

Ethics and Politics of Food

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We are all vulnerable to believing without question any good news about our bad habits and seek to avoid deep change. But, as Dr. Dean Ornish tells his patients, true friends tell you what you *need* to hear, not what you *want* to hear. This document was prepared by your true friends who speak truth to power.

Human Food History in Brief

From our frugivore ancestors to today, most of our food choices have been driven by our anatomy and by our environment. Even when we started eating small amounts of wild animals, it was for survival. “Ethics” per se and “politics” were not factors in our food choices.

Today, our Great Ape species’ anatomy remains that of insectivore-herbivore, but our food environment is unhealthy for us, for the plants and animals, and for the entire planet. Most of us are addicted to high-fat, high-salt, and high-sugar foods and food products. We eat these in excess as well as too much protein. And only 3% of us in the USA get the minimum recommended amount of fiber. Some suffer caloric deficiency, while others suffer from caloric excess.

Where we once ate *for* survival, our diets now *threaten* our survival. And ethics and politics? Ethics are largely absent, and politics is financing this unhealthful, unethical, anti-survival food environment. This document is a call to action to reclaim our natural role in the food web as insectivore-herbivores and to restore ethics through changes in our personal and political choices.

Most of what we eat is for neither ethics nor survival. Many of us eat what our parents told us to as children and never questioned what was on our plate. Marketing and the presence of an addictive food environment drives most of our food options. Many of us are eating without ever having consciously chosen what we eat. But we know, even if we don’t admit it, that many of us are not eating in ways that are healthful or ethical. And, two movements—the Rights of Nature and animal rights—question even the domestication of animals. Instead of eating for survival, our food choices are threatening our survival and that of all life on earth.

The tide is turning. Most people want to change what they eat, and especially to eat more plants. The [#1 “barrier](#) to eating more plant-based foods: 64% said “No one has ever asked me to.” Let’s start asking and set a good example!

The human appetite for animal flesh is a driving force behind every category of environmental damage now threatening the human future -- deforestation, erosion, fresh

water scarcity, air and water pollution, climate change, biodiversity loss, social injustice, the destabilization of communities, and the spread of disease." -WorldWatch Institute

Animal Rights vs Animal Welfare Theory

Animal "Welfare" versus Animal "Rights"

Two schools of thought dominate our relationships to non-human animals, especially "domesticated" ones:

(1) Animal welfare theory, which holds that it's okay to use non-human animals for our own purposes, as long as the conditions are "humane";

(2) Animal rights (liberation) theory, which holds that subjecting other species to our own uses simply because we have the power to do so does not justify such use; it equates "domestication" and "using" with slavery (indeed, Aristotle's definition of slavery was to use a living being as a tool). Animal "rights" activists sometimes equate "welfarism" as supporting a form of slavery with "kind masters" and call instead for abolition.

[Abolition Explained: A Short Version](#)

[Abolition or Regulation of Exploitation?](#) (Video, 20 mins.) Animal Rights vs Animal Welfare. I'm Vegan: Gary Francione. He tells his personal story, then explains the difference between animal welfarism and abolition of animal exploitation, also known as animal rights. 99.9+ percent of our relationships with animals is for our pleasure, amusement, or convenience; we cannot consider this morally justifiable.

[Animal Rights Theory](#)

[Carnism: the Ideology of Eating Animals](#)

["An Ethical Blind Spot of the Locavores"](#) (Blog article), by John Sanbonmatsu, *Providence Journal*, Dec. 17, 2012.

["Humane" Labels and Loopholes](#) (Website fact sheet), A Well Fed World. Food producers are capitalizing on the public's concern for animal welfare by changing some of their most egregious practices OR implying that they have changed. This section explains what some of the most popular labels include and some of the standard operating abuses they are hiding. It's important to note that only organic labels are regulated. None of the other labels are created or enforced by the government and some are industry created and can be misleading to increase profits.

[Make History!](#) (Video, 2 mins.), by The Vegan Society. Great clip; inspiring, positive.

[Earthlings](#) (Movie, 95 mins.), Director Shaun Monson. Considered the definitive animal rights film by organizations around the world.

