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Subject: Comments on the implications of plastic pollution for the full enjoyment of human rights

DATE: May 14, 2026

Plastic Pollution Coalition (PPC) appreciates the opportunity to offer our comments to the Human Rights Council Advisory Committee in advance of preparing a study on the implications of plastic pollution for the full enjoyment of human rights.

PPC is a U.S.-based non-profit communications and advocacy organization that collaborates with an expansive global alliance of organizations, businesses, and individuals to create a more just, equitable, regenerative world free of plastic pollution and its toxic impacts. PPC has actively engaged in the development of the Global Plastics Treaty and participated as an observer in Intergovernmental Negotiating Committee sessions.

QUESTIONNAIRE

I. Core questions for all

1. Please explain in what ways plastics affect human rights. What are the human rights impacts that you associate with the different phases of the full life-cycle of plastics (*e.g.,* during extraction of raw materials; during production of primary plastic precursors, design and production of plastic products; during packaging and distribution; during use and maintenance; and during recycling, reuse, recovery or final disposal)? Where possible, please provide concrete data, studies, etc.

Plastic pollution and its toxic effects, across the entire supply chain, undermine fundamental human rights, especially the rights to health,[1] and to a clean, healthy and sustainable environment, as recognized by the Human Rights Council (2021)[2] and the United Nations General Assembly (2022).[3]

Plastic pollutes at every stage of its lifecycle, releasing toxic pollutants into the air, soil, and water, and human rights are violated as a consequence.[4]

- Fossil fuel extraction, petrochemical manufacturing, and plastic production release toxic wastewater, air pollution, and hazardous chemicals like benzene, methane, heavy metals,

[1] Human Rights Watch. (2022, November 23). *Global Plastics Treaty: Opportunity to Protect Rights.* https://www.hrw.org/news/2022/11/23/global-plastics-treaty-opportunity-protect-rights
[2] (A/HRC/RES/48/13)
[3] (A/RES/76/300)
[4] GAIA. (2019). Discarded: Communities on the Frontlines of the Global Plastic Crisis. https://www.no-burn.org/wp-content/uploads/Report-April-22.pdf

and formaldehyde, contaminating ecosystems and communities.

- Transporting fossil fuels, petrochemicals, plastic materials and products often results in the pollution of plastic pellets, powders, and flakes, contaminating waterways, terrestrial ecosystems, and food systems, and thus substantially harm human and environmental health. The transport process can result in catastrophic events like the train derailment of vinyl chloride in East Palestine, Ohio, U.S.[5]
- The use of plastic items exposes humans to shedding microplastics and leached toxic plastic additive chemicals, such as bisphenols, phthalates, and PFAS. Food and beverage packaging poses unique risks as the chemicals and particles can directly contaminate food and drinks for human consumption.
- Most plastic is not "recycled" but ends up being landfilled, incinerated, shipped overseas, and leaked into our environment.[6]

a. Human Right to Health

Plastics are linked to numerous and severe human health problems, including cancer, diabetes, obesity, respiratory issues, asthma, and more.[7] Plastic can persist for hundreds to thousands of years and it does not break down harmlessly; it only breaks up into smaller and smaller pieces of plastic—microplastics and nanoplastics, which contaminate the air, soil, food, and both tap and bottled water—violating the human rights to health, safe drinking water, and adequate food.[8] Plastic particles have been found throughout the human body, including in our bloodstreams,[9] brains,[10] breast milk,[11] feces,[12] hearts,[13] lungs,[14] placentas,[15] tests/semen,[16] and veins.[17] The presence of these particles is linked to inflammation in human cells, degenerative

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[5] Plastic Pollution Coalition. (2023, March 7). *Trains Carrying Toxic Plastics and Chemicals Derail in Ohio and Michigan*. https://www.plasticpollutioncoalition.org/blog/2023/3/7/trains-carrying-toxic-plastics-and-chemicals-derail-in-ohio-and-michigan

[6] Plastic Pollution Coalition. (2024, June 4). Plastic "Recycling" Is a False Solution to Plastic Pollution. https://www.plasticpollutioncoalition.org/blog/2024/6/4/plastic-recycling-is-a-false-solution-to-plastic-pollution

[7] Bienkowski, B. (2019, February 19). *Plastic threatens our health from before production to long after it's thrown away: Report*. https://www.ehn.org/plastic-pollution-and-human-health-2629322391.html

[8] United Nations Human Rights Office of the High Commissioner. (2022, February 22). *UN human rights experts urge treaty to address 'plastic tide*. https://www.ohchr.org/en/press-releases/2022/02/un-human-rights-experts-urge-treaty-address-plastic-tide#:~:text=%22Plastics%20are%20a%20global%20threat,on%20toxics%20and%20human%20rights.

