Submission to the Belém Mission to 1.5

Integrating animal welfare into the ambition and implementation of NDCs and NAPs

This submission is made by the World Federation for Animals (WFA), with special contributions from Animal Protection Denmark.

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Introduction

Delivering on NDCs and NAPs will require practical, high-impact pathways that reduce emissions at speed while building ecosystem resilience, food security, and sustainable development. **Wild animals, and the ecosystem functions they support, remain among the most overlooked elements of effective nature-based climate action**. Wild animals contribute to natural carbon storage, sequestration, and climate resilience by maintaining the ecological processes that keep land and ocean ecosystems functioning as carbon sinks. They underpin these ecosystems through processes like pollination, seed dispersal, and nutrient cycling.

The evidence base is now substantial. A 2023 Nature Climate Change study estimated that restoring populations of nine key wildlife species/groups could capture up to 6.41 gigatonnes of CO2 annually under ambitious recovery scenarios. This is equivalent to over 15% of current annual global emissions, comparable to several leading mitigation options identified by the IPCC (such as solar, wind, reduced deforestation, carbon capture and storage, and energy efficiency). This and other emerging research on the positive role wild animals play in climate action has led to over 350 academics from around the world to back the Scientific Consensus on Wildlife and Climate, collectively calling on governments to explicitly incorporate wildlife and their ecological roles into climate policies and frameworks.

The potential of this nature-based solution is undermined by habitat loss, overexploitation, and unsustainable food systems. Food systems, particularly industrial animal agriculture, account for around a third of global greenhouse gas emissions and remain closely linked to ecosystem degradation, biodiversity loss, and the erosion of critical carbon sinks from land to sea. Transforming them by transitioning away from industrial animal agriculture, reforming fisheries and aquaculture, and shifting towards plant-rich diets and agroecological, higher-welfare systems is therefore both a climate imperative and one of the greatest opportunities available to Parties to keep 1.5°C within reach.

Therefore, we encourage Parties to **recognise animal welfare and food-systems transformation as central, cross-cutting priorities within the Belém Mission to 1.5, and to reflect these in NDCs, NAPs,** and relevant implementation frameworks under the Global Stocktake. Doing so would deliver gains across the Rio Conventions at once and speed the way towards a more resilient and just future for all living beings.

1. Priority action areas and solutions for NDC and NAP ambition

1.1 Protect wildlife to maintain ecosystem functions relevant to climate mitigation and adaptation

Habitats need their full biological diversity to function as effective carbon sinks. Safeguarding wildlife, from forest elephants, wolves, tigers and beavers on land to whales, sharks, sea otters, dugongs and mesopelagic fish in the ocean, is therefore a direct mitigation and adaptation measure, not only a conservation goal. NDCs and NAPs should explicitly recognise wildlife as part of the living ecological "infrastructure" that supports carbon storage and ecosystem resilience. and resource its protection accordingly.

Priority measures include:

- **Eliminate wildlife crime:** Treat trafficking of terrestrial and marine wildlife as the serious, transnational organised crime it is, by strengthening and enforcing anti-poaching and

anti-trafficking laws, applying financial investigation and intelligence-led techniques, and tackling associated corruption and illicit financial flows across supply chains.

- **Enforce stricter wildlife trade and use regulations:** Ensure any legal trade, including fisheries, is ecologically sustainable, humane, and safe, applying the precautionary principle in favour of wildlife and reducing the removal of animals to support healthier populations.
- **Implement One Health strategies:** Reduce zoonotic spillover risk across wildlife, animal agriculture and public health, for example by curbing unsafe live-animal trade, protecting both human health and the wild populations that underpin carbon storage and ecosystem resilience.

1.2 Ecosystem protection to maintain nature's carbon sequestration capacity

Protecting the habitats animals depend on secures the natural climate solutions and ecosystem services that they provide. Terrestrial and "blue carbon" ecosystems (forests, grasslands, wetlands, peatlands, mangroves, salt marshes, seagrass meadows, kelp forests, coral reefs and tidal wetlands) are among the most effective natural climate solutions available.

