Just Food Transition Network Guidance on COP31 Ocean-Climate Action



Statement on the Antalya Ocean Declaration from the Just Food Transition Network:

Any Antalya ocean outcome must align climate and ocean action with food security, food sovereignty and a just transition, protecting ecosystems and aquatic animal welfare while respecting the rights, livelihoods and knowledge of coastal communities, small-scale farmers and fishers, and Indigenous Peoples. Ocean-climate action cannot ignore the food systems and livelihoods connected to the ocean.

The following recommendations should guide any ocean-climate action that emerges from COP31:

1) The Ocean Declaration must address food systems, including both industrial fishing and aquaculture.

- Industrial fishing, specifically bottom trawling, releases massive amounts of carbon that would otherwise be stored in the seabed. It also causes ocean acidification and reduces the ocean's ability to store carbon dioxide.
- In industrial aquaculture, climate impacts include the destruction of carbon-sequestering ecosystems such as mangroves for shrimp farming, emissions from fishing, and transport and processing of feed for farmed salmon. In fact, scope 3 emissions account for over 80% of all GHG emissions in salmon farming, 40% of which comes from feed.[1]

- Fishing and aquaculture must be addressed as part of the same system. The alarming decline of wild fish populations has led to rapid expansion of aquaculture, both in marine pens and on land. Rather than alleviate pressure on marine species, the use of fish for feed has continued to drive widespread industrial aquatic production and overfishing. For example, the Norwegian salmon industry alone required nearly 2 million tonnes of wild fish – the equivalent of 2.5% of global marine catch – to produce its feed in 2020.[2] Marine pens present additional harms on ocean ecosystems via waste, disease, anti-microbial resistance, and escaped fish.

2) The Oceans Declaration must align with the Just Transition Work Programme[3] and ensure that action at the oceans-climate nexus not only reduces greenhouse gas emissions, but addresses social inequalities, meaningfully engages workers and vulnerable communities, recognises the sovereignty of Indigenous Peoples, protects biodiversity and ocean ecosystems, and advances animal welfare.

- Ocean-based climate action must prioritise the rights and sovereignty of those most impacted by food system transformation. Aquatic food systems have a significant impact on climate, culture, and food security worldwide, providing critical nutrition for more than 3.2 billion people and livelihoods for an estimated 800 million globally.[4]
- Ocean-based climate action must be funded to ensure the costs are not borne by those harmed by current economic, social or climate injustices.
- Ocean-based climate action must shift aquatic food systems away from industrial, high-emission, fossil-dependent fisheries and aquaculture toward agroecological and community-led approaches that safeguard animal welfare, protect and restore marine, coastal, and freshwater ecosystems, strengthen local food security and food sovereignty, and secure decent work and resilient livelihoods.

3) Equitable, humane, and sustainable aquatic food systems must balance productivity with ecological integrity, animal welfare protection and social equity whilst promoting local and democratic governance.

- Without robust regulatory safeguards and a rights-based approach, scaling up aquatic food production risks repeating the environmental degradation, social inequities, and animal welfare issues seen in intensive terrestrial agriculture.[5]
- It is imperative that we avoid a blanket push for all aquatic or “blue foods” and instead distinguish welfare-positive, ecologically restorative systems that provide fair wages and dignified working conditions for fisherfolk from those that cause social harm, biodiversity loss, and systemic animal suffering. Only systems that are low-impact, socially just, and welfare-aligned should be eligible for recognition as sustainable blue foods or aquatic food systems.

What Equitable, Humane, and Sustainable Aquatic Food Systems Look Like

Equitable, humane, and sustainable aquatic food systems balance productivity with ecological integrity, animal welfare protection and social equity whilst promoting local and democratic governance. Seaweed and bivalve aquaculture can enhance biodiversity and improve water quality when deployed as part of a diverse food system. Community-based fisheries management strengthens resilience and supports local economies.

By contrast, practices like bottom trawling, high-density shrimp farming, and feed-intensive carnivorous aquaculture degrade ecosystems, generate high emissions, and exploit workers and animals. Industrial cultivation of seaweed for geoengineering purposes, such as carbon capture, or to produce biofuel or animal feed rather than food for human consumption can further entrench systems threatening the climate, oceans, forests, and biodiversity. Although the push to increase aquatic food production is often driven by claims of food and nutritional security, it's important to note that there are pathways to healthy diets that do not include aquatic animals. Many of the nutrients found in animal-based aquatic foods, such as essential omega-3 fatty acids, can also be found in flaxseed, seaweed, and other plant-based sources.

