



ANIMAL WELFARE: A MUST IN THE CLIMATE NEGOTIATIONS

Position Paper



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**TOWARDS BETTER
REPRESENTATION OF
ANIMAL NEEDS IN UNFCCC
STRATEGIES**

This Position Paper was published in November 2022, to support negotiations at the 27th Conference of the Parties (COP27) to the United Nations Framework Convention on Climate Change (UNFCCC).

The World Federation for Animals, representing 42 member organisations, prepared this Paper in close collaboration with:



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ANIMAL WELFARE: A MUST IN THE CLIMATE NEGOTIATIONS

The climate crisis causes unprecedented heat, floods, and droughts - something almost everyone has experienced in recent years. Looking forward, extreme weather periods are predicted to become more extensive, longer lasting and more damaging. Although current climate change mitigation and adaptation policies focus mainly on the impact on humans, the climate crisis impacts all life on earth. At the same time, changing our treatment of animals can play a key role in climate change mitigation.

Under the UN climate regime, governments can begin to consider the needs of animals, and recognise that animal welfare matters when deciding how to build more sustainable and resilient societies supported by healthy ecosystems.

The last UN Climate Change Conference (COP26) failed to recognise the important role that animals play in climate change mitigation and adaptation measures. For this year's conference, we strongly encourage governments to take animals into consideration.

We must transition to more climate- and animal-friendly policies in order to secure biodiversity and the future of our food systems.

WE CALL ON GOVERNMENTS TO:

- 1. Recognise the role that changing the policies that govern society's use of animals can play for climate change mitigation:**
 - by driving shifts towards plant-based food production and consumption
 - by protecting wildlife and ecosystems so as to enhance carbon sequestration and storage
- 2. Integrate climate change impacts on animals in adaptation and preparedness guidance and strategies at both global and national level.**

Systems that disregard animal welfare contribute to climate change

Emissions from farmed animals in the food system account for at least 14.5% of global anthropogenic greenhouse gas emissions (GHG).² Significant emissions can result from energy used for recirculation or other purposes, especially in aquaculture.³ Emissions are also embedded in the feed used for animals.⁴ Global food system emissions alone could put the goals of the Paris Agreement out of reach—even if fossil fuels emissions were immediately eliminated.⁵

Battling Climate Change on Land

Intensive animal farming negatively affects the environment at all stages of production, with a far greater impact than other forms of agriculture. The most important GHG emissions from animal agriculture are methane and nitrous oxide.⁶

Crops to produce food for farm animals use 40% of the arable land in the world.⁷ The conversion of natural ecosystems into croplands also contributes to a rise in CO₂ emissions as they no longer act as carbon sinks.⁸ Feed production to supply intensive animal farming and demand for meat and other animal products is one of the key drivers of deforestation in the Amazon.⁹

Mitigation techniques often suggested, such as the use of specific diets or feed additives, have negative implications for animals. For example, feeding highly concentrated grain-based diets to pigs in industrialised systems where access to roughage is scarce, reduces emissions per kilo of meat, but is associated with intestinal problems and gastric ulcers.¹⁰ Further, genetically selected and imported breeds often suffer when introduced to climate and environments to which they are not adapted.

Battling Climate Change under Water

Nearly 90% of the world's fish populations are now fully exploited, overexploited or depleted. Further, around 20% of the world's commercially-caught fish, in terms of tonnage, are turned into feed for farmed animals, mostly for farmed fish.¹² This translates to around 1.2 trillion individual animals.¹³ Producing aquatic animal foods through fishing or aquaculture can result in high GHG emissions, in some cases with CO₂ emissions per unit of protein comparable to or exceeding those of beef.¹⁴

Capture fisheries contribute to climate change through emissions from fishing vessels¹⁵ and direct disturbance to ocean sediments,¹⁶ as well as loss of carbon sequestration capacity due to the removal of aquatic animals.¹⁷ A particularly harmful method is 'bottom trawling', a significant contributor to overfishing that releases massive amounts of carbon which would otherwise be stored in the seabed. Bottom trawling also causes ocean acidification and reduces the ocean's ability to store CO₂. At the ecosystem level, it can displace entire benthic communities through habitat destruction.

