Animal Exploitation is also Planetary Exploitation

While the anarchist movement today has embraced and is even fighting toward liberation not just for humans but for nature as well, far too often it falls short in regards to the fight for total liberation. The fight against the prison industrial complex, capitalism, patriarchy and queer oppression, have in general been accepted by many anarchist collectives as part of the same fight for land and freedom. However, the fight against speciesm and for animal liberation, is continually excluded from the political conversation.

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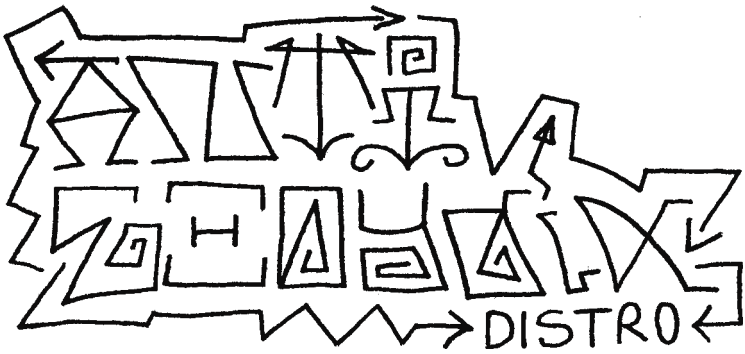

Climate Crisis
AND
ANIMAL EXPLOITATION

Written by:

OPEN ANTI-SPE ASSEMBLY ATHENS

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CLIMATE CRISIS AND ANIMAL EXPLOITATION

A non-anthropocentric approach to contemporary social challenges

1. Speciesm and Green Anarchy

This zine was written as part of our assembly's participation in the Balkan Anarchist Bookfair, in Thessaloniki during May 2025. We were inspired by one of the central themes of this year's event titled "Climate crisis, capitalism, and struggles for land and freedom" and aimed at expanding on it by discussing it from an anarchist and anti-speciest lens.

While the anarchist movement today has embraced and is even fighting toward liberation not just for humans but for nature as well, far too often it falls short in regards to the fight for total liberation. The fight against the prison industrial complex, capitalism, patriarchy and queer oppression, have in general been accepted by many anarchist collectives as part of the same fight for land and freedom. However, the fight against speciesm and for animal liberation, is continually excluded from the political conversation.

This is jarring to us, since we expect from our comrades who are active in green anarchist initiatives, to be also aware of the need for animal liberation. These very same comrades who are fighting for freedom of earth, against ecosystem disrupting wind turbines, or those who would rush to save animals from wildfires, floods, earthquakes or other natural disasters, also continue eat other animals and their products with no second thought.

This has proven to be not an issue of personal stance only from some comrades, since even assemblies and collectives still choose to include animals as food when organizing collective cooking initiatives in squats or other political/anarchist spaces, while choosing to identify themselves as environmentalists.

True earth liberation must include all non-human animals, as the land we seek to free cannot belong solely to humans while others remain oppressed. There is inherent hypocrisy in advocating for environmental justice while supporting livestock farming—one of the leading causes of ecological destruction. The very industries that exploit animals also drive deforestation,

water pollution, and biodiversity loss through feed crop monocultures. Below, we will examine these contradictions and their devastating impacts in detail in hopes that this analysis will help to bridge the often-overlooked fight for total liberation with other anarchist political action.

2. Animal Farming as a Driving Force of Climate and Ecological Disaster

Over the last 10,000 years, since humans began practicing animal husbandry, animal farming has become a key pillar of modern hierarchical society, defining the relationship between the human and non-human worlds and creating and consolidating power norms within human societies. Animal husbandry has always been intertwined with private property, patriarchy, wars for territorial expansion and ultimately the state itself.

Today livestock farming has become one of the greatest causes of climate change and ecological destruction, if not the greatest. Global warming is a huge part of climate change, but not the only part. The concept of climate change includes not only rising temperatures, but all kinds of changes in the nature of the earth and atmosphere, such as water pollution and soil degradation. Livestock farms produce huge amounts of pollution - in the air, water and soil - and with the effects of climate change getting worse all the time, addressing the environmental impacts of livestock farming is more urgent than ever.

Among the primary drivers of today's climate catastrophe-and one of the most underestimated-is livestock. The livestock sector occupies the largest land area, directly feeding numerous environmental crises -from global warming to the collapse of ecosystems. Here are some of the ways in which livestock farming is a key contributor to all these crises: **Livestock production systems currently occupy one third of the earth's surface, consuming over two-thirds of agricultural land** - including vast areas for feed crops. This irrational and exploitative system directly causes: **deforestation** (replacement of forests that sequester carbon for pasture and fodder), **soil degradation** (erosion due to overgrazing and monoculture of fodder), **desertification** (drought of formerly fertile areas).

As a major cause of modern environmental destruction, livestock farming accelerates biodiversity loss through habitat destruction (for grazing and feed crops), **ocean depletion** (through industrial overfishing) and **waste pollution** (manure ponds, slaughterhouse run-off). We are witnessing the sixth mass extinction of species and **the role of industrial livestock in this is accelerating - destroying ecosystems while releasing**

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8. The Struggle for *Total Liberation*

An anti-speciest approach to climate and environmental preservation is possible, but cannot exist in a vacuum. The means through which food is produced today are direct causes for the current climate crisis, a crisis that affects human and non-human animals alike, therefore any solution must accommodate all forms of life and not be beneficiary only to humans.

Climate justice can be achieved only through total refusal of non-human animal exploitation, there is no place, or time left for "humane" myths, no greenwashed slaughter. We don't seek sustainability — we seek total liberation for all. The path forward requires burying the myth that capitalism can be "greened" and that eating non-human animals is justified. **Real solutions emerge only through collectively focusing our struggle toward prison abolition, anti-capitalism and animal liberation, the total liberation.**

***INDEFINITE* STRUGGLE FOR**

TOTAL LIBERATION

UNTIL ALL THE CAGES ARE *EMPTY*

AND

ALL THE SLAUGHTERHOUSES ARE *BURNED*

additional emissions. The meat industry's waste crisis, from methane-producing manure to slaughterhouse waste, is intensifying this ecological sabotage.
The impact of livestock farming in numbers:

- Producing **half a kilo of beef** requires **9,500 litres of water**, while **eggs** require **1,800 litres** and **cheese** almost **3,400 litres.**
- **82% of the world's malnourished children** live **in countries where food is fed to animals**, which are then sold to richer, developed countries for consumption.
- Humans deforest about 10 million hectares of land every year, and **41% of tropical deforestation is done in order to create pastures for cattle.**
- Surveys in 2022 showed that **currently the population of humans (34%) and mammals farmed for human consumption (62%) make up 96% of the world's mammal population with wild mammals totaling only 4%.**
- Together with the burning of fossil fuels, livestock farming is among the main causes of climate change, with global warming leading to unprecedented global warming.
- Raising animals for human consumption is responsible for **11-20% of global greenhouse gas emissions - more than all total transport emissions.**
- Livestock produces more than **30% of global methane emissions**, whose impact is 28 times stronger on global warming than carbon dioxide.
- Livestock produces **65% of global emissions of nitrogen monoxide**, whose impact is 296 times stronger on global warming than carbon dioxide.

A Brief Summary of Greenhouse Gasses

One of the biggest ways livestock farming contributes to climate change is through the emission of greenhouse gasses, which trap heat in the Earth's atmosphere and cause global temperatures to rise. Insofar as livestock is concerned, there are three greenhouse gasses in particular of note:

- **Carbon dioxide (CO_2):** The "main" greenhouse gas, carbon dioxide comprises around 80 percent of all greenhouse gas emissions. CO_2 exists naturally in the atmosphere and regularly circulates from the Earth to the air as part of the carbon cycle; however, the burning of fossil fuels and other human activities releases additional CO_2, throwing off that cycle and increasing global temperatures. CO_2 can stay in the atmosphere for hundreds of years.
- ·**Methane (CH_4):** Methane only accounts for 11 percent of global greenhouse emissions, and unlike

CO_2, disappears after a relatively brief 12 years. However, it's much more effective at trapping heat in the atmosphere: over a 100-year period, one pound of CH_4 has 28 times the global warming potential as one pound of CO_2.

- **Nitrous oxide (N2O):** Nitrous oxide only makes up six percent of greenhouse gas emissions, and exists naturally on Earth as part of the nitrogen cycle. It remains in the atmosphere for about 121 years on average after it's emitted, and its global warming potential is a whopping 265 times greater than that of CO_2 over a 100-year period.

