



General Assembly

Distr.: General
29 April 2026

Original: English

Human Rights Council

Sixty-second session

15 June–10 July 2026

Agenda item 3

**Promotion and protection of all human rights, civil,
political, economic, social and cultural rights,
including the right to development**

Transforming food systems for a safe climate and health for all

**Report of the Special Rapporteur on the promotion and protection of
human rights in the context of climate change, Elisa Morgera**

Summary

In the present report, the Special Rapporteur clarifies human rights obligations and responsibilities to transform food systems in order to effectively mitigate and adapt to climate change and respond to loss and damage. She recommends combining decarbonization, defossilization and detoxification of food systems to prevent localized and global human right harms. She also confirms that prioritizing Indigenous Peoples' and peasants' agroecology, small-scale ecosystem-based fisheries and pastoralism enhances the sustainability and resilience of food systems, planetary and human health, including nutrition, to the benefit of all.



I. Introduction

1. The protection of the human rights of individuals and those of rural and urban communities is interconnected across sectors and scales in the context of climate change. Large-scale food production is increasing dependency on fossil fuels and petrochemicals, while causing multiple harms to the climate system and everyone's health, particularly that of children and women. Large-scale food businesses, which are most closely tied to fossil fuels, are accumulating unprecedented amounts of finance, market power and natural resources, to the detriment of Indigenous Peoples and peasants. This is creating increasingly existential threats to Indigenous and peasant food systems, at a time when Indigenous Peoples' and peasants' knowledge and their human rights protection have been recognized by global scientific assessments as necessary to bring about the transformative change the whole world needs to reverse the planetary crises it is facing.¹

2. Based on 90 submissions, consultations with a variety of experts and children, and independent research,² in the present report, the Special Rapporteur explores why food systems currently generate a third of global greenhouse gas emissions. She also explores the extent to which large-scale food systems specifically are harming the climate system in terms of loss of carbon sinks such as forests, the ocean and the soil. In particular, she sheds light on the growing connections between fossil fuels as energy and primary material for the production of pesticides, fertilizers and plastics that underpin food overproduction, the global expansion of ultra-processed foods, and deeply vested interests in promoting and perpetuating fossil fuel-based industrial systems,³ including through disinformation and climate obstruction. All these dynamics compound human rights harm and prevent any transition towards a safer climate.⁴

3. In the report, the Special Rapporteur connects these findings with those of other special procedure mandate holders of the Human Rights Council, including on the concentration of corporate power and land accumulation in food systems,⁵ which are all phenomena that aggravate climate impacts, weaken national sovereignty and limit democratic control. The largest 1% of food businesses control more than 70% of the world's farmland.⁶ Meanwhile, Governments pay more than \$670 billion annually in direct subsidies to large-scale agriculture and fisheries.⁷ This results in taxpayers sustaining a severely polluting industry, while also bearing the burden of downstream costs from pollution, greenhouse gas emissions and biodiversity loss amounting to several trillion dollars every year.⁸

4. Within this adverse context, small-scale farms, which cover only 12% of agricultural land, produce 36% of the world's food.⁹ Small-scale fisheries contribute 40–50% of the global catch and employ 53 million people, 45% of whom are women,¹⁰ while contributing only 10% to the greenhouse gas emissions of the whole fisheries sector.

5. Nevertheless, Indigenous Peoples and peasants – including small-scale fishers and pastoralists – are facing existential human rights abuses by large-scale food businesses and targeting of environmental human rights defenders, amid several other pressures on their territories, rising production costs and weak or retrogressive protection of human rights and

¹ See <https://www.ipbes.net/transformative-change-assessment>; and <https://www.ipbes.net/nexus-assessment>.

² See <https://www.ohchr.org/en/calls-for-input/2026/call-input-transforming-food-systems-protect-human-rights-and-prevent-climate>.

³ See https://futureoffood.org/wp-content/uploads/2023/11/ga_food-energy-nexus_report.pdf.

⁴ Submission by La Via Campesina.

⁵ See A/80/213 and A/HRC/61/51.

⁶ See <https://openknowledge.fao.org/items/10293134-009e-416b-876b-84158530c89d>.

⁷ See <https://www.worldbank.org/en/news/press-release/2023/06/15/trillions-wasted-on-subsidies-could-help-address-climate-change>.

⁸ Submission by Global Climate and Health Alliance.

⁹ See A/HRC/55/37.

¹⁰ See <https://www.fao.org/policy-support/policy-themes/sustainable-small-scale-fisheries/en>.

the environment.¹¹ These are, at the same time, harmful to Indigenous Peoples' and peasants' rights to health, livelihoods and cultural survival, and to the human rights of everyone dependent on sustainable, healthy and resilient food systems.

6. In the report, the Special Rapporteur analyses these realities in the light of the advisory opinion of the International Court of Justice on the obligations of States in respect of climate change and the advisory opinion of the Inter-American Court of Human Rights on the prevention of environmental harm, regulation of the private sector, international finance and subsidies.¹²

7. At a time when food systems are entering a period of extreme instability due to geopolitical dynamics, including armed conflict, which worsen climate change and its interconnected impacts on the environment, rural poverty, malnutrition, food price volatility and disruptions of global value chains, the Special Rapporteur seeks in the present report to clarify human rights obligations and responsibilities to transform food systems in order to effectively mitigate and adapt to climate change and respond to loss and damage by combining decarbonization,¹³ defossilization and detoxification of food systems.¹⁴ Equally, these obligations and responsibilities have to do with prioritizing agroecology, small-scale ecosystem-based fisheries and pastoralism, which enhance the sustainability and resilience of food systems and planetary and human health, including nutrition,¹⁵ thereby preventing localized and global human right harms.

II. Climate action and food systems

8. The Intergovernmental Panel on Climate Change has emphasized the importance of a food systems perspective in climate mitigation and adaptation: effective climate action cannot focus solely on agricultural production, but must address the broader system, including processing, distribution, trade and dietary choices, ensuring that all people, at all times, have access to sufficient, safe and nutritious food in ways that are equitable and sustainable across generations.¹⁶ Without this perspective, climate mitigation is ineffective,¹⁷ as:

- (a) Food systems currently account for 21–37% of greenhouse gas emissions globally;
- (b) Without changes to current food systems, these emissions are projected to rise between 60 and 90% between 2010 and 2050;
- (c) Food systems generate nearly 80% of global nitrous oxide emissions (with the potential to warm the planet 273 times more than carbon dioxide within a century) and around 50% of anthropogenic methane emissions (which have 80 times higher warming potential than carbon dioxide within a decade);¹⁸
- (d) Emissions by the industrial fishing sector have increased four times over the past decades,¹⁹ accounting for 70–80% of total emissions from the sector;

¹¹ See <https://eatforum.org/publication/action-brief-for-and-with-indigenous-peoples/>; and <https://openknowledge.fao.org/items/10293134-009e-416b-876b-84158530c89d>.

¹² International Court of Justice, *Obligations of States in respect of Climate Change, Advisory Opinion*, 23 July 2025; and Inter-American Court of Human Rights, *Climate Change and Human Rights, Advisory Opinion*, 29 May 2025.

¹³ See A/HRC/53/47.

¹⁴ See A/HRC/54/25 and A/HRC/59/42.

¹⁵ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/abstract); and submissions by Burundi, Colombia, Spain and Geneva Interfaith Forum on Climate Change, Environment and Human Rights.

¹⁶ See <https://www.ipcc.ch/srccl/chapter/chapter-5/>.

¹⁷ See <https://doi.org/10.1088/2976-601x/ad8fb3>.

¹⁸ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/fulltext).

¹⁹ See <https://www.sciencedirect.com/science/article/pii/S0308597X1730893X>.

(e) Pesticides and chemical fertilizers, together with other components of the pre- and post-production stages, are responsible for an estimated 5–10% of global greenhouse gas emissions;

(f) Food loss and waste are estimated to account for 8–10% of emissions, nearly five times the global greenhouse gas emissions from the aviation sector;²⁰

(g) Just 15 dairy and meat companies produce roughly the same as the total greenhouse gas emissions of Germany.²¹

9. Nitrous oxide emissions, driven predominantly by nitrogen inputs from synthetic fossil-based fertilizers, the production of animal feed and the management of manure,²² are also ozone-depleting. Cutting methane emissions is one of the fastest ways to slow global warming and prevent air pollution, respiratory and cardiovascular issues, elevated cancer risks and premature death.²³

10. In addition to greenhouse gas emissions, food systems are the largest contributor to the transgression of the planetary boundaries which affect the climate system overall: biodiversity loss, land-system change, ocean acidification and geochemical cycles, due to the degradation of soil, water and ecosystem integrity. Therefore, less than 1% of the world's population have their human rights and food needs met within planetary boundaries, while the wealthiest 30% of people drive more than 70% of food-related environmental and climate impacts.²⁴

11. Transforming food systems can also contribute to water use efficiency (as irrigation is responsible for around 70 to 90% of global consumptive water use),²⁵ decreased land-use change, healthier biodiversity and reduced prevalence of obesity, malnutrition and diabetes.²⁶ That in turn would contribute to the protection of the rights to food, water, health, development and a healthy environment, in all its substantive dimensions, taking into account intergenerational equity and the best interests of children.²⁷

III. Fossil fuels expansion in food systems

12. Food systems represent 15% of global consumption of fossil fuels to provide energy. This percentage is growing due to energy-intensive mechanized agriculture, long-distance refrigeration and industrial food processing, notably of ultra-processed foods.²⁸ Furthermore, fossil fuels also provide the primary feedstock for the production of petrochemicals – synthetic pesticides, fertilizers and plastics, with food systems representing 40% of global fossil feedstock consumption.²⁹

13. In effect, large-scale food, petrochemical and fossil fuel industries have co-evolved and are increasingly integrated.³⁰ Single-use plastics underpinned the rapid expansion of ultra-processed foods globally.³¹ The co-development allowed the fossil fuel industry to keep

²⁰ See <https://www.ipcc.ch/srccl/chapter/chapter-5/>; <https://www.unep.org/resources/report/unep-food-waste-index-report-2021>; and <https://www.unep.org/resources/emissions-gap-report-2022>.