Abolition Explained: A Short Version

The following text was available on a website that is no longer found:
http://web.me.com/ericjprescott/Site/An_Animal-Friendly_Life.html

We kill billions of nonhumans every year for reasons that cannot plausibly be considered as “necessary” even though we maintain that we accept that it is wrong to inflict “unnecessary” suffering on animals. When it comes to other animals, we humans exhibit what can best be described as moral schizophrenia. We say one thing about how animals should be treated, and we turn right around and do another.

All sentient beings have an interest in avoiding pain, suffering and death. Humans and nonhumans alike have an interest in not being eaten, used in experiments or as forced organ donors, hunted, or otherwise treated as the mere resources of others. We treat animals in ways in which we would not regard it as appropriate to treat any human. Animals are the property of, or a resource for, humans. We own them and claim the right to sacrifice their interests for our own benefit. They have only the value that we choose to give them.

Nonhumans are the slaves of humans. If we recognized that all sentient beings had a basic, moral right not to be treated as property and that we had a moral duty to stop treating sentient beings as resources, we would stop bringing domesticated animals into existence for our use. We ought to abolish animal exploitation and not seek merely to regulate it.

The only reason the cow exists is so we can exploit her for her meat and milk. Once we recognize that we have no moral justification for exploiting her—however “humane” our animal slavery may be—there is no reason to have cows any longer. There is no reason—other than our pleasure, amusement, or convenience—to eat animal meat or dairy, wear animals, hunt animals, or use animals in entertainment. There is more suffering in a glass of milk than in a steak.

Agricultural Policy

Animal-Free Regenerative Agriculture

Animal-free regenerative systems have all the benefits of animal-based ones, such as sequestering carbon and producing all the plant food needed. But animal-free systems generate several important additional benefits:

- They restore ecosystems, and in ways that animal-based ones do not, because they do not require the removal of wild herbivores or their predators.
- They free up much land for rewilding, as most current agricultural land is for grazing and animal production.

Animal-Based Regenerative Agriculture

Animal-based systems have now been around long enough that science has documented their limitations.

1. It does not restore ecosystems and would result in deforestation leading to loss of biodiversity: it requires that the top native, wild herbivore(s) be destroyed if present as well as the natural wild predators, to prevent them from eating the human-introduced, non-native, domesticated herbivores.
2. It is not scalable (can't be produced in enough volume to meet demand), and any attempts to scale it will result in further damage to the environment (including widespread deforestation to allow for more and more grazing).
3. It is problematic for indigenous people, not just indigenous wild animals.
4. Its greenhouse gas costs outweigh any soil carbon sequestration benefits.
5. We don't make the same mistake with non-native invasive plants: we don't say a healthy ecosystem requires or benefits from non-natives. We don't say that nature requires large amounts of non-native plants to maintain a healthy ecosystem. Yet we make this logical error when we say that agriculture requires domesticated animals that are not native to this hemisphere.

Biodiversity

For biodiversity, plant-based or stock-free agriculture is superior to animal-based systems.

Deforestation

Animal agriculture, whether conventional or small-scale pastoral, has led to and continues massive deforestation that we cannot afford for environmental reasons. More to come on this

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Scalability - Can We Feed Everyone This Way?

Animal-based regenerative agriculture [is not scalable, and any attempts to scale it](#) will result in further damage to the environment.

1. Domesticated animal-based eating always requires many more inputs than plant-eating for the calories generated; animal consumption is inherently resource-wasteful. It's always more efficient to eat the plants the herbivore ate than to eat the herbivore who

ate the plants.

2. Rotational (holistic) grazing, silvopasture, etc. take [even more land](#) than conventional ag.
3. The [land requirements](#) mean we will be unable to do the necessary rewilding to reverse biodiversity loss. [Intact wildlife trophic levels](#) would be unable to exist anywhere except in ecosystems we cannot use or convert.

Animal-based “regenerative” ag proponents thus far have not addressed the following key issues:

- how much land would be needed;
- how much meat, dairy, eggs, etc. could be produced per person, and therefore what percent of human diets can be meat-based;
- how much such animal products would cost; or
- how much land/habitat will be available for sharing the planet with wildlife/allow full ecosystem restorations. This cannot include the animal-based lands used, as those do not allow for the top wild herbivores and carnivores, which has repercussions for the whole ecosystem. These domesticated animals are non-native invasive species to this hemisphere.