Because there are multiple greenhouse gasses with different warming potentials, greenhouse emissions are commonly converted to and measured in CO_2-equivalents, or CO_2-eq. In various ways and to varying degrees, livestock farming emits all of the aforementioned greenhouse gasses. Here's how:

How Livestock Farming Creates Methane Emissions

Livestock are a significant source of methane emissions, thanks to a natural biological process called enteric fermentation. Cows, sheep, goats and other ruminant livestock have microbes in their digestive systems that decompose and ferment the food they eat, and methane is a byproduct of this fermentation process.

That methane is released into the atmosphere when the animals burp or fart, and it's also contained in their urine and manure. One cow can produce up to 264 pounds of methane every year, and it's estimated that in total, enteric fermentation from ruminant livestock is responsible for 30 percent of global anthropogenic methane emissions.

How Livestock Farming Leads to Pollution from Manure

Farm animals produce around 450 million tons of manure every year, and figuring out what to do with it is a major challenge for livestock farmers. Some farms store manure in large piles, landfills or lagoons — known as "settlement ponds" — while others simply dump it onto cropland and use it as untreated fertilizer.

All of these management methods result in the release of methane and nitrous oxide, which manure also contains. When manure is stored in an environment with insufficient oxygen, as is often the case with landfills and lagoons, it undergoes a process known as anaerobic decay, and releases nitrous oxide and methane into the air as a result. In addition, structural

soil interactions and makes use of indigenous varieties in order to be successful. In essence, it rejects traditional farming practices - that are present in permaculture and organic farming - such as tillage, weed control and use of external inputs. The goal is to mimic natural ecosystems are close as possible, allowing plants to interact with each other and other plant species naturally, promoting microbial soil activity and attracting pollinators, it does not require the exploitation of animals as they interact with the "farm" as they would in nature with not human interference i.e. only if they happen to pass through the "crops". This method understandably takes longer to produce satisfactory yields and might require more labor and knowledge to set up, but its results are incredibly beneficiary for the environment.
It can also be combined with guerilla gardening practices, such as using seed-bombs of indigenous plants in non-cultivated areas and simply letting ***nature do its work.***

whereas the cows, pigs and chickens, are forced to provide their manure, their milk or eggs and finally their own flesh as their corpses become meals for the farm owners. In this way permaculturalists not only benefit from animal labor but also practice meat-eating, while "challenging" the traditional meat industries. By labeling their practices as organic, green and regenerative they avoid being ethically challenged on their carnist and speciest practices.

Beyond "Ethical" Exploitation: Veganic and Natural Farming as Radical Alternatives

While permaculture claims ecological ethics, its reliance on animal exploitation reveals a fundamental contradiction. Veganic farming — the only true form of permaculture — rejects this hypocrisy by eliminating all animal inputs (manure, bone meal, etc.) and agrochemicals, proving that food production can thrive on plant-based reciprocity alone. Following the same principles as typical permaculture, veganic farming avoids using any animal derived products, agrochemicals and other harmful practices and instead focuses on growing food with respect to all forms of life. Veganic farming is the truest form of permaculture and showcases that an exploitation free way of producing food is possible.

Best applied in small scale farming, veganic farms make use of composts and other plant mass as fertilizer while also containing different types of polycultures in order to continually enrich the soil. It requires more human labour in order to be sustained, but in this way, it can serve as a way to form local self-sustained and tight knit communities making use of mutual aid. Finally veganic farming focuses on using local plant varieties and letting endemic flora and fauna thrive through biodiverse micro-ecosystems.

The environmental benefits of this veganic crop production are many. Firstly, greenhouse gas emissions are reduced, by eliminating methane and nitrous oxide derived from animal manure, which are major contributors to climate change. Soil health is improved since studies have shown that vegan compost increases soil organic matter by up to 30% compared to conventional methods, enhancing water retention and carbon sequestration. Finally, waterways are protected by avoiding nitrogen and phosphorus runoff from animal waste, which causes algal blooms, dead zones and eutrophication.

Another promising alternative aligned with antispeciest and earth-conscious principles, is natural farming *or Do Nothing Farming*, a practice developed in Japan in the 1970s. It shares very similar values with permaculture, but the difference lies in that it is based on a minimal intervention philosophy. This farming practice requires good knowledge of the land, plant and

failures or extreme weather events often cause the manure in settlement ponds to leak into nearby soil and waterways.

When manure is used as fertilizer, it releases nitrogen into the soil. That's the point of fertilizer, as plants need a certain amount of nitrogen to grow. But when farms use this type of fertilization as a disposal method for excess manure, they often over-apply it to the crops in question, which causes the soil to absorb more nitrogen than is necessary.

Why it matters if soil contains too much nitrogen?

There are two intertwined reasons: nutrient runoff and soil erosion.

Nutrient runoff occurs when rain, wind or other environmental forces disrupt soil and carry it into nearby waterways, such as lakes. When that soil has been fertilized with untreated manure, it pollutes groundwater and surface water, both with nitrogen and other toxic (when in high concentrations) elements, like phosphorus- elements often contained in manure. These substances stimulate the rapid growth of microorganisms in a waterbody, causing harmful phytoplankton blooms.

As their name implies, harmful algal blooms have a host of damaging environmental consequences. They release toxins that kill aquatic life and poison the drinking water, which can cause serious illness and even death in humans. Harmful algal blooms reduce the amount of dissolved oxygen in the water, which aquatic life relies on, and prevent light from penetrating the water's surface, thus choking the life out of coral reefs and other aquatic plants that are crucial to Earth's ecosystems.

Nutrient runoff is exacerbated by another consequence of livestock farming: soil erosion. This is when topsoil particles become loosened and detached, which diminishes the quality of the soil and makes it much more susceptible to nutrient runoff. A degree of soil erosion occurs naturally, but livestock farming greatly accelerates it in a few ways. One is overgrazing, which is when livestock graze on pastures for extended periods without the pastures being given time to recover. The hooves of cows, goats and other ruminant livestock can erode the soil as well, especially when many of them are grazing in one place.

In addition to making nutrient runoff more likely, eroded soil is less fertile and can support fewer forms of plant life. It is also worse at retaining water, which can increase the risk of drought.

The 10% Law and the Impact of Livestock on Nature

When energy is transferred from one trophic level to the next, only about 10% of the energy taken in is transferred to the

biomass of the next trophic level, with the remaining 90% **lost** through metabolic processes (such as respiration, heat, excretion and assimilation)
This fundamental principle of ecology has important implications. In particular, when people consume **animals or their products**, they are at a **higher trophic level** than when they consume **plant products**. The energy expended to produce a kilogram of animal protein is many times greater than the energy required to produce plant food, due to the energy losses described by the 10% Law.
This means that:

- To produce 1 kg of meat, **it takes several times the amount of plant biomass** (corn, soybeans, animal food) that could be consumed directly by humans with much less energy loss.
- **Soil consumption** increases dramatically as animal feed requires huge areas of arable land.
- **Water consumption** is also exponential; producing 1 kg of beef requires up to **15,000 litres** of water, compared to about 1,000 litres for 1 kg of wheat.
- Therefore, a livestock-based diet:
- **Increases pressure** on natural resources such as **water** and **soil**
- **Reduces the efficiency** of the food system, as it is burdened by energy losses between trophic levels
- Contributes to phenomena such as **deforestation**, **desertification** and **overconsumption of water resources**
- In contrast, a **plant-based diet** directly exploits the biomass of producers and **reduces** energy losses, offering greater **ecological efficiency** and **sustainability.**

Deforestation Due to Livestock Farming

It’s impossible to assess the environmental impacts of livestock farming without also discussing deforestation — the practice of permanently clearing out trees from forested land and repurposing the land for other uses. **Humans deforest around 10 million hectares of land every year,** and **41 percent of tropical deforestation is carried out to make way for cattle pastures.** The main problem is that this practice is causing serious impacts on wildlife, destroying critical habitats, reducing biodiversity and leading many species to **displacement or extinction.**

Deforestation is a monumentally damaging practice, and exacerbates all of the aforementioned impacts of livestock farming: greenhouse emissions, nutrient runoff and soil erosion.
Greenhouse Emissions Caused by Deforestation

Specifically, aquaculture still breeds and kills fish; and in the case of organic dairy and egg production justifies animal captivity as "natural" and even inherently beneficial to crop production.