Priority measures include:

- **Increase the extent of protected terrestrial and marine areas** to preserve critical habitats and biodiversity hotspots, and to enhance their resilience to climate change, thereby increasing carbon sequestration and storage. To protect habitats that sequester and store "blue carbon", i.e., the carbon that is taken up and stored in coastal and marine ecosystems such as mangroves and kelp forests, designating marine protected areas (MPAs) is critical. Well-designed, effectively managed, and appropriately located MPAs can support climate mitigation and adaptation by protecting healthy ecosystems and food webs that facilitate carbon storage; reducing impacts on marine floors, which can release stored carbon; and addressing pollution and other issues that affect the ecosystem's ability to store carbon.
- **Strengthen management and end destructive activities:** Implement effective management practices, including ensuring sustainable, responsible ecotourism, prohibiting environmentally harmful activities, enforcing anti-poaching laws, and restoring habitat. These areas should receive the highest possible protection and should not allow activities that are deleterious to wildlife or that mobilise stored carbon, such as bottom trawling, deforestation, or mining.
- **Build functional connectivity:** Establish and maintain wildlife corridors, migratory routes, and larval dispersal pathways following the principle of "bigger, better, more and connected," so species can move and continue to support ecosystem function as the climate changes.

1.3 Ecosystem restoration to reestablish nature's carbon sequestration capacity

Where ecosystems and animal populations are already degraded, restoration and trophic rewilding can re-establish natural sequestration at scale. Evidence is mounting: alongside the 6.41 Gt CO_2 estimate for restoring nine key species/groups, recent modelling of Bahrain's seagrass meadows found that the presence of healthy dugong populations could more than double seagrass carbon capture, with these ecosystems potentially capturing around 546,000 tonnes of CO_2 annually.

Priority measures include:

- **Invest in large-scale ecosystem restoration** of forests, grasslands, wetlands, and coastal and marine ecosystems, prioritising based on carbon sequestration potential.
- **Implement rewilding initiatives** that ethically reintroduce native and keystone species to restore lost ecological functions, increasing ecosystem resilience, recovery and carbon storage.

- **Promote holistic reforestation projects, including their full assemblage of wild animals** with native species, recognising the roles of mammals, birds, insects, amphibians and reptiles in seed dispersal, pollination and forest health.

1.4 Transform food production systems on land and at sea

Transforming how food is produced and consumed is inseparable from achieving climate resilience. On land, this means transitioning to equitable, humane, and sustainable systems integrated into ecosystems and to agroecological practices.

Priority measures include:

- **Promote agroecological practices**, agroforestry and silvopasture, and mixed crop-livestock systems that reduce land-use change, cut reliance on emissions-intensive synthetic fertilisers, and support pollination, soil health and carbon storage.
- **Eliminate environmentally harmful agriculture subsidies**, especially those that underpin harmful and cruel industrial animal agriculture. Such systems are especially harmful in driving greenhouse gas emissions through deforestation for animal feed and animal emissions.
- **Invest in and open markets for plant-based and alternative proteins**, and require food and agricultural products to be produced free of deforestation and other ecosystem harm.

At sea, the priority is to reform fisheries and aquaculture so they rebuild rather than deplete marine carbon stocks and biodiversity.

Priority measures include:

- **End overfishing** by following a precautionary, ecosystem-based fisheries management approach, fishing below maximum sustainable yield, rebuilding depleted stocks through no-take zones and seasonal closures, reducing seabed disturbance, and removing pollution sources, including abandoned, lost, or discarded fishing gear.
- **Shift towards low-trophic and extractive aquacultur**e (e.g. seaweed) with robust safeguards, and reduce reliance on wild-caught fish for fishmeal and fish oil, while treating aquaculture expansion cautiously rather than as inherently climate-positive.
- **Set species-specific aquatic animal welfare standards and apply a precautionary approach to farming new species, recognising that better welfare reduces mortality, disease, food loss and waste,** and improves resilience and efficiency.

The transition away from industrial food production will change how many people earn a living, and those producers and communities need support to move to new livelihoods rather than being left to bear the cost.

- **Just transition provisions**: Provide financial assistance, retraining, and technical support, including redirected subsidies, to help meat, dairy, seafood, and fishing producers, smallholders, and fishing-dependent communities shift to agroecological and low-impact livelihoods, with particular attention to women, Indigenous Peoples, and marginalised producers.

1.5 Shift towards sustainable, plant-rich diets

The IPCC 2019 Special Report on Climate Change and Land identified a shift towards balanced diets, high in plant-based protein is one of the highest-potential measures for mitigating climate change. Moving away from animal-sourced foods could free up billions of hectares for nature-positive land use, restoration and natural carbon sequestration. In oceans, reducing the extraction of vast numbers of fish and other marine species for consumption and feed would allow their populations to recover and increase their contributions to the natural carbon cycle.

Priority measures include:

- **Public awareness campaigns** to communicate the environmental impact of food choices and benefits of plant-rich diets.
- **Develop enabling food environments** that make healthy, sustainable choices easier and more visible, with the aid of labelling schemes, advertising and marketing regulations, and consumer information measures.
- **Update national dietary guidelines** to reflect the benefits of plant-rich diets for both human health and the environment, in line with planetary boundaries.
- **Roll out programmes** in schools, hospitals and government institutions that provide sustainable, plant-based meals, backed by public procurement policies that require a significant share of plant-based and alternative protein options on menus.

