well as the equity-based ethic. For example, the Collins recognize the importance of interspecies equity, yet continue to identify non-human species as goods for the ultimate benefit of humans. They state that "[w]e need other species not only for the promise of material and physical sustenance but, just as important, for the raw material they offer for our psychological and intellectual growth."[50]

A number of other treatises, while decidedly homocentric and exploitation-based, incorporate language that could eventually support an ethic of interspecies equity. One such example, found in the 1991 Second World Conservation Strategy Project, identifies nine guiding principles for building sustainable societies[51] including "respecting and caring for the community of life . . . conserving the earth's vitality and diversity . . . [and] changing personal attitudes and practices."[52] Another example is found in an article by Bryan T. Downes. Downes draws lessons from the experience of Canadian "round tables"[53] for building sustainable communities, enumerating six concepts he claims should be considered during the planning stages. One concept is "equity"[54] in a general sense. This stands distinctly apart from another enumerated concept, "social equity."[55] Treatises

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[49] *Blue Skies*, *supra* note 4, at 458-59 (emphasis added). Collin and Collin continue to state that "[e]ven without a full and complete understanding of the contributions of other human cultures and other species, the values and policies which oppressed and decimated the vulnerable populations of earth must be altered in favor of values that promote a future as rich in diversity and life forms as that we inherited." *Id.*

[50] *Id.* at 435.

[51] INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE & NATURAL RESOURCES, ET.AL, *supra* note 27, at 10.

[52] *Id.* at 9-11. The remaining enumerated principles are improving the quality of human life, minimizing the depletion of nonrenewable resources, keeping within the earth's carrying capacity, enabling communities to care for their own environments, providing a national framework for integrating development and conservation, and creating a global alliance. *Id.* at 8-12.

[53] Downes, *supra* note 34, at 360. Canadians use a "round table" method for addressing environmental protection and economic growth in the context of sustainable development whereby they replace adversarial relations with multiparty collaboration involving all segments of society. The focus is on resolving environment/economy conflicts. *Id.*

[54] *Id.* at 364.

[55] *Id.* (discussing the "integration of economic viability, environmental integrity, and social equity"). The remaining concepts are community, self-determination, balance between growth and other development goals, and diversity. *Id.*

which contain such language can be used as a starting point for discussions on how to incorporate interspecies equity into current works.

At this critical juncture in our environmental history, when equal justice movements are beginning to converge with the environmental movement,[56] those who promote equity-based sustainable communities are reaching out in an effort to be more inclusive of diverse interests and points of view. Consequently they are searching for a more profound understanding of what is meant by "equity." Now is the critical time to challenge a deeper understanding of "interspecies equity" by defining its terms and values in an effort to incorporate it as a core concept of sustainable development.

IV. Interspecies Equity

"The animals of the world exist for their own reasons. They were not made for humans any more than black people were made for white, or women for men."

Alice Walker[57]

To begin incorporating interspecies equity into discussions on sustainable development, we must first understand what is meant by the term and have a clear understanding why it is important to sustainable development. Since interspecies equity is a new concept to sustainable development, the definition of interspecies equity in the context of sustainability will continue to evolve. This section offers a starting point from which sustainable community builders can launch discussions on interspecies equity, clarifying and refining the definition as they proceed.

A. Search for Meaning

Without getting caught in the debates underlying "animal rights,"[58] this section presents some basic reasons why non-human animals deserve respect for their inherent rights. These rights are common to all creatures, human and non-human alike, capable of experiencing a "quality of life." Furthermore, these rights must be viewed using the biological kingdom, not just the human species, as a reference point.

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[56] *Blue Skies*, *supra* note 4, at 452-53 (stating that "[h]istorical inequities require the convergence of environmental and social justice movements").

[57] Spiegel, *supra* note 48, at 14 (quoting Alice Walker).

[58] Profound debate persists within the "animal rights" movement about what philosophical paradigm more logically and appropriately demands better or equal treatment of animals by humans. *See, e.g.*, Peter Singer, Animal Liberation (1975); Tom Regan, The Case for Animal Rights (1983). Debate also exists over the most effective way to gain rights for animals. *See, e.g.*, Gary L. Francione, Rain Without Thunder: The Ideology of the Animal Rights Movement (1996); Steven M. Wise, *Thunder Without Rain: A Review/Commentary of Rain Without Thunder*, 3 Animal L. 45 (1997) (discussing animal welfare versus animal rights).

1. *Recognition of Animals' Interests as Fundamentally Similar to Human's*

Recent work by wildlife biologists indicates animals are very similar to humans, possessing all the characteristics that humans have long-held as uniquely "homo sapien." One study notes:

> [i]t is clear that animals form lasting friendships, are frightened of being hunted, have a horror of dismemberment, wish they were back in the safety of their den, despair for their mates, look out for and protect their children whom they love . . . . They *feel* throughout their lives, just as we do.[59]

The most important facet of interspecies equity is the recognition that animals, like humans, have an intense interest in their own lives, liberty, and well-being. Many of the "rights" that humans consider profoundly dear, such as life, liberty, and the pursuit of happiness, can also be considered as dear to non-human animals.[60] Therefore, non-human animals have an interest in their own quality of life.

2. *Leveling the Playing Field*

To justify exploitation of animals, humans have created an artificial hierarchy which places themselves above animals.[61] This dominance over non-human animals is based on a number of excuses, including: that animals are not rational, do not possess a soul,[62] are not as intelligent as

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[59] JEFFREY MOUSSAIEFF MASSON & SUSAN MCCARTHY, WHEN ELEPHANTS WEEP: THE EMOTIONAL LIVES OF ANIMALS 232 (1995).

[60] *Id.* at 229-31. Some may argue that it is homocentric to assume that non-human animals covet life, liberty, and the pursuit of happiness just as humans do. The precautionary principle, another tenet of equity-based sustainability, necessitates that where there is a threat of harm, lack of full scientific certainty shall not be used as a reason for preventing the harm. HUNTER, ET.AL., *supra* note 14, at 360. As applied to animals, a lack of full certainty that non-human animals do not harbor the same fundamental desires as humans is not a valid reason to eclipse these desires.

[61] MASSON & MCCARTHY, *supra* note 59, at 29. This is similar to racist thought which is based in large part by the dominant group attributing inferior characteristics to those in subservient positions. The dominant group, in order to justify its position without feelings of guilt or remorse, will claim the dominated group does not suffer or feel pain as acutely, if at all. "The history of prejudice is notable for assertions that lower classes and other races are relatively insensitive." *Id.* Humans use the same ideology with regard to animals, asserting that animals, because they appear physically different, operate on a lower threshold of emotional and physical perception. As with racism, this belief is based upon numerous differences, none of which are significant to the value humans give their own lives. *See also* Steven M. Wise, *How Nonhuman Animals Were Trapped in a Nonexistent Universe*, 1 ANIMAL L. 15, 16 (1995). Wise notes that:

> the California Supreme Court barred Chinese witnesses from testifying in proceedings in which a white person was a party . . . as Chinese were believed to constitute a race of people 'whom nature has marked as inferior, and who are incapable of progress or intellectual development beyond a certain point' . . . Blacks were then seen as 'beings of an inferior order' and so 'far below [whites] in the scale of created beings' that they 'had no rights which the white man was bound to respect.'

Id.

[62] Religions other than Christianity believe that animals possess souls. Jainists, for example, believe souls are found in plants and animals. Hindus believe that animals are morally

humans,[63] and were placed on this earth by God for human's use.[64] These tenets derive from a homocentric worldview entrenched in profit and maximization of personal glorification. Commonly found in industrial societies, this view does not reflect any universal doctrine of truth.

> Blind faith in the veracity of human dominion over Nature and the Animal Kingdom embraces the assumption that animals, indeed the whole of Creation, have neither independent value nor purpose other than the fulfillment and glorification of humankind. This self-serving worldview is rationalized as being God-given and necessary for the good of society, the advancement of knowledge for knowledge's sake, or scientific and technological progress. These rationalizations and the worldview that they affirm are wrong, conceptually and ethically.[65]

Viewing non-human animals as harboring interests[66] similar to those of humans and respecting them for their inherent value as living, sentient beings, is a worldview that benefits both animals and humanity.[67] Eliminating the domination model is necessary to create sustainable societies. This requires a "tread as lightly as possible" ethic that ultimately benefits all species, including humans, and underlies interspecies equity.

3. Shift From a Homocentric to Biocentric Worldview

Interspecies equity requires a change in our values from an exploitative mentality to one that is equality-based. If humans are to fully embrace an equity-based sustainable ethic, we cannot allow the ego to impede and drape every action with an underlying goal of furthering personal gain. Instead, attitudes toward the natural world must change before humans can effectively work toward a "more just and sustainable society."[68]

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equal to humans because they both possess souls. DR. MICHAEL W. FOX, THE BOUNDLESS CIRCLE: CARING FOR CREATURES AND CREATION 27 (1996) [hereinafter BOUNDLESS CIRCLE].