While these practices may reduce some environmental harms compared to factory farming, they perpetuate the commodification of life-viewing plants, animals, and even bacteria as "resources" rather than sovereign beings in a shared ecosystem.

Yet resistance to this reductionist worldview has long existed. Disenchanted by both industrial agriculture and the false promises of technological fixes, grassroots movements began developing alternatives that recenter ecological relationships—not corporate control. Among these, permaculture emerged as a radical counterproposal.

Permaculture is often discussed as a solution to this exploitative system. This alternative way of farming was first developed in the 1970s and with its main principles being earth care, people care, fair share and with design techniques derived from agroforestry and indigenous practices. In essence permaculture consists of polyculture agricultural systems aimed at not depleting but rather continuously regenerating local ecological stability and biodiversity, a system designed to be as close to nature as possible.

Although this system appears as a great alternative to intensive industrial agriculture in regards to environmental preservation and decolonization of farming, there is one area where it falls short. Permaculture systems do not abolish the use of animals in food production, on the contrary, permaculture supporters refuse to denounce their carnist mentalities and proclaim that farm animals are not only necessary as tools in the permaculture farm but also provide a "sustainable" food source themselves. This means that in practice; while presenting as a green ethical alternative to typical farming, permaculture perpetuates speciest ideology by claiming that domesticated farm animals and their "products" are not only useful but necessary for a complete system of farming.

Permaculture systems are by design multileveled in regards to interspecies collaboration, meaning that in a permaculture system humans, plants, fungi, insects like pollinators, soil living earthworms or even wild animals like birds and rodents, all coexist together in an as close to natural state as a farming plot can be. In this sense permaculture cannot be animal free, since it is designed to be a haven for all these different beings who unknowingly collaborate with each other creating a harmonious ecosystem. However, this does not allow for the forceful exploitation of animals such as cows, pigs, chickens and other animals commonly used for labor in farms. The aforementioned animals like insects, birds and rodents are simply coexisting freely in the permaculture farms,

nature is reduced to a commodity, leading to deforestation, soil depletion, and mass extinction, while factory farming and monocultures accelerate climate collapse. True sustainability cannot coexist with an economic model built on endless growth and extraction. Instead, we need anti-capitalist ecological approaches that recenter food production around collective stewardship, Indigenous knowledge, and degrowth principles. This means dismantling corporate agribusiness, restoring land to peasant and Indigenous communities, and transitioning to localized, plant-based food systems that reject fossil fuels, pesticides, and animal exploitation. Only by challenging capitalism’s grip on agriculture — and its false "solutions" like carbon markets and greenwashed tech fixes — can we build food sovereignty and a livable future.

Beyond Greenwashed "Solutions": The Limits of Sustainable Agriculture Under Capitalism

The climate crisis has spurred interest, and rightfully so, in so-called "sustainable" food production models— circular greenhouse systems, aquaponics, and organic agriculture. These models promise to reduce emissions while maintaining yields, which is a blatant lie, as existing proposals for 'sustainable' agriculture and livestock farming would require many times more land than intensive agriculture and livestock farming occupies, further reducing wild ecosystems if adopted on a massive scale. Without the necessary change in the food model, without decoupling from livestock farming, the necessary land areas cannot be freed up for sustainable farming and food sufficiency and quality for all humanity. Until then, 'sustainable agriculture' will produce more expensive products that appeal to those who can afford to buy their way out. These systems, often lauded as ecological breakthroughs, incorporate closed-loop water recycling, integrated aquaculture, and organic polycultures, presenting themselves as alternatives to industrial farming. Yet, despite their veneer of sustainability, they remain trapped within capitalist, technocratic, and speciesist frameworks, failing to address the root causes of ecological collapse.

The Illusion of "Green" Technology

Circular greenhouse systems and aquaponics exemplify technocratic environmentalism — the belief that technology alone can solve ecological crises without systemic change. These systems depend on corporate-controlled infrastructure (patented seeds, synthetic inputs, energy-intensive vertical farms), reinforce human domination over nature by treating ecosystems as machines to be "optimized" and often exploit animals.

When forested land is cut down, greenhouse emissions increase in two ways — one temporary, one permanent.

Trees absorb and store carbon dioxide from the atmosphere, which makes them an indispensable resource for reducing global temperatures. When they're cut down, however, all of that carbon dioxide is released back into the air. What's more, the absence of trees in a previously forested area means that, for an indefinite period of time, any atmospheric carbon dioxide that would otherwise have been sequestered by the trees remains in the atmosphere instead.

The greenhouse gasses emitted during livestock-driven deforestation, combined with the gasses emitted by **livestock farms themselves, account for 11-20 percent of all greenhouse gas emissions worldwide.** In the Amazon, which has traditionally been one of the world's largest sequesterers of carbon, so much land has been deforested that the rainforest is in danger of becoming a net emitter of carbon instead.

Soil Erosion and Nutrient Runoff Caused by Deforestation

In forested land, trees play an important role in protecting and preserving the soil. The canopy they provide protects the soil from the sun and rain, while the trees' roots help hold the soil in place.

Needless to say, clearing all of the trees in a forested area means that the soil doesn't get any of these benefits. As a result, the soil becomes eroded even before any livestock might step foot on it, which in turn increases the likelihood of nutrient runoff and water pollution.

In any case, it is not the animals themselves, which are the main subjects of exploitation in the meat industry, that are responsible for the above effects, nature itself has the ability to maintain and reproduce animal populations in the context of symbiosis. **The responsibility lies with the capitalist system of production where it turns domesticated non-human animals into machines for the production of meat and other animal products**, which, on the altar of profit, breeds and maintains huge animal populations, thus exceeding the carrying capacity of ecosystems to self-regulate and disrupting the metabolic function of nature.

The Bottom Line

The environmental impact of livestock farming can't be ignored. **The sector's contribution to deforestation, habitat loss and pollution of all kinds significantly exacerbates climate change.** Absent a significant abolition in global meat consumption, it will continue to present a formidable challenge to the long-term health of Earth and its many inhabitants.

3. Agriculture as Ecocide: From Green Revolution to Planetary Collapse

The agricultural industry, including animal farming, as analyzed previously, is widely acknowledged as one of the top contributing factors to climate change. Deforestation, desertification, loss of biodiversity, water scarcity and pollution, are but a few of the direct problems caused by this massive global industry. In order to approach this issue from an antispeciest point of view, it would make for an incomplete analysis to not also focus on the conventional agriculture industry for plant production.

While it is true that animal farming produces about 15% of global greenhouse gas emissions, second only to the energy sector with about 30% of emissions, plant production is not blameless either for its impact to the environmental health, but also to our societies and relationship with food has proven detrimental. Additionally, as far as speciesm is concerned it perpetuates - often indirectly - many harmful practices toward non-human animals.

From The Green Revolution to 21st century Agribusiness: How Industrial Agriculture Betrayed the Earth

The mid-20th century Green Revolution fundamentally reshaped global agriculture through the widespread adoption of chemical inputs, fast-track mechanization, and high-yield crop varieties. Between the 1940s and 1960s, these technological advances — spearheaded by figures like Norman Borlaug — indeed succeeded in boosting crop yields to unprecedented levels. Borlaug's vision of ending world hunger earned him the Nobel Peace Prize, and initially, the *“revolution”* appeared to be a triumph of human ingenuity over scarcity.

Borlaug is quoted saying: "*The first essential component of social justice is adequate food for all mankind",* a statement which aptly describes the speciest ideology behind the “revolutionary” agricultural movement that reigns till this day. In order to achieve human food sovereignty by any means necessary, any one can and should be exploited.

Therefore, it is evident today that the industrialization of farming was never truly about feeding the world, but rather about consolidating control over food production under capitalist and state interests.

While yields increased dramatically, the ecological and social costs of these practices have proven devastating. The mass production of synthetic nitrogen fertilizers via the Haber-Bosch process, for instance, has led to widespread soil

domination over other species for human benefit and profit. As such, it is directly connected to other authoritative ideologies and systems, like the patriarchal system, which deems non cis-male persons as beings of less value, whose life can be dictated or is even dependent on the men benefiting from this system. Another comparison can be drawn with ableist beliefs, whereby non able-bodied people or people simply deemed as not “typical”, are being stripped of their right to self-determination and their bodily autonomy, while historically there have even been attempts to erase them completely through eugenic practices, like Aktion T4, a campaign of mass murder by involuntary euthanasia which targeted people with disabilities in Nazi Germany.

