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

The imperative of defossilizing our economies

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

Summary

The present report clarifies States' international human rights obligations and businesses' responsibilities to phase out fossil fuels and related subsidies within the current decade. The interlinked, intergenerational, severe and widespread human rights impacts of the fossil fuel life cycle, coupled with six decades of climate obstruction, compel urgent defossilization of our whole economies, for a just transition that is effective, human rights-based and transformative in protecting the climate, nature, water and food on which life and health for present and future generations depend.

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I. Introduction

1. Following 10 years of the warmest global average temperatures, 2024 was the warmest year in recorded history. Floods, storms, extreme heat, drought and wildfires kept increasing in frequency and severity across the world, contributing to the highest number of new displacements recorded for the past 16 years, as well as worsening food crises and causing massive economic losses.[1]

2. This reality is extremely worrying, but not surprising, as current collective plans to mitigate climate change fall significantly short of the greenhouse gas emissions reduction needed by 2030 to limit global temperature rise to 1.5°C by the end of the century.[2] Each additional increment of warming increases the severity of compounded harm to human and natural systems.[3] That said, securing a liveable and sustainable future for humanity is still possible, if we focus on the most effective climate action within this decade.[4]

3. There is no scientific doubt that fossil fuels (coal, gas and oil) are the main cause of climate change,[5] and the main driver of other planetary crises – biodiversity loss, toxic pollution, inequalities and mass human rights violations. Several United Nations mechanisms have already identified an international human rights obligation to phase out fossil fuels and related subsidies.[6]

4. Despite these legal clarifications, and the recognition of the need for a fossil fuel phaseout in the international climate change regime and the Pact for the Future,[7] fossil fuel extraction and use are projected to increase.[8] This is despite the significant progress made in decarbonizing the energy sector: in 2023, renewables provided 30 per cent of global electricity supply,[9] and scientific evidence points to the feasibility of a 100 per cent global reliance on renewable energy, including leapfrogging opportunities for developing countries[10] and for workers.[11] Some States have taken fossil fuel phaseout measures (see Additional Materials III),[12] but what is needed is priority, comprehensive and coherent action on the fossil fuel phaseout within this decade, to ensure a liveable future for all.

5. In the present report, the Special Rapporteur clarifies States' international human rights obligations, and businesses' responsibilities, based on the best available science, to phase out fossil fuels and related subsidies within this decade. The overwhelming evidence[13,14] of the interlinked, intergenerational, severe and widespread human rights

[1] World Meteorological Organization (WMO), State of the Global Climate 2024 (Geneva, 2025).
[2] United Nations Framework Convention on Climate Change, 2024 NDC Synthesis Report.
[3] Intergovernmental Panel on Climate Change, Climate Change 2023: Synthesis Report, available at https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf, pp. 69–72.
[4] WMO, *State of the Global Climate 2024*; and Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 96.
[5] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 95.
[6] See HRI/2019/1, para. 12; https://www.ohchr.org/en/press-releases/2023/11/fossils-fuels-heart-planetary-environmental-crisis-un-experts; Committee on the Rights of the Child, general comment No. 26 (2023); and Committee on the Elimination of Discrimination against Women, general recommendation No. 37 (2018).
[7] FCCC/PA/CMA/2021/10/Add.1, see decision 1/CMA.3, para. 36; FCCC/PA/CMA/2022/10/Add.1, see decision 1/CMA.4, para. 28; FCCC/PA/CMA/2023/16/Add.1, see decision 1/CMA.5, para. 28; and Pact for the Future (General Assembly resolution 79/1), para. 28 (c).
[8] United Nations Environment Programme (UNEP), Production Gap Report 2023.
[9] International Energy Agency, World Energy Outlook 2024.
[10] Manish Ram et al., "Global energy transition to 100% renewables by 2050: Not fiction, but much needed impetus for developing economies to leapfrog into a sustainable future", *Energy*, vol. 246 (2022).
[11] Manish Ram et al., "Job creation during a climate compliant global energy transition across the power, heat, transport, and desalination sectors by 2050", *Energy*, vol. 238 (2022).
[12] All four Additional Materials will be made available at https://www.ohchr.org/en/calls-for-input/2025/call-inputs-fossil-fuel-based-economy-and-human-rights.
[13] See the methodology in Additional Materials I and the table of evidence in Additional Materials II.

impacts of the fossil fuel life cycle, coupled with six decades of obstruction against effective climate action, compels urgent defossilization of our whole economies, as part of a just, effective and transformative transition.[15] Defossilization is proposed as an integrated approach to climate action at the nexus with nature, water and food that provides the single most impactful contribution to the protection of human health.[16] Defossilization is necessary to truly open up a just, human rights-based transition to renewable energy, which will be addressed in the Special Rapporteur's next report to the General Assembly.

II. Intergenerational human rights impacts of fossil fuels

6. The following sections illustrate the human rights impacts of the fossil fuel life cycle, connecting evidence on the global climate crisis, toxic pollution and biodiversity loss, global plastic pollution and harmful petrochemical production. The impacts are intersectoral, underscoring the need to address fossil fuels beyond the energy sector,[17] through system-wide transformation.

7. The scale and severity of these human rights impacts are assessed in the light of discriminatory practices in fossil fuel expansion,[18] the industry's decade-long knowledge of foreseeable devastating environmental and health impacts, and its concerted efforts to keep this information hidden from the public, including through capture of public policy spaces and attacks against environmental human rights defenders. All the while, fossil fuel companies have benefited from substantial profits, sizeable subsidies, tax avoidance and undue protection under international investment law,[19] without reducing energy poverty and economic inequalities.

A. The main cause of climate change keeps growing

8. The burning of fossil fuels is the main historical and current driver of greenhouse gas emissions. It has been responsible for 81 to 91 per cent of the total historic anthropogenic carbon dioxide emissions,[20] which currently "are higher than at any time over at least the past two million years".[21] Coal was the source of 41 per cent of these emissions in 2023, oil 32 per cent and gas 23 per cent.[22]

9. Indirect greenhouse gas emissions released during fossil fuel extraction, transport and waste management also contribute to climate change. Fossil fuel production and distribution are the second-largest source (35 per cent) of methane emissions, which are responsible for around 30 per cent of the global temperature rise since the Industrial Revolution.[23] The existing fossil fuel infrastructure is producing, over its lifetime, emissions

[14] The Special Rapporteur is grateful for the more than 110 submissions for the present report, which can be found at https://www.ohchr.org/en/calls-for-input/2025/call-inputs-fossil-fuel-based-economy-and-human-rights.

[15] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 101; and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Transformative Change Assessment* (2024).

[16] Marina Romanello et al., The 2024 report of the *Lancet* Countdown on health and climate change: facing record-breaking threats from delayed action, *The Lancet*, vol. 404, issue 10465, pp. 1847–1896.

[17] Submission by Climate Action Network; Global Climate and Health Alliance, *From Cradle to Grave: The Health Toll of Fossil Fuels* (forthcoming); and concern expressed in the submission by Saudi Arabia.

[18] See A/HRC/41/54 and A/77/229.

[19] See A/78/168.

[20] UNEP, Emissions Gap Report 2024, p. 3.

[21] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 42.

[22] Carbon Majors: 2023 Data Update, available at https://carbonmajors.org/briefing/The-Carbon-Majors-Database-2023-Update-31397.