²¹ See <https://www.iatp.org/emissions-impossible>.

²² See <https://www.ewg.org/research/animal-feeding-operations-harm-environment-climate-and-public-health>.

²³ See A/HRC/61/47; and <https://www.worldanimalprotection.org.in/globalassets/pdfs/reports/english/hidden-health-impacts.pdf>.

²⁴ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/abstract).

²⁵ Ibid.

²⁶ See <https://www.science.org/doi/10.1126/science.aba7357>.

²⁷ See A/HRC/59/42; and Committee on the Rights of the Child, general comment No. 26 (2023).

²⁸ Submission by Centre for International Environmental Law.

²⁹ See <https://doi.org/10.1016/j.erss.2022.102880>.

³⁰ See <https://doi.org/10.1080/00130095.2020.1794809>.

³¹ See <https://www.tandfonline.com/doi/full/10.1080/09692290.2026.2642934#abstract>.

expanding beyond the energy sector.³² Thus, dominating agrifood companies have vested interests in promoting and perpetuating fossil fuels and petrochemicals.³³

14. A key obstacle to transitioning away from fossil fuels is petrochemical lock-in. This also relates to the highly unequal social, economic and ecological consequences of this industrial model,³⁴ with gender-differentiated health harms.³⁵

15. The proliferation of synthetic materials and their relative cheapness have embedded them in social relations in ways that have become entrenched, taken for granted and linked with ideas of modernity and security.³⁶

16. The adverse impacts on everyone's rights to health and to a healthy environment are very diffuse. Fossil fuels, plastics and pesticides directly contribute, for instance, to increasing antimicrobial resistance – a major global health threat.³⁷

A. Pesticides

17. Between 85 and 90% of global pesticide application occurs in agriculture, with individual pesticide concentrations exceeding safety levels across terrestrial and aquatic systems. Many of the world's biggest oil companies produce pesticides or their chemical ingredients.³⁸ Estimates of greenhouse gas emissions by pesticides factor in only the energy used to produce the active ingredients, but there are several other connections to climate harm:

- (a) Some pesticides are themselves greenhouse gases, such as fumigant sulfuryl fluoride (used to fumigate commodities during transport and storage);
- (b) Pesticides are coated in microplastics to ensure more controlled release of the product;
- (c) Greenhouse gas emissions arise also from pesticide waste: stockpiles of pesticides that are obsolete or have expired become illegal or are otherwise unwanted and are then disposed of through burning and other methods;
- (d) Coal-to-chemicals projects contribute to fossil fuel lock-in;
- (e) There are greenhouse gas emissions when pesticides are released in the environment, as often less than 0.1% of applied pesticides reach their target. The pesticides subsequently interact with organisms in the soil and with the atmosphere, both in the short and the long term.

18. Pesticides also have a detrimental effect on soil microorganisms that are crucial for soil health and productivity, as well as for carbon and nitrogen cycles. Pesticide applications emit volatile organic compounds, reacting with nitrogen oxides and ultraviolet rays to produce ground-level ozone.³⁹ Neonicotinoids, a type of insecticide, harm pollinators. The contribution to food security of honeybees alone has been estimated to be worth approximately 691 million pounds per year for the United Kingdom of Great Britain and Northern Ireland.⁴⁰ An increase in severe rain events is expected to increase pesticide loss to waterways.

³² See <https://www.cnbc.com/2022/01/29/how-the-fossil-fuel-industry-is-pushing-plastics-on-the-world-.html>.

³³ See https://futureoffood.org/wp-content/uploads/2023/11/ga_food-energy-nexus_report.pdf; and submission by Global Climate and Health Alliance.

³⁴ See <https://www.rivisteweb.it/doi/10.1425/101444>.

³⁵ Submissions by Brazil, Guatemala, Mexico, State of Palestine and Women Engage for A Common Future.

³⁶ See <https://doi.org/10.64590/kbq>.

³⁷ Submission by Global Climate and Health Alliance.

³⁸ See <https://www.mdpi.com/2410-3888/10/5/223>.

³⁹ See <https://www.pan-uk.org/site/wp-content/uploads/Cultivating-Coherent-Climate-Action.pdf>.

⁴⁰ See <https://www.pan-uk.org/pesticides-and-the-climate-crisis/>.

19. Aquaculture – one of the fastest-growing food production sectors worldwide – is rapidly intensifying reliance on pesticides, diminishing the nutritional composition of fish,⁴¹ and therefore harming the rights to food, health and a healthy environment.

20. Harm to the right to health results from more pesticide transforming into a gas due to increased temperatures, poisoning anyone exposed to the toxic vapour. Globally, 44% of farmers are poisoned by pesticides every year. Chronic exposure to pesticides, including through the consumption of contaminated foods, undermines the right to health, as it is associated with increased risks of Parkinson's disease, diabetes, cancer and cardiovascular disease and possibly with infertility.

21. Severe environmental degradation from intensive pesticide use also deepens socioeconomic inequalities and locks States and communities into a cycle of debt, resource extraction and vulnerability to global market shocks,⁴² thereby affecting the rights to development and self-determination.

B. Fertilizers

22. Chemical fertilizers cause greenhouse gas emissions and toxic pollution, while also making farms less productive and resilient.⁴³ They generally bring about short-term fixes rather than long-term solutions to food insecurity and significantly harm the environment.⁴⁴

23. Nitrogen fertilizers are made of ammonia, the production of which is nearly twice as emissions-intensive as steel production and four times more intensive than cement production. Between 70 and 90% of the production costs of fertilizers are for fossil gas and the rest is for coal, which results in food systems being vulnerable to price shocks. In parts of Africa, South America and South-East Asia, nitrogen fertilizer use has grown markedly.⁴⁵ The global climate impact of nitrogen fertilizer alone exceeds that of commercial aviation.⁴⁶

24. Globally, 650,000 deaths (20% of mortality) and roughly 4 million new cases of paediatric asthma every year are due to poor air quality, largely due to nitrogen pollution from fertilizers. Excess fertilizer use can also cause nitrogen pollution of drinking water, which has been associated with methaemoglobinemia, colorectal cancer, thyroid disease and birth defects. The groundwater threshold for nitrogen pollution is exceeded in 38% of global agricultural lands,⁴⁷ particularly affecting the rights to health and water of rural populations dependent on groundwater.

25. Submissions and academic research have identified environmental and human rights concerns related to decarbonizing nitrogen fertilizers and using ammonia in alternative fuels. The Special Rapporteur will address those concerns in a forthcoming report on technologies.

C. Plastics

26. Plastics are widely used throughout agrifood value chains: crop and livestock production, fisheries and aquaculture, forestry, food processing and food packaging. Their increasing accumulation in terrestrial and aquatic environments undermines the rights to health and to food and key elements of the right to a healthy environment.

27. Plastics account for increasing greenhouse gas emissions, linked to upstream fossil-fuel extraction and petrochemicals production, and carbon dioxide released from the incineration and recycling of plastic waste. There are additional human rights impacts locally for agricultural workers, waste handlers and rural communities from health and

⁴¹ See <https://www.mdpi.com/2410-3888/10/5/223>.

⁴² Submission by FIAN International.

⁴³ A/HRC/52/40, para. 24.

⁴⁴ A/HRC/55/37, para. 36.

⁴⁵ See <https://openknowledge.fao.org/server/api/core/bitstreams/4f765978-1bf2-4d48-9e5c-418411701293/content>.

⁴⁶ Submission by Centre for International Environmental Law.

⁴⁷ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/fulltext).

environmental risks associated with plastics, including exposure to hazardous additives and poorly managed waste. There are also global and transboundary human rights impacts due to differing socioeconomic implications across regions, with significant disparities in waste management capacity.⁴⁸ The rates of collection of plastic waste are substantially lower in many low-income countries and small island developing States.⁴⁹

28. Plastic products are used in all types of fishing. Furthermore, aquaculture relies on feed manufactured using fossil fuel-based inputs, single-use plastic packaging and waste, which have detrimental impacts on ecosystems.⁵⁰ Agricultural soils are among the main recipients of plastic pollution.⁵¹ The degradation of plastic products can result in persistent microplastics and nanoplastics in soils and water and may enter food chains. There is strong scientific consensus that transboundary exposure to plastic chemicals, plastic accumulation, plastics-associated air pollutants and greenhouse gas emissions is harming human health globally.⁵²

29. Single-use packaging of ultra-processed foods accounts for over a third of global plastics demand. Leveraging their dominant market position, global food and beverage companies, working with fossil fuel companies, rapidly scaled up production, with cheap, lightweight plastics enabling them to aggressively expand into new markets, benefiting from decades of fossil fuel subsidies and shaping consumption habits in ways that become routine and unnoticed. Flexible plastics used for ultra-processed foods are impossible to recycle through conventional mechanical recycling, and contribute to the migration of hazardous chemicals, including endocrine disruptors and per- and polyfluoroalkyl substances (PFAS or “forever chemicals”), owing to the higher fat and acidic content of ultra-processed foods and extended contact between food content and packaging, long shelf lives and distribution in global markets.⁵³ Migration of chemicals from food packaging into food and beverages is considered the largest least controlled source of human exposure to chemicals associated with plastic.⁵⁴

30. Over 16,000 chemicals are used in plastics, of which at least 4,200 are classified as persistent, bioaccumulative, mobile and/or toxic, yet only 6% are subject to global regulation.⁵⁵ Plastic chemicals include known endocrine disruptors, carcinogens and mutagens, which have been identified in human blood, amniotic fluid and urine,⁵⁶ with evidence of detrimental health effects even at very low levels.⁵⁷ Health concerns include reproductive and developmental disorders, including infertility, obesity and non-communicable diseases including diabetes, cardiovascular disease and many cancers.⁵⁸ A majority of these chemicals of concern are petroleum additives or come from fossil-based materials.