Another important parallel, which is directly connected to today’s capitalist reality, is that of speciesm and colonial imperialism. Throughout history, the humans who became victims of imperial colonialism were often referred to as animals, as beings of lesser value and therefore exploiting and enslaving them did not cause an issue of ethics. If humanity in the context of imperialist expansion and pursuit of capital is deemed of ultimate value, then using any means available, even if the means are living humans, or non-humans is simply logical. This dehumanizing of some human populations parallel to the devaluing of non-human life as a whole, is the basis through which the modern capitalist reality is structured on.

Taking all this into account, we cannot declare an end to speciesm without the end of capitalism, and by extent, any system that exploits any form of life. Simply advocating for veganism as a global environmental solution, would only produce a shift in demand, in products available to consumers, without bringing about any radical change. It is through such apolitical veganism, that vegans in western countries can admire Israel as the country with the highest percentage of vegans, even though it is currently conducting the genocide of indigenous Palestinian people. To Israel, Palestinians are lesser lives, non-humans, animals, and therefore there is absolute justification for their violent eradication. The struggle for indigenous liberation from imperialism, the struggle for land and freedom, is the very same struggle of non-human animals for liberation from a system that condemns them to live as livestock. Therefore, dismantling speciesm, climate injustice, environmental destruction, patriarchy, ableism, transphobia and any other systemically authoritative behavior requires intersectionality and must be rooted in class struggle and anti-capitalist action.

The climate crisis and industrial agriculture are not accidental failures but inevitable outcomes of capitalism—a system that prioritizes profit over planetary health, exploiting both ecosystems and marginalized communities. Under capitalism,

primarily focused on animal feed. While insects sold for human consumption are pre-slaughtered, those destined for animal feed and pet food are sold both live and dead. Despite being framed as an "environmentally friendly" and "sustainable" solution, these practices remain exploitative and deadly.

Insect farming is rife with mass deaths — whether from disease outbreaks, cannibalism, starvation, or drowning. If insects die before reaching "harvestable" age, they are either discarded or fed back to the farm's remaining insects as a chitin source. Information on slaughter methods is scarce, but practices vary depending on the final product, with freezing and grinding being the most common methods. Other techniques include freeze-drying (sometimes while still alive), heating (ovens/steam), boiling, and asphyxiation. In the U.S. and Europe, crickets and other farmed insects are typically slaughtered by freezing, though grinding and heating are also used. For less common species, such as scorpions, details are even scarcer.

The industry exploits the lack of research on insect suffering and the absence of human empathy toward them — making insects easy targets for commodification. Additionally, the idea of farming insects to feed livestock and fisheries — industries already responsible for massive ecological harm — only extends the chain of destruction, exposing the myth of "sustainability." Moreover, promoting insects as a dietary staple reinforces the false notion that animal protein is essential for human nutrition.

Ultimately, we view with hostility any kind of instrumentalization of the earth and living beings, as it feeds the logic of human superiority, reinforcing the system of exploitation and suffering in which we live. The desperate search for "sustainable" alternatives under capitalism traps us in the same destructive framework, preventing us from envisioning—let alone creating—a future where humans coexist harmoniously with nature and other living beings.

The Myth of Eco-Capitalism: Why Greenwashing is Built into the System

Going "plant-based" is often discussed as a viable alternative for combating climate change, since as discussed previously, it is in very large part caused directly by the effects of mass-industrialized animal farming. While the latter may be true, simply adopting a plant-based lifestyle, without altering anything else in today's societal structures, would simply have us switch from capitalism to "vegan or green capitalism".

Speciesm does not exist in a vacuum, it is an ideological construct, a practice that has developed over millennia and is used as an excuse for the perpetuation of exploitation and

degradation, acidification, and the accumulation of toxic heavy metals. These chemicals, aggressively marketed to farmers by agribusiness corporations, do not simply vanish after use, but instead seep into groundwater, contaminate drinking supplies, and trigger eutrophication in aquatic ecosystems. The resulting algal blooms suffocate marine life, creating dead zones in lakes, rivers, and even coastal regions. Moreover, the over-reliance on pesticides has disrupted natural ecosystems, decimating pollinator populations and contributing to the alarming decline in global biodiversity.

Socially, the Green Revolution entrenched inequality rather than alleviating it. Small-scale farmers, unable to afford the rising costs of chemical inputs and patented seeds, were pushed off their land, while agribusinesses consolidated power over global food systems. The promise of "feeding the world" created a system where hunger persists alongside food waste, where monocultures replace diverse foodways, and where soil—once a renewable resource—is now being depleted at an unsustainable rate.

From DDT to Silent Spring: Agriculture’s War on Life Itself

The mid-20th century introduction of synthetic pesticides marked another destructive turning point in industrial agriculture, setting in motion an ecological disaster that continues to accelerate today. While DDT's eventual ban demonstrated the severe human health consequences of these chemicals, the normalization of pesticide use created enduring ecological devastation that extends far beyond polluted water and soil. These poisons have systematically eradicated biodiversity through their indiscriminate killing mechanisms - insecticides and herbicides don't distinguish between "pests" and vital ecosystem contributors, meaning earthworms, pollinators, and beneficial insects, all perish alongside "targeted" species. This chemical warfare against nature has triggered a biodiversity crisis that manifests through countless interconnected assaults on ecosystems. The agricultural industry's war on so-called "weeds" - nutrient-rich plants once central to traditional medicine and cuisine - exemplifies this destruction, as their chemical eradication serves pharmaceutical and agribusiness interests while simultaneously eliminating food sources for countless other species.

The consequences cascade through entire ecosystems: monoculture expansion destroys habitats through deforestation while insecticides create silent springs by exterminating both target species and the birds that depend on them for survival. The cumulative impact represents more than individual species loss; it constitutes the systematic dismantling of intricate

ecological networks that took millennia to develop. Each purported "advancement" in industrial farming methods - from ever-more-potent pesticides to expansive monocultures - prioritizes short-term yields over the complex web of life that has sustained agriculture for centuries, ultimately undermining the very foundations of long-term food production. This self-defeating cycle of destruction continues to accelerate, with each intervention further destabilizing the delicate balance that supports all life.

This abrupt and large-scale biodiversity loss proves just by itself how deeply speciest our approach to food production continues to be to this day. Recent studies mention that approximately **40% of insect species are now declining, with 1-2% lost annually, while total flying insect biomass has decreased by 75%** in some regions. Pollinators like butterflies have declined by almost half in European farmlands, and soil-dwelling species—critical for ecosystem health—face similar devastation: **earthworm populations are 50-75% lower in conventional farms, and ground beetles have dropped 61% in UK croplands. Amphibians like frogs have declined 50% in agricultural zones, and insect-eating birds by 56% in EU farmlands.** These losses represent a functional extinction crisis, proving that industrial farming reigns as the leading cause of terrestrial biodiversity loss globally.

Genetic Modification: *Unmaking* Evolution for Profit

The 1970s advent of genetically modified organisms (GMOs) took human intervention in plant biology to unprecedented levels. While selective breeding has ancient roots, modern genetic engineering prioritizes commercial viability over nutritional value or ecological harmony. These laboratory-created crops emphasize superficial traits like uniform appearance, extended shelf life, and enhanced chemical absorption - characteristics benefiting corporate profits rather than human health or plant resilience. The disturbing synergy between GMO seeds and chemical inputs creates a perfect business model for agribusiness: plants genetically engineered to depend on specific pesticides and fertilizers, sold as an indispensable package to trapped farmers. This system deliberately sacrifices food quality and diversity for the sake of corporate control over the global food supply.

Additionally, it is important to note that most of these chosen plant characteristics found in GMO seed, are developed specifically to cater to consumers in western countries. Meaning, that in order to facilitate the international supply chains that provide quality crops to supermarkets, farmers must let go of traditionally cultivated varieties that have been used to feed local communities for centuries. The aftermath of this

In any case, the rate of deforestation to open up space for breeding, feed production and grazing facilities is enormous. Some other studies argue that industrial livestock farming is more controllable and less environmentally damaging than non-intensive farming as if the same amount of meat were produced by non-intensive methods globally today, the land cover of the planet earth would not be sufficient. In particular, “ethical meat” is 50% worse environmentally than factory farms. But **if people became vegan, the greenhouse gas emissions associated with protein production would be reduced by 96%.** On the issue of land cover, **the meat industry raises and kills 80 billion land animals a year, which currently cover 80% of arable land.** Already in 2006, when production was 55 million a year, **livestock farming covered 1/3 of the world's unfrozen land.** Today the world's human population is constantly increasing along with the supply of meat where production is rapidly heading towards 120 billion land animals.