[63] For an explanation of why relative degrees of intelligence do not entitle the holder of the superior intellect to oppress the holder of the inferior intellect, see SINGER, *supra* note 58, at 5-6. Interspecies equity should also recognize the existence of different models of intelligence. JOHN ROBBINS, DIET FOR A NEW AMERICA 40 (1987).

[64] *See, e.g.*, *Genesis* 1:26 (King James) ("[a]nd God said, Let us make man in our image, after our likeness: and let them have their dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over the earth, and over every creeping thing that creepeth upon the earth").

[65] BOUNDLESS CIRCLE, *supra* note 62, at 1-2.

[66] "Interests" refer to fundamental interests, such as the desire to live, be free from torture, pain, and imprisonment, and possess self-determination. Treating animals "equally" does not mean treating one group identically with another group. Equal treatment means doing the utmost possible to fulfill the needs of different groups in such a way that the highest level of happiness is sought for each respective group. For example, treating children and adults "equally" will mean different things. Each group has distinctly different needs. Similarly, animals will have different needs from humans, and these different needs must be addressed equally.

[67] BOUNDLESS CIRCLE, *supra* note 62, at 2 (stating that "[t]he widely held view that animals and Nature belong to us has its roots in the quasi-religious, moral and philosophical foundations of industrial society. . . . [T]hese roots and the worldview that they sustain are ultimately self-destructive.").

[68] *Id.* Fox notes that:

Equity-based sustainability requires a perspective toward our relationship with animals that embodies both a holistic and an individual component. If we sustain the welfare of each part making up the whole, we sustain the whole as well. "Sustainability and equity require that we deal with nature as an undivided whole, with no part being unsustainable."[69] This requirement necessitates upholding the welfare of each individual person in addition to the welfare of the individual's culture; of each animal within a species in addition to the animal's species; of humans, birds, and reptiles in addition to the animal kingdom; of forests, oceans, mountains, and animals in addition to the earth. "This spiritual perspective goes beyond respecting animals and conserving Nature for our own benefit—be it ecological, economic, or aesthetic. A reverence for creatures and Creation, linking ethical sensibility with empathetic sensitivity, gives us a sense of wholeness as part of Nature and the creative process."[70] Interspecies equity requires a whole paradigmatic shift in thinking about equity and the role of other species in the world. We must continually challenge attempts at defining interspecies equity in an effort to break down deeply rooted mentalities that view non-human animals from an exploitation-based perspective. Humans must work to shift the mental reference point for every action from one that is human-centered to one that is bio-centered.

B. Importance of Interspecies Equity to Sustainable Development

Collin and Collin state that "[i]t will not be possible for our lives on this planet to be sustainable until inequity is eliminated."[71] Indeed, equity "is necessary for sustainable planning, and foreshadows a new era of law."[72] The greatest irony resulting from extending the equity ethic to include other species is that selfless action ultimately benefits humans.[73] Adopting an interspecies equity value is the only means to reach some of the enumerated goals of exploitation-based sustainability. For instance, exploitation-based sustainability identifies its main principles as conserving the vitality and diversity of natural ecosystems[74] and maintaining the genetic viability of the earth. This requires maintaining population levels of all life forms.[75] However, widespread skepticism persists about human-

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without a fundamental change in our attitudes toward the natural world, the deeper significance of our own lives as participants in the creative process will elude us, as we become prisoners of our own egotism, seeing Nature and the rest of Creation as being for our exclusive and selfish gratification. Ultimately an attitude of reverential respect for life and for the environment will benefit humanity since it is the basis for a just and sustainable society.

Id.

69 *Equity as Sustainability*, *supra* note 4, at 1176.

70 BOUNDLESS CIRCLE, *supra* note 62, at 1.

71 *Blue Skies*, *supra* note 4, at 439.

72 *Id.* at 458.

73 *See infra* Part V.B.

74 INTERNATIONAL UNION FOR CONSERVATION OF NATURE & NATURAL RESOURCES, ET.AL., *supra* note 27, at 8-10.

75 *World Charter for Nature*, *supra* note 21, at General Principles.

kind's ability to sustainably manage wildlife[76] and ensure biodiversity. The maximum sustainable yield (MSY) approach, advocated by many exploitation-based sustainable development doctrines,[77] has failed to protect "most wildlife populations."[78] MSY's commercial, consumptive use[79] of animal populations has led to results diametrically opposed to its enumerated goal—to conserve species diversity.

Some commentators posit that viewing other species for the value that they offer humans (for helping sustain healthy ecosystems, for viewing pleasure, and for spiritual sustenance) is not an inherently bad ethic. Such an ethic may ultimately preserve species because "[i]f our wildlife is to be saved, every valid argument must be raised in order to ensure this; pointing out a species' value to humanity (*as a non-consumptive resource*) in no way diminishes its intrinsic rights."[80] The problem is that humans *are* driven by economic consumption. Sustainability was born from the clash between economic and environmental values.[81] If non-human species are valued even in part on their economic worth, the economic/consumptive drive will threaten to take precedent over all other values. Long-term viability of all species will not be ensured until the inherent value in other forms of life is not based upon their value to human beings.

V. UNSUSTAINABILITY OF SPECIES INEQUITY

Just as all life systems are connected,[82] so is equity. Unequal playing fields diminish the well-being of both the oppressed and the oppressor.[83] Creating equity across species benefits both non-human animals and humans. The following presents a brief history of animal exploitation, focusing on two of the most notorious institutions that exploit animals: factory farms and animal research. The last subsection provides a broad introduction to the environmental, health, social, economic, and psychological consequences of animal exploitation on interspecies equity.

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76 HUNTER, ET AL., *supra* note 14, at 948.

77 *Id*; *see, e.g.*, *World Charter for Nature*, *supra* note 21, at General Principles (stating the principle of using natural resources to achieve optimum sustainable productivity). Optimum sustainable yield can be both above and below the maximum sustainable yield. HUNTER, ET AL., *supra* note 14, at 709. "Conservation must 'yield the greatest sustainable benefit to present generations, while maintaining its potential to meet the needs and aspirations of future generations.'" Downes, *supra* note 34, at 368 (quoting Ron Livingston & Jamie Bastedo, *Framework for a Northwest Territories Conservation Strategy*, *in* SUSTAINABLE DEVELOPMENT THROUGH NORTHERN CONSERVATION STRATEGIES 44 (Elaine Smith ed., 1990)).

78 HUNTER, ET AL., *supra* note 14, at 948.

79 *Id.* at 949.

80 Lewis Regenstein, *Animal Rights, Endangered Species and Human Survival*, *in* IN DEFENSE OF ANIMALS 132 (Peter Singer ed., 1985) (emphasis added).

81 *See infra* Part II.B.

82 Regenstein, *supra* note 80, at 129.

83 *Id.* at 129-31; *see also infra* Part V.B.

A. *Brief History of the Exploitation of Animals*

The notion that non-human animals, most notably of the vertebrate phylum, should be accorded the same basic rights as humans is not a modern phenomenon. Scholars have found proof of this philosophy in ancient cultural practice[84] and in religious documents such as the Bible.[85] However, the more common view that animals are a resource for humanity's personal benefit is just as ancient and profound.

These dichotomous viewpoints have coexisted over the centuries, each gaining and losing support because of various laws and social pressures. The last 100 years are most notable. Not only has the use and exploitation of non-human animals been the most prolific in history, but the fight for their rights has been the most widespread.

The Industrial Revolution spawned techniques leading to the explosion of industries using animals and/or animal products. Factory farms and research laboratories are the direct products of industrialization. Today, at least twenty-five to thirty million vertebrate animals are used in the research industry in the United States each year.[86] A staggering 250 million animals are used worldwide.[87] In the United States, another eight billion "farm" animals are killed for food.[88] Animal protection societies and animal rights groups have grown concurrently with, and often in response to, the growth of these industries. Over seven thousand organizations devoted to the welfare and rights of animals operate in the United States.[89]

1. *Vivisection*

In 1859, Darwin published *The Descent of Man* in which he stated "[w]e have seen that the senses and intuitions, the various emotions and faculties, such as love, memory, attention, curiosity, imitation, reason, etc., of which man boasts may be found in an incipient, and, even sometimes in a well-developed condition, in the lower [sic] animals."[90] Darwin went on to publish *The Expressions of the Emotions in Man and Animals*.[91] His theories and publications received enormous resistance, but provided definitive proof to the scientific community that an animal's physiology could be, and probably was, similar to human physiology.

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[84] Religions and cultures that view the lives of animals as intrinsically equal in value to the lives of humans include Buddhism, Jainism, and the belief systems of some Native American tribes. BOUNDLESS CIRCLE, *supra* note 62, at 116-22; *see also* ROGER FOUTS, NEXT OF KIN: WHAT CHIMPANZEES HAVE TAUGHT ME ABOUT WHO WE ARE 48 (1997) (discussing various belief systems concerning the similarities between chimpanzees and humans).