2. Enabling Conditions: Finance, Technology, Capacity and Institutions

At present, the tools that drive climate action, funding streams, technical methods, monitoring systems and the institutions that govern them largely overlook animal welfare. Closing that gap is essential to realising the full potential of the opportunities above. In many cases this requires redirecting existing resources rather than creating new financial mechanisms.

2.1 Finance

- **Redirect harmful subsidies:** Repurpose public funds currently supporting overfishing, destructive fishing, high-emission aquaculture, and industrial livestock production, and redirect them toward sustainable fisheries, low-trophic aquaculture, agroecology, and ecosystem restoration. These are existing grant-based resources, not a new financial ask.
- **Make wildlife-rich, nature-based measures climate-eligible:** Climate funds and multilateral development banks should consistently treat wildlife- and nature-based ocean and land measures as climate-relevant investments, favour projects that deliver climate, biodiversity, and social benefits together, and exclude the expansion of industrial animal production and other climate- and environmentally harmful activities.

2.2 Technology, data and science

- **Wildlife-inclusive carbon accounting:** Develop standardised, internationally recognised methodologies that capture animal-mediated carbon processes, so Parties can better assess where wildlife conservation and recovery contribute to mitigation, adaptation and resilience, and where such measures can be credibly reflected in NDCs and NAPs.
- **Monitoring and long-term data:** Invest in ecosystem condition and wildlife population monitoring and in animal-mediated carbon science, so Parties can quantify contributions to carbon storage, storm protection and resilience with confidence.

2.3 Capacity building

- **Prioritise technical support** for LDCs, SIDS and coastal and developing countries in blue and terrestrial carbon accounting, ecosystem mapping and restoration techniques, agroecological approaches, climate-ready fisheries management, low-trophic aquaculture and wildlife-crime enforcement, with South–South and triangular cooperation as a key delivery route.

2.4 Strengthen institutional co-ordination

- **Establish cross-sectoral coordination and coherent regulatory frameworks** that integrate climate, environment, fisheries, agriculture, energy, health, and finance authorities, so that measures in NDCs, environmental and marine spatial plans, and biodiversity strategies reinforce rather than undermine one another.

3. The most significant barriers

3.1. Accounting and recognition gaps

- **Animal contributions are invisible in carbon accounting:** Standard frameworks do not capture wildlife-mediated carbon processes, such as whale nutrient cycling, predator effects on kelp and seagrass, mesopelagic fish-mediated carbon fluxes, or the role of large herbivores and seed dispersers, so species conservation and recovery are not currently treated, or resourced, as mitigation measures.
- **Sectoral emissions and impacts go unmeasured:** The emissions footprint of carnivorous aquaculture is not consistently accounted for, particularly where systems depend on wild-caught fish for fishmeal and fish oil; and the disturbance of seabed carbon by offshore infrastructure and cabling is rarely reflected in project planning or national accounting.
- **Standardised methodologies are missing:** There are no widely recognised methodologies for measuring blue and terrestrial carbon stocks and flows, including wildlife contributions, in a form that supports credible NDC target-setting and progress tracking.

3.2. Weak commitments and fragmented governance

- **Measures lack targets, timelines and ownership:** Measures to protect and restore ecosystems on land and at sea often enter NDCs without quantitative targets, defined timelines or clear institutional responsibility, leaving them hard to translate into action.
- **Governance is fragmented across sectors:** Disconnection between climate, environment, fisheries, agriculture, energy, shipping and finance authorities prevents integrated, coherent commitments. Fisheries ministries in particular are often disconnected from climate and environment ministries.
- **Whole sectors sit outside NDCs:** Fisheries and aquaculture are rarely included in the mitigation components of NDCs despite their effects on fish biomass, seabed integrity, food-web stability and fleet emissions; and international shipping is underrepresented, partly because it falls under the International Maritime Organisation (IMO) rather than national mandates, creating ambiguity over responsibility.

3.3. Persistence of harmful practices and false solutions

- **Destructive practices remain widespread and largely unaddressed:** Bottom trawling, bycatch, ghost gear, pollution, mangrove clearance, deforestation, destructive coastal development, and illegal, unreported and unregulated (IUU) fishing continue to degrade carbon sinks and harm wildlife, yet are seldom tackled within NDC commitments.
- **Welfare is disconnected from climate and food-system planning:** Aquatic and terrestrial animal-welfare standards are absent from most regulatory frameworks, even though poor welfare drives avoidable mortality, disease, resource inefficiency, food loss and waste, undermining the resilience and efficiency that climate policy seeks.