Equitable, Humane, and Sustainable Aquatic Food	Industrial-Scale Aquatic Food
Small-scale, low-impact fishing that is highly selective and safeguards animal welfare	Bottom trawling that destroys seabeds and releases carbon
Low-stress, minimal handling, and humane stunning (must render the animal immediately and fully unconscious) prior to slaughter	Rough handling and inhumane killing including asphyxiation and live gutting
Community-managed, small-scale fisheries with secure access rights	Industrial fleets that displace local fishers and exploit labor
Humane aquaculture prioritizing low trophic species, robust animal welfare standards, controls on plastic use and pollution, and minimal antibiotic use	High-density carnivorous aquaculture reliant on wild fish feed
Electrified or hybrid vessels and efficient cold chains	Diesel-intensive fleets with no decarbonization plan or decarbonization plans that rely on carbon offsets
Mangrove and seagrass protection and restoration that support biodiversity and natural habitats for aquatic species	Mangrove-clearing shrimp ponds and nutrient-polluting farms

Policy Safeguards for Ocean-Based Climate Action

To ensure aquatic foods contribute meaningfully to climate action while protecting ecosystems, people, and animals, governments and multilateral institutions should establish the following safeguards:

1. Develop eligibility criteria for climate finance that prioritize welfare-positive, low-trophic systems and exclude unjust, inhumane or ecologically destructive practices such as trawling or high-density confinement / mangrove conversion.

2. Integrate One Health and One Welfare principles into national licensing frameworks, covering aquatic animal welfare, water quality, disease prevention, and Antimicrobial Resistance (AMR) control.

3. Protect and restore blue carbon ecosystems: mangroves, seagrasses, and tidal marshes.

4. Invest in electrification of fishing fleets and low-carbon cold chains to reduce reliance on diesel fuel.

5. Phase out wild-fish-based and soy-derived feeds through incentives for algae and microbial protein alternatives.

6. Channel grant-based climate finance directly to small-scale and Indigenous producers, conditional on demonstrable welfare, social, and ecological outcomes.

7. Enforce fair labor standards, remuneration, gender equity, and safe working conditions consistent with ILO Convention 188.

8. Use public procurement to create demand for locally-sourced, sustainable, welfare-compliant aquatic foods. Public institutions should only source aquatic products certified to meet welfare and sustainability standards.

9. Support transparent data collection/reporting and participatory research to monitor GHG emissions, welfare indicators, and social outcomes as part of national sustainability metrics.

A just transition in aquatic foods must be inclusive, humane, and grounded in social justice and equity. Governments can achieve this by combining targeted finance, capacity building, and international cooperation that place people, animals, and ecosystems at the center of food-climate policy.

The Impact of Aquatic Food Systems

The environmental, animal welfare, and social impacts of aquatic food systems vary greatly depending on species, production systems, and governance contexts.[6]

Environmental impacts

Industrial fishing and intensive aquaculture contribute significantly to greenhouse gas (GHG) emissions. Fuel combustion accounts for over 80% of fisheries' direct emissions, with global fishing-related CO_2 emissions rising by nearly 30% between 1990 and 2011.[7] Meanwhile certain types of aquaculture can produce some of the most emissions-intensive foods: farmed catfish generates emissions on par with beef[8] and farmed crustaceans are associated with higher GHG emissions than pork.[9] In contrast, farming of low-trophic species like bivalves and seaweed for food can help mitigate emissions by sequestering carbon and filtering water.[10] Research shows that poor welfare practices in aquaculture can also increase emissions intensity, as stressed animals have lower feed conversion efficiency, higher mortality, and are more prone to disease, resulting in additional feed use, energy expenditure, and environmental waste.[11]

However, the impacts go far beyond GHG emissions. Overfishing renders aquatic species vulnerable to ecological extinction,[12] harmful fishing gears destroy marine habitats, and, along with indiscriminate fishing, cause high levels of bycatch, resulting in increased threats to imperiled species, avoidable mortality of sentient aquatic life, and food waste. Feed-intensive aquaculture further amplifies pressure on wild fish populations by relying on fishmeal and fish oil derived from capture fisheries, while also contributing to ecosystem degradation through eutrophication and recurrent harmful algae blooms, pesticide contamination, plastic pollution (including abandoned, lost or otherwise discarded fishing gear), and pathogen transmission — including antimicrobial resistant strains — to wild fish that seriously threaten the health and viability of these ecosystems, and in turn the health and wellbeing of humans.[13] [14] [15] [16]

Social impacts

Industrial aquatic food production also raises human rights and animal welfare concerns. Coastal and Indigenous communities are often displaced when industrial fleets expand into nearshore waters, and labor exploitation has been documented in seafood supply chains worldwide.[17] Aquatic animal welfare remains poorly regulated. Billions of fish are farmed each year,[18] while another 2 to 3 trillion fish are caught in the wild and killed for human consumption,[19] the majority of which die without humane stunning or slaughter, despite scientific consensus on fish sentience and their capacity to suffer. Aquatic animals experience pain, fear, and stress. Fishing and farming systems that disregard welfare also tend to reflect and reinforce systems of human exploitation and ecological injustice. Welfare is therefore a core social justice issue embedded within the broader concept of a just transition.

About the Just Food Transition Network

The Just Food Transition Network brings together a globally diverse community of over 240 actors — including farmers, workers across the agriculture and aquatic value chain, pastoralists, fishers, women, youth, and advocates across public health, human and labour rights, animal welfare and environmental fields — reflecting a wide range of lived experiences and expertise. The network is united by a shared vision to phase out industrial animal agriculture, industrial fishing and intensive aquaculture as a key strategy to tackle the multiple crises we are facing from climate change and biodiversity loss to social inequalities and food insecurity.

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