[23] International Energy Agency, *World Energy Outlook 2024*.

of carbon dioxide that are already projected to exceed the remaining carbon budget for limiting warming to 1.5°C.[24]

10. When fossil fuels fail to burn completely, they emit black carbon (soot), a short-lived climate pollutant, which has negative impacts on Indigenous Peoples in the Arctic[25] and causes significant air pollution in South-East Asia and North and East Africa.[26] Substantial releases of greenhouse gases, including methane and soot, also arise from non-emergency flaring and venting, which occur when operators opt to burn or release in the atmosphere the gas that accompanies oil production, rather than building the equipment to capture it.[27]

11. And yet, fossil fuels still account for 80 per cent of the global primary energy supply,[28] and production is projected to be around 110 per cent higher in 2030 compared to levels that would be consistent with limiting warming to 1.5°C,[29] with industry investment leading to overcapacity.[30]

12. The widespread, increasingly severe and compounded impacts of climate change on all human rights (including the rights to life, self-determination, health, food, water, housing, education and work, and cultural rights), their disproportionate impacts on individuals and groups in vulnerable situations, and their multiplier effect on gender-based violence, human trafficking and slavery, have been extensively documented by international human rights bodies (A/HRC/56/46; and see Additional Materials II). The risks of these impacts becoming catastrophic and irreparable for an increasing portion of humanity, notably the populations of small island developing States, and children everywhere, have already justified an interpretation of the right to a healthy environment as giving rise to an obligation of fossil fuel phaseout, to avoid significant, foreseeable harm to the climate system[31] and to ensure a non-toxic environment,[32] through specific actions concerning land, freshwater and the oceans.[33] In fact, continued oil and gas expansion is increasingly targeting areas of high biodiversity importance, including in the ocean, harming natural processes that sequester carbon dioxide, to the detriment of everyone's right to healthy ecosystems and the diverse benefits that they provide.[34]

13. International human rights law should be further interpreted in the light of the best available science, which indicates that:

- Most of the world's proven fossil fuel reserves must be left unburned:[35] at least 60 per cent of oil and gas reserves and 90 per cent of coal reserves must remain unextracted;[36]
- Fossil fuel supply must decline by 55 per cent by 2035 on 2023 levels;
- Fossil fuel usage must decrease rapidly, with coal usage dropping by up to 100 per cent from 2019 levels by 2050, oil usage dropping by up to 90 per cent and gas usage dropping by up to 85 per cent;

[24] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 58.
[25] See A/78/169.
[26] Clean Air Fund, *Tackling Black Carbon*: How to Unlock Fast Climate and Clean Air Benefits (2025).
[27] See A/77/183.
[28] International Energy Agency, *World Energy Outlook 2024*.
[29] UNEP, Production Gap Report 2023.
[30] International Energy Agency, Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach (2023 update).
[31] See A/74/161 and A/HRC/37/59; and Committee on the Rights of the Child, general comment No. 26 (2023).
[32] See A/HRC/49/53.
[33] See A/HRC/54/32 and A/HRC/58/59.
[34] See A/75/161, A/HRC/34/49 and A/HRC/58/59.
[35] UNEP, *Emissions Gap Report 2024*, pp. xii–xxi.
[36] Dan Welsby et al., "Unextractable fossil fuels in a 1.5 °C world", *Nature*, vol. 597; Kelly Trout et al., "Existing fossil fuel extraction would warm the world beyond 1.5 °C", *Environmental Research Letters*; Dan Tong et al., "Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target", *Nature*, vol. 572.

- No new fossil fuel-burning power plants should be built;
- All non-emergency flaring and venting should be eliminated globally by 2030;
- Fossil fuel infrastructure, and oil and gas fields, should be retired before the end of their technical life.[37]

14. These scientific findings align with Indigenous Peoples' assessments, calling for the banning of all exploration and exploitation of oil, tar sands, oil shale gas, coal and natural gas, including transportation infrastructure development, by 2030.[38]

15. These science-based measures are necessary to prevent further intergenerational human rights harm, as climate actions implemented in this decade will have impacts now and for thousands of years.[39]

B. Beyond "carbon tunnel vision"

16. In addition to climate-related human rights impacts, each stage of the fossil fuel life cycle entails significant and pervasive risks and harm for the rights to life, health and an adequate standard of living and for cultural rights throughout the whole of people's lives and across different generations.[40] Such harm is due to toxic pollution and biodiversity loss, impacting the right to a healthy environment and further exacerbating climate change impacts.[41] Critically, such multifaceted harm from fossil fuels would continue even if all greenhouse gas emissions were captured or offset, as the sources of harm are separate and additional to these emissions.[42]

17. Exploration, site development and exploitation, as well as the construction and operation of pipelines and of processing, storage and waste-disposal sites – also due to hazardous by-products – cause noise, light and toxic pollution (including radioactive pollution[43]), water scarcity and biodiversity loss, as well as damage to tangible and intangible cultural heritage (see Additional Materials II). Fossil fuel activities are often clustered in "sacrifice zones" where communities already in disproportionately vulnerable situations because of poverty, marginalization and racialization are at high risk of chronic respiratory, cardiac and reproductive conditions, and cancers.[44]

18. Indigenous Peoples, people of African descent and peasants have faced evictions and displacement without adequate compensation, violence, and legal intimidation,[45] with access restrictions and environmental degradation of their territories by fossil fuel operations, terminating alternative livelihoods, for instance in adjacent grazing areas.[46]

19. Decommissioning and site reclamation (dismantling and removing fossil-fuel extraction, processing and storage infrastructure) can leave residual pollutants in the soil and water, hindering the restoration of ecosystems, agricultural productivity and water safety for human consumption for generations.[47]

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[37] International Energy Agency, Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach (2023 update), p. 3.

[38] Indigenous Environmental Network, Indigenous Principles of Just Transition.

[39] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*, p. 46.

[40] Global Climate and Health Alliance, *From Cradle to Grave: The Health Toll of Fossil Fuels* (forthcoming); and submission by the Interamerican Association for Environmental Defense.

[41] Submissions by Climate Action Network and the Centre for International Environmental Law.

[42] Ploy Achakulwisut, Patricio Calles Almeida and Elisa Arond, "It's time to move beyond 'carbon tunnel vision'", 28 March 2022.

[43] Justin Nobel, *Petroleum-238* (Karret Press, 2024).

[44] See A/HRC/49/53, A/HRC/41/54 and A/HRC/57/52/Add.2.

[45] Ploy Achakulwisut, Patricio Calles Almeida and Elisa Arond, "It's time to move beyond 'carbon tunnel vision'"; https://ejatlas.org; and the submissions by Jovial Bakulu Ngabo, Fatma Ndiaye, Climate Rights International, YASunidos, Bagaicha Social Centre, MenaFem Movement for Economic Development and Ecological Justice; and the Indonesian Center for Environmental Law.

[46] Submission by Climate Rights International.

[47] Submissions by Oxfam Peru, Censat Agua Viva – Friends of the Earth Colombia, and Ecojustice.

20. Heightened human rights concerns have arisen about:

(a) Offshore operations, harming fisheries and marine biodiversity that store carbon, with negative impacts on the rights to food, health and livelihoods and on cultural rights, because of oil spills, routine discharges and underwater noise;[48]

(b) Unconventional development (oil sands extraction,[49] directional drilling and fracking), with increased risks of respiratory and cardiovascular diseases across age groups, and negative birth outcomes;

(c) Fracking, in particular, which puts water security at risk, and destabilizes deep-rock formations, leading to earthquakes where there was previously no seismic activity.[50] It also leads to increased methane emissions.[51]

21. The human rights impacts of the fossil fuel life cycle do not remain localized:

(a) Fossil fuel burning in power plants, industrial settings and housing is a major contributor to transboundary air pollution, with far-reaching impacts on the rights to life and health, damaging every organ in the body, and worsening pre-existing health conditions, particularly for women and children. It contributes to over 8 million premature deaths annually worldwide, occurring mostly in low- and middle-income countries;[52]

(b) Fossil fuel-related accidents remain "among the most significant and environmentally damaging disasters worldwide": they travel hundreds of kilometres and last for years in the sediment and marine environment;[53]

(c) Emissions from flaring are linked to $7.4 billion of damage to health globally every year;[54]

(d) Fossil fuel burning is a source of inorganic mercury, and nutrients, in the ocean, affecting food webs and the health of populations that consume seafood regularly, including fetal health.[55]

22. These are all sources of harm to the rights to life, health, food and a healthy environment, particularly children's rights to life, survival, development, health and a healthy environment.

23. Furthermore, climate change itself is negatively impacting on fossil fuel infrastructure, increasing the risks of oil spills, shutdowns, chemical leaks and explosions. Approximately 35 per cent of global refining capacity is exposed to annual flood risks and sea-level rise,[56] which are likely to intensify and expose populations to higher health risks – exacerbated by the disruption of healthcare services during extreme weather events, and by property damage, and displacement. The cost of infrastructure repair and environmental remediation further aggravates the burdens on affected communities and taxpayers.[57]

[48] *World Ocean Assessment*, vol. II (United Nations publication, 2021), pp. 15 and 281–293; and submissions by the Interamerican Association for Environmental Defense, and the Anglican Communion, as well as the submission made by EarthJustice in 2024 to the Special Rapporteur on the human right to a clean, healthy and sustainable environment.

[49] Submission by Athabasca Chipewyan First Nation.

[50] Global Climate and Health Alliance, *From Cradle to Grave: The Health Toll of Fossil Fuels*; and submission by the Centre for International Environmental Law.

[51] Submission by the Interamerican Association for Environmental Defense.

[52] Health Effects Institute, *State of Global Air 2024*; and Jos Lelieveld et al., "Air pollution deaths attributable to fossil fuels: observational and modelling study", *BMJ* (2023).