[85] *See, e.g., Ecclesiastes* 3:19 (King James) (stating that "[man and beasts] all have one breath; so that a man hath no pre-eminence above a beast: for all *is* vanity").

[86] Estimates vary between seventeen and seventy million. USDA excludes data on rats, mice, and birds. BARBARA ORLANS, IN THE NAME OF SCIENCE 66 (1993).

[87] *Id.*

[88] Karen Davis, *The Plight of Poultry*, ANIMALS AGENDA, July/Aug. 9, 1996, at 39.

[89] Jeffrey Cowley, *Of Pain and Progress*, NEWSWEEK, Dec. 26, 1988, at 51.

[90] BOUNDLESS CIRCLE, *supra* note 62, at 7 (citing CHARLES DARWIN, THE DESCENT OF MAN (1871)).

[91] CHARLES DARWIN, THE EXPRESSIONS OF THE EMOTIONS IN MAN AND ANIMALS (1872).

Therefore, animals could provide valuable information for research aimed at benefiting humans.[92]

New information coupled with advances in technology led to rapid advances in biomedical research and experimental physiology in the latter half of the nineteenth century.[93] In France, scientists such as Francois Magendie, Claude Bernard, and Louis Pasteur made scientific advances that created the grounds on which other scientists could expand[94] their experiments using live animals.[95] This period marked the birth of medicine as a technological, research-based science.[96] Although animal experimentation had been used occasionally before the mid-1800s, most scientists and physicians relied on deduction and observation, using mostly human corpses.[97] Vivisection quickly became the new theoretical basis for clinical practice in continental Europe and England.[98]

Society's perceptions followed suit. The image of the physician as the sympathetic, intuitive healer began to shift to that of the stoically clinical man of science.[99] Consequently, a backlash to vivisection erupted in England in the 1870s with the Victorian Antivivisection Movement.[100] This movement was more than a response to the repugnance of vivisection; it also represented a rejection of the emerging calculated, scientific view of the world. "Antivivisection in Victorian England was a movement addressing trends in society that are richly symbolized by the act of vivisecting. . . . [T]he underlying critique was of the perceived dominance of nature by impersonal and technologically oriented institutions."[101]

The popular moral outrage against vivisection culminated in the drafting of England's Cruelty to Animals Act[102] in 1876. Philanthropists Frances Power Cobbe and Lord Shaftesbury, well-known members of the antivivisection movement, drafted the legislation.[103] They deplored vivisection, but believed it could be adequately controlled by proper legislation "so that animals would not be made to suffer, and scientists would be made accountable to the public for their actions."[104] Shortly before the legislation passed through the British Parliament, a small group of experimental physiologists succeeded in mobilizing nearly the entire medical

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92 SINGER, *supra* note 58, at 214-15.

93 COMMISSION OF LIFE SCIENCES NAT'L RESEARCH COUNCIL, COMMITTEE ON THE USE OF LABORATORY ANIMALS IN BIOMEDICAL AND BEHAVIORAL RESEARCH, USE OF LABORATORY ANIMALS IN BIOMEDICAL AND BEHAVIORAL RESEARCH 13-14 (1988).

94 *Id.* at 13.

95 *Id.*

96 SUSAN SPERLING, ANIMAL LIBERATORS: RESEARCH AND MORALITY 36 (1988).

97 *Id.*

98 *Id.*

99 *Id.*

100 *Id.* at 38.

101 SPERLING, *supra* note 96, at 47.

102 Judith Hampson, *Legislation: A Practical Solution to the Vivisection Dilemma?*, *in* VIVISECTION IN HISTORICAL PERSPECTIVE 314 (Nicolaas A. Rupke ed., 1987) (citing the Cruelty to Animals Act, 1876, 39 & 40 Vict., ch. 77 (Eng.)).

103 *Id.*

104 *Id.*

profession against the bill. Over 300 medical men personally lobbied in the "eleventh hour," resulting in amendments which rendered the legislation innocuous so as to "sooth the agitated public while imposing no real restrictions on fundamental or medical research."[105] The Cruelty to Animals Act remained unchanged for over 100 years,[106] until the adoption of the Animals Act in 1986,[107] which continues to "proscribe practically nothing," yet "seeks to control everything."[108]

In the United States, the primary legislation on the subject of animals used in biomedical experiments is the federal Animal Welfare Act (AWA).[109] The AWA was passed in 1966 and subsequently amended four times. Despite the inadequacies of the Animals Act, the AWA is even less stringent,[110] particularly weakened by the inability of citizens to enforce the AWA on behalf of animals.[111] One of the most disturbing deficiencies of the AWA is its failure to protect rats and mice, which comprise approximately eighty percent of all animals used in biomedical research in the United States.[112] Additionally, the AWA fails to protect birds and a number of other animals; therefore, it is estimated the AWA covers only four to five percent of the animals used in federally funded laboratories in the United States.[113] The AWA defines an "animal" as "any live or dead dog, cat, monkey (nonhuman primate mammal), guinea pig, hamster, rabbit, or such other warm-blooded animal."[114] Despite the fact that rats, mice, and birds are warm-blooded vertebrates, the AWA does not include them under the

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105 *Id.* at 315. The author hypothesizes that had this legislation been passed as it was originally written, biomedical science and anti-vivisection in the twentieth century would be very different; *see id*; *see also*, SPERLING, *supra* note 96, at 40 (arguing the Act consisted of a system of licensing and registration that sanctioned painful experiments if they claimed to advance new physiological knowledge, save or prolong lives, or alleviate human suffering).

106 Hampson, *supra* note 102, at 315. Although the Cruelty to Animals Act "was never amended, a second Royal Commission (1906-12) and a Departmental Enquiry (1965) did result in substantial changes to the administration of the law." *Id.*

107 Animals Act (Scientific Procedures), 1986, ch. 14 (Eng).

108 Hampson, *supra* note 102, at 319. For a more detailed discussion of what the Act entails, see *id.* at 319-22.

109 7 U.S.C. §§ 2131-2156 (1994). The Act was amended in 1970, 1975, 1980, and 1990.

110 GARY L. FRANCIONE, ANIMALS, PROPERTY, AND THE LAW 185 (1995).

111 *See id.* at 74-86 (discussing the attempts made by animal welfare and rights organizations to gain standing in courts to enforce the AWA); *see also*, Animal Legal Defense Fund v. Glickman, 154 F.3d 426 (D.C. Cir. 1998), *cert. denied*, National Ass'n for Biomedical Research v. Animal Legal Defense Fund, 119 S. Ct. 1454 (Apr. 19, 1999) (No. 98-1059). This recent landmark case granted standing to a plaintiff who regularly visited animal exhibitions based on the "aesthetic harm" he suffered from seeing primates living in inhumane conditions. *Id.* The plight of animals used in research experiments remains uncertain, however, as the primary purpose of animals used in research is not for visual pleasure. As the *Glickman* court noted, "[t]he very purpose of animal exhibitions is, necessarily, to entertain and educate people; exhibitions make no sense unless one takes the interests of their human visitors into account." *Id.* at 444. Nonetheless, this decision could prove tremendous for the ability of animal welfare organizations to finally give effect to the AWA.

112 ANDREW N. ROWAN, OF MICE, MODELS, AND MEN 67 (1984).

113 FRANCIONE, *supra* note 110, at 225.

114 7 U.S.C. § 2132(g) (1994).

definition of "animal."[115] At the state level, anti-cruelty statutes exist, but as a general rule, experiments on laboratory animals are exempted either explicitly in the statute or by judicial interpretation.[116]

2. Intensive Farming

In December 1837, the third Earl Spencer, a small country farmer, addressed members of his farmers club, telling them,

> [c]ertain branches of science had begun, he said, to make notable progress, and it must seem that the farmer could no longer afford to ignore their possible applications to his business. . . . numbers of scientific experiments had already been carried out, and if only their results could be made intelligible to practical men an improvement might soon take place that few have any conception of.[117]

Hence, a new vision of rearing animals for food was born. This new vision, known as "intensive" or "factory" farming, based its methodology on five essential requirements: rapid turnover, high-density stocking, a high degree of mechanization, low labor needs, and efficient "conversion of food into salable products."[118] The transition from farming as a small, integrative occupation to a depersonalized, mechanized industry is revealed in the 1939 statement of a noted rural economist who wrote, "[i]n farming . . . the pursuit of artistry alone is to be deprecated. The whole affair loses its point when the profit motive is absent."[119]

Factory farming came into full swing in the 1950s, although pressure existed since the early 1900s to increase animal product output.[120] Populations were rapidly rising, shifting from the more self-sufficient countryside to more dependant urban centers.[121] The agricultural industry responded by developing increasingly efficient and intensive methods of rearing animals.[122]

For example, factory farmers developed "beef broilers" to reduce the amount of time it took a beef calf to fatten sufficiently for slaughter.[123] In this process, beef calves are separated from their mothers shortly after birth and placed in small corrals that do not allow the calf enough room to turn around, depriving the animal of natural feed and natural light.[124] This

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115 FRANCIONE, *supra* note 110, at 224-25.