3.4. Finance, cost and equity barriers

- **True costs are externalised, and alternatives are underfunded:** Environmental, social and public-health costs of industrial food systems are routinely externalised, while agroecology, sustainable fisheries, low-impact aquaculture and locally led solutions remain chronically underfunded despite their proven benefits.

4. Strengthening international cooperation

Ocean- and land-based climate action, biodiversity conservation, animal protection and sustainable food systems are deeply interconnected, and animals are the missing link that can knit these agendas together. Because wildlife, ecosystems and the carbon they store are shared across borders, through migratory routes, ocean currents, fish populations and global food supply chains, international cooperation is essential to raising the ambition and implementation of NDCs and NAPs. WFA recommends action across three areas.

4.1. Strengthen policy coherence across regimes and institutions

- **Recognise wildlife and food systems as a nexus issue** within the Belém Mission to 1.5, aligning efforts across the COP30 Roadmap on Halting and Reversing Deforestation, the emerging Roadmap to Transition Away from Fossil Fuels, and food-systems transformation.
- **Drive coherence across the Rio Conventions:** Use existing mandated bodies, such as the Joint Liaison Group, to align NDCs with the Kunming-Montreal Global Biodiversity Framework (KMGBF) and NBSAPs, and with the BBNJ Agreement, identifying where blue carbon, MPAs, fisheries, shipping, and offshore energy measures can simultaneously advance climate, biodiversity, and species-recovery targets.
- **Cooperate with biodiversity and food system-related and sectoral bodies,** including the Food and Agriculture Organization of the United Nations (FAO), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the International Whaling Commission (IWC), the World Trade Organization (WTO) and IMO.
- **Connect the Just Transition and food-security workstreams:** Strengthen coherence between the Sharm el-Sheikh Joint Work on agriculture and food security (SJWA), the emerging Just Transition Mechanism, so support for finance, technology and skills avoids locking in high-emission, inequitable production models.

4.2. Share methodologies, technology and knowledge

- **Develop shared accounting and monitoring methodologies** for wildlife-inclusive carbon, spanning both blue carbon and terrestrial carbon, that capture animal-mediated processes such as whale nutrient cycling, predator effects on kelp and seagrass, and the roles of large herbivores and seed dispersers. Standardised methodologies would allow Parties to treat wildlife conservation and recovery as a recognised mitigation measure, set more credible and ambitious targets, and track progress consistently and comparably across borders.
- **Facilitate technology transfer and South–South and triangular cooperatio**n on ecosystem and wildlife restoration, from forest, grassland, wetland and peatland recovery to mangrove, seagrass and reef recovery, as well as on agroecological and silvopasture practices, rewilding and keystone-species reintroduction, low-carbon fishing gear and fleet efficiency, alternative aquaculture feeds, and noise- and collision-mitigation for offshore energy and shipping, prioritising SIDS, LDCs, and climate-vulnerable Parties.

- **Improve knowledge-sharing** and disseminate practical tools, guidance and methodologies that help Parties integrate wildlife and ecosystems into their climate plans (e.g., WFA's Animals4Climate tool), alongside exchange of experience and lessons learned on designing, assessing and implementing nature- and animal-based climate measures.
- **Recognise, value, and equitably integrate Indigenous and traditional knowledge** from coastal, island, and inland communities, which have long governed the relationships among animals, ecosystem health, and human wellbeing. This knowledge should be engaged through the free, prior and informed consent of its holders and protected from appropriation or exploitation, with communities sharing in the benefits.

4.3. Mobilise finance and secure a just transition

- Ensure climate funds and MDBs consistently treat wildlife-rich, nature-based land and ocean measures as climate-relevant investments that deliver climate, biodiversity and social benefits together.
- **Embed just-transition provisions** for fishing- and farming-dependent communities, particularly in developing countries and SIDS, so that ocean- and land-based climate action does not displace small-scale producers without adequate support.
- **Build on emerging wildlife-climate initiatives**, such as the Wildlife for Climate Action Agenda and Declaration supported by African Parties, as a platform for coalitions of ambition.

Conclusion

Animals are not only victims of climate change - they are part of the solution. Safeguarding and restoring wildlife on land and at sea, and reforming the food systems that drive its decline, offer some of the strongest, best-evidenced and most affordable opportunities to keep 1.5°C in reach while building resilience and adaptive capacity. We urge the Presidencies to put these opportunities at the centre of the Belém Mission to 1.5.