Apart from the need for land cover, which entails the direct loss of animal habitat, extensive livestock farming acts competitively against other wild animals by identifying them as harmful and hunting them almost to extinction from the surrounding areas, animals such as wolves, bears, foxes, jackals and coyotes are victims of these “ethical” breeders who literally engage in headhunting. For the animals themselves within the farms little difference is made to their daily lives as the intensification of farming, crowding and genetic tweaking remain to a large extent while, for example, chickens would like to have a canine body without an oversized breast and be able to fly up trees. So there can be no “ethical” meat, neither now nor in a free society.

We must recognize how the extreme exploitation of non-human animals is entangled with structures of power and domination, the unobstracted profitability of capital, and the destruction of the natural world. The insatiable demand for profit and meat will not cease unless we dismantle exploitative systems entirely.

Insect Farming – The New "Solution" to the Food Crisis?

Currently, 1 trillion to 1.2 trillion insects are farmed annually for food and feed, with 79 to 94 billion insects alive on farms worldwide at any given time. These estimates only include insects raised for direct consumption (whole or powdered) and exclude those farmed for secondary products, such as bees for honey. Insects are being marketed as food for three consumer groups: humans, "companion" animals, and livestock. Industrial insect farming is a relatively new industry,

brands to placate consumers; these companies are essentially selling the criticism of themselves to consumers to make more money. This is on the one hand an expansion of the meat market, and on the other hand, from the consumers' point of view, a class choice, as cheap meat from intensive farming, i.e. industrial farms, is destined for poor consumers who are presented as having no environmental awareness, while expensive, organic, free-range, free-range - or whatever they call it - meat is destined for the middle and upper classes, who are presented as ‘socially responsible’, using consumerism as a way of laundering their money. The latter are depicted as ‘socially responsible,’ using consumerism as a means of moral and financial greenwashing. In Greece in 2025, a kilo of supermarket minced meat cost around 9 euros, while the same product in an organic chain cost 20 euros per kilo. We must not forget, however, that minced meat — regardless of its label — refers to the remains of a dead and slaughtered animal that lived its life in confinement and exploitation.

Why extensive livestock farming is not a solution

Many anarchist collectives defending the natural world against industrial expansion promote extensive livestock farming as a solution to environmental destruction and as an alternative land use to the energy industry.

Mass livestock farming is divided into two methods: intensive livestock farming, which involves industrial facilities where animals are born and die in confinement within high-rise breeding factories, and extensive livestock farming, which occupies large areas of land. The latter is often referred to as free-range or ranching, where animals spend most of their lives either confined in open facilities (fenced but without roofs) or penned in dirty stables with limited grazing time.

The term CAFOs (Concentrated Animal Feeding Operations) refers to factory farms, which are synonymous with animal suffering and severe environmental damage. In the U.S., 99% of farmed animals are raised in CAFOs, while 60% of Brazil’s production comes from intensive farming. Other researchers report that two-thirds of global livestock production is extensive, while one-third is intensive. Other researchers report that 2/3 of the world's livestock production comes from extensive livestock farming and 1/3 from intensive livestock farming. In essence, it is a single meat industry due to the concentration and centralization of the cephalopod where each CAFO has its own brand of “ethical meat” and in many cases the so-called regenerative farms do not exist and are simply marketing.

normalized - or even encouraged - use of GMOs is responsible for the loss of botanical knowledge of local plants and food inaccessibility in poorer communities.

How Heavy Machinery Ravages Ecosystems

Modern agricultural machinery completes the trilogy of industrial farming's destructive tools. The transition from traditional plows to massive tractors and implements has transformed soil cultivation into an act of ecological violence. These heavy machines don't simply till the earth - they annihilate soil structure, crush soil microorganisms, and create compacted wastelands dependent on chemical inputs. The mechanical destruction extends beyond the soil itself, as ground-dwelling creatures from earthworms to small mammals face mass extermination beneath tractor tires and blades. This mechanized assault creates a vicious cycle where each pass of heavy equipment necessitates more chemical interventions to compensate for the devastated soil biology.

This comprehensive system of control - from patented seeds and chemical dependencies to expensive machinery - reveals industrial agriculture's true purpose: not to feed populations, but to create perpetual cyclical markets for corporate products. The solution lies not in reforming these practices, but in reclaiming food sovereignty through traditional, small-scale farming methods that work with rather than against ecological systems.

How Agricultural Revolution Colonized Local Agriculture in the Balkans

The Balkans were latecomers to industrialized agriculture, but the consequences have been no less devastating. Unlike the U.S., which rapidly adopted mechanized farming, Greece’s civil war-torn history delayed its agricultural "modernization" until the mid-20th century. When it arrived, it came as an imported blueprint: foreign crops like maize and hybrid grains, bred for temperate climates, were forcibly transplanted into Greece’s Mediterranean ecosystem. The result: A hydrological disaster. These water - intensive monocultures, never meant for arid landscapes, drained local resources while chemical inputs poisoned the soil. The Green Revolution didn’t just bring new farming techniques - it erased regional food sovereignty, branding traditional practices as "backward" and replacing them with a homogenized, corporate-controlled model.

From Communal Farming to Corporate Control

Once, Balkan agriculture relied on small-scale, communal farming, adapted to local conditions. Today, vast tracts of land are consolidated under a few wealthy landowners, who — backed by multinational agribusiness — flood markets with nutrient-poor, chemically dependent crops. Small farmers, unable to compete with GMO-laden harvests and expensive machinery, are pushed to the brink. Meanwhile, decades of chemical abuse and soil exhaustion have made a return to traditional methods nearly impossible. The land itself has been altered, trapped in a cycle of degradation that serves only agribusiness profits.

The Balkan Peninsula faces severe biodiversity collapse and environmental damage due to modern agricultural practices. The shift to intensive monocultures, heavy pesticide use, and imported water-intensive crops has devastated native ecosystems. **Insect populations—including vital pollinators — have crashed, with studies showing declines of over 50% in farmland areas, while soil erosion and chemical runoff have poisoned rivers and degraded 40% of arable land.** Traditional Mediterranean crops and wild plants, once central to local diets and ecosystems, are disappearing, replaced by genetically uniform varieties dependent on synthetic inputs.

Deforestation for industrial farms has destroyed habitats for endangered species like Balkan lynx and imperial eagles, while wetland drainage and agrochemical pollution have turned critical biodiversity hotspots into ecological dead zones. This model not only threatens food security but also accelerates desertification in one of Europe's most climate-vulnerable regions, proving that the short-term gains of industrial agriculture come at an irreversible cost to the Balkans' natural heritage.

Modern agriculture is capitalism's most destructive export: a system that ravages ecosystems, annihilates biodiversity, and enforces dependency. Globally it has replaced diverse, climate-appropriate farming with a one-size-fits-all industrial model. Those who resist face economic obliteration, locked out of markets dominated by corporate supply chains. The situation is appalling: **a handful of companies control 99% of the world's seeds**, which means total dependence on capitalism. In other words, an economic crisis affecting these companies, will probably lead to **mass starvation and the collapse of the human population and the populations of human-dependent animals.**

The message is clear: conform or starve.
This isn't progress — it's ecological imperialism, stripping cultures of their food autonomy and binding them to a failing system. The hidden victims of these practices, are once again non-human animals, who not only lose their natural habitats to ever expanding farming land, but also see their population

lation was (and remains) the domestication and farming of non-human animals. Today, the meat, dairy, and egg industries represent some of capitalism's most exploitative and environmentally destructive practices. **A livestock-based society is inherently exploitative, as it depends on the non-consensual use of animals for profit - a fundamentally oppressive condition that culminates in the ultimate violation: the taking of their lives.**

7. The systemic “solutions” and The fight for earth and the ecosystem today

As awareness grows about the ecological and ethical failures of industrial farming and agriculture, globally political movements have risen demanding environmental and climate justice, either through legislation or other means. Even in anarchist cycles the issue of climate change and by extent, environmental decay as a result of profit driven destructive industries, is recognized as one of the most direct consequences of the modern capitalist society. Therefore, discussing and developing viable alternatives to this tragedy of a food system is imperative.