[53] See A/78/169, and the submissions by Oxfam Peru, Geneva Human Rights Platform Alumni, and Censat Agua Viva – Friends of the Earth Colombia.

[54] Huy Tran et al., "Air quality and health impacts of onshore oil and gas flaring and venting activities estimated using refined satellite-based emissions", *GeoHealth*, vol. 8, issue 3 (March 2024).

[55] *World Ocean Assessment*, vol. II, p. 42.

[56] International Cryosphere Climate Initiative, *State of the Cryosphere Report 2024*.

[57] Global Climate and Health Alliance, From Cradle to Grave: The Health Toll of Fossil Fuels.

24. Finally, fossil fuels are a driver of armed conflict. Militarization is part of the fossil fuel-based economy,[58] being responsible for 5.5 per cent of global emissions, major loss of life and biodiversity, toxic pollution, increased dependence on imported food and strained local economies.[59]

C. Locking in fossil fuels through plastics and petrochemicals

25. The increasing production of plastics and petrochemicals is embedding dependence on fossil fuels in our economies within and beyond the energy sector,[60] regardless of continued contributions to climate change and other human rights harm. In addition, plastics and petrochemicals cause their own host of severe human rights impacts, worsening climate change, biodiversity loss and toxic pollution, and thereby compounding negative impacts on the rights to life, health, an adequate standard of living and a healthy environment and on cultural rights.

26. Almost all plastics are made from non-renewable petrochemicals, sourced from oil, gas and coal.[61] Currently, primary plastic production accounts for 12.5 per cent of global oil demand and 8.5 per cent of global gas demand[62] and is projected to account for 50 per cent of global oil demand by 2050.[63] Increased plastics production has shifted towards regions where coal is largely used in energy systems,[64] locking plastics into fossil fuel dependence throughout the value chain and corporate structures.[65] Testimonies indicate that sacrifice zones increasingly cluster not only fossil fuel production but also coal-fired facilities for plastic and e-waste treatment, including to recycle critical minerals.

27. Over the last 70 years, the pervasive use of plastics in agri-food systems and food value chains has caused water and soil pollution and reduced agricultural yields.[66] This multiplies climate change impacts on the right to food.[67] In addition, plastic pollution causes at least $13 billion in environmental damage every year,[68] undermining the capacity of terrestrial and marine environments to regulate the global carbon cycle and exacerbating climate change impacts on Earth systems.[69] Plastic waste trade further contributes to greenhouse gas emissions and air pollution,[70] exacerbating the health impacts of climate change and of the fossil fuel life cycle. Plastic pollution also aggravates the impacts of

[58] Chase LaSpisa, “Dangerous development: the effect of offshore fossil-fuel discovery and production on maritime diplomatic conflict”, *International Interactions*, vol. 51, No. 1 (January 2025), pp. 29–57; and submissions by Appui aux initiatives communautaire de conservation de l’environnement et de développement durable et al. (“joint submission – input 3”) and the Geneva Interfaith Forum on Climate Change, Environment and Human Rights.

[59] Submission by Asia Pacific Forum on Women, Law and Development; and Cara Priestley, “The peacebuilding implications of energy transitions to a carbon-neutral future“ (Geneva, Quaker United Nations Office, 2020).

[60] Fredric Bauer and Germain Fontenit, “Plastic dinosaurs – digging deep into the accelerating carbon lock-in of plastics”, *Energy Policy*, vol. 156 (C).

[61] Ali Chamas et al., “Degradation rates of plastics in the environment“, *ACS Sustainable Chemistry and Engineering*, vol. 8, issue 9 (February 2020).

[62] Nihan Karali et al., “Climate impact of primary plastic production”, *Lawrence Berkeley National Laboratory* (April 2024).

[63] International Energy Agency, Oil 2023: Analysis and Forecast to 2028 (June 2023); and submission by the Centre for International Environmental Law.

[64] Livia Cabernard et al., “Growing environmental footprint of plastics driven by coal combustion”, *Nature Sustainability*.

[65] Fredric Bauer et al., “Plastics and climate change – breaking carbon lock-ins through three mitigation pathways”, *One Earth*, vol. 5, issue 4 (15 April 2022), pp. 361–376; and Joachim Tilsted et al., “Connected we stand: lead firm ownership ties in the global petrochemical industry, *Ecological Economics*, vol. 224 (October 2024).

[66] Food and Agriculture Organization of the United Nations, *Assessment of Agricultural Plastics and Their Sustainability: A Call for Action* (Rome, 2021).

[67] See A/70/287 and A/HRC/55/37.

[68] See A/78/169.

[69] Ibid.

[70] Sedat Gündoğdu, *Plastic Waste Trade*: A New Colonialist Means of Pollution Transfer (2024).

flooding.[71] Plastic accumulation (notably microplastics and nanoplastics, including in the human body, including in the brain and in sperm)[72] and plastics-associated air pollutants compound the health impacts of climate change in terms of malnutrition, increased vector-borne diseases, and mental health conditions.[73]

28. Petrochemicals used in agriculture are projected to account for more than two thirds of global oil demand growth by 2026, and for more than half of all oil usage by 2050.[74] Synthetic nitrogen fertilizers, in particular, are driving fossil fuel expansion.[75] Due to interactions with soil, they release nitrous oxide (N2O), which is nearly 300 times as harmful to the climate as carbon dioxide and accounts for 2.1 per cent of global greenhouse gas emissions – more than commercial aviation.[76] In addition, agrochemicals cause soil acidification, inland and coastal water eutrophication, and impacts on regional air quality,[77] with further loss of nature's capacity to regulate the climate system.

29. The climate- and broader health-related human rights impacts of plastics are also intergenerational, including on children before they are born.[78]

III. To whose economic benefit?

30. Fossil fuel companies are quite diverse: many are State-owned, with upstream petroleum assets worldwide moving from publicly listed to private companies.[79] Out of the 122 of the world's largest fossil fuel producers from 1854 to 2022, more than 70 per cent of global carbon dioxide emissions historically can be attributed to 78 corporate and State producing entities – the "Carbon Majors".[80] Half of global carbon dioxide emissions in 2023 can be attributed to 36 fossil fuel companies.[81]

31. The fossil fuel industry has benefited from extremely large profits, while being heavily subsidized.[82] Following record profits in 2022 due to the global energy crisis,[83] in 2023 oil and gas companies globally earned $2.4 trillion, and coal companies $2.5 trillion.[84] Fossil fuel subsidies for that year were conservatively estimated at $1.4 trillion for Organisation for Economic Co-operation and Development (OECD) members and 48 other countries,[85] encompassing mainly consumer-side subsidies ($1 trillion).[86] There are large variations in approach from one country to another, and international estimates of these subsidies have also varied in approach. While it is difficult to assess who ultimately benefits from these subsidies, they all contribute to limiting investment in alternative energy sources. Removal of fossil fuel subsidies is projected to reduce emissions by up to 10 per cent by 2030.[87]

[71] Submission by Tearfund.
[72] Max Kozlov, "Your brain is full of microplastics: are they harming you?", 11 February 2025.
[73] Submissions by Climate Action Network and the Geneva Interfaith Forum on Climate Change, Environment and Human Rights.
[74] International Energy Agency, Net Zero Emissions by 2050 Scenario; and submission by the Quaker United Nations Office.
[75] Global Climate and Health Alliance, From Cradle to Grave: The Health Toll of Fossil Fuels.
[76] Submission by the Centre for International Environmental Law.
[77] Global Climate and Health Alliance, *From Cradle to Grave: The Health Toll of Fossil Fuels*; and submission by Nexus3 et al. ("joint submission – input 1").
[78] United Nations Children's Fund (UNICEF), *Generation Plastic: Unpacking the Impact of Plastic on Children* (November 2024).
[79] Submission by the Natural Resource Governance Institute.
[80] See A/HRC/57/30 and the submission by Greenpeace International.
[81] Carbon Majors: 2023 Data Update.
[82] See A/HRC/58/51.
[83] Gregor Semieniuk et al., Distributional impacts and share ownership of record oil and gas profits.
[84] International Energy Agency, Coal Mid-Year Update (July 2024).
[85] Organisation for Economic Co-operation and Development (OECD), Inventory of support measures for fossil fuels 2024.
[86] Submission by the Quaker United Nations Office.
[87] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report*.