116 *Id.* at 125. "The most frequent exemptions include scientific experiments, agricultural practices, and hunting." *Id.* at 140.

117 AGRICULTURE IN THE TWENTIETH CENTURY: ESSAYS ON RESEARCH, PRACTICE, AND ORGANIZATION TO BE PRESENTED TO SIR DANIEL HALL 123 (1939) [herinafter AGRICULTURE IN THE TWENTIETH CENTURY].

118 RUTH HARRISON, ANIMAL MACHINES: THE NEW FACTORY FARMING INDUSTRY 1 (1964) (citing Dr. Preston of the Rowett Research Institute).

119 AGRICULTURE IN THE TWENTIETH CENTURY, *supra* note 117, at 134-35.

120 Davis, *supra* note 88, at 38.

121 *Id.*

122 *Id.*

123 HARRISON, *supra* note 118, at 89.

124 *Id.* at 89-91

reduced the ready-to-market time from three years to eleven months.[125] Similar methods have been applied to all other livestock.[126]

A combination of increased production of meat, government subsidies, and intense advertising campaigns has sparked a rapid increase in the availability of cheaper meat on the world market in the last half century.[127] From 1960-1980, beef consumption in Costa Rica quadrupled and the per capita consumption of meat and eggs in Taiwan increased 600% from 1950-1990.[128] In 1991, Worldwatch noted "[s]ince 1950, meat consumption has tripled and feed consumption quadrupled. Use of grain for cattle feed surpassed direct human consumption in 1964 and has been rising ever since. Soviet [now Russian] livestock now eat three times as much grain as soviet citizens."[129]

As increasing attempts to mass produce animal products are made, the living conditions for the animals involved depreciates. Farmers increasingly use technology such as, adding dyes to feed, manipulating feed, injecting animals with growth hormones and antibiotics, and manipulating genes.[130] Although anti-cruelty statutes exist in all states, animals raised for food are generally exempted from the statutes.[131] For example, nearly half the states have anti-cruelty laws prohibiting certain types of acts[132] toward an animal, but only if it is committed "knowingly," "maliciously," or "needlessly."[133] Furthermore, even if the cruel act is carried out with such an intent, the anti-cruelty statute does not apply to "animals used in the farm or ranch production of food . . . or other agricultural products."[134] Normal farming practices now include: housing calves and gestating sows in stalls where they are unable to turn around, debeaking, hot-iron branding without anaesthetic, separating calf and mother immedi-

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125 *Id.* at 89.

126 *See id.* The chicken was the first farm animal to be intensely reared. This was carried out by housing day-old chicks, eight to ten-thousand at a time, in long windowless houses punctuated by extractor fans in rows along the ridge of the roofs and air intake vents along the side walls. The chickens were, and often still are, raised in these broiler houses, at least five to six to a cage, until they are ready for slaughter. The expansion of chicken broilers snowballed in England from 20 million in 1954 to 56 million in 1957 to 200 million in 1965. *Id.* at 9-12.

127 Robert H. Smith, *Livestock Production: The Unsustainable Environmental and Economic Effects of an Industry Out of Control*, 4 BUFF. ENVTL. L.J. 45, 74-75 (1996); *see also* ROBBINS, *supra* note 63, at 155-56, 220-21.

128 JOHN ROBBINS, MAY ALL BE FED: A DIET FOR A NEW WORLD 35, 41 (1992) [hereinafter MAY ALL BE FED].

129 *Id.* at 42.

130 BIOETHICS, *supra* note 1, at 85.

131 FRANCIONE, *supra* note 110, at 125.

132 *See, e.g.*, COLO. REV. STAT. ANN. § 18-9-202 (Bradford 1998) (prohibiting acts of unnecessary or needless cruelty, such as "unnecessarily . . . beats," "needlessly mutilates," and "needlessly kills . . . or confines").

133 COLO. REV. STAT. ANN. § 18-9-202 (Bradford 1998) (stating that "[a] person commits cruelty to animals if he . . . cruelly beats [the animal]"); *see also* California's anticruelty statute which states, "every person who maliciously and intentionally . . . ." CAL. PENAL CODE § 599(b) (West 1999); DAVID J. WOLFSON, BEYOND THE LAW: AGRIBUSINESS AND THE SYSTEMIC ABUSE OF ANIMALS RAISED FOR FOOD OR FOOD PRODUCTION 8 (1995).

134 COLO. REV. STAT. ANN. § 18-9-202.2.a.B.VII (Bradford 1998).

ately after birth, transporting farm animals on long journeys without water or rest, and genetic selection for rapid weight gain.[135] The reality of these modern day farming practices proves that the law's regulation of animals is not only inadequate, but actually encourages a system of mass production.

B. Consequences of Mass Exploitation

The deleterious consequences of the mass exploitation of non-human animals is not confined to the lives of the animals being exploited. Mass exploitation of animals has led to a severely degraded environment, degraded human health, the exacerbation of world hunger, economic inequities, and psychic impoverishment.

1. Environmental Degradation

The livestock and factory farming industry[136] is one of the leading causes of global environmental decay.[137] Livestock production plays a key role in water scarcity, water pollution, domestic deforestation, loss of rain forests, topsoil erosion, desertification, loss of biodiversity, inefficient resource usage, depletion of fossil fuels, and global warming.[138] In the United States, as in many other nations, there is a grave absence of laws addressing these problems. Those that do are not adequately enforced.

a. Water Depletion and Contamination

Factory farming is a significant factor in the environmental problem of over-consumption, pollution, and the depletion of water resources.[139] More than half of the water consumed for all purposes in the United States goes to grow cattle feed and provide water for farm animals.[140] This makes livestock production the chief consumer of water in the United States. By comparison, growing plant crops uses far less water. To produce a single pound of meat, a farmer must use 137 times more water than he would to produce a single pound of vegetation.[141]

To meet the high water demand, fresh water supplies are being rapidly depleted. Sinking water tables, aquifer depletion, and wetland destruction are reaching critical levels.[142] This problem is particularly prevalent in the western United States, where water overdraft exceeds water replen-

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135 WOLFSON, *supra* note 133, at 8, 12-15. For a list of state anti-cruelty statute cites along with relevant language, see *id.* at 15-17 n.64-93.

136 Factory farming has moved beyond exploitation of the traditional farm animals, such as cows, sheep, and pigs. Today, deer, rabbit, ostrich, pheasant, quail, duck, frog, snail, lobster, fish, turtle, alligator, black bear, goose, kangaroo, rattlesnake, silk worm, chinchilla, fox, mink, and other wild animals are farmed for various purposes, none of which are necessary for human survival. BIOETHICS, *supra* note 1, at 164-65.

137 Smith, *supra* note 127, at 47.

138 *Id.*

139 *Id.* at 48.

140 *Id.* at 50.

141 *Id.* at 49.

142 Smith, *supra* note 127, at 51.

ishment by twenty-five percent.[143] The Ogallala aquifer, one of the world's largest fresh water supplies, is quickly being depleted of its stores and "experts estimate that if the U.S. livestock industry's non-sustainable consumption of water continues at the current rate, the Ogallala Aquifer may be exhausted within the next two or three decades."[144]

The organic waste from livestock contributes significantly to water pollution. United States livestock produce twenty times as much waste as the country's human population.[145] A single cow produces sixteen times as much waste as a human.[146] Livestock waste is usually diverted directly into water supplies or allowed to seep into ground water, contaminating lakes, rivers, coastal waters, and, ultimately, the water we drink.[147]

Livestock waste contains heavy metals, feed-additive chemicals, fecal bacteria, parasites, residues of medications, and agricultural salts and sediments.[148] It is also the primary non-point source of water pollution in the United States.[149] Food geographer Georg Borgstrom states that American livestock contributes five times more harmful organic waste than people and twice that of industry.[150] According to Dr. Harold Bernard, an agricultural expert for the EPA, this waste is "ten to several hundred times more concentrated than raw domestic sewage."[151] Forty percent of the nitrogen and thirty-five percent of the phosphates contaminating the United States' fresh waters result from livestock wastes and feed fertilizers.[152] Nitrates cause cancer and phosphates stimulate the proliferation of the phytoplankton *pfiesteria piscidia*, which can cause severe illness in people, resulting in weight loss, abdominal cramps, festering sores, and memory loss.[153]

The primary objective of the Clean Water Act (CWA)[154] is "to restore and maintain the chemical, physical and biological integrity of the Nation's waters."[155] Realizing the large impact on water by livestock (producing waste ten to several hundred times more concentrated than raw sewage) it stands to reason that the CWA would directly target this contamination.[156] However, the CWA does little to regulate the activities of animal agriculture, despite its status as a major source of water pollution in the United Sates. All agricultural activities, with one exception, are designated

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143 *Id.*

144 *Id.*

145 ROBBINS, *supra* note 63, at 372.

146 *Id.*

147 BIOETHICS, *supra* note 1, at 37.

148 *Id.*

149 Smith, *supra* note 127, at 52.

150 *Id.*

151 ROBBINS, *supra* note 63, at 373.

152 BIOETHICS, *supra* note 1, at 37.

153 *Id.* at 36-37.