31. Furthermore, plastics contain novel entities – human-made chemicals not previously known to the Earth system⁵⁹ that could have large-scale adverse environmental impacts because of widespread distribution through complex global supply chains and accumulation in organisms and the environment globally. Novel entities exceed humankind’s current

⁴⁸ See [A/76/207](#).

⁴⁹ See <https://openknowledge.fao.org/handle/20.500.14283/cb7856en>.

⁵⁰ See <https://www.nature.com/articles/s44183-024-00078-2>.

⁵¹ See <https://openknowledge.fao.org/handle/20.500.14283/cb7856en>.

⁵² See

https://openresearch.surrey.ac.uk/view/pdfCoverPage?instCode=44SUR_INST&filePid=13195171000002346&download=true.

⁵³ See <https://www.nature.com/articles/s43016-026-01341-0>.

⁵⁴ See <https://www.tandfonline.com/doi/abs/10.1080/10408390500295490>.

⁵⁵ See <https://zenodo.org/records/10701706>.

⁵⁶ See <https://annalsofglobalhealth.org/articles/10.5334/aogh.4459>.

⁵⁷ See <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2023.6857>.

⁵⁸ See <https://annalsofglobalhealth.org/articles/10.5334/aogh.4056>.

⁵⁹ See

https://www.researchgate.net/publication/270898819_Planetary_Boundaries_Guiding_Human_Development_on_a_Changing_Planet.

ability to conduct safety assessments and monitoring,⁶⁰ thereby critically undermining the protection of the human rights to health and a healthy environment.

32. The rapid expansion of ultra-processed foods as a globalized commodity relies on cheap, easily exchangeable ingredients resulting in foods that can be sold at a much higher price than their production cost. These foods cause addiction and overeating, posing a great risk of obesity and non-communicable diseases.⁶¹ Ultra-processed foods rely on few crops, the demand for which is a critical driver of biodiversity loss,⁶² which is also a form of harm to the climate system.

33. The sector is experiencing global overcapacity, with more production facilities than actual demand and demand growth failing to keep pace with the rate of new facility construction.⁶³ This has resulted in weak financial performance, profit losses and an increasing reliance on subsidies to sustain the financial stability of companies.⁶⁴ This financial strain provides a strategic entry point for managed decline pathways. On the other hand, allowing for further growth would significantly contribute to lock-in. Due to the complexity of altering chemical processes after construction, production facilities remain largely dependent on fossil fuels for both energy and feedstocks, as their designs are not easily adaptable to alternative sources once built.⁶⁵ More than 1,400 fossil fuel-dependent petrochemical facilities could begin operations before 2027, most of them dedicated to producing primary plastics and their building blocks.⁶⁶ If left unchecked, plastic production will grow from 460 million tons per year in 2019 to approximately 1 billion tons per year by 2050, driving fossil fuel demand.⁶⁷

IV. Power concentration, resource accumulation and exceptionalism

34. Many agrifood sectors are dominated by few companies with vested interests in promoting and perpetuating fossil fuel-dependent and chemical-dependent industrial food systems⁶⁸ through a combination of ownership ties, shared investors and technologically dependent relationships. The majority of large agribusinesses originated from fossil fuel-based conglomerates. Large-scale land acquisition and consolidation within the agribusiness sector also solidifies fossil-based export-oriented production models, thus limiting Governments' policy options for diversified production models, seed sovereignty and low-input production models.⁶⁹

35. The web of economic power of the fossil fuel, plastic and other petrochemical industries further encompasses major food and beverage corporations, State institutions, non-governmental organizations, private finance, State-capital entities and consultancy firms, which legitimize, normalize and expand dependence on fossil fuels while marginalizing or co-opting alternatives. Public and private investments hinge upon sustained demand growth, such as large-scale petrochemical projects for fossil fuel exporters as a diversification strategy against losses through electrification, and continued commitment to significant State subsidies to keep feedstock prices low.⁷⁰

⁶⁰ See <https://www.nature.com/articles/s41586-025-09184-8>.

⁶¹ See <https://www.tandfonline.com/doi/full/10.1080/09692290.2026.2642934#abstract>.

⁶² See [A/80/213](#).

⁶³ See <https://www.icis.com/explore/resources/chemical-market-overcapacity/>.

⁶⁴ See <https://www.ohchr.org/sites/default/files/documents/issues/climatechange/cfis/cfi-fossil-fuel/subm-fossil-fuel-based-cso-ciel.docx>.

⁶⁵ See <https://www.sciencedirect.com/science/article/pii/S2590332222001403>.

⁶⁶ See <https://www.globaldata.com/store/report/petrochemicals-new-build-and-expansion-projects-market-analysis/>.

⁶⁷ See <https://energyanalysis.lbl.gov/publications/climate-impact-primary-plastic>.

⁶⁸ Submission by Global Climate and Health Alliance; and https://futureoffood.org/wp-content/uploads/2023/11/ga_food-energy-nexus_report.pdf.

⁶⁹ Submission by Ekhatior and Lalude.

⁷⁰ See <https://www.tandfonline.com/doi/full/10.1080/09692290.2026.2642934#abstract>.

36. Moreover, the biggest seed companies produce most of the agrochemicals correlated with genetically modified seeds. Those agrochemicals reduce biodiversity, which in turn lowers agricultural resilience, making farms more vulnerable to climate shocks.⁷¹ Genetically modified crops and proprietary seed systems often deepen Indigenous Peoples' and peasants' dependence on fossil fuel-intensive inputs protected by intellectual property and corporate value chains, undermining the right to food, cultural rights and the right to science, and reproducing colonial patterns of control over seeds, land and knowledge.⁷²

37. The exponential growth of supermarkets and fast-food chains often coincides with increased imports and sales of ultra-processed foods, while favouring larger-scale suppliers that can meet the needs and requirements of supermarkets more easily than smaller-scale suppliers.⁷³

38. The entry of "big tech" companies into food systems, as well as in partnerships with agribusiness, increases energy and water needs, fossil fuel dependency and environmental harm in untransparent ways.⁷⁴ It is also expected to deepen existing forms of marginalization. Digital technologies expand corporate actors' reach into opportunities for profit and control over natural resources, while shaping access to goods and services.⁷⁵

39. As underscored by the Special Rapporteur on the right to food, corporate power concentration – the capacity of firms to influence supply and/or demand elements of a market in ways that enable them to control prices and generate profits that exceed normal return on capital – in food systems correlates with the increasing trend of industrialized food production, increasing rates of greenhouse gas emission, biodiversity degradation, pollution and systemic human rights violations and abuses. Globally, food inflation rates are at record highs, which limits people's power to determine how to live with dignity. Corporations also gain control over material conditions such as technology, labour conditions, processing practices and food environments, thereby limiting choices for consumers and workers.⁷⁶

40. Concentrated corporate power in food systems often outcompetes smallholders, undermining local food economies and smaller, informal fresh food markets that sell locally sourced food. This leads to increased poverty, political marginalization and social inequality as smallholders are coerced into wage labour or exit agriculture entirely.⁷⁷ Furthermore, industrial intensification was actually designed to make peasants dependent on expensive inputs provided by agrochemical companies, and market concentration means that a small number of companies will unfairly control the price of inputs, which in turn increases the cost of farming, making it harder for peasants to turn a profit.⁷⁸ These are all forms of harm to Indigenous Peoples' and peasants' human rights to determine their own food systems, participate in the benefits of scientific progress and choose which technologies suit them best.⁷⁹ These dynamics have undermined everyone's human rights to benefit from the best available science, such as Indigenous knowledge and peasants' knowledge, and to be protected from technological innovation that has a negative impact on the most vulnerable. In its advisory opinion on climate change and human rights, the Inter-American Court of Human Rights clarified the centrality of the right to science across State obligations on climate change.

41. Overall, corporate power concentration in food systems affects human rights globally by disrupting local and territorial markets, pushing more people to depend on unstable global markets and complex supply chains of food that is not nutritionally or environmentally

⁷¹ See A/80/213.

⁷² See A/HRC/49/43 and A/HRC/60/33.

⁷³ See A/80/213.

⁷⁴ See A/HRC/59/42 and A/HRC/60/30.

⁷⁵ See A/80/213.

⁷⁶ Ibid.