Available science shows that [it can't be done to scale](#), that animal consumption would need to drop to 10% or less of diet, that it would be expensive and so not affordable to most people, and that it still might not allow enough land to reverse the biodiversity crisis and for life on earth to survive.

Sustainability

Any domesticated animal production for food presents major environmental impacts. Even with greatly reduced demand and setting aside animal rights principles, it's a challenge for animal consumption to be scalable, affordable, or sustainable.

Short answer: no method of domesticated animal consumption is sustainable because it requires massive inputs for little output. The ideal is for wealthy populations to shift toward plant-powered diets, with animal consumption limited to small amounts of wild animals (zero to 10% of calories).

Indigenous Nations' Sovereignty

Animal-based regenerative ag is problematic for indigenous people and indigenous wild animals. Example: the [Tule elk](#) on public lands in California are dying of thirst and starvation because they are fenced out from the public lands reserved for cattle. Ranchers are reserving the best grazeland for cattle and having water redirected for cattle and away from wildlife. The [Miwok Indians have protested](#) against the cattle, because they rely on the elk the way Plains Indians relied on the bison.

[Miwok Tribal Council spokesperson Jason Deschler](#) stated that “ranching that harms wildlife, water and habitat is a travesty and contrary to the traditions of our ancestors.”

View this [1-minute 2021 summary](#) or this longer [8-minute 2020 clip](#) of plans to further cull this once-near extinct and again threatened species to protect cattle.

Costs Versus Benefits

Greenhouse gas costs outweigh any soil carbon sequestration benefits when domesticated animals are part of the agricultural system.

1. [An exhaustive, 127-page study](#) led by scholars at Oxford University found that grass-fed livestock “does not offer a significant solution to climate change as only under very specific conditions can they help sequester carbon. This sequestering of carbon is even then small, time-limited, reversible and substantially outweighed by the greenhouse gas emissions these grazing animals generate.”
2. One study showed that less than a quarter of U.S. beef demand could be met with grass-fed production, and doing so would pump out [40 percent more greenhouse gases](#) than the current industrial system.
3. Removing soil from any agricultural use and [allowing it to rewild](#), however, can create meaningful carbon sinks while protecting and restoring biodiversity.
4. Animal-based regenerative ag [degenerates](#) previously existing ecosystems. [Excluding domesticated grazers increases the abundance of biodiversity](#) of plants and wild animals in most ecosystems.

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Best Options

- Respect American Indian nations’ sovereignty and food traditions. Traditional subsistence practices are not the cause of our current climate catastrophe; indeed, they tend to preserve habitat and Rights of Nature.
- Reduce wealthy populations’ animal consumption to 10% (or less) of calories, which aligns with how much of the Global South and indigenous peoples traditionally eat. The

¹ Are We What We Eat? The Moral Imperative of the Medical Profession to Promote Plant-Based Nutrition, Sarah C. Hull, MD, MBE, Justin Charles, MD, Arthur L. Caplan, PhD, Editorial, American Journal of Cardiology, [Volume 188](#), P15-21, February 01, 2023. Published: November 26, 2022. DOI: <https://doi.org/10.1016/j.amjcard.2022.10.006>.

“A societal shift toward more whole-food plant-based patterns of eating stands to provide significant health benefits and ethical advantages, and the medical profession has a duty to advocate accordingly. Although it remains important for individuals to make better food choices to promote their own health, personal responsibility is predicated on sound advice and on resource equity, including the availability of healthy options. Nutrition equity is a moral imperative and should be a top priority in the promotion of public health.”

100% plant-powered option is ideal and encouraged.

- Shift from eating domesticated animals to wild ones, and limit wealthy populations' animal consumption to a small amount of wild animals. These would be killed only for food and not for profit, with strict controls to ensure that sufficient habitat, ecosystems, and wild animals are able to thrive and maintain "ecosystem services". First priority should be reserved for natural predators and indigenous peoples, and finally to non-indigenous humans.
- Restore wild insect populations through habitat restoration, so that those in wealthier nations who wish to do so can resume the traditional 5 to 10% of calories from wild insects.