154 33 U.S.C. §§ 1251-1387 (1994).

155 33 U.S.C. § 1251(a) (1994).

156 Smith, *supra* note 127, at 52.

as non-point sources.[157] In fact, organic waste from livestock, along with pesticides, chemical fertilizers, and agricultural salts and sediments, are the primary nonpoint sources of water pollution in the United States.[158] Surprisingly, the CWA exempts all non-point sources of pollution, thus exempting most agricultural activities from regulation.[159] The only agricultural activity that qualifies as a point source and requires a NPDES permit under the CWA are Concentrated Animal Feeding Operations (CAFOs), or livestock operations which satisfy a set of statutory definitions.[160] These statutory definitions, however, allow for numerous exemptions from the CWA. For example, small and medium livestock operations are not classified as CAFOs unless there is a direct discharge of pollutants into navigable waters from a manmade ditch or stream.[161] Large feedlots, which can confine over one thousand animals, are exempt from obtaining a permit if they only discharge as a result of a "25-year, 24-hour storm."[162] To fall under these exemptions, many CAFO operators install lagoons adequate to contain runoff from a 25-year, 24-hour storm or develop disposal systems where waste manure is drained from the lagoons or removed from the facility and applied on fields and pastures as fertilizer.[163] Although these activities exempt animal feeding operations from the CWA, the waste pollution still affects the nation's waters.[164]

b. Deforestation and Desertification

The deforestation of the United States can be contributed in large part to grazing livestock. Livestock and livestock feed production cause over eighty percent of the annual topsoil loss in the United States.[165] It takes one hundred to five hundred years to replenish just one inch of topsoil naturally.[166] Consequently, as former rangeland becomes too eroded to graze cattle, farmers clear forests to create more rangeland. To date, a total of 260 million acres of forest have been converted to land for raising and grazing livestock.[167]

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157 Jeff L. Todd, *Environmental Law: The Clean Water Act—Understanding When a Concentrated Animal Feeding Operation Should Obtain an NPDES Permit*, 49 OKLA. L. REV. 484 (1996).

158 *Id.*

159 *Id.*

160 40 C.F.R. § 122.23 (1998). In order to be classified as a CAFO, an operation must be designated as follows: an "animal feeding operation" whereby animals must be confined or maintained for a minimum of forty-five days in a twelve month period; "[c]rops, vegetation forage growth . . . are not sustained in the normal growing season over any portion of the lot or facility;" and a minimum number of "animal units" must be confined and be designated by the Director as a significant contributor of pollution. Todd, *supra* note 157, at 482, 484-85. Nonetheless, the term CAFO remains "nebulous" and difficult to apply.

161 40 C.F.R. § 122.23(c)(2) (1998).

162 Todd, *supra* note 157, at 486-88; *see also* 40 C.F.R. § 412.11(e) (1998).

163 Todd, *supra* note 157, at 488.

164 *Id.* at 481.

165 Smith, *supra* note 127, at 60.

166 *Id.* at 61.

167 ROBBINS, *supra* note 63, at 360 (referencing Robin Hur & Dr. David Fields, *Are High Fat Diets Killing Our Forests*, VEGETARIAN TIMES, Feb. 1984). Robbins found that statistics

Federal legislation such as the Taylor Grazing Act of 1934,[168] the Multiple-Use Sustained-Yield Act of 1960 (MUSY),[169] and the Federal Land Policy and Management Act of 1976 (FLPMA)[170] govern the use of federal public lands but have been ineffective in preventing the devastation of livestock grazing.[171] For instance, FLPMA declares a congressional policy that the public lands be managed in a manner that will, in part, protect the scenic, ecological, and environmental values of those lands and provide food and habitat for fish and wildlife.[172] However, the Bureau of Land Management (BLM) who administers FLPMA and manages 177 million acres in western states,[173] permits livestock grazing on virtually all of the land it manages.[174] Furthermore, the BLM permits grazing "without determining whether grazing in particular areas is economically or environmentally justifiable or is in the public interest."[175] Livestock grazing continues to erode soil, proliferate weeds, and kill native plants on which the ecosystem and other animals depend.[176]

Deforestation for livestock production is not an uniquely American problem. Throughout the world, beef production is implicated as the leading cause in the annual deforestation of seventeen million hectares of rainforest.[177] In Central America, over twenty-five percent of farmland is primarily used for beef production.[178] In Brazil, thirty-eight percent of the rainforest was destroyed for cattle ranching between 1966 and 1975.[179] Since rainforests are ill-suited for agriculture,[180] a few years of cattle grazing hardens the ground into rock-like sheets, similar to a desert.[181] Currently, twenty-nine percent of the earth's land mass is suffering from desertification and livestock overgrazing is the primary contributing factor.[182]

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show that at the current rate of deforestation (at time of publication in 1987) all forest land in the United States will be decimated by the year 2040. However, if Americans stop raising food to feed livestock, but instead raise food directly for people—hence adopt a vegetarian diet—over 200 million acres could be returned to forest. *Id.* at 362-63. Estimates show that for every person who adopts a pure vegetarian diet, an acre of trees is spared every year. *Id.*

168 43 U.S.C. § 315 (1994).

169 16 U.S.C. §§ 528-531 (1994).

170 43 U.S.C. §§ 1701-1784 (1994).

171 *See* Joseph M. Feller, *What is Wrong with the BLM's Management of Livestock Grazing on the Public Lands?*, 30 IDAHO L. REV. 555, 560-66 (1994).

172 *Id.* at 564.

173 *Id.* at 558.

174 *Id.* at 560.

175 *Id.* at 557.

176 Feller, *supra* note 171, at 560-61.

177 Smith, *supra* note 127, at 54.

178 *Id.* at 55.

179 *Id.* at 56.

180 *Id.* at 55. The nutrient-rich layer of the rainforest is not below the soil, but rather above the ground in the thick layer of fallen and decomposing vegetation.

181 *Id.*

182 Smith, *supra* note 127, at 59.

c. Loss of Biodiversity

Rainforests contain fifty percent of the world's species of plants and animals, contain eighty percent of the earth's land vegetation, and are the oldest ecosystem on earth.[183] As rainforests are cleared for cattle grazing, more species are eliminated. Scientists know many species of plants and animals are disappearing before they are even documented.[184] In the United States, where twenty plant and animal species become extinct every decade,[185] livestock grazing is the leading cause of the elimination of plant species.[186]

The Endangered Species Act (ESA),[187] which has been characterized as the strongest environmental law,[188] is supposed to prevent the further loss of animal and plant species caused by human activity.[189] The ESA protects endangered species habitat, something Congress considered critical to the long-term survival of endangered wildlife.[190] However, the ESA has become largely discretionary.[191] The ESA defines "critical habitat" as "specific areas within the geographical area occupied by the [endangered] species, at the time it is listed . . . [that] are found . . . essential to the conservation of the species . . . [and] specific areas outside the geographical area occupied by the species . . . [that are determined by the Secretary to be] essential for the conservation of the species."[192] Despite the strong mandate to protect species, critical habitat is limited to that needed for "bare species survival."[193] In addition, Congress provided a cost-benefit test for designating critical habitat, allowing economic concerns to outweigh species survival.[194] Consequently, the ESA allows the continuance of an "overwhelming majority of human activity without impediment."[195]

d. Energy Consumption

"The production of livestock plays a key role in the rapid consumption of the world's finite oil reserves."[196] The factory farm industry is energy intensive, relying on artificial means to raise animals. Agri-

183 ROBBINS, *supra* note 63, at 363-64.

184 PAUL HAWKEN, THE ECOLOGY OF COMMERCE 28-29 (1993).

185 Oliver A. Houck, *The Endangered Species Act and its Implementation by the U.S. Department of Interior and Commerce*, 64 U. COLO. L. REV. 282 (1993). One hundred-nine species are threatened with extinction domestically and over 300 worldwide. *Id.*

186 Smith, *supra* note 127, at 66.

187 16 U.S.C. §§ 1531-1544 (1994).

188 Houck, *supra* note 185, at 279.

189 16 U.S.C. § 1531(b) (1994).

190 *Id.* at 279 n.134 (stating "[n]early every commentator on the [ESA] has noted the importance Congress placed on protecting the critical habitat of endangered and threatened species").

191 Houck, *supra* note 185, at 279.

192 16 U.S.C. § 1532(5)(A) (1994).

193 Houck, *supra* note 185, at 300.

194 *Id.* at 281.

195 *Id.* at 279.