⁷⁷ See <https://grain.org/en/article/7194-the-cost-of-industrial-meat-displacement-conflict-and-environmental-destruction>; and <https://www.worldanimalprotection.org.in/globalassets/pdfs/reports/english/hidden-health-impacts.pdf>.

⁷⁸ See A/80/213.

⁷⁹ Committee on Economic, Social and Cultural Rights, general comment No. 25 (2020).

adequate. This exacerbates structural inequalities, disproportionately affecting those who already face systemic barriers to food access and the most severe climate change impacts because of intersecting forms of discrimination and marginalization.⁸⁰

42. Corporate power can also explain why food systems are not more central to climate change mitigation efforts. This is explained in academic research as “agricultural exceptionalism” – the tendency to treat agriculture as a sector shielded from the regulatory expectations applied to other emission-producing activities because of concerns over food security, national sovereignty, political sensitivities, trade and the complexity of measuring and mitigating agricultural emissions.⁸¹ Such exceptionalism has been sustained by highly concentrated large-scale food businesses, which have strong lobbying capacity and were granted disproportionate influence over negotiation agendas and technical standards. It was further supported by subsidies, funding and rules that privilege high-output food systems, despite their emissions, energy and resource intensity, and other environmental harm.⁸²

V. Well-established patterns of human rights violations in large-scale food businesses

43. Industrial food production, supported by fossil fuels and petrochemicals, is linked to well-documented and interconnected patterns of human rights violations and abuses.⁸³ It requires large volumes of land, feed, water, labour, energy and capital, and externalizes “environmental and social costs” which directly translate into adverse human rights impacts on workers, rural communities and Indigenous Peoples, as well as low-income and marginalized groups. In addition to localized human rights impacts, there are also broader negative impacts on everyone’s human rights to health, food, water and a healthy environment, including a safe climate, the right to development and the right to self-determination.

44. Nevertheless, fewer than one third of large agribusinesses disclose comprehensive human rights impact assessments or connect climate-related disclosures to human rights impacts. Furthermore, smallholder-inclusive and gender-responsive due diligence approaches are still marginal, and corporate grievance mechanisms often fail to provide effective remedies to affected rights holders, including rural communities and Indigenous Peoples.⁸⁴

45. Across all regions there is a pattern of involuntary resettlement, loss of livelihoods and disputes over resources arising from rapid, large-scale agribusiness expansion without effective environmental and human rights regulation and prior assessments,⁸⁵ meaningful participation and consultations, and protection of labour and territorial rights.⁸⁶ This is combined with exploiting workers, exacerbating inequality, often with disproportionate impacts on women and marginalized communities.⁸⁷ For example, industrial fishing, notably environmentally harmful trawlers, exacerbate the displacement of Indigenous and small-scale fishers and labour exploitation.⁸⁸

46. The impacts on the right to food are well-known: shifts away from subsistence farming towards cash crop cultivation may enhance food availability and income streams in the short term. Nevertheless, they lead to dietary and food culture changes, reordered care work and reduced production of traditional foods over time that undermine long-term

⁸⁰ See [A/80/213](#) and [A/HRC/56/46](#).

⁸¹ See <https://doi.org/10.1017/s2047102522000437>.

⁸² Submission by Williams.

⁸³ See [A/76/237](#).

⁸⁴ Submission by Ekhaton and Lalude.

⁸⁵ See [A/80/187](#).

⁸⁶ See [A/HRC/34/49/Add.1](#) and [A/HRC/51/28/Add.1](#).

⁸⁷ Submission by Stop Financing Factory Farming.

⁸⁸ See [A/HRC/58/59](#); and <https://www.nature.com/articles/s41467-022-28916-2>.

access to sufficient,⁸⁹ nutritious and culturally appropriate food through the sustainable use of natural resources, in rural and urban settings.⁹⁰

47. Furthermore, the current reliance of industrial aquaculture on fishmeal and fish oil from nutritionally valuable fish raises serious human rights concerns in relation to declining access to food.⁹¹ Moreover, industrial agricultural practices are the leading cause of water pollution and the largest threat to the drinking water supply for hundreds of millions of people due to the extensive use of industrial pesticides and fertilizers and to slurry from intensive livestock farming.⁹²

48. Labour rights violations, including those relating to wages, occupational health and safety, unionization and housing conditions for workers, often intersect with broader community impacts in large-scale agribusiness. Industrial meat production is systemically associated with dangerous working conditions,⁹³ extreme temperatures and harmful chemicals.⁹⁴ Violations of the rights to freedom of association and of speech are a particular problem for fishers, who are less unionized than seafarers and farmers. Small-scale fishers are often not recognized as environmental human rights defenders.⁹⁵

49. Some 60% of global child labour is concentrated in the agriculture sector, with the vast majority in small-scale food systems.⁹⁶ It is important to understand how the adverse human rights impacts of industrialized food systems over smallholders, compounded by economic and social inequalities, food and water insecurity and climate change impacts, contribute to families forcing their children into work,⁹⁷ heightening children's exposure to gender-based violence, child marriage and trafficking.⁹⁸

50. Violations of women's rights also occur in this context, as climate change and exploitative food production practices exacerbate gender-based violence, intersecting with economic inequality, unequal access to land and unpaid care work, leaving women with little ability to refuse exploitative conditions.⁹⁹ Furthermore, women's leadership and unpaid labour, which are critical to sustainable agricultural practices and community organization, are often invisible and are undermined by entrenched patriarchal structures in food systems in all regions.¹⁰⁰

51. Lastly, it is necessary to consider the intergenerational and compounding climate and human rights impacts of the global military-industrial complex, which is tightly linked to the fossil fuel-based economy and the production of petrochemicals for explosives employed in chemical warfare. Military activities destroy food systems, rendering soils and ecosystems unusable for decades, and disrupt chemical fertilizer supply chains,¹⁰¹ making food more insecure and expensive. In addition, greenhouse gas emissions from military activities and reconstruction,¹⁰² as well as toxic pollution and biodiversity loss, all go unaccounted.¹⁰³

VI. Disinformation and obstruction

52. Many of the strategies in the fossil fuel companies' "playbook" of disinformation and obstruction are used by businesses across food systems to focus on consumer behaviour

⁸⁹ See [A/HRC/55/43/Add.2](#) and [E/C.12/PRY/CO/3](#).

⁹⁰ Committee on Economic, Social and Cultural Rights, general comment No. 27 (2025).

⁹¹ See <https://changingmarkets.org/campaigns/fishing-the-feed/>.

⁹² See [A/79/190](#).

⁹³ See <https://www.fairir.org/resources/knowledge-hub/working-conditions>.

⁹⁴ See <https://www.somo.nl/the-human-cost-of-the-global-meat-industry/>.

⁹⁵ See [A/HRC/55/49](#) and [A/HRC/58/59](#).

⁹⁶ See <https://openknowledge.fao.org/items/01401b8f-f655-4960-be3c-62f86c7174d0>.

⁹⁷ See [A/76/237](#).

⁹⁸ Committee on the Rights of the Child, general comment No. 26 (2023).

⁹⁹ See https://wangukanjafoundation.org/wp-content/uploads/2025/06/Study-Report-Women-Workers-Experiences-of-SEAH-in-Kenyas-Tea-Industry-FINAL_2025-06-23_01.pdf.

¹⁰⁰ Submissions by Robinson, Antoine and Women Engage for A Common Future.

¹⁰¹ See [A/HRC/52/40](#).

¹⁰² Submission by Women Engage for A Common Future.

¹⁰³ See [A/80/174](#).

change rather than producer responsibility, both in relation to the adverse environmental and human rights impacts of industrialized processes and ultra-processed products, and in energy-agriculture connections.¹⁰⁴

53. Academic research has revealed that the livestock industry in the United States of America has been aware of its contributions to climate change since the 1990s and has been obstructing efforts to shift diets and reduce emissions from animal and land use ever since. Currently, the 22 largest meat and dairy companies across four continents use greenwashing, misleading metrics, political access, advertising and science distortion to downplay the climate impacts of livestock methane emissions with a view to delaying and derailing meaningful climate action.¹⁰⁵ Meanwhile, the control of significant market share in surplus livestock-producing countries leads to significant overproduction of meat and commodity crops.¹⁰⁶

54. The Special Rapporteurs on the right to health and on the right to food have pointed to the advertising and marketing strategies for unhealthy and ultra-processed products of food and beverage companies, which often target lower-income countries and people in vulnerable situations, particularly children, who are at increased risk of developing eating disorders and obesity. Misinformation and pressure from the food and beverage industry have been found to interfere in States' efforts to adopt public health laws, regulations and policies.¹⁰⁷

55. Large-scale food businesses have employed disinformation strategies to spread narratives on:

(a) Food security and employment being dependent on large-scale food production, despite evidence that localized, agroecological food systems are more resilient, sustainable and labour-intensive in terms of meaningful and dignified employment;¹⁰⁸

(b) Narrow decarbonization strategies,¹⁰⁹ which overlook other significant impacts on the climate system and expose small-scale farmers and marginalized groups to new forms of vulnerability and harm;¹¹⁰

(c) The benefits of the use of plastic (e.g., single-use food packaging symbolizing hygiene, freshness and consumer choice), which misrepresent the effectiveness, affordability and adverse human rights impacts of recycling;¹¹¹

(d) Discrediting community-based solutions and agroecology.¹¹²

56. These narratives have been spread through lobbying, notably at the thirtieth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change¹¹³ and at United Nations negotiations on a treaty on plastics.¹¹⁴ Petrochemical companies have also relied on issue-specific, industry-led multi-stakeholder partnerships to contain transformative demands that would challenge overproduction and consumption: with these partnerships, petrochemical companies are framed as indispensable problem-solvers for the energy transition, as opposed to a target of the fossil fuel phaseout.¹¹⁵ The Special Rapporteur on the right to food has underscored that multi-stakeholder coalitions can serve as a vehicle through which an industry bloc exercises undue influence on United Nations

¹⁰⁴ See <https://doi.org/10.1080/09692290.2025.2467394>.