Health Consequences for the Animal-Eater and for Others

1. For the animal-eater: Heart disease, diabetes, cancer, etc.
 - a. The World Health Organization (WHO) classifies all processed meats as known cancer-causing foods.
 - b. WHO classifies all meats as probably cancer-causing foods (yes, even grassfed, free-range, etc.—confirmed by China).
2. For everyone: Zoonotic origin of most epidemics/communicable diseases: flu viruses from chickens and pigs; common colds from horses ...
3. For everyone: Antibiotic resistance from use of antibiotics in domesticated animals
4. For vegans: All animal agriculture, even "regenerative", needlessly exposes vegans to e-coli, salmonella, and antibiotic resistant genes they would not be exposed to with stockfree systems
5. For everyone: Increased health-care costs.

Feminist Aspects

Most animal agriculture, including "regenerative", is based on the severe exploitation of the female reproductive system of cows, chickens, pigs, goats, sheep, etc.

Start with [A Woman's View of Dairy](#) (Video, 4 mins.), by *Mercy for Animals*, Jan. 9, 2013.

Shows a woman holding up signs instead of speaking. Caution: a brief graphic image is near the end. Compelling, heart-breaking, eye-opening perspective.

[Animals and Women: Connections between their Exploitation](#) (Article), by Eastern Shore Sanctuary and Education Center.

[Animals and Women: Feminist Theoretical Explorations](#) (Book), an anthology edited by Carol J. Adams and Josephine Donovan. Durham, NC: Duke University Press, 1995.

[Carol J. Adams at Stanford University](#) (Video, 3 mins.)

Short part of the introduction of Carol Adams' lecture and slide show at Stanford University, Oct. 20, 2010: "20 Years of The Sexual Politics of Meat."

[The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory](#) (Book), by Carol J. Adams.

The sexual politics of meat is defined as “the dangerous intersection between misogyny and speciesism”; meat-eating has its roots in patriarchal culture. Explores a relationship between patriarchal values and meat eating by interweaving the insights of feminism, vegetarianism, animaldefense, and literary theory.

[The Sexual Politics of Meat Slide Show](#), by Carol J. Adams.

[The Sexual Politics of Meat: Video review of the 20th Anniversary Edition](#) (Video, 9 mins.)

Sistah Vegan: Black Female Vegans Speak on Food, Identity, Health, and Society [Book], by A. Breeze Harper, Editor. NY: Lantern Books, 2010. 214 pp. See [her blog](#).
More to come on this ...

Racist Aspects

[Django's Soul Food or Slave Food Diet is a Killer](#) (Video, 9 mins.), by Milton Mills, M.D., Mar. 9, 2004, Healing Ourselves conference, sponsored by the Hung Tao Choy Mei Leadership Institute.

"Unfortunately, when we were released from slavery, we ... embraced a legacy that was not ours. We owned this enforced, refus-centered diet and called it soul food. But this is not Soul Food, it's plantation food. And it's killing us.... The solution is not to move from the slave quarters to the Big House [but] to re-embrace a [plant-based] diet more consistent with our true heritage. The only white things at your table should be the tablecloth and the people that you invited over for dinner."

[The Invisible Vegan](#) (Video, 79 mins.) Jan. 21, 2019

[Racial Bias in Federal Nutrition Policy](#), Part I: The Public Health Implications of Variations in Lactase Persistence, by Patricia Bertron, RD, Neal D. Barnard, MD, and Milton Mills, MD, *Journal of the National Medication Association*, 1999, Vol 91, No. 3, pp. 151-157.

USDA dietary guidelines recommend 2 to 3 daily servings of dairy products. However, research has shown that lactase non-persistence occurs in a majority of African-, Asian-, Hispanic-, and Native American individuals. There is little evidence that dairy has a positive effect among racial minorities. Evidence suggests that modifying federal nutrition policies to make dairy product use optional, in light of other calcium sources, may be a helpful public health measure.

Sistah Vegan: Black Female Vegans Speak on Food, Identity, Health, and Society [Book], by A. Breeze Harper, Editor. NY: Lantern Books, 2010. 214 pp. See [her blog](#).