196 Smith, *supra* note 127, at 61.

economists estimate the consumption of energy by measuring the energy input versus the food product output. Their calculations show that one gallon of gasoline is used to produce one pound of grain fed beef raised on today's factory farms.[197] Furthermore, "if the entire human population began to eat a meat-based American diet, the world's oil reserves would be depleted in just a few years."[198]

e. Global Warming

The two most deleterious compounds to the destruction of the ozone layer are carbon dioxide and methane gas.[199] Much of the carbon dioxide released into the atmosphere is a direct result of livestock production, including the production of carbon dioxide from burning rainforests to make room for cattle grazing.[200] Livestock account for twenty percent of all global emissions of methane.[201]

2. Health Consequences

> *"I will make one condition: [t]he white man must treat the beasts of this land as his brothers. . . . For whatever happens to the beasts soon happens to man. All things are connected."*
>
> Chief Seattle[202]

> *"For that which befalleth the sons of men befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they all have one breath; so that a man hath no pre-eminence above a beast . . . ."*
>
> Ecclesiastes 3:19[203]

Human beings are natural herbivores[204] and have subsisted on a primarily plant-based diet for ninety-nine percent of human's existence on earth.[205] The human body requires a maximum of eight percent of its calories from protein.[206] Accordingly, a human mother's milk contains five percent protein.[207] Plant-based diets easily provide this protein require-

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197 *Id.*

198 *Id.*

199 *Id.*

200 *Id.* at 63.

201 Smith, *supra* note 127, at 63-64.

202 ROBBINS, *supra* note 63, at 359-60 (quoting Chief Seattle).

203 *Ecclesiastes*, 3:19 (King James).

204 MAY ALL BE FED, *supra* note 128, at 87 (citing William Roberts, M.D., editor in chief of the AMERICAN JOURNAL OF CARDIOLOGY, who stated that "[w]hen we kill animals to eat them, they end up killing us because their flesh . . . was never intended for human beings, who are naturally herbivores").

205 BIOETHICS, *supra* note 1, at 131.

206 MAY ALL BE FED, *supra* note 128, at 49 (according to the World Health Organization, the Food and Nutrition Board of the National Academy of Sciences, and the National Research Council).

207 ROBBINS, *supra* note 63, at 175. The percentage of mother's milk as protein correlates with the time it takes her baby to double his birth weight, so that the shorter the doubling time the greater the protein content. *Id.* A baby human takes 180 days to double its birth weight. *Id.* A human mother's milk contains five percent protein. *Id.* In contrast, a baby cow

ment. For example, wheat is seventeen percent protein; oatmeal, fifteen percent; soybeans are fifty-four percent; broccoli is forty-five percent; and oranges are eight percent protein.[208] Furthermore, there is no evidence that animal protein is superior to plant protein.[209]

The morphology of the colon is one of the most reliable indicators of "natural diet."[210] Humans have long, convoluted colons; natural carnivores, like dogs and cats, have short, truncated colons that allow animal-product waste, which is absent of roughage and higher in toxins than plant material, to be quickly expelled.[211] Consequently, humans' colons are better suited for a herbivore lifestyle; yet, most Americans eat a primarily carnivorous diet. This diet is implicated in at least seventy percent of modern American diseases.[212] A diet high in animal products increases the risk of cancers of the colon, lung, breast, prostrate, pancreas, and ovary.[213] An animal-based diet also causes other diseases, including: heart disease, osteoarthritis, diabetes, hypoglycemia, and multiple sclerosis.[214]

Equally problematic is the process of bioaccumulation, in which toxins increasingly accumulate in the fatty tissues of animals as one moves up the food chain. Humans who choose to eat meat instead of plants place themselves at the top of the food chain and consequently accumulate the maximum toxins from the environment. According to bioaccumulation expert Lewis Regenstein, meat contains fourteen times and dairy products contain over five times as many pesticides as non-organic fruits and vegetables.[215] Dioxin intake is also a health concern, damaging the immune and reproductive systems by causing developmental and hormone-regulation disorders.[216] Nearly all human intake of dioxin comes from animal products; ninety-two percent of which comes from land-based animal products and the rest from fish.[217]

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takes forty-seven days, with a mother cow's milk containing fifteen percent protein. *Id.* A baby rat takes four days, with a mother rat's milk containing forty-nine percent protein. *Id.*

208 ROBBINS, *supra* note 63, at 177.

209 *Id.* at 178-83 (discussing plant protein as superior to animal protein). "Formerly, vegetable proteins were classified as second-class, and regarded as inferior to first-class proteins of animal origin, but this distinction has now been generally discarded." *Id.* at 183 (citing *Editorial*, THE LANCET 2:956 (London, 1959)); *see also* BIOETHICS, *supra* note 1, at 116 ("humans are not biologically suited nor physiologically adapted for a diet high in animal fat and protein").

210 ROBBINS, *supra* note 63, at 258-60.

211 *Id.* at 258.

212 According to former Surgeon General C. Everett Koop, seventy percent of all Americans are dying from ailments associated with their diets. ERIK MARCUS, VEGAN: THE NEW ETHICS OF EATING viii (1998).

213 ROBBINS, *supra* note 63, at 248.

214 *Id.* at 274-305; *see also* BIOETHICS, *supra* note 1, at 117.

215 Smith, *supra* note 127, at 66.

216 BIOETHICS, *supra* note 1, at 65.

217 *Id.* According to the Environmental Protection Agency, beef accounts for more than one-third of the estimated daily exposure to dioxin-like compounds; chicken and pork account for about 12%; eggs account for 4.1%; dairy products account for 24.1%; milk accounts for 17.6%; and fish accounts for 7.8%. *Id.*

The contamination of meat by harmful bacteria is an increasing threat as well. In the past fifteen years, health officials have found a rising incidence of contaminated poultry and beef.[218] Salmonella poisoning is particularly worrisome because human resistance to antibiotics is increasing, largely due to injection of antibiotics into the animals humans eat.[219] Bovine Spongiform Encephalitis,[220] of particular concern in England, continues to threaten public health. Researchers predict that the United States is just a few years behind England and will soon face its own epidemic.[221]

Consumers frequently demand to know what is being injected into their food, but such demands are generally opposed by the United States Food and Drug Administration.[222] However, the current trend of manipulating natural food sources, coupled with strong evidence linking diet and disease, make consumer right-to-know laws increasingly important.

Animal research also has a negative effect on human health. More than $5 billion in United States tax revenues are spent annually on animal research, accounting for more than any other nation.[223] However, American life expectancy ranks nineteenth out of thirty-four developed nations.[224] Life expectancy is largely determined by lifestyle (diet, level of activity, and sanitation practices),[225] which can only be ameliorated through public education, embodying a preventative philosophy. Animal research, however, is largely intervention oriented, seeking to cure diseases once they have developed. Since seventy percent of diseases are diet-related, a greater number of people would live longer and healthier lives if they were taught how to adequately prevent diseases from occurring in the first place.[226] Despite the logic of this approach, the National Institute of Health spends virtually none of its $11 billion budget on public

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218 *Id.* at 18.

219 *Id.* at 34. Factory farm animals are injected with antibiotics because the crowded and unhealthful conditions in which they live produce environments ripe for the spread of disease. ROBBINS, *supra* note 63, at 302-03.

220 BIOETHICS, *supra* note 1, at 44. Bovine Spongiform Encephalitis is commonly known as Mad Cow Disease.

221 *Id.*

222 *Id.* at 100-01 (discussing USDA's refusal to label dairy products that come from cows injected with rBGH despite high consumer demand for the right to know).

223 NATIONAL ANTI-VIVISECTION SOCIETY, EXPRESSIONS 18 (1994).

224 *Id.*

225 *Id.*

226 BOUNDLESS CIRCLE, *supra* note 62, at 237.

> It would be wrong to say that no benefits have come in the past from animal research. But now there are new diseases of civilization, related to our lifestyle and to our habit of poisoning and impoverishing the environment, that no amount of animal research will prevent. And we need no more animal experiments to prove the obvious: that pesticides, alcohol and drugs are harmful to our health and cause cancer, birth defects and genetic damage. To justify continued animal research to find *cures* for these self-induced diseases is not only unethical; it is also bad medicine, since the best medicine is prevention.

Id.

health education,[227] funneling it instead into the costly animal research industry.[228]

Furthermore, many specialists within the scientific community are starting to question the applicability of animal research to our health. Irwin Bross, Ph.D. and Director of Biostatistics at the Roswell Park Memorial Institute in New York, states, "Not a single new drug for the treatment of human cancer was first picked up by an animal model system . . . the results of animal model systems for drugs or other modalities have done nothing but confuse and mislead the cancer researchers who have tried to extrapolate from mice to man."[229] Data taken from animal experimentation has actually lead to unforeseen problems in humans. Researchers have developed drugs based on their beneficial effects in non-human research subjects. The drugs, however, sometimes cause disability and death when administered to humans.[230]

The amount of money spent on animal research each year gives the public the false impression that great progress is under way. In reality, the money spent on animal research is diverted from more effective health care approaches, slowing progress in many areas of disease prevention and cures. "Conclusions drawn from animal research when applied to human disease are likely to delay progress, mislead and do harm to the patient."[231] The Federal government should act now to re-align expenditures away from animal research and towards more effective health care tools.