32. Production-side subsidies are still significant – $400 billion, while climate harm from fossil fuels is estimated at $300 billion, and this is without counting subsidies for plastics production.[88] These subsidies are contrary to States' obligation to devote the maximum available resources to progressively fulfil human rights, and should be redirected to provide climate finance,[89] through transparent and participatory human rights impact assessments. Issues of equity should be carefully investigated:[90] even when targeting low-income households through consumer-side subsidies, the richest 20 per cent of households in many developing countries receive on average more than six times the fossil fuel-related subsidy benefits of the poorest 20 per cent.[91]

33. Tax evasion and financial secrecy further help fossil fuel expansion, taking even more funding away from adaptation and responses to loss and damage.[92] In 2024, at least $100 billion to $240 billion was lost in unpaid tax, equivalent to 4 to 10 per cent of the fossil fuel industry's global revenue.[93] In addition, financial secrecy in "tax havens" enables the entrenching of high-carbon development pathways, allowing fossil fuel company owners to abuse their tax responsibilities, break monopoly laws, avoid international sanctions, launder money or funnel money into political processes.[94] Financial secrecy also makes it difficult to monitor the accuracy of banks' sustainability reporting on divesting from fossil fuels.[95] In 2023, private sector banks provided $696 billion in financing to fossil fuel companies, totalling $6.9 trillion since the adoption of the Paris Agreement.[96] Green-laundering is another concern: fossil fuel companies can obtain favourable lending conditions for renewable energy projects and simultaneously secure funding for fossil fuel activities through general-purpose subsidiaries.[97]

34. Ultimately, the tax burdens of the just transition are placed on low- and middle-income households, while the loss of fiscal revenue and fiscal incentives for the just transition undermines the realization of economic, social and cultural rights, and the right to a healthy environment.[98]

35. What is more, multinational fossil fuel companies benefit from undue protection against climate action under bilateral investment agreements, contracts, and investor-State dispute settlement. They are awarded compensation for climate measures that threaten their expected profits, including in circumstances where damages would not be available under national law, and in amounts that historically have been "roughly equivalent to the gross domestic product of 45 of the world's poorest or smallest countries put together" ($82.8 billion).[99] This means that States and taxpayers are paying fossil fuel companies compensation for trying to take measures to advance the just transition, diverting public funding from investments in renewables, adaptation and workers' social protection.[100] Since 60.4 per cent of potential fossil fuel-related investor-State dispute settlement claims could

[88] Jakob Skovgaard et al., "Finance for fossils – the role of public financing in expanding petrochemicals", *Global Environmental Change*, vol. 80 (May 2023); and submission by the Quaker United Nations Office.
[89] See A/HRC/55/43.
[90] See A/HRC/58/51.
[91] International Monetary Fund (IMF), Fossil Fuel Subsidies Data: 2023 Update.
[92] See A/HRC/58/51.
[93] See https://www.oecd.org/en/topics/policy-issues/base-erosion-and-profit-shifting-beps.html.
[94] Franziska Mager and Alison Schultz, How "greenlaundering" conceals the full scale of fossil fuel financing.
[95] Ibid.
[96] Submission by BankTrack.
[97] Franziska Mager and Alison Schultz, How "greenlaundering" conceals the full scale of fossil fuel financing.
[98] See E/C.12/2025/1.
[99] Lee Di Salvatore et al., "Investor–State dispute settlements: a hidden handbrake on climate action".
[100] Lorenzo Cotula, "International investment law and climate change: reframing the ISDS reform agenda", *Journal of World Investment and Trade*, vol. 24 (2023); and submission by the South Centre.

occur in middle- and low-income countries, the costs of climate action are made higher in the countries that are least responsible for climate change and most affected by it.[101]

36. The availability of recourse to investor-State dispute settlement has a chilling effect on the development of climate law and policy,[102] prevents States from complying with their international environmental obligations and encourages further investments in fossil fuels,[103] prolonging climate change impacts on human rights,[104] while undermining the obligation to devote the maximum available resources to the full realization of economic, social and cultural rights.

IV. The playbook of climate obstruction

37. Extensive research has documented the fossil fuel sector's evolving strategies to keep the public uninformed about the severity of climate change and about the role of fossil fuels in causing it ("the playbook"). This has undermined the protection of all human rights that are negatively impacted by climate change for over six decades.

38. Knowledge of the catastrophic effects of fossil fuel-induced climate change can be traced back to at least the 1960s.[105] Instead of acting on this knowledge to prevent harm, fossil fuel companies have counterfeited climate science, buying credibility for fossil fuel-influenced research through university affiliations, while intimidating independent climate scientists and manufacturing doubts regarding their science.[106] These companies have also been responsible for attacks against environmental human rights defenders,[107] including judicial harassment tactics,[108] to silence, intimidate or punish their critics.[109]

39. More recent research has documented climate obstruction – intentional delaying efforts, including through media ownership and influence, waged against efforts for effective climate action aligned with the current scientific consensus.[110] Fossil fuels companies' lobbyists have increased their influence in public policy spaces, internationally – notably at meetings of the Conference of the Parties to the United Nations Framework Convention on Climate Change,[111] and at the national level, to limit regulations and enforcement.[112] They have instilled doubt about the need to act on, and the viability of, renewables, and have promoted speculative or ineffective solutions[113] that present additional lock-in risks and higher costs.[114]

40. Meanwhile, climate misinformation practices through advertising have become a profit-making activity thanks to a revenue-sharing model with big tech (spreading misinformation on social media platforms by means of advertisements, including

[101] E3G, "Investment treaties are undermining the global energy transition" (July 2024).
[102] Intergovernmental Panel on Climate Change, Climate Change 2022: Mitigation of Climate Change.
[103] Kyla Tienhaara et al., "Investor-State disputes threaten the global green energy transition", *Science* (May 2022).
[104] See A/78/168.
[105] Benjamin Franta (2018), "Early oil industry knowledge of CO_2 and global warming", *Nature Climate Change*.
[106] Naomi Oreskes and Erik Conway, *Merchants of Doubt* (Bloomsbury Press, 2011); Union of Concerned Scientists, The Climate Deception Dossiers (June 2015); and United States of America Senate committees' joint staff report: Denial, disinformation and doublespeak (April 2024).
[107] Submissions by Climate Action Network, GoFor, the Interamerican Association for Environmental Defense, Climate Rights International and Indigenous Environmental Network.
[108] See A/79/362.
[109] See, for example, EarthRights International, "The fossil fuel industry's use of SLAPPS and judicial harassment in the United States", policy brief, September 2022.
[110] Roberts et al. (eds.), *Global Assessment of Climate Obstruction* (forthcoming).
[111] Dharna Noor, "Over 1,700 coal, oil and gas lobbyists granted access to COP29, says report", *The Guardian*, 15 November 2024.
[112] Alexander James and Nathaly Rivera, "Oil, politics, and 'Corrupt Bastards'", *Journal of Environmental Economics and Management*, vol. 111 (January 2022).
[113] W.F. Lamb et al., "Discourses of climate delay", *Global Sustainability* vol. 3 (2020).
[114] Submissions by the Centre for International Environmental Law and Environmental Justice Australia.

advertisements generated by artificial intelligence).[115] In addition, fossil fuels advertisements have for decades shaped public perceptions by downplaying human rights impacts and emphasizing the role of fossil fuel products in economic growth and modern life. Bans on fossil fuel advertising[116] can serve to challenge the taken-for-granted presence of fossil fuel products in our lives, as well as underlying patterns of systemic inequalities, overproduction and overconsumption.[117]

41. Overall, the fossil fuel playbook has negatively impacted the rights to information, education and science,[118] undermining the exercise of civil and political rights and preventing effective human rights protection, for at least six decades.

V. Conclusions

42. Several international human rights law obligations underpin the fossil fuel phaseout. Strict due diligence is required to protect the right to self-determination,[119] which is a peremptory norm of international law, given that:

(a) The survival of States that contributed minimally to climate change is impaired by loss of territory to sea-level rise and/or protracted unsafe climatic conditions;

(b) People are substantially deprived of their means of subsistence because of the severe deterioration of entire ecosystems due to climate change;

(c) The cultural survival of the populations of small island developing States, Indigenous Peoples, people of African descent, peasants and small-scale fishers is impaired by loss of territories, protracted unsafe climatic conditions and/or severe ecosystem degradation.

43. Strict due diligence implies a continuous obligation to prevent significant harm, especially across borders, requiring States to proactively identify and monitor risks, and take all available reasonable measures to prevent foreseeable harm, including by private actors, and to remedy it. Peremptory norms of international law are universally binding, regardless of consent, and allow no derogation.