Home-Raised/Backyard Domesticated Animals

[Under construction]

National Policies on Animal-Free Regenerative Agriculture

US Animal-Free Regenerative Agriculture

[Ethos Farm Project](#) (Animal-Free Regenerative)

[Veganic Agriculture Network](#); includes a mostly reliable page on [Veganic Farm Maps](#)

Other Countries

Denmark

Denmark is Transitioning to Plant-Based Food/Agricultural Systems! On October 4th, 2021, the Danish government and most political parties in the country signed [this landmark agreement](#) for their agricultural plan. It gives 580 million DKK (\$90M) for at least five years to farmers who produce plant-based food and provides Danish government annual subsidies of 75 million DKK (\$11.7M) from 2022 to 2030 to support the transition to plant-based food. ([Source](#))

Netherlands, Belgium, Columbia, Canada, Germany, Ireland, France, New Zealand, Norway, Switzerland, UK

The Netherlands, acting in the wake of a citizens lawsuit, announced it is [planning to cut livestock numbers](#) by almost a third to meet court-ordered climate goals. Similar climate change legal cases are underway in Belgium, Colombia, Canada, Germany, Ireland, France, New Zealand, Norway, Switzerland, and the UK. ([Source](#))

Sources

Scientific Journals, Research

[Plant-Based Data](#). Over 1,000 peer-reviewed articles organized into summary lists and categorized by topic (environment, health, zoonoses, economics and policy).

[The Carbon Opportunity Cost of Animal-Sourced Food Production on Land](#), Hayek, M.N., Harwatt, H., Ripple, W.J. *et al. Nature Sustainability* 4, 21–24 (2021). <https://doi.org/10.1038/s41893-020-00603-4>.

Keeping livestock under any system results in 'carbon opportunity cost.' The use of land for livestock means lost opportunities for the potential for carbon sequestration and ecosystem benefits that would have occurred with ecosystem restoration.

[The Effects of Livestock Grazing on Biodiversity Are Multi-Trophic: A Meta-Analysis](#), Alessandro Filazzola, Charlotte Brown, Margarete A. Dettlaff, Amgaa Bathaatar, Jessica Grenke, Tan Bao, Isaac Peetoom Heida, and James F. Cahill, Jr. Dept. of Biological Sciences, University of Alberta, Edmonton, Canada, *Ecology Letters* 23: 1298-1309 doi: 10.1111/ele.13527, 2020. Grazing livestock harmed biological diversity, and “excluding livestock increased animal abundance and diversity.” It also did not work to convert “marginal” or unused land to grazeland: “introducing grazers to marginal lands ... is degenerative of previously existing ecosystems.”

[Food-Miles and the Relative Climate Impacts of Food Choices in the United States](#), Christopher L. Weber and H. Scott Matthews, *Environmental Science & Technology* 2008 42 (10), 3508-3513 DOI: 10.1021/es702969f.

[Global Priority Areas for Ecosystem Restoration](#), Bernardo B. N. Strassburg, Alvaro Iribarrem, Piero Viscon, et al., *Nature*, Volume 586, pages 724–729, Oct 14, 2020.

[Grazed and Confused](#), *Environmental Change Institute*, University of Oxford. See related [Food Climate Research Network Response](#) to the Sustainable Food Trust commentary on Grazed and Confused. Revised after finding issues with both FAO and Worldwatch; the latter claimed 51%; overview of the report finds the number to be conservatively 37%.

[Holistic Management: Misinformation on the Science of Grazed Ecosystems](#), John Carter, Allison Jones, Mary O'Brien, Jonathan Ratner, and George Wuertner, *International Journal of Biodiversity*, Volume 2014, Article ID 163431, 10 pages, <http://dx.doi.org/10.1155/2014/163431>. This review could find no peer-reviewed studies that show that holistic, rotational grazing management approach is superior to conventional grazing systems in outcome.... Ecologically, the application of holistic management (HM) principles of trampling and intensive foraging are as detrimental to plants, soils, water storage, and plant productivity as are conventional grazing systems. Contrary to claims made that HM will reverse climate change, the scientific evidence is that global greenhouse gas emissions are vastly larger than the capacity of worldwide grasslands and deserts to store the carbon emitted each year.