¹⁰⁵ Submission by Phoenix Zones Initiative; <https://link.springer.com/article/10.1007/s10584-021-03047-7>; and <https://iopscience.iop.org/article/10.1088/1748-9326/adb6c0>.

¹⁰⁶ Submissions by Guatemala, Mali, Mexico and Just Food Transition Network.

¹⁰⁷ See [A/78/185](#) and [A/80/213](#).

¹⁰⁸ See <https://www.science.org/doi/10.1126/science.aba7357>; and submission by FIAN International.

¹⁰⁹ See <https://doi.org/10.1016/j.eist.2022.04.005>.

¹¹⁰ See <https://doi.org/10.2139/ssrn.4534120>.

¹¹¹ See <https://www.tandfonline.com/doi/full/10.1080/09692290.2026.2642934#abstract>.

¹¹² Submissions by Instituto Linha D'Água and Comisión de Derechos Humanos de la Ciudad de México.

¹¹³ See <https://www.desmog.com/2025/11/18/more-than-300-lobbyists-for-industrial-agriculture-are-attending-cop30/>.

¹¹⁴ See <https://www.ciel.org/news/fossil-fuel-and-chemical-industry-influence-inc4/>.

¹¹⁵ See <https://doi.org/10.1016/j.erss.2022.102880>; and <https://doi.org/10.1016/j.ecolecon.2024.108261>.

processes.¹¹⁶ Academic research also indicates that such coalitions can help obtain financial capital and assimilate transformative proposals.¹¹⁷

57. Other industry tactics include marketing practices that spread false health and nutrition claims, appealing directly to children,¹¹⁸ and creating a false perception of environmental and social stewardship.¹¹⁹ Academic analysis revealed that producers of per- and polyfluoroalkyl substances (PFAS or “forever chemicals”) knew already in the 1970s that these chemicals were “highly toxic when inhaled and moderately toxic when ingested”.¹²⁰ Instead of disclosing this information, these companies ghostwrote an academic study which has provided inaccurate evidence of safety for 25 years.¹²¹

58. All forms of disinformation undermine the rights to information, science and education, thereby preventing the meaningful exercise of the rights to participate in decision-making and to obtain access to justice and effective remedies.¹²² States must take progressive regulatory measures¹²³ to ensure business accountability, including a ban on fossil fuel advertisement¹²⁴ that should extend to petrochemicals and any agribusinesses that support fossil fuel expansion.

59. Taking into consideration their cumulative impacts over decades, these practices have hindered the protection of the rights to life, personal integrity and health and have undermined democratic processes.¹²⁵ As the Inter-American Court of Human Rights clarified in its advisory opinion on climate change and human rights, national legislation should require public authorities, as well as media outlets and online platforms, to refrain from disseminating disinformation. Given the seriousness of the climate crisis, States should also take all available legal measures to hold businesses accountable for disinformation, while upholding freedom of expression and avoiding censorship.

VII. Reprioritizing climate action

60. Limited progress on food systems under the international climate change regime has implied a de-prioritization of critical aspects of effective climate action. While States’ decisions on terrestrial and marine territories are often seen as a quintessential domestic matter, climate science (including on soils as carbon sinks and on tipping points) and planetary health science clearly show that these decisions have implications for other countries and the climate system as a whole. These interconnections emerge very clearly also in the intergenerational demands of Indigenous Peoples and peasants and those of children. They are very much aligned with the best available science to protect biodiversity, water and soil as part of the climate system,¹²⁶ as confirmed by the International Court of Justice in its advisory opinion on obligations of States in respect of climate change and by Inter-American Court of Human Rights in its advisory opinion on climate change and human rights.

61. The climate impacts of food production arising from soil degradation and deforestation remain neglected in climate policy.¹²⁷ Soil contains about 1.8 times more carbon than the atmosphere and between 2.3 and 3.3 times more than global terrestrial

¹¹⁶ See [A/76/237](#).

¹¹⁷ See <https://www.tandfonline.com/doi/full/10.1080/09692290.2026.2642934#abstract>.

¹¹⁸ See [A/80/213](#).

¹¹⁹ Submissions by Global Climate and Health Alliance, Global Human Rights Centre and Instituto Linha D’Água.

¹²⁰ See <https://doi.org/10.5334/aogh.4013>.

¹²¹ See <https://doi.org/10.1016/j.envsci.2025.104160>; and <https://www.ciel.org/reports/science-denial-toxic-chemical-regulation/>.

¹²² See [A/HRC/59/42](#).

¹²³ Submissions by Brazil, Mali and Mexico.

¹²⁴ See [A/HRC/61/68](#) and

<https://www.ohchr.org/sites/default/files/documents/issues/climatechange/statements/stm-sr-climate-change-fossil-fuel-ad-bans-protect.pdf>.

¹²⁵ See [A/HRC/61/64](#).

¹²⁶ See <https://www.ipbes.net/transformative-change-assessment>.

¹²⁷ See <https://www.unccd.int/resources/global-land-outlook/overview>.

vegetation.¹²⁸ Nevertheless, soil erosion is projected to increase globally as a result of climate change,¹²⁹ which reduces crop yields and the soil's ability to store and cycle carbon, nutrients and water.¹³⁰ Declining soil health is contributing to nutritional loss in food, as well as air pollution, vulnerability to natural disasters and urban heat islands.¹³¹ Approximately 33% of land is classified as degraded.¹³² Soil erosion from industrial agriculture and livestock operations, including overcultivation, overgrazing and forest clearing, is estimated to occur at rates between 10 and 100 times higher than natural soil formation.¹³³ The loss of soil is practically irrecoverable: regenerating 2–3 cm of soil can take up to 1,000 years.¹³⁴

62. Food production is also the leading driver of deforestation, with agricultural expansion accounting for approximately 90% of global forest cover changes between 2000 and 2018.¹³⁵ Deforestation results in the immediate release of carbon stored in vegetation and soils, while simultaneously eliminating future sequestration capacity,¹³⁶ disrupting regional rainfall patterns and affecting long-term food security.¹³⁷ All these impacts undermine the rights to food, water, health and a healthy environment.

63. Furthermore, reducing food waste is ignored in nationally determined contributions.¹³⁸ About 1.3 billion tons of food are wasted each year, which is equivalent to the emissions of the third largest emitting country in the world.¹³⁹ Some 54% of food waste occurs at production, harvest and storage stages in large-scale food production.¹⁴⁰ Food loss post-harvest reduces the income of 470 million smallholder farmers by 15%, particularly in developing countries.¹⁴¹

64. Shifts to healthy, nutritionally adequate and mainly plant-based diets, combined with improvements to agricultural productivity and reductions in food loss and waste,¹⁴² could reduce the greenhouse gas emissions of food systems by 20% by 2050, based on 2020 levels, while improving nutrition outcomes,¹⁴³ reducing land and water use, and decreasing nutrient pollution.¹⁴⁴ In addition, nutrition interventions can build the resilience of the most vulnerable.¹⁴⁵ As food practices are deeply connected to cultural rights,¹⁴⁶ small-scale, free-range and environmentally sustainable animal production should also be supported.¹⁴⁷

65. Furthermore, very little progress has been made in climate policy on aquatic food systems.¹⁴⁸ Overfishing is disrupting the role of marine organisms in the ocean carbon cycle, damaging the carbon-rich seabed, in addition to increasing greenhouse gas emissions through fuel use.¹⁴⁹ Aquaculture emits greenhouse gas emissions due to feed production and

¹²⁸ See https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter06_FINAL.pdf.

¹²⁹ See <https://www.sciencedirect.com/science/article/pii/S0012825222000058>.

¹³⁰ See A/HRC/53/47.

¹³¹ See <https://earth.org/new-report-reveals-crucial-links-between-soil-quality-and-human-health-calls-for-global-action/>; and submission by Global Climate and Health Alliance.

¹³² A/80/213, para. 31.

¹³³ See <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>.

¹³⁴ See A/79/190.

¹³⁵ See <https://www.nature.com/articles/s41598-024-65397-3>; and submissions by Colombia, El Salvador, Guatemala, Mali and Mexico.

¹³⁶ See <https://www.fao.org/statistics/highlights-archive/highlights-detail/forest-emissions-and-removals-global-regional-and-country-trends/en>.

¹³⁷ See https://wwf.panda.org/discover/our_focus/food_practice/sustainable_production/soy/.

¹³⁸ See <https://wedocs.unep.org/items/c16b67ca-df9e-47f1-9d6a-8032db79440c>.

¹³⁹ See <https://www.un.org/en/climatechange/science/climate-issues/food>.

¹⁴⁰ See www.unep.org/resources/report/unep-food-waste-index-report-2021.

¹⁴¹ See A/80/213.

¹⁴² See A/HRC/52/44.