44. The phaseout obligation should be interpreted also as a specification of States' duty to respect, protect and fulfil the right to life, by taking appropriate measures to address "the general conditions in society that may give rise to direct threats to life or prevent individuals from enjoying their right to life with dignity", which include "degradation of the environment", and to protect against public and private actors that cause climate change.[120] The increasing intensity of climate events exacerbating human physical and mental suffering in circumstances of tremendous environmental hardship can be characterized as inhuman and degrading treatment, due to the compounding violations of the human rights to health, food, water and sanitation, housing and education, and of cultural rights.[121]

45. The phaseout should further be interpreted as a component of States' obligation to prevent discrimination, including by discontinuing patterns of racial discrimination and prioritizing reparations for historical climate harm.[122] The prohibition of racial

[115] InfluenceMap, Climate Change and Digital Advertising (August 2021).
[116] See www.worldwithoutfossilads.org; and statement of 11 April 2025, available at https://www.ohchr.org/sites/default/files/documents/issues/climatechange/activities/stm-sr-climate-change-fossil-fuel-ad-bans-protect.docx.
[117] Thijs Bouman, Jan Willem Bolderdijk and E. Keith Smith, "Local fossil fuel ad ban as a catalyst for global change", *Nature Climate Change*, vol. 15 (March 2025).
[118] See A/79/176.
[119] See A/HRC/10/61.
[120] Human Rights Committee, general comment No. 36 (2018).
[121] See E/C.12/2000/4.
[122] See A/77/549; the submissions by Climate Action Network, the Descendants Project and Natural Justice; and Timothy Donaghy et al., "Fossil fuel racism in the United States: how phasing out coal, oil, and gas can protect communities", *Energy Research and Social Science*, vol. 100 (June 2023).

discrimination is also a peremptory norm of international law. There are clear patterns of discrimination against Indigenous Peoples, peasants and people of African descent in the fossil fuel life cycle, [123] with increased pollution, land grabbing and conflicts, disproportionate attacks against environmental human rights defenders from these groups, and forced displacement. All these matters have profound, pervasive and intergenerational impacts on the rights to a livelihood, food and health, and on cultural rights, notably knowledge production and transmission.[124]

46. The phaseout has already been recognized as part of States' obligation to prevent discrimination against children[125] and against women[126] in the context of climate change. Children's exposure to fossil fuel activities is also associated with leukaemia, respiratory illness, high blood pressure and high rates of prehypertension.[127] Pregnant women and newborns also face increased risks of preterm birth, low birth weight and lifelong health complications from fossil fuel-driven air pollution, toxic exposures and extreme heat.[128] In countries where extreme climate events have already been experienced for at least a decade,[129] the compounded human rights impacts on children – among others – go well beyond the threshold of "significant" harm necessary to trigger extraterritorial obligations, and amount rather to "serious and substantial" harm[130] that further undermines the rights to self-determination and non-discrimination of entire States and cultures.

47. Furthermore, the lack of action, or inadequate action, on phasing out fossil fuel subsidies represents a violation of the obligation under the International Covenant on Economic, Social and Cultural Rights to ensure "maximum available resources", when States:

(a) Provide public finance to fossil fuel industries, thereby diverting the maximum available public finance from combating climate change;

(b) Are not tackling tax evasion and financial secrecy, and are thereby decreasing public budgets for the full realization of the Covenant rights (e.g. health services and education) that are severely impacted by climate change, including in other countries that are suffering the worst climate change impacts; and/or

(c) Provide other support for fossil fuels, thereby undermining the remaining global carbon budget and ecosystem services that are negatively impacted by climate change, which diminishes the maximum available natural resources that are essential for full realization of the Covenant rights.

48. The phaseout should thus be understood as an essential precondition for the right to development, which supports the right to self-determination, intergenerational equity[131] and the right to a healthy environment.[132] The evidence on the economic inequalities associated with the fossil fuel industry due to wealth concentration and market volatility should be fully considered in protecting the right to development, together with the increasing evidence of the global and local socioeconomic impacts of climate change on different economic sectors: declining living standards and higher living costs; economic instability, hindering communities that have become fossil-fuel dependent from diversifying their

[123] Submissions by the Geneva Interfaith Forum on Climate Change, Environment and Human Rights, Oxfam Peru, Geledés et al. ("joint submission – input 2"), Geneva Human Rights Platform Alumni and the International Institute for Sustainable Development.

[124] Global Climate and Health Alliance, From Cradle to Grave: The Health Toll of Fossil Fuels.

[125] Committee on the Rights of the Child, general comment No. 26 (2023).

[126] Committee on the Elimination of Discrimination against Women, general recommendation No. 37 (2018) and general recommendation No. 39 (2022).

[127] Committee on the Rights of the Child, general comment No. 26 (2023).

[128] UNICEF, Key messages from the report: "A Threat to Progress" (July 2024).

[129] See A/HRC/59/42/Add.1.

[130] Ann Skleton, "Child rights jurisprudence without borders: developments in extraterritorial jurisdiction", *De Jure Law Journal* (2023), pp. 606–624.

[131] See A/HRC/54/27.

[132] See A/79/270.

economies; and weakened manufacturing and agricultural sectors.[133] All these negative economic impacts further impair the rights to health and an adequate standard of living, and cultural rights.

49. States, including in the global South, should consider the phaseout as part of an obligation to develop new economic models that provide goods and services that enhance human and planetary well-being, reducing the production of unnecessary and toxic products, and deprioritizing the demands of the richest groups of society who worsen social exclusion and extreme poverty.[134] In other words, the phaseout should be understood as a precondition for the emergence of a healthier economic model at the nexus of biodiversity, water and food,[135] health and climate change,[136] that fully aligns the right to development with all substantive elements of the right to a healthy environment.

50. Such economic models should be centred on intergenerational equity, without shifting the burden of mitigating and remedying climate change to future generations,[137] and be in the best interests of the child in accordance with children's right to development, respecting children's agency not to be bound by choices made by others about their present and future[138] to the severe detriment of their rights.

51. Sustainable economic models must be constructed also on the basis of the insights and lived experiences of fossil fuel-sector workers, taking into account the negative impacts on their rights to work and to enjoy just and favourable work conditions from their experiences of job instability and risky work environments,[139] as well as the impacts on their health due to exposure to harmful chemicals, extreme heat and accidents.[140]

52. Impacts on fossil fuel workers should then be jointly assessed and prevented: a job guarantee scheme should be in place to provide undersupplied services and poverty reduction to workers' communities[141] and support household income, which is a major determinant of health.[142] Place-based efforts are best suited to be co-designed with workers and their communities – including informal workers, as informality has also been affected by climate-induced mobility – to foster diverse livelihoods and effective remedies that support decent jobs, affordable public services and goods, and a healthier environment.[143] Workers' rights to collective bargaining, social dialogue,[144] information,[145] education[146] and social security should be upheld, and should support workers' meaningful participation in decision-making on the phaseout.

[133] Submission by the Centre for International Environmental Law, referring to Simeão Nhabinde and Almas Heshmati, The extractive industry's impact on economic growth in SADC countries (2020); and see Joe Lo, "Fossil fuel nations to see value of their economies shrink under new UN-agreed measure", *Climate Home News*.

[134] See A/HRC/56/61.

[135] See A/HRC/54/32 and A/79/190.

[136] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Thematic assessment report on the interlinkages among biodiversity, water, food and health (nexus assessment) (2024).

[137] Gideon Basson et al., Commentary to the Maastricht Principles on the Human Rights of Future Generations (forthcoming).

[138] Noam Peleg, "Reconceptualising the child's right to development: children and the capability approach", *The International Journal of Children's Rights* (January 2013).

[139] Submission by Ayat-Allah Bouramdane.

[140] Global Climate and Health Alliance, *From Cradle to Grave: The Health Toll of Fossil Fuels*.

[141] See A/HRC/53/33.

[142] Ibid.

[143] See A/75/181/Rev.1.

[144] International Labour Organization (ILO), Guidelines for a just transition towards environmentally sustainable economies and societies for all (2015).

[145] See A/79/176.

[146] Submission by the Quaker United Nations Office.

53. While revenue instability and fiscal deficits are expected to arise from the phaseout[147] for fossil fuel-exporting countries, governments can mitigate these risks through holistic, anticipatory and diversified economic and policy adaptation, [148] long-term investment frameworks in infrastructure, human capital development and social protection,[149] and technological change to restructure entrenched economic systems and political interests that lock in fossil fuels.[150] Crucially, the human rights-based approach supports rooting the phaseout in common but differentiated responsibility, equity and justice,[151] transparency, targeted compensation,[152] and the inclusion both in decision-making and benefit-sharing of actors facing social vulnerabilities.[153] Human rights norms clarify and should guide how States should take such deliberately holistic, inclusive and equitable strategies in the phaseout,[154] as outlined next.