[The Importance of Reducing Animal Product Consumption and Wasted Food in Mitigating Catastrophic Climate Change](#), Brent Kim, MHS; Roni Neff, PhD, SM; Raychel Santo; and Juliana Vigorito, Johns Hopkins Center for a Livable Future, 2015.

- Most sources say sequestration does not make up for emissions,
- Increasing global consumption rates of meat and dairy will likely cause mean global temperature rise to exceed 2° C, even if non agricultural sectors markedly reduce emissions
- Immediate and substantial reductions in meat and dairy intake, particularly ruminant meat (e.g., beef and lamb), are imperative to mitigating “catastrophic climate change”.

[Land Use](#), [Hannah Ritchie and Max Roser](#), Our World in Data, first published in September 2019. “Agriculture is a major use of land. Half of the world’s habitable land is used for agriculture. The extensive land use has a major impact on the earth’s environment as it reduces wilderness and threatens biodiversity. This leaves only 37% for forests; 11% as shrubs and grasslands; 1% as freshwater coverage; and the remaining 1% – a much smaller share than many suspect – is built-up urban area which includes cities, towns, villages, roads and other human infrastructure. Livestock accounts for 77% of global farming

land. While livestock takes up most of the world's agricultural land it only produces 18% of the world's calories and 37% of total protein.³

[Nationwide Shift to Grass-Fed Beef Requires Larger Cattle Population](#), Matthew N Hayek and Rachael D Garrett, *Environmental Research Letters*, Volume 13, Number 8, July 25, 2018.

[Planetary Health Diet](#), EAT-Lancet Commission on Food, Planet, Health, Co-Chairs Prof. Johan R ockstr m and Prof. Walter Willett. The Commission, a coalition of 37 of the world's foremost experts and scientists from 16 countries, produced this multicultural and multidisciplinary work. Land conversion for food production is the single [most important driver of biodiversity loss](#).



EAT-Lancet Food Plate Recommendations

[Soil C Sequestration as a Biological Negative Emission Strategy](#), Keith Paustian, Eric Larson, Jeffrey Kent, Ernie Marx, and Amy Swan, *Frontiers in Climate*, Oct 16, 2019, <https://doi.org/10.3389/fclim.2019.00008>

[Underestimates of US Emissions and Global Implications for Industrializing Animal Agriculture](#), Matthew N. Hayek, Department of Environmental Studies, New York University, 2019. Section 3.4.2 (page 7): "Shifting the US back to exclusively grass-fed beef production would require up to 270% more land if Americans did not reduce their consumption. Although pastoral beef would reduce cropland use, this would be more than compensated for by the need for additional pastureland."

Articles, Other Resources

[All Sizzle and No Steak: Why Allan Savory's TED Talk About How Cattle Can Reverse Global Warming Is Dead Wrong](#), James McWilliams, *Slate*, April 22, 2013.

[Allan Savory's Holistic Management Theory Falls Short on Science](#), Christopher Ketcham, *Sierra Club*, Feb 23 2017.

[Appetite for a Plant-Based Treaty](#), Plant-Based Treaty Position Paper, 4 pp. The IPCC repeatedly demonstrates that a vegan diet is the optimal diet to drastically reduce food related emissions. The Plant Based Treaty offers a roadmap for a fast and just transition to a plant-based food system this decade in response to the climate emergency.