¹⁴³ See https://eatforum.org/wp-content/uploads/2026/03/2025-EATLancet_Summary-for-and-with-Policymakers.pdf; and submissions by Brazil and Geneva Interfaith Forum on Climate Change, Environment and Human Rights.

¹⁴⁴ See <https://www.ipcc.ch/srccl/chapter/chapter-5/>.

¹⁴⁵ Submission by Scaling Up Nutrition.

¹⁴⁶ See <https://academic.oup.com/oocc/article/5/1/kgae024/7942019>.

¹⁴⁷ See https://doi.org/10.1007/978-1-4614-6723-6_3.

¹⁴⁸ See A/78/202.

¹⁴⁹ See <https://www.nature.com/articles/s44183-024-00053-x#ref-CR6>.

transport,¹⁵⁰ energy use on farms,¹⁵¹ and destruction of carbon-sequestering ecosystems such as mangroves.¹⁵² These impacts undermine everyone's right to a healthy environment and Indigenous Peoples', small-scale fishers' and low-income coastal communities' rights to food, work and culture.¹⁵³

66. Adopting instead a food system perspective helps to take into consideration cross-sector dependencies at the level of land-sea interactions in climate action, such as ecosystem connectivity, feed interdependencies, livelihood interactions and climate feedbacks. For instance, terrestrial agriculture provides feed for aquaculture, which in turn could partially release fishing pressure on wild stocks that might otherwise stimulate further agricultural land conversion. Sea-level rise has an impact on agriculture and access to fisheries.¹⁵⁴ Public authorities therefore need to be able to anticipate how cross-sector interactions transmit environmental and socioeconomic change across aquatic and terrestrial ecosystems and food production systems.¹⁵⁵

67. Another area of food systems that is currently underemphasized in climate policy is pastoralism. Many climate assessments rely on life-cycle assessment data primarily derived from industrial livestock systems in Europe and North America, often overlooking important ecological, social and livelihood dimensions of livestock production in rangeland areas where crop cultivation is limited.¹⁵⁶ Pastoralism can contribute to ecosystem management and food security, with minimal to no carbon footprint and no reliance on external feed inputs. Through mobility and flexible herd management, pastoralists are able to respond dynamically to climate variability, reducing pressure on fragile ecosystems and enhancing resilience to shocks, thereby embodying a climate-resilient food system.¹⁵⁷ However, pastoralism is undermined by policy and financial incentives that enforce fixed administrative boundaries for land management, immobile service delivery and documentation requirements that are incompatible with mobile life.¹⁵⁸ Protecting traditional mobility and territorial rights is therefore essential for Indigenous Peoples' and other pastoralists' initiatives for climate mitigation and adaptation,¹⁵⁹ and has benefits for everyone's right to a healthy environment.

68. More broadly, Indigenous science and local knowledge, which are regarded by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services as central to food system transformation, are insufficiently considered in climate policy. Academic assessments of the joint work on agriculture under the United Nations Framework Convention on Climate Change show a tendency to privilege technocratic, productivity-oriented knowledge, reproducing power asymmetries over which forms of knowledge and development models are considered legitimate. This bias undermines the human rights of Indigenous Peoples and peasants, as well as everyone's human right to benefit from science. Perceptions about the validity of diverse knowledge systems influence policies on land and resource ownership, use and management.¹⁶⁰ It also leads to de-prioritization of the protection of land and resource tenure and of action against resource accumulation,¹⁶¹ which are a precondition for ensuring the production and intergenerational

¹⁵⁰ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/fulltext).

¹⁵¹ See <https://www.nature.com/articles/s41598-020-68231-8>.

¹⁵² Submission by Brighter Green.

¹⁵³ Submission by Aquatic Life Institute.

¹⁵⁴ Committee on Economic, Social and Cultural Rights, general comment No. 26 (2022), para. 56.

¹⁵⁵ See [A/HRC/58/59](#) and <https://onlinelibrary.wiley.com/doi/10.1111/gcb.13873>.

¹⁵⁶ See <https://www.fao.org/newsroom/detail/in-a-world-searching-for-solutions-to-the-interconnected-climate-biodiversity--and-land-degradation-crises--rangelands-and-pastoralists-are-part-of-the-answer--fao-animal-production-and-health-expert/en>.

¹⁵⁷ See <https://www.fao.org/newsroom/detail/in-a-world-searching-for-solutions-to-the-interconnected-climate-biodiversity--and-land-degradation-crises--rangelands-and-pastoralists-are-part-of-the-answer--fao-animal-production-and-health-expert/en>.

¹⁵⁸ Submission by International Organization for Nomadic Health.

¹⁵⁹ See [E/C.19/2026/3](#).

¹⁶⁰ See <https://openknowledge.fao.org/server/api/core/bitstreams/b207367a-880e-412a-afdd-955fa943a518/content>.

¹⁶¹ See [A/HRC/60/33](#) and [A/HRC/61/51](#).

transmission of Indigenous science and local knowledge.¹⁶² As the Inter-American Court of Human Rights clarified in its advisory opinion on climate change and human rights, for the purposes of access to information on climate change and human rights, any exploration and exploitation of natural resources in the territories of Indigenous Peoples or tribal communities are matters of “evident public interest”.

69. Yet another aspect of effective climate action that tends to be deprioritized is biodiversity – from genetic to ecosystem and biosphere levels. The greatest vulnerability in food systems is reliance on a narrow, genetically uniform base for major crops, creating a risk of an ecological tipping point. The loss of specific native plant species in converted agricultural landscapes removes the required habitat and food sources for specialized local pollinator species and beneficial soil microbiomes.¹⁶³ Ecosystem degradation directly translates into declining agricultural productivity, increased water scarcity and heightened vulnerability to climate shocks.¹⁶⁴ Biodiversity loss forces farmers into higher reliance on fossil fuel-derived chemical inputs, which in turn accelerate further climate change and biodiversity loss. This results in violations of children’s and future generations’ human rights, as they will inherit an unsafe climate and a food system incapable of self-regeneration.

VIII. Reprioritizing international cooperation

70. Currently, international climate cooperation and finance do not prioritize food systems and, when they do, they focus on large-scale businesses, despite their climate and other harm.¹⁶⁵ As a result, finance is supporting further dependence on fossil fuels, which also makes societies more prone to international price spikes and shortages (of fuel, fertilizers and food) and generally less resilient in the context of climate change and other crises.

71. With regard to subsidies, currently nearly a trillion dollars in subsidies support industrial agriculture annually.¹⁶⁶ Of \$540 billion, 87% is either distorting prices or is harmful for biodiversity, climate and human health. The majority of global agricultural subsidies has been given to commodities such as beef, milk and rice, which are responsible for high greenhouse gas emissions.¹⁶⁷ Similar considerations apply to fisheries subsidies.¹⁶⁸ This constitutes a failure to comply with the human rights obligation of States to ensure the maximum available resources for the protection of human rights, particularly the rights of those who are most vulnerable to climate impacts and bear least responsibility for emissions, including extraterritorially.¹⁶⁹ Fiscal policies, including taxation,¹⁷⁰ on food should eliminate the distortions caused by subsidies and be aligned with the need to decarbonize, defossilize and detoxify food systems and promote healthy and sustainable food through human rights-based transformation.¹⁷¹

72. With regard to international finance, global agrifood systems require at least \$1 trillion annually to transition to a 1.5°C pathway, yet current flows are insufficient.¹⁷² Livestock, fisheries, forestry and crop production received only 4% of total climate-related development finance in 2023. The adaptation finance gap for fisheries and aquaculture for all developing countries is estimated at \$4.8 billion per year, up to 2030.¹⁷³

¹⁶² See <https://openknowledge.fao.org/items/c1fac3bd-7e08-4985-b406-e103087b2bb5>; <https://www.ipcc.ch/srccl/chapter/chapter-5/>; and submission by Mali.

¹⁶³ See <https://www.science.org/doi/10.1126/sciadv.adh0756>; and submissions by El Salvador, Guatemala and Mexico.

¹⁶⁴ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01201-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01201-2/fulltext).

¹⁶⁵ Submission by FIAN Belgium.

¹⁶⁶ See <https://doi.org/10.1787/5KGCH21WKMBX-EN>.

¹⁶⁷ See <https://openknowledge.fao.org/server/api/core/bitstreams/05983446-7ad7-4ea5-9257-fda5e186467f/content>.

¹⁶⁸ See <https://onlinelibrary.wiley.com/doi/epdf/10.1111/reel.12477>.

¹⁶⁹ Submission by FIAN Belgium.

¹⁷⁰ Submission by Mexico.

¹⁷¹ See A/HRC/53/47.

¹⁷² Submission by Saudi Arabia.

¹⁷³ See <https://openknowledge.fao.org/handle/20.500.14283/cd1588en>.

73. Low-income countries received only 5% of agrifood-related climate finance in 2023. Donors often demonstrate limited appetite for funding greenhouse gas emission reduction initiatives in small island developing States in the Pacific region, which is at odds with their ambitions, as stated in their nationally determined contributions, to defossilize supply chains.¹⁷⁴ This constitutes a failure to comply with States' extraterritorial human rights obligations¹⁷⁵ and their international environmental law obligations to provide finance to developing countries, as the International Court of Justice clarified in its advisory opinion on the obligations of States in respect of climate change. Developed countries should ensure sufficient international finance, in the form of debt relief¹⁷⁶ and grants,¹⁷⁷ to the countries that bear least responsibility for climate change and yet are most affected by it, to transform their food systems.