Shifting away from industrial animal agriculture

Shifting away from industrial animal agriculture and towards more plant-based food systems is key to meeting our global climate goals. As per the IPCC, “*diets high in plant protein and low in meat and dairy are associated with lower GHG emissions (robust evidence, high agreement).*”¹⁸ This is consistent with long-standing guidance from UN bodies including the World Health Organisation and the Food and Agriculture Organisation. In addition, improving agricultural production systems by utilising silvopasture and agroecological solutions holds great potential for mitigation and adaptation strategies.^{19,20}

Policymakers must recognize the magnitude of the mitigation potential from shifting towards plant-based food production and consumption and rapidly take steps to implement these solutions.

"Dietary change in regions with excess consumption of calories and animal-sourced foods to a higher share of plant-based foods with greater dietary diversity and reduced consumption of animal-sourced foods and unhealthy foods (as defined by scientific panels such as EAT-Lancet) has both mitigation and adaptation benefits along with reduced mortality from diet related non-communicable diseases, health, biodiversity and other environmental co-benefits (high confidence)."²¹

IPCC AR6 report on Impacts, Adaptation, and Vulnerability

Climate change severely threatens the survival of wild animal species

Since the last UN climate summit, multiple scientific studies and media reports have continued to illustrate how climate change is affecting wildlife. In an Op-ed in *The Hill*,²² the author illustrates how heat waves are deadly for many wild animals that struggle to adapt. Hungry polar bears are scavenging on garbage near communities to cope with climate change as their habitat disappears.²³ Climate change is becoming an increasing threat to elephants in Kenya: in the past year, 179 elephant deaths were caused by drought that dried up rivers and water pans and shrivelled grasslands in game reserves. Kenya's Wildlife and Tourism ministry notes that climate change has become a bigger threat to elephants than poaching.²⁴

Climate change can directly threaten the survival of entire species and ecosystems. For example, as a result of hotter summers, in some beaches in Florida, U.S, nearly every turtle born is female, as “eggs incubated above 31 °C will be female”.²⁵ A similar development has been observed in the Great Barrier Reef where 99% of green sea turtle babies are born female.²⁶ In addition, increased calving intervals among the southern right whale can be attributed to climate change.²⁷ While the southern right whale normally calves every three years, the interval has now increased to four to five years in this whale population.

Climate change will also increasingly impact marine ecosystems. Important feed sources

for many integral marine species, such as krill, are negatively impacted by climate change.²⁸ Almost 90% of 25,000 marine species are put at high or critical risk if we do not limit global warming to 2°C.²⁹

Conversely, there is growing evidence for the critical role that wild animals play in an ecosystem's ability to provide services of benefit to us all, including carbon sequestration and storage.³⁰ In the Congo Basin, forests with elephants have 7% more above-ground biomass than similar forests where elephants were extirpated decades ago.^{31,32} Similarly, marine animals are responsible for much of the carbon sequestration in the ocean. The concept of “fish carbon” recognises the potential of marine life to address climate change challenge and prevent biodiversity loss.³³

Natural habitats are also key to regulating climate and can help to absorb and store carbon. Mangroves and seagrasses are significant sinks for carbon – while protecting coastlines from storm surges and erosion. Similarly, tropical forests store significant amounts of carbon while helping regulate local and global weather patterns, ensuring millions of people get the water they need to safeguard their livelihoods and survive. Safeguarding these natural carbon sinks from further damage is an important part of limiting climate change. As such, nature is an untapped solution. Tropical forests can provide at least a third of the mitigation action needed to prevent the worst climate change scenarios.