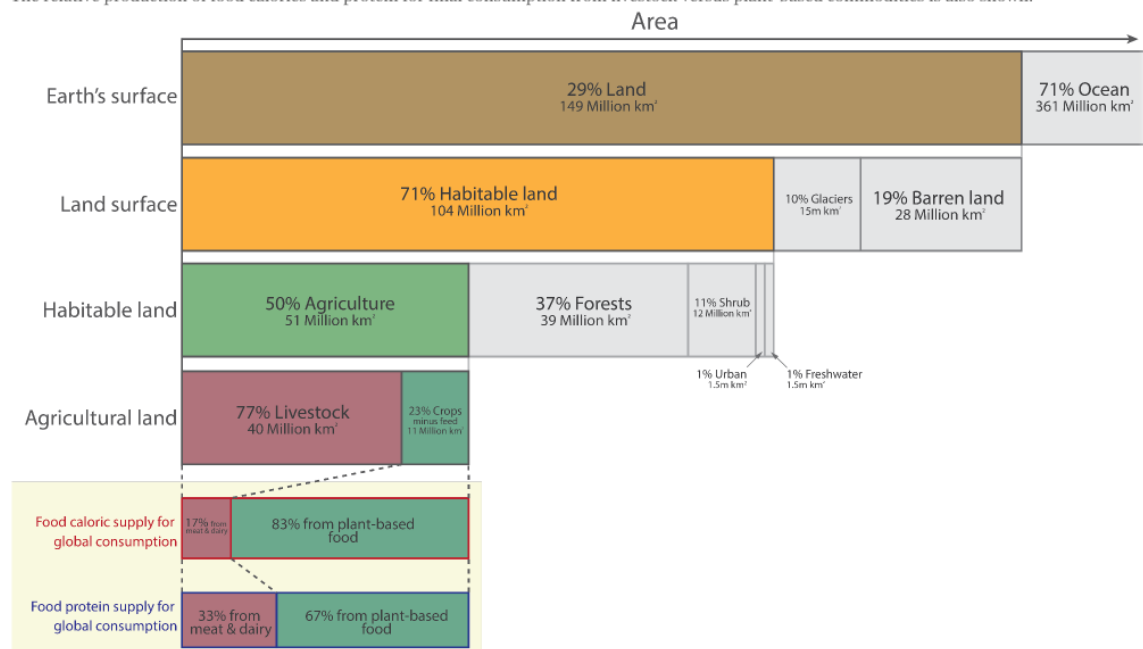
[Can Holistic Grazing Reverse Climate Change?](#) A Review of *Kiss the Ground* (80-min. podcast), Nicholas Carter.

[Chart Shows What the World's Land Is Used For ... and It Explains Exactly Why So Many People Are Going Hungry](#), Natasha Brooks, *One Green Planet*, 2018. Link has helpful graphic showing that 71% of our land is considered habitable, and half of that land is used for agriculture. Of that 50%, 77% is used for livestock, either as land for grazing or land to grow animal feed. Despite taking up such a giant percentage of agricultural land, meat and dairy only make up 17% of global caloric supply and 33% of global protein supply. As [Our World in Data](#) sums up, "*The 11 million square kilometers used for crops supply more calories and protein for the global population than the almost four-times larger area used for livestock.*"

Global surface area allocation for food production



The breakdown of Earth surface area by functional and allocated uses, down to agricultural land allocation for livestock and food crop production, measured in millions of square kilometres. Area for livestock farming includes grazing land for animals, and arable land used for animal feed production. The relative production of food calories and protein for final consumption from livestock versus plant-based commodities is also shown.



Data source: based on UN Food and Agricultural Organization (FAO) Statistics. The data visualization is available at [OurWorldinData.org](#). There you find research and more visualizations on this topic.

Licensed under CC-BY-SA by the authors Hannah Ritchie and Max Roser.

[Climate Change and the American Diet](#), [Anthony Leiserowitz](#), [Matthew Ballew](#), [Seth Rosenthal](#) and [Jillian Semaan](#), Yale Program on Climate Change Communication, Feb 13, 2020. The #1 barrier to eating more plant-based foods: No one has ever asked me to (64%).” About half (51%) say they would be willing to eat more plant-based foods if they had more information about the environmental impact of different products and/or foods, and/or if their family and friends ate more plant-based foods instead of meat (50%).

[Climate Crisis Secret](#), by Nicholas Carter, *Covering Climate Now*, Sept. 10, 2019. For full thesis, see [Animal Agriculture's Contributions to Climate Change](#). References '[The Economics of Ecosystems and Biodiversity](#)' (TEEB) hosted by the UN from 2018 which is much more recent than the FAO and Worldwatch report, which presents a range of 43-57%. A report by The Economics of Ecosystems and Biodiversity (TEEB) included input from over 150 experts from 33 countries. They concluded that the entire "agri-food value chain" – which includes agriculture-related deforestation, farming, processing, packaging, transportation, and waste – contributes 43-57% of GHG emissions. An environmental imperative needs to be addressed.

[Coast Miwok Tribe Objects to Point Reyes Ranching, Elk-Killing Plan](#), *Red Lake Nation News*, June 16, 2021.