VI. Recommendations to States

54. Priority, comprehensive, coherent action on the fossil fuel phaseout within this decade is necessary to ensure a liveable future for all, as an urgent precondition for a just transition and for effective human rights protection in the context of current planetary crises.

55. While decarbonization continues to be essential, coupled with detoxification of any decarbonization technology, [155] it must be accompanied by the defossilization of our economies with a view to:

(a) Prioritizing the phaseout of fossil fuel production and of the use of fossil fuels, as the main cause of climate change;

(b) Overcoming "carbon tunnel vision", to prevent biodiversity loss and toxic pollution from the fossil fuels life cycle, which cause further human rights harm and worsen climate impacts on those in vulnerable situations;

(c) Preventing fossil fuel lock-in through plastics and petrochemicals production, which would continue to harm the climate system;[156]

(d) Reckoning with the impacts of the "playbook" and the six-decade delay in taking effective climate action, and widespread disinformation;

(e) Transforming economic models in the light of co-benefits for the protection of planetary and human health, which are a precondition for the protection of all human rights;

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147 International Institute for Sustainable Development, *Boom or Bust*: The Fiscal Implications of Fossil Fuel Phaseout in Six Large Emerging Economies (July 2022).

148 IMF, *Key Challenges Faced by Fossil Fuel Exporters During the Energy Transition* (March 2024); and Lars Jensen, "The economic and fiscal transition costs of global climate mitigation in fossil fuel export dependent economies", *Resources Policy*, vol. 96 (September 2024).

149 OECD, The Fiscal Implications of the Low-Carbon Transition (2020).

150 Daron Acemoglu et al., "Transition to clean technology", *Journal of Political Economy*, vol. 124, No. 1 (February 2016); and Benjamin K. Sovacool (2012), "The political economy of energy poverty: a review of key challenges", *Energy for Sustainable Development*, vol. 16, issue 3 (September 2012), pp. 272–282.

151 Stockholm Environment Institute, Realizing a just and equitable transition away from fossil fuels (January 2019).

152 Jun Rentschler and Morgan Bazilian, "Principles for designing effective fossil fuel subsidy reforms", *Fossil Fuel Subsidy Reforms* (London, Routledge, 2018).

153 Xinxin Wang and Kevin Lo, "Just transition: a conceptual review", *Energy Research and Social Science*, vol. 82 (December 2021); and Elisa Morgera, Fair and Equitable Benefit-sharing in International Law (Oxford University Press, May 2024).

154 Submissions by Brazil and the Climate Action Network.

155 See A/HRC/54/25.

156 Joachim Peter Tilsted and Peter Newell, "Synthetic transitions: the political economy of fossil fuel as feedstock", *Review of International Political Economy* (2025); and submission by Harro van Asselt and Nick Scott.

(f) Redressing the multiple inequitable burdens placed on States, communities and individuals that have been disproportionately impacted by climate change, notably those who have faced the worst impacts and have contributed the least to climate change.

A. Defossilize the economy

56. All States should immediately start inclusive processes to co-develop defossilization plans and measures, with the informed and meaningful participation of workers and unions,[157] representatives of human rights holders most affected by climate change,[158] Indigenous Peoples, people of African descent, peasants, women, children and youth[159] and representatives of States that depend on fossil fuel exported by the country concerned.[160]

57. Co-development, which is part of transformative change,[161] is essential to ensure that those who are most affected by climate change are not further undermined by the phaseout, and, rather, contribute to the transformation of economic models.[162]

58. States should adopt and enforce explicit and time-bound legislative measures:

(a) To prohibit new fossil fuel exploration and exploitation, as well as any expansion of fossil fuel infrastructure;

(b) To revoke licences for existing fossil fuel exploration and exploitation,[163] including for captive and on-grid coal plants;[164]

(c) To strictly regulate the import and export of fossil fuels;

(d) To prohibit the abandonment of fossil fuel infrastructure without remediation, requiring financial guarantees to cover costs for the environmental management of facility closure and subsequent phases, including regarding extraterritorial impacts;

(e) To clarify how energy services will be maintained and improved through other sources, prioritizing the energy needs of rights holders in vulnerable situations domestically and abroad.

59. States should immediately prohibit:

(a) Fracking, oil sands and gas flaring;[165]

(b) Offshore exploration and exploitation;[166]

(c) Exploration or exploitation in protected and highly biodiverse areas.

60. Phaseout action should be undertaken immediately at all levels, including supporting bottom-up and subnational initiatives premised on cooperation between producer regions and urban consumer centres,[167] with a view to exploring transformative approaches, reclaiming space for self-determination, and mutual learning across levels and knowledge systems.

61. States should condition public funding and other support for carbon capture and storage/removal development on safeguards against delays in defossilization and against

[157] ILO, Guidelines for a just transition towards environmentally sustainable economies and societies for all.
[158] See A/HRC/56/46.
[159] Submissions by GoFor and the MenEngage Alliance.
[160] Submission by the International Institute for Sustainable Development.
[161] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Transformative Change Assessment* (2024).
[162] See A/HRC/56/46.
[163] Civil Society Equity Review, An Equitable Phase Out of Fossil Fuel Extraction (2023).
[164] Submission by Climate Rights International.
[165] See A/74/161.
[166] See A/HRC/58/59 and A/HRC/55/49.
[167] Fergus Green, "Fossil free zones: a proposal", *Climate Policy*, vol. 22, issue 9-10 (2022).

influence from the fossil fuel industry, and on prior environmental and human rights impact assessments, which take into account the climate-biodiversity-water-food-health nexus.[168]

62. To respect the principle of common but differentiated responsibilities and respective capabilities, developed countries should:

(a) Take immediate defossilization measures;

(b) Prioritize international financial, capacity-building and technological support to other countries to defossilize, in accordance with their maximum available resources;

(c) Avoid any transactional or limited approaches to defossilization in energy transition partnerships with developing countries, instead supporting their self-determination and intergenerational equity.[169]

63. Highest-emitting States, according to their historical responsibility, current contributions and respective capabilities,[170] should:

(a) Complete phasing out fossil fuels by 2030;

(b) Refrain from "fossil fuel dumping", such as using public finance to secure export markets for technologies or processes relying on coal-fired power;

(c) Avoid debt-related or technological forms of fossil fuel lock-in.[171]

B. Reprioritize energy demands

64. To prevent mass human rights violations arising from climate change,[172] it is necessary to tackle historical responsibilities and current injustices, including the extent to which the dependency on fossil fuels has perpetuated energy poverty,[173] with a view to fairly and equitably distributing benefits and burdens of defossilization.[174] Rising energy costs and cost-of-living crises exacerbate the disproportionate climate impacts on communities in marginalized situations, while an equitable transition to a renewables-based economy can mitigate climate change and reduce the financial burden on them.[175] In 2022, 685 million people were without electricity access,[176] curtailing their human rights to life, health, work, education, housing, political participation, information and science, among others, with disproportionate impacts on low-income households, children, youth, persons with disabilities, older persons, LGBTQIA+ persons, ethnic minorities and migrant families.[177]

65. States should conduct comprehensive environmental and human rights-based assessments of their energy needs and energy demand projections, focusing on:

(a) Energy poverty and other inequities in the energy sector that have affected the cost of living and standard of living;[178]

(b) Energy overconsumption by the richest;

[168] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Thematic assessment report on the interlinkages among biodiversity, water, food and health (nexus assessment).
[169] Submission by Egypt.
[170] Ibid.
[171] Tess Woolfenden, "The debt-fossil fuel trap" (July 2023), available at https://debtjustice.org.uk/wp-content/uploads/2023/08/Debt-fossil-fuel-trap-report-2023.pdf.
[172] Moodley et al., Preventing Mass Human Rights Violations in the Context of Climate Change (June 2024), available from https://chrgj.org/the-prevention-project/.
[173] European Committee of Social Rights, *Social Rights and the Cost-of-Living Crisis* (2025); and submission by the Liberal International Climate Justice Committee.
[174] Elisa Morgera, Fair and Equitable Benefit-sharing in International Law.
[175] European Committee of Social Rights, *Social Rights and the Cost-of-Living Crisis*.
[176] International Energy Agency, *The Energy Progress Report 2024*.
[177] European Committee of Social Rights, *Social Rights and the Cost-of-Living Crisis*.
[178] See A/HRC/52/28.