Meat-eating as climate change denial

The climate change denial is in complete synergy with the denial of the role of meat eating in the climate crisis (meat eating denial). They are essentially two sides of the same coin, that of human domination of the earth. Thus the denial of the contribution of meat eating to the climate crisis constitutes a denial of climate change itself as it serves the capitalist narrative of the naturalness of the anthropogenic capitalist transformation of the natural world and confirms the neoliberal theory of the possibility of the complete substitution of natural capital by artificial capital. A classic proponent of this ideology, Donald Trump, after the quaint “drill baby drill” passes laws that accelerate the pace of the production line in the slaughter of chickens. While many of the major meat industries are investing in propaganda to obfuscate or even hide from the public the studies and evidence proving their contribution to the climate crisis.

At the same time, being under pressure, businesses and states have changed their rhetoric by developing alternative meat markets where animals are raised in ways that are supposed to be less environmentally damaging. They construct the myth of ‘sustainable’, ‘ethical’ and locally produced meat to maintain their profitability unabated (greenwashing and humanewashing). It is no coincidence that the biggest giants of the meat industry are driving these campaigns (e.g. the fast food chain Chipotle in the US released the promotional videogame “The Scarecrow” in 2013) and opening subsidiaries or alternative

capitalist system built on the relentless exploitation of humans, animals, and ecosystems to sustain infinite growth. This model has enabled states and corporations to expand into every corner of the planet — land, sea, air, and even outer space — leaving irreversible ecological destruction in its wake. Among the most catastrophic consequences is biodiversity collapse, with species vanishing at unprecedented rates.

Industrial livestock farming epitomizes this crisis. By distorting the natural balance of species, it has turned Earth into a planet of human-controlled biomass: as of 2022, **humans (34%) and livestock (62%) comprise 96% of all mammal biomass, while wild mammals—once the dominant life form—now represent a mere 4%**. This grotesque imbalance is no accident. The mass confinement of animals in factory farms breeds zoonotic pandemics, while pollution and climate chaos accelerate the unraveling of ecosystems. Together, these disasters expose the anthropocentric norm at the heart of our collapse: the belief that humans — and their endless wants — matter more than the living world that sustains us.

From Livestock to Climate Chaos: Capitalism's Domination of Species

The term "Anthropocene" has been widely adopted by scientists to describe the profound climate and geological changes occurring since the Industrial Revolution began 250 years ago. However, this terminology has faced criticism from radical thinkers for attributing responsibility to humanity as a whole rather than to the specific systems of power and profit that actually drive these destructive changes. In response, the alternative term "**Capitalocene**" has emerged to more accurately describe our current era - one defined by capitalism's domination and its speculative, exploitative nature.

The Capitalocene framework reveals capitalism's inherent tendency to generate multiple, interconnected crises - economic, political, military, cultural, food, health, and environmental - that intensify as the economic system expands. Capitalism functions not merely as an economic model, but as a comprehensive system that reorganizes both the natural world and all species (including humans) into mere inputs for production. Under this system, value is determined solely by potential profit within the capitalist production process and "free" market.

By focusing on capital rather than humanity, the Capitalocene concept enables us to develop necessary multispecies resistance strategies. This approach avoids blaming the human species collectively while still recognizing the liberatory potential of all oppressed species. Importantly, we must remember that **one of capitalism's foundational forms of accumu-**

dwindle indiscriminately due to the large-scale pollution caused by global farming practices.

4. Destruction of Aquatic Ecosystems by Human Activity

Pollution factors of aquatic ecosystems and consequences

Aquatic ecosystems — comprising both marine and freshwater environments — are defined by the interaction between living organisms (biotic) and their physical surroundings (abiotic). Aquatic ecosystems are usually divided into two types; The marine ecosystem is divided into different types, such as oceans (the open sea and the seabed), estuaries, coral reefs, coastal waters and the frozen marine environments of polar regions, with each type hosting different species and functions. Freshwater ecosystems, though occupying less than 1% of the Earth's surface, are vital for biodiversity and human survival.

While water possesses a natural capacity to neutralize pollution, excessive pollution overwhelms this self-regulating ability, leading to ecosystem collapse. Aquatic environments bear the brunt of industrial and anthropogenic waste, absorbing **untreated urban wastewater (80% globally),** industrial discharges (millions of tons of heavy metals, solvents, and toxic sludge annually) and **agricultural runoff, which consumes 70% of the world's freshwater** and is a leading cause of pollution.

The consequences are devastating: habitat destruction, biodiversity loss, and irreversible damage to aquatic life. Yet, industries and governments continue to prioritize profit over preservation, perpetuating a cycle of exploitation that threatens not only ecosystems but humanity's own future.

Pollution's Dual Threat to Aquatic Ecosystems

Pollutants can cause primary damage, with a directly identifiable impact on the environment, or secondary damage in the form of small disturbances to the delicate balance of the biological food web that are only detectable over long periods of time. Anthropogenic activities such as deforestation, land filling and the construction of canals, dams, roads and bridges, agricultural, industrial and domestic activities result in pollution and contamination of the aquatic environment. Human settlements, industries and agriculture are the main sources of water pollution. In most western nations, agriculture is the

main factor in the degradation of aquatic ecosystems. In the European Union, 38% of water ecosystems are under significant agricultural pressure. In the US, agriculture is the main source of pollution in rivers and streams, the second main source in wetlands and the third main source in lakes. In China, agriculture is responsible for a huge proportion of surface water pollution and is almost entirely responsible for nitrogen pollution of groundwater.

Agricultural areas concentrate an extensive variety of agrochemicals from nearby fields due to runoff, direct drift and leaching, and these areas are the main recipients of agrochemicals.

Nitrates from agricultural leaching represent the most prevalent chemical pollutant in the world's groundwater aquifers. Water pollution typically occurs when fertilizers are applied in quantities exceeding what the soil can bind, what crops can absorb, or what surface runoff can remove. Excess nitrogen and phosphate fertilizers may either leach into groundwater or enter surface water bodies through runoff. Similarly, the excessive application of organic manure to agricultural land leads to diffuse water pollution.

Since manure is generally not stored indoors, heavy rainfall can cause it to enter waterways through leaching and surface runoff. The resulting high concentrations of nutrients—along with other substances — cause nutrient over-enrichment, leading to eutrophication in lakes, reservoirs, ponds, and coastal waters. This process triggers excessive aquatic algae growth, which devastates other plant and animal life in these ecosystems. Globally, approximately 415 coastal areas have been identified as eutrophic, with 169 of these experiencing hypoxia.

Eutrophication and Its Impacts on Aquatic Ecosystems

Eutrophication occurs when a water body becomes excessively enriched with nutrients, triggering rapid algae and aquatic plant growth. This overgrowth depletes dissolved oxygen levels in the water, creating hypoxic conditions that can devastate aquatic life. The process leading to anoxic bottom waters follows a clear pattern: phytoplankton in the surface waters (euphotic zone) produce organic matter that sinks to the bottom (benthic zone), where bacteria decompose it through respiration, further consuming oxygen.

Controlling eutrophication requires addressing its primary causes. Key measures include preventing direct discharge of urban, agricultural, and industrial wastewater into water bodies or groundwater, implementing effective wastewater treatment to substantially reduce nutrient loads and promoting responsible fertilizer management practices among agricultural

- *Cordulegaster heros* (dragonfly): Affected by wetland degradation and stream alteration.

The 200,000 farmed animals drowned in Greece’s 2023 floods were victims of an industry that packs sentient beings into floodplains for profit. The Balkan lynx and Egyptian vulture, pushed toward extinction by habitat loss, face starvation as pesticides and monocultures erase their food chains. These crises expose the hypocrisy of a food model that treats living ecosystems as collateral damage while marketing itself as "efficient." From drought-resistant GMO crops sucking rivers dry to manure-polluted waters poisoning aquatic life, industrial agriculture’s fingerprints are on every climate disaster killing Balkan wildlife.

This is not climate change—it is climate warfare waged by agribusiness and systemic speciesm. Until we dismantle the systems commodifying land and animals, the corpses — drowned, burned, or starved — will keep piling up, unseen and unmourned by the very industries that created their graves.