[Cows Against Climate Change: The Dodgy Science Behind the TED Talk](#), Michael Pollan, *Inexact Change*, Mar 11, 2013.

[Dismantling "Regenerative" Animal Agriculture](#), Dr. Tushar Mehta, *Hope for the Animals* podcast, April 24, 2021. Compares "regenerative" with optimal plant agriculture and with rewilding.

[Eat More Meat and Save the World: The Latest Implausible Farming Miracle](#), George Monbiot, *The Guardian*, Aug. 4, 2014.

[An Inconvenient Lesson from the Pandemic: We Have to Stop Eating Meat](#), Troy Vettese, [Nicholas Carter](#), *The New Republic*, July 31, 2020. The livestock industry [currently provides](#) only 18% of food calories but occupies 83% of all agricultural land, including billions of hectares of pasture that, until recently, had been forested.

[Is "Regenerative Grazing" the New "Clean Coal"?](#), Paul Mahoney, *Planetary Vegan*, Feb 27, 2019. Issues identified: the extent of sequestration is overstated; soil microbes do not absorb methane from animals; farm animals emit nitrous oxide; grazing activity does not meaningfully promote plant root growth; manure is not magical; animals' trampling action is not beneficial; grazing animals supply a negligible share of the world's protein; carbon can be sequestered without animals.

"The potential contribution of grazing ruminants to soil carbon sequestration is small, time-limited, reversible and substantially outweighed by the greenhouse gas emissions they generate. The ambitious claims made by advocates of grass-fed livestock about grazing as a significant mitigation opportunity are thus unfounded.... there is no room, environmentally speaking, for more animals."

[Livestock and Climate: Why Allan Savory Is Not a Saviour](#), Paul Mahoney, *Terrastendo*, Mar 26, 2013.

[The Meat Wars: Regenerative, Grass-fed, Plant-Based, and the Race for Better Beef](#), Nil Zacharias: Founder, [Eat For The Planet](#), June 13, 2019.

[The Myth of Regenerative Ranching](#), [Jan Dutkiewicz](#), [Gabriel N. Rosenberg](#), *The New Republic*, Sept 23, 2021. "The problem of scale bedevils regenerative beef from every angle. Holistic grazing cannot hope to compete on price with Big Meat, which operates with high volumes and low margins. 'Regenerative' beef currently represents not so much a scalable climate solution as a way for those who can afford to do so to purchase indulgences for their continued meat consumption."

In the Tule elk versus cattle grazing in Point Reyes National Park land owned by the National Park Service, in 2015, the National Park Service [balked at a proposed "Indigenous Archaeological District"](#) that would have protected Coast Miwok heritage sites from damage from ranching. Instead, NPS quickly approved a "Historic Dairy Ranching District," over and against Miwok protests.

[Ranchers Say Cattle And Bison Don't Mix](#), Barry Serafin, *ABC News*, Feb 21, 2004.

[Revealed: Rampant Deforestation of Amazon Driven by Global Greed for Meat](#), [Dom Phillips](#) and Daniel Camargos in São Félix do Xingu, Andre Campos in São Paulo, and [Andrew Wasley](#) and [Alexandra Heal](#) in London, *The Guardian*, Jul 2, 2019.

[Saving the World With Livestock—The Savory Approach Examined](#), Richard Oppenlander, *Comfortably Unaware*, July 14, 2013.

[Twelve Years](#), Gary L. Francione, Apr 20, 2019.

“Sustainable” grazing animals may consume less grain but they drink more water because they are more active; they still produce methane gas; and they require more grazing land. Locally produced animal products have a much greater environmental impact than plants that have been grown somewhere else. According to a study in *Environmental Science and Technology*, transportation accounts for only 11% of the carbon footprint of food with 83% attributable to production. So the idea that you’re doing more for the environment by eating animal products produced locally than vegetables transported in is not accurate.

[Unique Elk in California May Be Killed Under Controversial Plan](#), Erica Gies, *National Geographic*, Sep 30, 2020. See also *Myth of Regenerative Ranching*.

[Why Eating Grass-Fed Beef Isn't Going To Help Fight Climate Change](#), Tara Garnett, *Food Climate Research Network*, University of Oxford, Oct 3, 2017.