3. World Hunger

Less than half of the harvested agricultural acreage in the United States is used to grow food for humans; rather, it is used to grow feed for

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[227] NATIONAL ANTI-VIVISECTION SOCIETY, *supra* note 223, at 18; *see also* ROBBINS, *supra* note 63, at 231 (noting that the most well-known dairy promoter, the National Dairy Council, is the largest and most important provider of childhood nutrition education in the country). The Dairy Council provides free nutrition education packages to nursery, elementary, junior and senior high schools called, ironically, "Food: Your Choice." *Id.* These packages use hand puppets, posters, puzzles, and other such props to promote fatty chemically laden dairy products as healthful and encourage their consumption. *Id.* One such example is material entitled "Ice Cream for You and Me," in which the Dairy Council advises that "[i]ce cream is a healthful food made from milk and cream along with other good foods." *Id.*

[228] NATIONAL ANTI-VIVISECTION SOCIETY, *supra* note 223, at 18. Health education has a significant impact on the poor and under-educated. Intervention techniques, because they are expensive, largely affect the wealthy and well insured. This is particularly true in developing nations.

[229] *Id.* at 22.

[230] *See generally* MONEIM A. FODALI, M.D., ANIMAL EXPERIMENTATION: A HARVEST OF SHAME (1996). A brief sampling of drugs considered "safe" based on animal experimentation but which in fact turned out to harm humans include: Atromid (causing deaths from cancer, pancreatitis, and gall bladder disease), Eraldin (causing diarrhea, blindness, and death in over 1000 users), Thalidomide (causing severe birth defects in over 10,000 babies), Oraflex (causing liver damage and death), and Clioquinol (causing subacute myelo-optic neuropathy in over 10,000 Japanese users). *Id.* at 15-16, 33-34.

[231] *Id.* at 25.

livestock.[232] This "conversion" of grain to meat has serious implications for our world's food production. On average, it takes sixteen pounds of grain and soybeans to produce one pound of meat.[233] To put it differently, one acre of land can produce forty thousand pounds of potatoes, forty thousand pounds of onions, thirty thousand pounds of carrots, sixty thousand pounds of celery, or two hundred and fifty pounds of beef.[234] For example, Soviet livestock eat three times as much as Soviet citizens.[235] This grain-to-meat ratio is most problematic in developing nations who are attempting to emulate developed nations by switching from crop production for human consumption to animal agriculture. Developing nations tend to associate meat-eating with higher social status.[236] Instead, they are exacerbating hunger and malnutrition epidemics.[237]

Cattle industry magnates represent a further problem in developing nations. In the effort to create more and cheaper grazing land, forests are cleared at unprecedented rates.[238] Indigenous peoples, who often live in forested areas and rely on the forest for their survival, are being physically displaced while their cultures are decimated. This instability leads to poverty, starvation, and, sometimes, genocide.[239]

4. Economic Unsustainability

In the United States, the grain and soy producers that produce crops for livestock feed receive the largest subsidies.[240] The meat and dairy industries are also direct recipients of government subsidies.[241] Government irrigation water subsidies for animal feed growers range between $500 million to $1 billion each year.[242] If water subsidies alone were eliminated, the real cost of meat to consumers would be thirty-five dollars a pound.[243] Some farmers are given a water depletion tax deduction for the decrease in water levels below their lands, a decrease which their intensive farming practices caused.[244]

Other subsidies come in the form of grazing fees on public lands and the activities of Animal Damage Control (ADC).[245] Grazing subsidies cost United States taxpayers between $300-500 million per year.[246] ADC spends roughly $38 million annually on farm animal predator control policies,

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232 ROBBINS, *supra* note 63, at 351.
233 *Id.*
234 MAY ALL BE FED, *supra* note 128, at 34.
235 *Id.* at 42.
236 ROBBINS, *supra* note 63, at 351.
237 *Id.*
238 *See infra* Part V.B.1.b.
239 ROBBINS, *supra* note 63, at 364.
240 Smith, *supra* note 127, at 74.
241 *Id.*
242 *Id.* at 76.
243 *Id.*
244 *Id.* at 77.
245 Smith, *supra* note 127, at 69. ADC changed its name to Wildlife Services in 1997. *Id.*
246 *Id.* at 79.

although predators kill less than $28 million in livestock.[247] Furthermore, some experts contend that ADC's policies are ineffective and wasteful, exacerbating the problem.[248] In addition to the above mentioned costs to taxpayers from supporting an unsustainable and impractical industry, there are costs that cannot be reasonably calculated. These include the loss of ancient forests, visual pollution, and the deaths of loved ones from meat-based diet-related diseases.

5. *Psychic Impoverishment*

> *"Can one regard a fellow creature as a property item, an investment, a piece of meat, an 'it,' without degenerating into cruelty towards that creature? Human slavery was brutal. Does anyone really believe that nonhuman slavery operates on a higher plane?"*[249]

> *"You have just dined, and however scrupulously the slaughterhouse is concealed in the graceful distance of miles, there is complicity."*[250]

Animals used for human gratification are treated inhumanely. The abuses are extensive, ranging from maternal deprivation to painful slaughter methods. Veal calves are raised in almost complete isolation, living in narrow crates where they can neither walk, turn around, nor comfortably lie down.[251] Mink and foxes are killed by an electric rod shoved into their rectums so as not to spoil their pelts.[252] Chickens are placed in cages so small that they are not able to fluff their feathers or sit down.[253] Sheep raised for merino wool are crammed into confinement sheds and never see the outdoors for their entire lives.[254] These are just a few examples of the cruelties inflicted on animals treated as "property"[255] or "goods."[256]

The psychological impact on humans associated with the cruel treatment of animals is the subject of many contemporary studies.[257] While the psychological damage is difficult to assess, certain pathologies have

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247 *Id.* at 69.

248 *Id.* For an in-depth discussion of the indiscriminate and wasteful killing policies of the ADC, see David Hoch & Will Carrington Heath, *Tracking the ADC: Ranchers' Boon, Taxpayers' Burden, Wildlife's Bane*, 3 ANIMAL L. 164 (1997).

249 VEGAN OUTREACH, WHY VEGAN 5 (1998) (quoting Karen Davis).

250 *Id.* at 9 (quoting Ralph Waldo Emerson).

251 BIOETHICS, *supra* note 1, at 25.

252 *Id.* at 165.

253 *Id.* at 26.

254 *Id.* at 164.

255 *See generally* FRANCIONE, *supra* note 110 (discussing, in part, the categorization of non-human animals as property under the American legal system).

256 The American National Cattlewomen, Inc. publish a brochure entitled *When Is a Cow Not a Cow?* This brochure is a striking example of the blatant commodification of animals. The brochure answers the question in its title with the subtopics "when it's a meal . . . when it's a household . . . when it's a pharmacy . . . when it gets us there" and lists the variety of objects, such as crayons, chewing gum, soaps, and photographic film, that are by-products of the "beef animal." *Id.*

257 *See generally* CRUELTY TO ANIMALS AND INTERPERSONAL VIOLENCE: READINGS IN RESEARCH AND APPLICATION (Randall Lockwood & Frank R. Ascione eds., 1998) [hereinafter CRUELTY TO ANIMALS].

emerged. One consistently proven link is between animal abuse and domestic violence.[258] Male partners frequently harm or kill family pets prior to, or concurrent with, inflicting harm on their children and/or female partners.[259] Another proven link exists between childhood acts of animal abuse and criminal behavior later in life.[260] In fact, studies reveal a strong pattern of serial killers torturing, mutilating, and killing animals before inflicting the same acts on humans.[261]

Researchers hypothesize that psychological disassociation and detachment are the roots of the perpetrator's ability to inflict intense suffering on sentient beings.[262] In institutionalized violence, such as slaughterhouses, where workers are simply "doing their job," the workers display either clinical detachment (in an effort to psychologically deal with the pain they know they are inflicting) or sadistic, overtly violent behavior (as a result of complete disassociation from the animal as a living, sentient being).[263]

Inflicting exploitative and cruel acts on other living beings eventually taxes the mind and emotions of the exploiter, leading to a kind of "psychic impoverishment." Otherwise compassionate farmers exhibit this impoverishment, suffering mental anxiety caused by the suffering they inflict on their farm animals. A pig farmer once commented, "Sometimes I wish you animal lovers would just drop dead! Just go and fall off a cliff or something. It's hard enough to make a living these days without having to be concerned about all this stuff!"[264] However, later in the evening, the farmer confided,

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258 *See, e.g.*, Barbara Rosen, *Watch for Pet Abuse-It Might Save Your Client's Life*, *in* CRUELTY TO ANIMALS, *supra* note 257; Lynn Loar & Kenneth White, *Connections Drawn between Child and Animal Victims of Violence*, *in* CRUELTY TO ANIMALS, *supra* note 257, at 314, 340; *see also* Charlotte A. Lacroix, *Another Weapon For Combating Family Violence: Prevention of Animal Abuse*, 4 ANIMAL L. 1 (1998).