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The climate crisis further exacerbates the suffering of farmed animals

Earlier this year, thousands of cattle in Kansas, U.S, were killed by extreme heat and humidity.³⁴ Meanwhile in the UK, millions of chickens in factory farms died slowly of heat exhaustion while suffering in temperatures of up to 45 °C.³⁵ Other horrific consequences of the climate crisis have been illustrated by floods drowning hundreds of pigs in Colombia³⁶ and cows in Uganda³⁷ and Pakistan.³⁸ Millions of chickens, pigs and cattle in factory farms in the U.S and Canada were killed by floods.^{39,40}

Heat stress, caused by rising temperatures, leads to increased morbidity and mortality of farmed animals, and consequently also to economic loss. In particular, “higher yield” breeds are more prone to heat stress as they have a higher body heat related to higher metabolic rates.⁴¹ Animals kept in intensive systems are also typically held at higher stocking densities, which makes them more prone to heat stress with ambient temperature rise. Lack of space or environmental enrichment can mean animals are unable to perform heat abating behaviours like wing-spreading or lying down.

Changing, prolonged, and more extreme seasons and droughts also affect pastoralist communities and herd mobility. Further, farmed animals, including working animals, are indirectly impacted by climate change through its negative effect on the quality and availability of feed and forages.⁴²

Flooding, extreme weather conditions, or fires in low-income countries remain underreported, but these regions are particularly susceptible to climate impacts on animals and people more often depend on working equidae for their livelihoods, water access, transport or health.⁴³

Looking at life below water, the impacts of climate change on farmed fish are severe.⁴⁴ Aquaculture will be increasingly affected by climate change in many ways, for example, through increasing ocean acidity and temperature, reduced dissolved oxygen, as well as more intense and unpredictable weather events, such as hurricanes or heavy rainfall that may cause infrastructure damage, leading to high probability of fish escapes. Additionally, an increase in run-off of fertilisers and pollutants such as pesticides, herbicides, and trace metals into marine and inland aquaculture operations as a result of these events is expected as the climate changes.

Climate consequences for farmed animals affect smallholders, pastoralists, and small-scale livestock keepers and fishers, especially those in the Global South. The IPCC has also warned of the increased risk of climate change induced vector borne diseases affecting farmed animals and humans vulnerable to zoonotic diseases.⁴⁵

Heat stress, caused by rising temperatures, leads to increased **morbidity & mortality of farmed animals**.



ANIMAL WELFARE IS CRITICAL FOR MITIGATION & ADAPTATION STRATEGIES

Animals are not only affected by climate change, they can also play a critical role in mitigating its impacts and increasing resilience if their welfare is taken into consideration.

- A transition to higher animal welfare systems, concomitant with a transition to diets lower in animal source foods, can provide benefits. Policies that prioritise and facilitate regeneration of soils and water bodies, reduce absolute greenhouse gas emissions from animal and feed production, as well as habitat conversion, are essential for mitigating climate change risk. High welfare agroecological or silvopastoral systems are examples of systems that can achieve these aims.
- Rearing and catching aquatic animals using an animal welfare lens, including high welfare standards in aquaculture⁴⁶ and gentle catch methods using species- and ecosystem-appropriate gear in fisheries⁴⁷ can reduce emissions, mortality, and food insecurity.
- Looking after the well-being of wild animals is a vital part of protecting ecosystems and mitigating climate change. This includes land⁴⁸ and marine⁴⁹ animals. Protecting wild animals and their natural habitats is indeed critical to an ecosystem's ability to provide services of benefit to us all, including carbon sequestration and storage.⁵⁰ Conserving ecosystems is often more cost-effective than human-made interventions.
- Well treated working animals represent an important social protection mechanism, boosting community resilience in the face of disasters and climate shocks. Examples include enabling communities to collect water or food from greater distances and use sustainable farming techniques in remote areas, key to building community resilience against climate change impacts like land degradation; and, helping families to relocate when needed or to rebuild homes or infrastructure.⁵¹
- Tapping into the mitigation potential of diets with a higher share of plant-based protein would reduce land use and nutrient losses to the environment, while providing health benefits. Scaling up emerging food technologies such as cellular fermentation, cultured meat, and controlled environment agriculture that access low-carbon energy can also bring substantial reductions in direct GHG emissions from food production.⁵²

Addressing **animal welfare** in the climate negotiations is **critical** for **mitigation & adaptation strategies** to be effective and fair.



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