74. Smallholders are generally unable to access climate finance due to overly complex and fragmented financing systems, which are disconnected from their needs.¹⁷⁸ Prioritizing participatory financing models and addressing unequal access to credit and finance for women, Indigenous Peoples and smallholders is essential to shift investment towards agroecological, territorially embedded and socially inclusive food systems.¹⁷⁹

75. Overall, public debt, fiscal regressivity and the lack of direct funding for community organizations limit the capacity to respond effectively to the intertwined causes of climate instability and food insecurity.¹⁸⁰

76. With regard to international financial institutions, multilateral development banks expanded their share of public climate finance for agrifood systems from 28 to 43% between 2014 and 2023, surpassing bilateral donors. Despite the applicability of the Guiding Principles on Business and Human Rights,¹⁸¹ financial institutions frequently rely on corporate assurances or limited environmental and social management plans, rather than requiring comprehensive climate, environmental and human rights due diligence assessments.¹⁸² They also impose conditionalities on public finance, including through economic reforms, to access financing, further affecting the realization of maximum available resources. As a result, agribusiness practices that are incompatible with climate stability and human rights protection continue to be normalized and subsidized.¹⁸³

IX. Reconstructing food systems for a safe climate

77. All the interconnected and intergenerational environmental and human rights harms of large-scale food businesses are a significant source of climate change and are, in turn, exacerbated by worsening climate change. They point to shared root causes of climate change and food insecurity. As a result, large-scale food businesses that are deeply embedded in the fossil fuel-based economy have a negative impact on the human rights to life, bodily integrity, health, food, water, a healthy environment, development and self-determination, locally and globally. This deepens economic inequality, with discriminatory impacts on children, girls and women, front-line and fenceline communities, workers, peasants and Indigenous Peoples.

78. As the International Court of Justice clarified in its advisory opinion, all States have stringent due diligence obligations to prevent significant harm to the environment, including the climate system – either as greenhouse gas emissions or harm to carbon sinks. These obligations are of a customary nature, as well as pursuant to climate, biodiversity, ocean, desertification and human rights treaties, and they are due to the international community as

¹⁷⁴ Submission by Pacific Community.

¹⁷⁵ Submissions by Maldives and FIAN Belgium.

¹⁷⁶ Submissions by Rural Women's Assembly and Dhingra.

¹⁷⁷ See https://futureoffood.org/wp-content/uploads/2025/05/ga_climatefinancereport_2024.pdf.

¹⁷⁸ Submission by Proforest.

¹⁷⁹ See <https://doi.org/10.59117/20.500.11822/42230>.

¹⁸⁰ Submissions by Mali, Mexico and Instituto Linha D'Água.

¹⁸¹ See [A/HRC/53/24/Add.4](#).

¹⁸² [A/80/187](#), annex I.

¹⁸³ Submission by Stop Financing Factory Farming.

a whole (*erga omnes*). They entail, therefore, obligations to prevent, through effective regulation and monitoring, greenhouse gas emissions and other environmental harm of large-scale food businesses because of their reliance on fossil fuel expansion, production, consumption and subsidies.

79. Furthermore, in its advisory opinion on climate change and human rights, the Inter-American Court of Human Rights clarified that States' obligation to prevent irreparable harm to the environment is non-derogable (*jus cogens*), based on the general principle of international law of effectiveness. The same conclusion can be justified on the basis of systemic environmental harm that amounts to violations of the right to self-determination.¹⁸⁴ To prevent irreversible environmental harm, the Inter-American Court stressed States' obligation to develop sustainable development models that respect planetary boundaries, recognize the fundamental role of the long-term integrity and functionality of ecosystems and ensure the availability of crucial resources for present and future generations through coherent and effective legal tools in relation to fossil fuels, agriculture, livestock, deforestation and other land use in greenhouse gas-emitting sectors both within and outside their territory. These sustainable development models should continuously enhance human well-being, protect human rights and the environment, and avoid reliance on unproven technological solutions that are inadequate for ensuring stringent due diligence.

80. The Inter-American Court of Human Rights also recognized that protecting Indigenous science and peasants' knowledge, which is part and parcel of their agroecological food systems, is indispensable for protecting everyone's human rights in the climate crisis. In other words, the effective protection of the human rights of Indigenous Peoples, peasants, pastoralists and small-scale fishers – and respectful engagement with their knowledge systems – are essential to develop sustainable development models at a time when food systems are facing structural instability.

A. Decarbonize, defossilize and detoxify food systems

81. Effective climate action needs to reflect the highest possible ambition of each State to protect the climate system in all its components and pay due regard to long-term implications, including children's and future generations' human rights, as clarified by the International Court of Justice. States should thus require not only the decarbonization, but also the defossilization and detoxification of food systems. They should also prevent the generation of food waste and support healthy and more plant-based diets, as part of climate action and human rights protection.

82. Equally, States should remove all financial, fiscal and legal incentives for climate-harmful food systems and ensure effective remedies for harm already caused. Thus, subsidies and other public and private support to petrochemicals and other fossil fuel-dependent segments of food systems should be considered a form of subsidy for fossil fuels, which, as the International Court of Justice has indicated, could be internationally wrongful and could undermine States' human rights obligations to ensure maximum available resources for the protection of human rights.

83. Historically high-emitting States must take the lead, with the highest possible ambition in domestic and extraterritorial implementation, as well as in ensuring international cooperation that is responsive to the needs of the States and the human rights holders that have been most affected by climate change and least responsible for it.

B. Urgently hold accountable large-scale food businesses, which are supporting and expanding the fossil-fuel based economy

84. States must use all the legal tools available to curtail corporate accumulation of power, finance and natural resources, as well as disinformation and climate obstruction, across food systems, as part of the process of phasing out fossil fuels from the world's economies. This

¹⁸⁴ See [A/HRC/59/42](#).

is based on well-established obligations to protect civil and political, as well as economic, social and cultural rights, and compliance with these obligations has become even more urgent due to the contributions of these businesses to the climate crisis.

85. Academic research and the submissions received as input to the present report have also pointed to ineffective and misleading activities by large-scale food businesses to support climate-smart solutions, circular economy approaches and even agroecological systems,¹⁸⁵ which, however, continue to use fossil-related inputs or otherwise remain dependent on fossil fuels.¹⁸⁶ The Special Rapporteur will, in a forthcoming report, analyse these and other climate-related technologies, considering a wide array of scientific areas and the evidence on disinformation.

86. Ultimately, as indicated in the Guiding Principles on Business and Human Rights, large-scale chemical and food businesses have an international responsibility to respect human rights by undergoing a transformation to source new forms of feedstocks other than fossil fuels and harmful chemicals.¹⁸⁷

C. Prioritize agroecology and ecosystem-based fishing led by Indigenous Peoples, peasants and women as climate action

87. Already in 2011, the Special Rapporteur on the right to food indicated that agroecology outperforms the use of chemical fertilizers in boosting food production where the hungry live, with benefits for the climate and poverty reduction. He called for support for Indigenous Peoples' and peasants' knowledge and experimentation, including by raising their incomes.¹⁸⁸ This priority has now been confirmed by other United Nations human rights experts, the Intergovernmental Panel on Climate Change,¹⁸⁹ the High-level Panel of Experts on Food Security and Nutrition, in the Kunming-Montreal Global Biodiversity Framework,¹⁹⁰ and by the EAT-Lancet Commission both to ensure healthy and secure food systems, and to mitigate and adapt to climate change, to the benefit of all.

88. Governments and international financial institutions should thus prioritize legal and financial support for Indigenous-led, peasant-led and women-led agroecological practices and transitions,¹⁹¹ including through equitable and sustainable agrarian reforms, protection of collective and individual rights and legitimate tenure security.¹⁹² These obligations have already been clarified under international human rights law and should be seen as an integral approach to food systems transformation as climate action, as also reflected in the United Arab Emirates just transition work programme under decision 2/CMA.7 adopted by the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement at its seventh session.

89. States and international financial institutions must support inclusive dialogue to understand how Indigenous Peoples, peasants and rural women can be protected from financial and technological lock-ins from harmful large-scale food businesses, with States ensuring effective remedies for the environmental and human rights harm already suffered by them. Equally, it is essential to understand the causes of human rights violations, particularly those affecting women and children, and effectively prevent them in small-scale food systems.

90. Furthermore, States and international financial institutions should foster dialogue on the connections between the various knowledge systems, broaden understanding of Indigenous science and peasants' food systems and knowledge, and support the

¹⁸⁵ See <https://link.springer.com/article/10.1007/s13593-024-00976-2>.

¹⁸⁶ Submission by Rural Women's Assembly.

¹⁸⁷ See <https://doi.org/10.1080/09692290.2025.2467394>.

¹⁸⁸ See A/HRC/16/49. See also A/76/237.

¹⁸⁹ See

https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_TechnicalSummary.pdf.

¹⁹⁰ Submissions by FIAN Belgium and La Via Campesina.

¹⁹¹ See A/HRC/60/33.

¹⁹² See A/HRC/58/59 and submissions by Brazil and Colombia.

co-production of climate solutions in other food systems by scientists and knowledge custodians, as clarified by the Inter-American Court of Human Rights in its advisory opinion on climate change and human rights. Several good practices have been identified that help shorten supply chains, lower dependence on fossil-fuel intensive transport and industrial inputs, and support ecosystem restoration and human health in rural and urban communities.¹⁹³ Crucially, these approaches also build and strengthen capacities within societies for resilience, self-sufficiency and solidarity, helping respond to the needs of the most vulnerable.