(c) Dependency on exported/imported fossil fuels in developing countries, notably in the least developed countries and small island developing States;[179]

(d) Options for defossilizing different economic sectors and their environmental and health benefits, including for children;

(e) Options for enhanced energy efficiency and reduced energy use;[180]

(f) Options for moving away from economic models premised on overexploitation.[181]

66. Such need assessments should question inequitable, discriminatory and/or neocolonial logic in the energy transition (including the creation or perpetuation of sacrifice zones), and assumptions about large-scale and concentrated models of energy production,[182] considering instead decentralized energy governance models.[183] For instance, the current and projected energy demands for the development and use of artificial intelligence and of data centres should be carefully assessed for their contributions to climate change and in relation to other planetary crises, as well as in relation to their roles in locking in fossil fuels and in climate obstruction.[184]

67. Based on this assessment, States should prioritize:

(a) The energy needs of those in the most vulnerable situations, including those experiencing energy poverty, taking into account the climate-biodiversity-water-food-health nexus;[185]

(b) Activities that defossilize, decarbonize and detoxifying the economy, while preventing and addressing loss and damage, including from a transboundary and intergenerational perspective.

68. For instance, switching fossil fuel-powered cars to electric cars will reduce greenhouse gas emissions and reduce air pollution from fossil fuel combustion, but will not reduce inequities in access to jobs, goods and services, or eliminate pollution from brake and tyre friction, or improve physical or mental health, or fix unsustainable urban planning or transport design.[186]

69. All States then should:

(a) Conduct strategic environmental and human rights assessments of existing and planned energy-dependent policies, programmes and legislation, in order to ascertain to what extent they:

(i) Respond to reprioritized energy needs;

(ii) Prevent fossil fuel lock-in and/or energy overconsumption, domestically or in other countries;

(iii) Support the climate-biodiversity-water-food-health nexus, including from a transboundary and intergenerational perspective;

[179] Submission by the Ministry of Energy and Mines of Guatemala.
[180] International Renewable Energy Agency, *Synergies Between Renewable Energy and Energy Efficiency* (August 2017); and submission by the Anglican Communion.
[181] Submission by the Indigenous Environmental Network.
[182] Submissions by the Global Interfaith Forum on Climate Change, Environment and Human Rights and the Global Initiative for Economic, Social and Cultural Rights.
[183] Submissions by Geledés et al. (“joint submission – input 2”) and the Quaker United Nations Office.
[184] Lynn Kaack et al., “Aligning artificial intelligence with climate change mitigation“, *Nature Climate Change* (June 2022).
[185] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Thematic assessment report on the interlinkages among biodiversity, water, food and health (nexus assessment).
[186] Global Climate and Health Alliance, From Cradle to Grave: The Health Toll of Fossil Fuels.

(b) Conduct environmental and human rights assessments of proposed projects in all sectors to ascertain how they contribute to:

(i) Reducing energy poverty;

(ii) Preventing the creation or further development of sacrifice zones;

(iii) Not delaying defossilization or negatively affecting ecosystems, water, food or health.

C. Carefully phase out fossil fuel subsidies

70. States should:

(a) Conduct independent, participatory and comprehensive assessments of the likely direct and indirect human rights impacts of the subsidies phaseout, with a view to preventing any exacerbation of inequalities;[187]

(b) Require private and publicly owned financial institutions to divest from fossil fuels, and provide instead finance for renewables development, for adaptation and for responses to loss and damage;

(c) Introduce regular, participatory and transparent monitoring, evaluation and learning from subsidy reform.

71. Public authorities at all levels should contribute to the assessment, by considering:

(a) The socioeconomic contexts of communities likely to be affected by subsidy reforms options, including local dependencies on fossil fuels subsidies, and compensation and/or mitigation measures necessary, and also considering additional risks arising from disproportionate climate change impacts;

(b) Impacts on small-scale producers, with a focus on workers losing their means of subsistence, and their re-employment and their access to social security measures, such as an early retirement pension;

(c) The need to eliminate subsidies captured by high-income consumers and producers, and any other public spending and policies that perpetuate unequal wealth accumulation, and/or overproduction and overconsumption;

(d) The need to provide for compensation for fossil fuel-related harm, social protection and climate finance;

(e) The availability and relative cost of alternative goods and services that can provide the same benefits provided by fossil fuels, and their impacts on human rights, from an intergenerational and transboundary perspective, in particular impacts on developing countries most impacted by climate change.[188]

D. Defossilize knowledge

72. In order to support an informed, transparent and participatory process for defossilization, States also need to "defossilize" information systems, to protect human rights in the formation of public opinion and democratic debate from undue commercial influence[189] and from information distortions arising from the operationalization of the fossil fuel sector's playbook over decades, considering fossil fuel companies' historical and current access to influential media and their economic power over influential actors.

[187] See A/HRC/58/51.
[188] Committee on Economic, Social and Cultural Rights, general comment No. 24 (2017).
[189] See A/69/286.

73. States should:

(a) Inform the public about the fossil fuel industry's deliberate contributions to the planetary crises and about their human rights impacts over decades;

(b) Ensure that accurate, science-based information is made available to the public on defossilization plans, including the underlying economic and technological assumptions, fossil fuel subsidies inventories, emissions embedded in fossil fuel exports, and plans for the decommissioning of infrastructure;

(c) Avoid loopholes in responsible decommissioning,[190] and require independent verification of defossilization and decommissioning plans, and of their implementation;

(d) Ban fossil fuel advertisements, promotion and sponsorship, including cross-border advertising;

(e) Ensure access to comprehensive education on the human rights risks of fossil fuels, and on the benefits of fossil fuel-free production, consumption and lifestyles; [191]

(f) Prohibit lobbying by the fossil fuel industry;

(g) Require private financial institutions and universities to disclose publicly, including on social media, funding amounts, durations and any conditions from the fossil fuel industry;

(h) Criminalize misinformation and misrepresentation (greenwashing) by the fossil fuel industry, including failure to disclose corporate lobbying activities or to provide remedies for harm;

(i) Criminalize media and advertising firms for amplifying disinformation and misinformation by fossil fuel companies;

(j) Criminalize attacks against environmental human rights defenders, including from judicial harassment tactics,[192] in addition to enhancing environmental human rights defenders' protection and access to justice and effective remedies.[193]

E. Remediate fossil fuel-related harm to transform the economy

74. Effective remedies can support transformative change by reclaiming spaces for self-determination [194] and restoring human connections with nature, thus facilitating individual and community healing and intergenerational alliances.[195]

75. Any remedy should be co-developed with affected human rights holders, in accordance with their assessments of impacts and their holistic evaluations of loss and damage experienced,[196] taking into account intersectionality and historical and structural discrimination, with guarantees of access to justice and effective remedy.[197] Such processes can also help in the co-development of economic models that can support mitigation, adaptation, and the prevention of, and responses to, loss and damage, while ensuring the maximum available resources to tackle the planetary crises. To that end, all States should prioritize rehabilitation, through sociocultural and ecological restoration at the climate-biodiversity-water-food-health nexus, in self-determined ways that support the

[190] Asociación Interamericana para la Defensa del Ambiente, El Cierre y la Salida Responsable (2024); and Coordinadora Nacional de Derechos Humanos, Peru, Las Sombras de los Hidrocarburos (2024).
[191] Framework Convention on Tobacco Control, art. 12.
[192] See A/79/362.
[193] See A/71/281 and A/HRC/37/59.
[194] Marie Petersmann, "Re-paring ecologies of harm: resisting the material and legal infrastructures in 'Cancer Alley'", London School of Economics Law School, LSE Legal Studies working paper No. 11/2025.
[195] See A/HRC/44/48 and A/HRC/56/46.
[196] See E/C.19/2024/5.
[197] See A/HRC/57/30.

protection and realization of human rights, combined with functional, medical (including mental health[198]), social, legal and vocational services.

76. That said, all human rights remedies are necessary in order to address the human rights impacts of these harms: the previous recommendations on defossilizing economies also serve as guarantees of non-repetition, and the recommendations on defossilizing knowledge serve as a form of satisfaction.

77. Another guarantee of non-repetition is that States should amend investment treaties and contracts to prevent the protection of multinational fossil fuel companies from defossilization measures through investor-State dispute settlement.