6. Beyond the Anthropocene: How Capitalist System Created the Planetary Crisis

The climate crisis we face today stems from a profound, millennia-long process: the domestication of animals and the earth itself. Over the past 10,000 years, humans have radically transformed the planet's landscapes by genetically modifying plants and animals for their own benefit, while permanently settling in areas cleared for cultivation or pasture. This agricultural revolution marked a dramatic departure from hundreds of thousands of years of human existence, reshaping not just ecosystems but societies.

Even in ancient times, the environmental impact was severe: 90% of Attica's forest cover (the region surrounding Athens) had already disappeared due to agriculture and animal husbandry. City-states functioned as resource extractors, draining the countryside of natural wealth. More than an ecological shift, this agricultural revolution birthed authoritarian social structures, patriarchy, and the systemic subjugation of non-human life — establishing the anthropocentric paradigm that now drives our planetary crisis. The domestication of nature was never just about food; it was about control, laying the foundations for today’s climate breakdown.

The culmination of humanity’s domination over the natural world is the modern industrial civilization — a profit-driven

- In Greece, wildfires in 2024 destroyed natural habitats and animal shelters. In Lagonisi, a shelter was engulfed by fire, killing many animals and leaving others badly burned.
- Turkey's southeast also burned, killing hundreds of animals and destroying entire flocks and wild populations.
- North Macedonia faced a staggering 2,000 wildfires in just three months—triple the previous year—ravaging vast areas of forest and the animals within them.
- In Bulgaria, fires affected over 370 hectares of national parks, threatening brown bears, wolves, and red deer. The country faced over 150 wildfires in a single week due to temperatures exceeding 39°C, putting further pressure on already stressed animal populations.
- Croatia recorded a 21% increase in wildfires and a 411% increase in burned area compared to the previous year.

Other devastating environmental catastrophies with a huge impact on local wildlife include:

- In Serbia, the Rusanda salt lake dried up completely for the first time, destroying an entire ecosystem that supported birds, amphibians, and other species.
- In Albania, the disruption of local bird species migration in the Vain Lagoon, home to nearly 200 species, due to rising temperatures. By January, 40% of migratory birds were missing, most likely dead or forced to abandon their routes due to loss of food and water.

These events are the slow-motion equivalents of floods and fires — inflicting prolonged suffering and reshaping entire ecosystems in ways that are often irreversible.
Several native species in the Balkans are already teetering on the brink due to habitat loss and changing climates.

These include:

- Balkan Lynx: Critically endangered; threatened by habitat fragmentation and poaching in North Macedonia and Albania.
- Egyptian Vulture: Endangered due to poisoning, electrocution, and nesting disturbances.
- Karpathos Frog: Extremely vulnerable to drought and groundwater overuse on Karpathos Island.
- Meadow Viper and *Salmo farioides* (trout): Both facing population declines from climate-induced habitat change.

operations. These interventions can significantly mitigate nutrient pollution and help restore ecological balance to affected water systems.

Harsh Agrochemicals and Agricultural Practices & Their Role in Aquatic Ecosystem Destruction

Pesticides, including insecticides, herbicides, and fungicides, are extensively applied to farmland in various formulations and frequently enter aquatic ecosystems, contaminating water bodies. These chemicals contain carcinogens and other toxic substances that can either directly kill aquatic organisms or are being absorbed into their tissues.

Irrigation contributes to water contamination through the transport of accumulated soil salts into water bodies via drainage water, causing salinization, or through infiltrating saline seawater into coastal groundwater aquifers due to excessive agricultural pumping (waterlogging).

Significant water salinity problems have been documented in Argentina, Australia, China, India, Sudan, the United States, and numerous Central Asian countries. Highly saline waters disrupt the geochemical cycles of essential elements including carbon, iron, nitrogen, phosphorus, silicon, and sulfur, with cascading effects throughout ecosystems. Salinization impacts freshwater biodiversity by altering species distribution and community composition and by reducing biodiversity across all biological levels, from microorganisms to algae, plants, and aquatic animals.

Waste Pollution in Aquatic Ecosystems

Sewage constitutes the largest volume of waste entering aquatic systems, comprising industrial effluent, municipal waste, and domestic wastewater from baths, washing machines, kitchens, and human feces. This pollution causes widespread ecological damage, including severe flooding events, species loss, and alterations to aquatic habitat distribution and structure. The ecological impact of untreated sewage depends primarily on dissolved oxygen dynamics within the receiving waters. Oxygen balance is crucial for maintaining aquatic biodiversity, and depressed or fluctuating oxygen levels frequently result in mass mortality of sensitive species.

Heavy metals present particularly persistent ecological threats due to their resistance to natural degradation in aquatic environments, tendency to accumulate in water reservoirs and sediments and bioaccumulation potential throughout food webs. Under certain environmental conditions, these metals can reach critically toxic concentrations, causing severe and long-lasting ecosystem damage. Their persistence makes them

especially dangerous as they continue cycling through aquatic systems indefinitely.

Plastic waste

Among the myriad human pressures on aquatic ecosystems, plastic pollution stands out as one of the most visible yet understudied threats. Due to its durability and poor waste management, plastic accumulates extensively in aquatic environments. Its high mobility has allowed plastic waste to infiltrate nearly every marine habitat — from polar regions and mid-ocean islands to the deep sea. While the exact sources of marine plastics remain unclear, estimates suggest that 70–80% of marine litter (primarily plastic) originates inland and enters oceans via rivers. Rivers act as major conduits, transporting vast quantities of plastics to coastal areas, beaches, lakes, and navigation channels.

Large plastic debris entangles marine mammals and fish, trapping them and hindering escape. This often results in starvation, severe injuries, and increased vulnerability to predators. Discarded fishing nets compound the damage by smothering coral reefs and fracturing their structures, which disrupts healthy growth. Fishing is one of the most important sources - if not the most important - of plastic waste that ends up in the sea, mainly through abandoned nets and other equipment, which not only pollute the marine environment but also directly threaten wildlife and sensitive ecosystems such as coral reefs.

Microplastics further exacerbate pollution by both attracting/transporting waterborne contaminants and leaching chemical additives originally used to enhance the flexibility or color of plastic products. These particles are ingested by and accumulate in organisms across entire food webs, from microorganisms and plankton to benthic invertebrates, fish, and large marine mammals in diverse ocean habitats. Once absorbed, they trigger neurotoxic and genotoxic effects while impairing critical biological functions like feeding, filtration, survival, and reproduction.

Greenhouse effect against marine life

The oceans serve as the planet's primary heat sink, absorbing most of Earth's rising temperatures. Even minor warming can significantly disrupt marine life cycles, affecting species ranging from microscopic corals to massive whales. At the same time, increasing temperatures accelerate ice and glacier melt, elevating sea levels and inundating delicate estuarine ecosystems. The oceans also absorb substantial amounts of atmospheric carbon dioxide - largely from fossil fuel combustion - which dissolves to form carbonic acid. This acidification

5. Climate Chaos and the Silent Massacre: How Industrial Food Systems Amplify Suffering in the Balkans

The devastating floods, wildfires, and ecosystem collapses ravaging the Balkans — where hundreds of thousands of animals perish annually in climate disasters — are not isolated tragedies, but direct consequences of a global food system built on ecological exploitation and speciesm. Industrial agriculture, with its deforestation for monocultures, excessive water extraction, and carbon-intensive practices, is a primary driver of the climate crisis intensifying these catastrophes. The same system that drains wetlands for soybean feed and clear-cuts forests for livestock grazing also renders animals doubly vulnerable: first by destroying their habitats, then by abandoning them to climate-fueled disasters. While the human cost of these disasters is often reported, the suffering and death of nonhuman animals remain largely ignored. From companion animals to wild species, climate change is silently killing or displacing countless individuals.

Flooding is one of the most destructive climate events in the Balkans, repeatedly killing large numbers of animals and destroying ecosystems. These events are not mere background to human suffering. They represent large-scale, preventable harm to sentient beings who were given no chance to survive. Bellow we list only some of the most recent and devastating ones:

- In May 2014, Cyclone Yvette caused massive flooding across Serbia, Bosnia and Herzegovina, and Croatia. In Bosnia, authorities removed 200 tons of drowned animals. Serbia reported 140 tons of animal carcasses, and over 11,000 animals died in Croatia, despite efforts to evacuate thousands more.
- In September 2023, Storm Daniel led to catastrophic flooding in Thessaly, Greece, killing over 200,000 animals, including goats, sheep, pigs, cattle, and birds.
- The 2024 floods, triggered by Storm Boris, inundated Central and Eastern Europe with record-breaking rainfall. Thousands of animals were either killed or displaced by the rapid waters, unable to escape in time.