D. International cooperation and common but differentiated responsibilities and respective capabilities

91. Based on the clarifications provided by the International Court of Justice in its advisory opinion on the duty of international cooperation to prevent significant harm to the environment through appropriate, sustained and continuous measures taking account of interdependencies among States, international cooperation should prioritize action taken to avoid reaching tipping points and foreseeable extraterritorial human rights impacts in climate action, including in relation to food systems.¹⁹⁴

92. Irreversible biophysical tipping points that threaten fundamental ecological systems and processes that sustain life¹⁹⁵ help to understand the foreseeability of the major human rights impacts, including extraterritorially, at the nexus of climate, food, water and energy. For instance, the Atlantic Meridional Overturning Circulation collapse is expected to lead to widespread agricultural system collapse in Northern Europe, due to regional cooling. Ice sheet collapse and sea-level rise lead to flooding or saltwater intrusion of low-lying, coastal and river delta agricultural areas, threatening food production globally, with risks to major farming regions such as the Ganges-Brahmaputra Delta, the Mekong Delta, the Po Valley and the Nile Delta. Coral reef collapse would eliminate reef fisheries supporting over 150 million people in the Coral Triangle region alone, with complete loss of primary protein sources for many small island populations. Mountain glacier collapse exacerbates flooding and water security risks in Asia and in Central and South America, in addition to potentially detrimental effects on fishing in North America.¹⁹⁶

93. In terms of common responsibility, therefore, as the International Court of Justice indicated in its advisory opinion, all States should take “all measures at [their] disposal” to fulfil their obligations through proactive conduct that is “reasonably capable” of fulfilling their stringent due diligence in relation to foreseeable risks, including of reaching tipping points.

94. In terms of differentiated responsibility, the International Court of Justice then clarified that historically high-emitting States should take deeper and faster action. Historically high-emitting States have benefited from agricultural production-based accounting under the international climate regime, outsourcing emissions, while maintaining high-impact consumption patterns supported by trade, protection of foreign investment and subsidies. In turn, this has limited policy space for developing countries and reinforced inequity.¹⁹⁷ Responsibility for transforming food systems, including changes in dietary patterns, rests in the first instance with historically high-emitting countries.

95. For currently high-emitting countries, according to the International Court of Justice, there is an obligation to continue to enhance mitigation efforts, while moving over time towards economy-wide emission reductions, according to their evolving capacities and levels of development.

¹⁹³ See additional materials I.

¹⁹⁴ Committee on Economic, Social and Cultural Rights, general comment No. 27 (2025), paras. 2, 17, 60 and 61.

¹⁹⁵ IPBES/11/12/Add.2, p. 5.

¹⁹⁶ See <https://global-tipping-points.org/download/1418/>.

¹⁹⁷ Submission by Williams.

96. High-emitting States should prevent locking other States into fossil fuel dependency, including through debt or technology, which would obstruct their ability to pursue an energy transition. This is particularly the case for States that are highly indebted and less able to adapt and respond to loss and damage, and which would be burdened by costly new investments, much lower than expected revenues and significant liabilities caused by fossil fuels and petrochemicals.¹⁹⁸

X. Recommendations

A. Domestic regulation

97. States should reflect the International Court of Justice advisory opinion in their domestic legal frameworks and, as part of their duty to regulate businesses, including State-owned enterprises:

- (a) Require businesses to decarbonize, defossilize and detoxify food systems and eliminate food waste, with the informed and meaningful participation of workers, unions and representatives of the human rights holders most affected by climate change;
- (b) Require large-scale food businesses to carry out human rights due diligence and prevent foreseeable adverse climate and human rights impacts locally and globally;
- (c) Take all available measures to hold large-scale food businesses accountable for climate and human rights harm, including for climate obstruction and disinformation;
- (d) Use all legal tools available in competition, tax and investment law to curtail the accumulation of market power and natural resources by large-scale food businesses;
- (e) Phase out subsidies to large-scale food businesses.

98. States should prioritize the protection of, and the provision of financial and technical support for, Indigenous Peoples' and peasants' food and knowledge systems, effectively protecting them from:

- (a) Lack of recognition or of effective protection of customary land and marine territories and resource tenure rights, and traditional seeds and breeds;
- (b) Structural barriers to mobility, family unity and intergenerational and transboundary transmission of knowledge;
- (c) Lack of recognition or of effective protection of rural girls' and women's human rights in the context of agroecology, household nutrition, community care, social organization, collective learning and political mobilization across rural and urban contexts;
- (d) Narratives that do not recognize their vital role as stewards of a safe climate and food security;
- (e) Financial and technological lock-ins from large-scale food businesses;
- (f) Lack of effective remedies for the environmental and human rights harm suffered by them from large-scale food businesses;
- (g) Attacks against environmental human rights defenders, in accordance with recent recommendations.¹⁹⁹

¹⁹⁸ See <https://www.ohchr.org/sites/default/files/documents/issues/climatechange/cfis/cfi-fossil-fuel/subm-fossil-fuel-based-cso-ciel.docx>.

¹⁹⁹ See [A/80/114](#), [A/HRC/52/40](#) and [A/HRC/60/35/Add.4](#).

99. States should also rely on public procurement, including universal school meals, to source food from Indigenous Peoples and peasants, and facilitate respectful learning from their food and knowledge systems for co-developing solutions in rural and urban areas.

B. Multilateral action

100. States that participate in the thirty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, international conferences on transitioning away from fossil fuels, revisions of the International Code of Conduct on the Distribution and Use of Pesticides of the Food and Agriculture Organization of the United Nations and meetings of the Committee on World Food Security should, when taking decisions, prioritize the decarbonization, defossilization and detoxification of terrestrial and aquatic food systems.

101. In negotiating a United Nations treaty on plastics, States should:

- (a) Set global reduction targets for plastics production;
- (b) Ban unnecessary plastic products, as a complement to binding production caps;
- (c) Halt the construction of new plastic production facilities;
- (d) Ban harmful chemicals;
- (e) Require full disclosure and effective regulatory oversight of chemicals across the full plastics life cycle;
- (f) Require international grant-based funding and debt relief.

102. In negotiating an international legally binding instrument on business and human rights, States should:

- (a) Require stringent environmental and human rights due diligence, including business responsibility to decarbonize, defossilize and detoxify all economies, including food systems;
- (b) Establish the decarbonization, defossilization and detoxification of all economies as an objective in the protection of international investment;
- (c) Commit to preventing corporations from challenging under international investment law and investor-State dispute settlement the phase-out of fossil fuels and agrochemicals, land reform and redistribution, as well as climate and food sovereignty policies;
- (d) Require international cooperation to ensure corporate legal liability across jurisdictions;
- (e) Ensure that advances in international human rights law and international environmental law are continuously incorporated into business due diligence.

103. States should expand the International Maritime Organization net-zero framework to cut emissions from international shipping by or around 2050, to include industrial fishing vessels and a universal greenhouse gas levy on all life cycle emissions from international shipping.

104. In negotiating a United Nations framework convention on international tax cooperation, States should include a top-up tax surcharging the profits of fossil fuel, petrochemical and other large-scale food businesses that systemically violate human rights and harm the climate system.²⁰⁰

²⁰⁰ See [A/80/213](#) and [A/HRC/58/51](#).

C. Responsibilities of intergovernmental organizations

105. Considering the growing corporate influence over United Nations processes,²⁰¹ the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, the United Nations Environment Programme and the secretariats of the Rio conventions should:

- (a) Ensure meaningful participation by Indigenous Peoples and peasants;
- (b) Address conflicts of interest of large-scale businesses in multi-stakeholder platforms and negotiations;
- (c) Prioritize support for Indigenous-led, peasant-led and women-led agroecology and small-scale food systems as integrated climate mitigation, adaptation and response to loss and damage.

D. Business responsibility

106. Large-scale food businesses should:

- (a) Develop and implement decarbonization, defossilization and detoxification plans for integrated mitigation, adaptation and response to loss and damage across their value chains, with the informed and meaningful participation of workers, unions and the most affected human rights holders;
- (b) Refrain from disinformation and climate obstruction;
- (c) Provide or cooperate in remediation that is commensurate with the nature and extent of their involvement in adverse environmental and human rights impacts.

107. Consultancy firms, mass and social media firms, marketing and advertising firms should refrain from supporting fossil fuel dependency, disinformation and climate obstruction.

108. International financial institutions should:

- (a) Stop financing large-scale food businesses;
- (b) Prioritize Indigenous Peoples' and peasants' agroecological food systems;
- (c) Support co-development of context-specific, locally led research and agroecological transitions in rural and urban contexts.

E. Other recommendations

109. Considering the need for coordinated multilevel action by alliances to activate multiple leverage points for transformative change,²⁰² civil society and academia should:

- (a) Work in solidarity with Indigenous Peoples, peasants and rural women, including small-scale fishers and pastoralists;
- (b) Urgently co-develop and advocate for a shared agenda across climate justice, planetary health, food sovereignty and economic inequality to decarbonize, defossilize and detoxify all economies, across the above-mentioned multilateral negotiations.

²⁰¹ See [A/80/213](#).

²⁰² See <https://doi.org/10.1080/09692290.2025.2467394>.