78. In terms of compensation, given the widespread, substantial and protracted human rights impacts of fossil fuels, fossil fuel-producing States, according to their historical responsibility, current contributions and respective capabilities, should provide financial compensation for damage caused throughout the fossil fuels life cycle, domestically and extraterritorially, by:

(a) Setting and enforcing strict financial penalties for human rights abuses by fossil fuel companies;

(b) Requiring fossil fuel companies to finance climate adaptation, mitigation and loss and damage, for instance through climate superfunds, ensuring that they are directly accessible by affected communities (see Additional Materials IV);

(c) Preventing tax evasion and avoidance, including by adopting human rights due diligence mechanisms for banks, professional service providers and other financial institutions;[199] and redirecting fiscal revenue towards climate action, including through grant-based climate finance to developing countries;

(d) Introducing wealth taxes and windfall taxes,[200] without undermining the capacity of other countries to raise public revenues;

(e) Ensuring restitution of territories to Indigenous Peoples,[201] people of African descent and peasants in areas previously allocated to fossil fuel operations, as long as the return is desired and is made possible through the dismantling of fossil fuel infrastructure, and ecosystem restoration and full remediation of toxic contamination. Otherwise, compensation should be provided.

VII. Multilateral reforms

79. While it is commendable that sixteen States are supporting the call for a fossil fuel non-proliferation treaty,[202] given the lengthy and uncertain process of treaty negotiations, it is recommended to focus on implementation and monitoring of defossilization under existing international human rights obligations in this decade. This could theoretically be done under the Paris Agreement, subject to significant reform of this multilateral climate process which has been deeply captured by the fossil fuel industry.[203] In the absence of reform to explicitly tackle the playbook, and of the initiation of a process specifically devoted to the phaseout at the thirtieth session of the Conference of the Parties, in 2025,[204] the Special Rapporteur recommends that the Secretary-General of the United Nations convene a process on defossilization with State and non-State actors and diverse

198 Elisa Morgera, “Climate change, mental health and human rights”, policy brief, 16 December 2024.
199 See E/C.12/2025/1.
200 A/HRC/58/51.
201 Indigenous Peoples’ Principles and Protocols for Just Transition (2024).
202 See https://fossilfueltreaty.org.
203 See https://www.clubofrome.org/cop-reform-2024/.
204 Civil society open letter to the President-designate of the thirtieth session of the Conference of the Parties, available at https://350.org/wp-content/uploads/2025/04/FINAL_CSO-Letter-to-COP30-President_EN-2.pdf.

knowledge-holders.[205] Any such process should be intergenerational and built on transformation science[206] and on truth-telling/listening methodologies of transitional justice approaches.[207]

80. Progress should also be achieved in other multilateral negotiations. In the ongoing plastics treaty negotiations, States should agree:

(a) To restrict primary production of plastics and exports of plastic waste;

(b) To develop strict design criteria for plastic products[208] through an international science-based process with specific guarantees against conflicts of interest, to assess context-dependent essentiality, safety and sustainability across the life cycle;

(c) To address false claims about advanced plastics recycling that contribute to lock-in;

(d) To ensure financial compensation for affected communities, plastic industry workers and informal waste workers.

81. In the negotiations of the United Nations framework convention on international tax cooperation, States should agree:

(a) To prevent and combat illicit financial flows, corruption, money-laundering, tax evasion and tax avoidance that benefit fossil fuel companies;

(b) To enhance transparency on fossil fuel financing;

(c) To ensure redistribution of tax revenue towards climate finance and remedies for loss and damage.

82. In the negotiations of the United Nations treaty on business and human rights, States should agree on:

(a) Clarifying explicitly the international responsibility of business to respect the human right to a healthy environment, including in relation to climate change and defossilization;

(b) Protecting national and international climate change, environmental and public health decision-making processes and implementation from the fossil fuel industry's interference.

83. Furthermore, international investment law should be fundamentally redesigned to clarify what investments are needed for the defossilization, what the obstacles to it are, and what policy instruments are the most effective in tackling these obstacles.[209] At a minimum, States should agree on a fossil-fuel carveout in investment agreements,[210] excluding legal protection for investments in fossil fuel sectors, while promoting and facilitating investments into defossilization. A preferable approach, however, would be a more systemic reform of international investment law whereby:

[205] See E/C.19/2024/5.

[206] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Transformative Change Assessment* (2024); and Elisa Morgera, "Co-developing a transformative interpretation of international law on the protection of the marine environment and human rights: a reflection on the experience of the One Ocean Hub", in *The Practice of Interpretation in International Law: Unity, Diversity, and Evolution*, Panos Merkouris, Sotirios-Ioannis Lekkas and Nina Mileva (eds.) (forthcoming).

[207] See A/HRC/57/30; and Sarah Larson et al. (2024), "Truth and reconciliation commissions and health care system responses for Indigenous Peoples: a scoping review", *Health and Human Rights Journal*, vol. 26, No. 1 (June 2024), pp. 57–70.

[208] GRID-Arendal, Climate Impacts of Plastics (2024).

[209] Lorenzo Cotula, "International investment law and climate change: reframing the ISDS reform agenda".

[210] OECD, "Methods to align investment treaty benefits for energy investment with the Paris Agreement and net zero", 26 June 2024.

(a) Defossilization and other effective action against the planetary crises are included among the objectives of agreements;

(b) Provisions on expropriation and on fair and equitable treatment, or full protection and security clauses, are not permitted to be used as grounds to undermine defossilization and other effective action against the planetary crises;

(c) Non-discriminatory measures by States to address the planetary crises should not entail payment of compensation to affected investors.[211]

84. The United Nations system should identify options for a multilateral process to ensure the systematic and coordinated termination of outdated investment treaties and develop a new system of international investment governance that is aimed at supporting effective action against the planetary crises.

VIII. Business responsibilities

85. Fossil fuel companies should:

(a) Urgently develop plans to close down existing operations by 2030, in consultation with the public and their workers, based on participatory assessments of human rights impacts across the value chain;

(b) Pay for independent experts who support consultations and joint assessments with workers and the public on the phaseout;

(c) Pay for the retraining and reskilling of workers through programmes determined by workers themselves;

(d) Cover the full cost of the closure and clean-up of industrial complexes to avoid toxic legacies in terrestrial, freshwater and marine ecosystems,[212] including financial compensation for victims commensurate with the gravity of the human rights abuses, through the effective and meaningful participation of victims in defining remedies based on self-identified needs and priorities, as well as in implementing and monitoring remediation measures;

(e) Abstain from offloading closure liabilities by way of divestment;

(f) Fully disclose profits made and taxes paid across jurisdictions, including by subsidiaries;

(g) Abstain from influencing national and international climate, environmental and human rights policymaking.[213]

86. State-owned enterprises should lead by example,[214] by setting explicit targets for the phaseout, providing immediate remediation for the human rights abuses that they have caused and are causing, and cooperate fully with judicial mechanisms.[215]

87. Advertising and big-tech companies should:

(a) Refuse fossil fuel-related promotion and sponsorships;

(b) Support public awareness about the health and other benefits of fossil fuel-free lifestyles;

[211] United Nations Conference on Trade and Development and International Institute for Environment and Development, International investment agreements and climate action, available from https://www.iied.org/20841x.

[212] See A/HRC/8/59.

[213] See A/77/201.

[214] See https://media.business-humanrights.org/media/documents/Information-Note-Climate-Change-and-UNGPs.pdf.

[215] See A/HRC/32/45.

(c) Disclose publicly any funding from the fossil fuel industry, and the objectives and periods of engagement;

(d) Collaborate with and support independent media that provide accurate climate information.

88. Investors should:

(a) Conduct human rights due diligence focused on defossilization, and mandate investees to do the same and to report back to them annually;

(b) Ensure access to effective remedies for rights holders for potential or actual adverse human rights impacts that result from investment decisions that further delay or obstruct defossilization.[216]

IX. Responsibilities of international organizations

89. International financial institutions and development finance institutions should:

(a) Prioritize funding for defossilization;

(b) Refrain from funding any project that contributes to fossil fuel lock-in.[217]

90. The United Nations Framework Convention on Climate Change secretariat and UNEP should develop transparent and accountable systems against undue influence by fossil fuel corporate lobbying and conflict of interests.

91. The One Health Quadripartite should integrate the recommendations in the present report into its work, in collaboration with the Office of the United Nations High Commissioner for Human Rights.

92. The United Nations Development Programme and the Office of the United Nations High Commissioner for Human Rights should support States in including defossilization actions in developing nationally determined contributions as well as in law-making.

93. The World Trade Organization, the United Nations Conference on Trade and Development and the Office of the United Nations High Commissioner for Human Rights should collaborate to support transparency, peer learning and technical assistance on phasing out fossil fuel subsidies, through an inter-agency peer review mechanism.

[216] See A/HRC/56/55.

[217] See A/HRC/53/24/Add.4.