Wildfires are another devastating outcome of climate instability. Their rapid spread leaves many animals with no escape, while those who survive often suffer from burns, smoke inhalation, and habitat loss:

Tourism - A Destructive Industry Against Our Homes

Tourism-related activities contribute to marine pollution through the production of waste, plastic waste and sewage. The expansion of hotels, resorts and infrastructure on the coast leads to habitat destruction and increases the amount of sediment and pollution entering the water. Sedimentation can block sunlight from reaching the surface, stifling ecosystem growth and degrading water quality - another huge sacrifice on the altar of profit and Capital. Overpopulation of coastal areas also leads to greater waste pollution, putting further pressure on the surrounding ecosystem. Additionally, "alternative" marine tourism brings millions of boaters, snorkelers, and divers into direct contact with fragile wetland and reef ecosystems. Container ships and tankers can damage habitats with their waves and anchors.

All too often, marine creatures—particularly cetaceans—are treated as mere "exotic spectacles," with crowds flocking to observe them without regard for their wellbeing, let alone their long-term survival. These magnificent animals are viewed simply as another species to be domesticated and subjugated to human whims. Marine tourism poses significant threats to whales and dolphins by disrupting their natural behaviors and environments. The constant presence of boats interferes with essential activities like feeding, mating, and resting, compromising the animals' health and welfare. The vessels themselves present direct physical dangers: collisions can cause severe injuries or fatalities, while propellers and engine noise may injure or disorient marine mammals.

Whale and dolphin watching tours frequently cross into harassment. Operators often pursue animals too closely or for extended periods, inducing stress and anxiety. Some tourists compound the problem by attempting to touch or feed the wildlife, causing further distress. These disturbances can drive cetaceans away from their preferred habitats, altering migration patterns, population distributions, and natural behaviors—changes that ultimately reduce reproductive success, threaten survival rates, and degrade overall health.

process impairs shell formation in numerous marine organisms, particularly plankton, thereby destabilizing the foundational layers of the oceanic food web.

The deadly liquid

An oil spill refers to the human-caused release of liquid petroleum hydrocarbons into the environment, primarily affecting marine ecosystems. These incidents represent one of the most common forms of organic pollution in aquatic systems and are classified as hazardous waste due to their severe ecological consequences. The toxicity of petroleum hydrocarbons affects all life forms, posing significant threats to both aquatic and terrestrial organisms. **These damaging spills originate from various sources, oil tankers (35.7% of incidents), offshore installations (27.6%), non-tanker vessels (19.9%), pipelines (9.3%) and other miscellaneous sources (7.4%).** Marine oil spills typically occur through accidents during transportation or operations, routine ship operations or through intentional dumping of oil waste.

These spills result from equipment failures, transportation accidents, and various industrial and mining activities. The well-documented environmental damage caused by oil spills underscores their status as a persistent threat to global ecosystems. An oil slick does not stay in one place, but moves at a speed that depends on the speed of currents and wind. Eventually, some of it evaporates, some of it emulsifies (oil tends to absorb water to form oil-water emulsions), dissolves, is oxidized by light, settles to the bottom and eventually decomposes. Indeed, due to evaporation, oil spills not only affect the sea and the coastline, but can also have a negative impact on the air quality in the affected areas.

During the Iran-Iraq war (1980-1988), about 2 million barrels of oil were pumped into the seawater of the Arabian Gulf. This included 1.5 million barrels from the 1983 Nawruz explosion. After the 1991 Gulf War, 4 to 8 million barrels of oil were released into the Gulf and the Kuwaiti desert, making this the largest oil spill in history at that time. This is just one example of how deadly and destructive militaristic policies are, not only for humans, but also for the vast majority of living creatures whose lives and importance of their “homes” we tend to completely overlook.

It should also be noted that 1,133,000 tonnes of oil were lost in the 1990s and 2000s, while in the period 2010-2013 about 22,000 tonnes of oil were lost. The BP Deepwater-Horizon oil spill on the 20th of April 2010 caused the discharge of more than 2.6 million gallons of oil into the Gulf of Mexico in just 3 months. This oil spill was the second largest in human history. During the 1991 Gulf War, the deliberate release of over 6

million barrels of oil into the marine environment was considered the largest in history.

Marine mammals — including bottlenose dolphins, humpback whales, sea whales, sperm whales, manatees, cetaceans, seals, and sea otters — are particularly vulnerable to oil spills. For species that rely on fur for buoyancy and insulation (like sea otters), oil adhesion compromises their outer layer, often leading to hypothermia or drowning. Physical contact with oil represents a primary exposure pathway, especially for seabirds. A striking example occurred in 2000 when the MV Treasure oil spill off South Africa contaminated thousands of African penguins (*Spheniscus demerus*), causing widespread organ damage.

Aquaculture - Why *Sea Prisons* are deadlier than they look

The most common negative environmental impacts associated with aquaculture are water eutrophication, water quality, alteration or destruction of natural habitats, introduction and transmission of diseases. Fish farms, or 'aquaculture farms', discharge waste, pesticides and other chemicals directly into ecologically sensitive coastal waters, destroying local ecosystems.

Fish farms that raise fish directly in fenced-off areas of natural waters kill thriving natural habitats by overloading them far beyond their capacity. Waste from the excessive number of fish can cause huge overlays of green slime on the water surface, depleting oxygen and killing much of the life in the water. In Brazil, the destruction caused by aquaculture has changed the local climate so much that some aquaculture businesses have been forced to close.

Aquaculture significantly contributes to eutrophication and organic pollution in surrounding water bodies. The primary sources of this pollution include uneaten food — often resulting from overfeeding — inefficient feed utilization, the decomposition of dead organisms, and excessive stocking densities. For instance, in Scotland, **salmon farms discharge untreated organic waste equivalent to 75% of the pollution generated by the country's human population**, while shrimp aquaculture in Bangladesh produces an estimated 600 tones of waste daily.

Research indicates that **only 20–50% of the nitrogen added to aquaculture systems is retained as biomass in farmed organisms**. The remaining nitrogen enters the water column or settles into sediments, eventually being released into surrounding ecosystems. This nutrient loading increases the risk of eutrophication and harmful algal blooms, such as toxic red tides, particularly in vulnerable water bodies like lakes, reservoirs, and coastal areas. As these organic pollutants degrade, they

consume dissolved oxygen (DO), leading to declining oxygen levels and deteriorating water quality. The resulting hypoxia places extreme stress on aquatic life, often leading to mass mortality of fish and other organisms.

Aquaculture comes in many forms, two of which are open systems and closed systems. Open systems are located in coastal areas, exposed to the natural environment. These systems are high risk because they allow uncontrolled interactions between farmed fish and the environment, leading to free exchange of diseases, parasites and feces. A recent study revealed the transmission of sea lice parasites from captive salmon to wild salmon.

Aquaculture “farms” are frequently established in mangrove forests, which rank among the world's most vital and threatened ecosystems. These unique coastal forests provide critical habitat for diverse aquatic species while serving as nesting grounds for birds, reptiles, crustaceans, and numerous other organisms.

Globally, mangrove coverage has suffered dramatic declines, shrinking from 19.8 million hectares in 1980 to under 15 million hectares by 2000. This represents an annual deforestation rate of 1.7% during the 1980s and 1% throughout the 1990s—a destructive trend that persists today. Countries including Thailand, Indonesia, Ecuador, and Madagascar have lost millions of hectares of mangroves specifically to aquaculture development.

Mangroves comprise specialized trees and shrubs adapted to thrive in brackish water—the transition zones where rivers meet oceans. These ecosystems perform essential ecological functions: their dense root systems stabilize shorelines against erosion from storms, waves, and tides, while simultaneously creating complex habitats that shelter marine life and support biodiversity. The very features that make mangroves so ecologically valuable - their nutrientrich waters and protected environments - also make them tragically attractive targets for aquaculture operations, despite the severe environmental costs.

At the same time, overfishing and mass fishing methods contribute significantly to the decline of marine biodiversity. Many commercial fishing activities employ destructive practices that deplete fish populations faster than they can recover. Bottom trawling, a method that involves dragging heavy nets along the seabed, not only captures target species, but also destroys sensitive marine habitats such as coral reefs and seagrass beds. By-catch, the unintentional capture of non-target species, is another major issue, with millions of sharks, sea turtles and marine mammals being accidentally caught and discarded every year.