259 LIZ CLANCY LYONS, THE VIOLENCE CONNECTION, DORIS DAY ANIMAL LEAGUE 3-4 (1997). Seventy-one percent of women seeking shelter in northern Utah for reasons of battery, who shared their homes with pets, reported that their male partners had threatened to or had, in fact, harmed or killed their pets. *Id*; *see also* CRUELTY TO ANIMALS, *supra* note 257 (offering a comprehensive compilation of studies linking animal abuse with criminal and/or antisocial behavior); Carol J. Adams, *Woman-Battering and Harm to Animals*, *in* ANIMALS AND WOMEN: FEMINIST THEORETICAL EXPLORATIONS 55 (Carol J. Adams & Josephine Donovan eds., 1995).

260 *See generally* CRUELTY TO ANIMALS, *supra* note 257.

261 *Id.*

262 "Conduct disorder" is characterized, in part, by being "physically cruel to people . . . or animals," describes associated descriptive features as "individuals . . . [who] may have little empathy and little concern for the feelings, wishes, and well-being of others . . . [and] may be callous and lack appropriate feelings of guilt or remorse." American Psychiatric Association, Conduct Disorder, *in* CRUELTY TO ANIMALS, *supra* note 257, at 247, 249; *see also* BIOETHICS, *supra* note 1, at 42. Dr. Fox tells an account of a slaughterhouse worker in England who chased after an escaped pig and beat it brutally in public. The worker was arrested and tried for cruelty toward the animal. His defense was that the only way he could cope with killing animals every day was to treat the animals "as though they had no feelings at all." *Id.*

263 CRUELTY TO ANIMALS, *supra* note 257, at 438-41.

264 ROBBINS, *supra* note 63, at 92.

> I'm sorry I got so mad at you before. . . . You are just showing me what I already know, but try not to think about. It just tears me up, some of the things we are doing to these animals. These pigs never hurt anybody, but we treat them like, like, like I don't know what. Nothing in the world deserves this kind of treatment. It's a shame. It's a crying shame. I just don't know what else to do.[265]

Such disparate feelings are common among men and women who inflict acts of cruelty through institutionalized violence towards livestock animals.[266]

The psychic impoverishment that results from treating animals as "things" infects both the minds of the perpetrators and of society. The mentality that views the world as an opportunity for self-gratification despite the consequences is highlighted when animals who are clearly not inanimate objects are treated as "widgets." Scientist René Dubos warned of the consequences of an exploitative-based orientation, noting, "A relationship to the earth based only on its use for economic enrichment is bound to result not only in its degradation, but also in the devaluation of human life. This is a perversion, which, if not corrected, will become a fatal disease of the technological societies."[267] Sustainable development is one means by which environmentalists and economists are attempting to ameliorate the pervasive destruction of the industrial era. Sustainability will not work unless it is equity-based. The final section of this comment addresses the ways in which sustainable development can begin to incorporate interspecies equity.

VI. Incorporating Interspecies Equity into Sustainability

It is time we recognize that non-human species make up a large part of the diversity and richness of our communities.[268] We can no longer ignore the fact that non-human animals are beings whose lives have their own inherent interests that extend to the vitality and health of ecosystems. Supporting the health and well-being of other animal species—namely by ceasing exploitation—supports the health and well-being of the human species and the environment. Therefore, in an effort to develop truly sustainable societies, decision-makers must begin to incorporate principles of interspecies equity.

A. Create Dialogue

First and foremost, sustainable communities must allow for dialogue on interspecies equity. Charles Lee sets forth a vision that requires a "holistic, bottom-up, community-based, multi-issue, cross-cutting, interdependent, integrative, and unifying paradigm for achieving healthy and

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265 *Id.*

266 *See* Temple Grandin, *Behavior of Slaughter Plant and Auction Employees Toward the Animals*, *in* Cruelty to Animals, *supra* note 257, at 434-42.

267 Boundless Circle, *supra* note 62, at 60.

268 "Communities" refers to communities at all levels, local and world alike.

sustainable communities."[269] Equity-based sustainable communities must give all interests a voice in the community.[270] Collin and Collin state that "[o]ne of the *keys* to a sustainable future is a commitment to a process of inclusive dialogue and an explicit discussion of values, rather than a commitment to any particular ideological orientation towards the future."[271] The National Round Table on the Environment and Economy enumerates the important principle of "[r]espect for [d]iverse [i]nterests—acceptance of the diverse values, interests, and knowledge of the parties involved."[272] Dr. Michael Fox states, "Social justice should include eco-justice, and adhering to the democratic principle, include all minorities and fellow creatures as beings worthy of equal and fair consideration."[273]

Initially, including "dialogue" from non-human animals might seem absurd. However, equity-based sustainable communities can take into account that not all members of our current community can advocate directly on their own behalf. For example, community members, such as the mentally or physically infirm, or children, are not always able to advocate for themselves. A sustainable community creates forums for these interests by the best means available. Giving non-human animals a "voice" will necessitate giving those who advocate for and best represent animals and their interests a share in all discussions. To this end, animal rights advocates must not be marginalized. They offer perhaps the most representative "voice" for non-human animals and must be included in all discussions addressing sustainability.

B. Evolve Habits

Because the exploitation of animals is so deeply entrenched in our cultural morays, participants in equity-based sustainable community building will have to confront the difficult task of changing stubborn habits. This will require examining personal lifestyles for oppressive acts and changing those acts. Examining one's personal lifestyle is an effective way to make the connection between human habit, animal exploitation, and unsustainability. Two reasonable starting points for habit evolution are found in language use and personal diet.

1. Change Language

Philosopher Ludwig Wittgenstein explains that our word choice plays an important role in the actions we take.[274] The first step in changing our bad habits is to first change our language. Language concerning animals is archaic and euphemistic, likening them to inanimate objects. Words such as "natural resources," "it," and "stocks" deny the fact that animals are

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269 Lee, *supra* note 4, at 5.

270 *Equity as Sustainability*, *supra* note 4, at 1175.

271 *Blue Skies*, *supra* note 4, at 450 (emphasis added).

272 NATIONAL ROUND TABLE ON THE ENVIRONMENT AND THE ECONOMY, ANNUAL REVIEW 9 (1992-1993), *in* Downes, *supra* note 34, at 376.

273 BOUNDLESS CIRCLE, *supra* note 62, at 243.

274 *See generally* LUDWIG WITTGENSTEIN, PHILOSOPHICAL INVESTIGATIONS (1958).

living, feeling beings. Dialogue on, and documents addressing, equity-based sustainability must change the language traditionally used to refer to animals.

2. *Examine Lifestyle*

One of the most effective and easiest habits to change is diet. Adopting a vegan[275] diet not only shows respect for the animal's life that is being spared, but contributes to positive changes in consumer trends. If enough people stop eating animals, the animal exploitation mega-industries will not have a market in which to continue their unsustainable practices.[276]

C. *Create Policy*

Finally, it is crucial that dialogue on interspecies equity result in action. Just as "sustainability must evolve as law, policy, and as an ethic in the context of stark reality, not [only] in the artificial worlds of the written word,"[277] so must interspecies equity. Participants in sustainable community building must be careful that dialogue on interspecies equity does not evolve into rhetoric to appease certain participants. As sustainability is incorporated into law and policy, so must greater equality for animals. Policies and laws must be drafted and introduced to equalize the gross inequities that exist between human and non-human animals.

VII. CONCLUSION

"Non-violence leads to the highest ethics, which is the goal of all evolution. Until we stop harming all other living beings, we are still savages."[278]

Industrial society has reached a point where we are able to look beyond our selfish desires and consider the welfare of the entire earth's community. This change in attitude, from a consumptive self-serving ethic to one of sustaining the life and the communities we create, has the potential to reverse the downward spiral of environmental decay present in the world today.

Extending this equitable ethic beyond our own species is an important step in the realization of sustainable goals. Until all the beings who share this relatively small planet are treated with reverence for the lives they possess, our own peace will elude us. Poisoning the planet, killing other beings, and suppressing members of our own species are all ills we

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275 Veganism is the practice of abstaining from eating all animal and animal-derived products, including red meat, poultry, fish, eggs, and dairy.

276 Of course, it is impossible to believe that we can end all exploitation and suffering. The act of living requires some element of suffering, however that is not an excuse for failing to minimize suffering. "Strictly speaking, no activity or industry is possible without a certain amount of violence, no matter how little. Even the very process of living is impossible without a certain amount of violence. What we have to do is minimize it to the greatest extent possible." BIOETHICS, *supra* note 1, at 149 (quoting Mahatma Gandhi).

277 *Blue Skies*, *supra* note 4, at 446.

278 VEGAN OUTREACH, *supra* note 249, at 1 (quoting Thomas Edison).

have created. They are also ills we can end. Humans possess the capability to transcend current behavior patterns and homocentric attitudes and act out of incredible compassion and responsibility toward other species. This compassion and responsibility may be the only hope we have for living the healthy and happy lives we claim to so adamantly want.