[9] Leslie, H. (2022). Discovery and quantification of plastic particle pollution in human blood. *Environment International.* https://www.sciencedirect.com/science/article/pii/S0160412022001258

[10] The University of Rhode Island. (2023). *The Rhody.* Microplastics infiltrate all systems of body, cause behavioral changes. https://www.uri.edu/news/2023/08/microplastics-infiltrate-all-systems-of-body-cause-behavioral-changes/

[11] Ragusa, A., et al. (2022). Raman microspectroscopy detection and characterization of microplastics in human breastmilk. *Polymers.* https://www.mdpi.com/2073-4360/14/13/2700

[12] Zhang, J., et al. (2021). Occurrence of Polyethylene Terephthalate and Polycarbonate Microplastics in Infant and Adult Feces. *Ecotoxicology and Public Health.* https://pubs.acs.org/doi/abs/10.1021/acs.estlett.1c00559

[13] Yang, Y., et al. (2023). Detection of Various Microplastics in Patients Undergoing Cardiac Surgery. *Ecotoxicology and Public Health.* https://pubs.acs.org/doi/epdf/10.1021/acs.est.2c07179

[14] Jenner, L.C., et al. (2022). Detection of microplastics in human lung tissue using μFTIR spectroscopy. *Science of the Total Environment.* https://www.sciencedirect.com/science/article/pii/S0048969722020009

[15] Ragusa, A., et al. (2020). Plasticenta: First evidence of microplastics in human placenta. *Environment International.* https://pubmed.ncbi.nlm.nih.gov/33395930/

[16] Zhao, Q., Zhu, L., Weng, J., Jin, Z., Cao, Y., Jiang, H., & Zhang, Z. (2023). Detection and characterization of microplastics in the human testis and semen. *Science of The Total Environment*, *877*, 162713. https://doi.org/10.1016/j.scitotenv.2023.162713

[17] Rotchell, J.M., et al. (2023). Detection of microplastics in human saphenous vein tissue using μFTIR: A pilot study. *PLOS ONE.* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0280594

brain disorders like Parkinson's disease,[18] and cardiovascular risks, and death.[19]

Plastic particles can leach any mix of more than 16,000 chemicals into our bodies. Of these, more than 4,200 are classified as "highly hazardous" to human health and the environment.[20] In 2018 alone, health problems linked to plastic chemicals cost the U.S. healthcare system $250 billion. Many of the chemicals are known endocrine disruptors, such as PFAS, interfering with hormone function and contributing to a range of diseases and poor health outcomes.[21]

PFAS, or per- and polyfluoroalkyl substances, are a group of nearly 15,000 manufactured chemicals that are frequently added to plastic products, including clothing, cookware, and furniture, as well as beverage and food packaging (see our submission to the UN Human Rights Office of the High Commissioner).[22] Unfortunately, this useful set of qualities also indicates their danger—PFAS, or "forever chemicals," do not readily degrade, and instead persistently accumulate in the environment and living beings. PFAS have been consistently detected in air, soil, water, and human bodies, demonstrating extensive contamination of the planet and people.[23] The production, use, distribution, and subsequent persistence of PFAS substances infringes on critical human rights, particularly the right to water and sanitation, as recognized by the United Nations General Assembly (2010),[24] and the right to a clean, healthy and sustainable environment, as recognized by the Human Rights Council (2021)[25] and the United Nations General Assembly (2022).[26]

b. Environmental Health

Plastic pollution has been found on the highest mountain peaks[27] and in the deepest parts of the in ocean;[28] Earth's atmosphere and air,[29] in soils,[30] fresh waters including drinking waters,[31]

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[18] Wang, G., et al. (2024). Exposure to Polystyrene Microplastics Promotes the Progression of Cognitive Impairment in Alzheimer's Disease: Association with Induction of Microglial Pyroptosis. *Molecular Neurobiology.* https://pubmed.ncbi.nlm.nih.gov/37670159/

[19] Marfella, R., et al. (2024). Microplastics and Nanoplastics in Atheromas and Cardiovascular Events. *The New England Journal of Medicine.* https://www.nejm.org/doi/full/10.1056/NEJMoa2309822?query=featured_home

[20] PlastChem. (2024). State of the science on plastic chemicals. PlastChem Project. https://plastchem-project.org/

[21] Trasande, L., et al. (2024). Chemicals Used in Plastic Materials: An Estimate of the Attributable Disease Burden and Costs in the United States. *Journal of the Endocrine Society.* https://academic.oup.com/jes/article/8/2/bvad163/7513992?login=false

[22] Plastic Pollution Coalition submission. Call for Input - Forever Chemicals (PFAS) & Human Rights. https://www.ohchr.org/en/calls-for-input/2026/call-input-forever-chemicals-pfas-human-rights January 2026; National Institute of Environmental Health Science. "Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). | December 22, 2025. https://www.niehs.nih.gov/health/topics/agents/pfc
US EPA. "Our current understanding of the human health and environmental risks of PFAS | US EPA," November 5, 2025. https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas.

[23] Per- and Polyfluoroalkyl Substances (PFAS) and Your Health. "Fast Facts: PFAS in the U.S. Population," November 12, 2024. https://www.atsdr.cdc.gov/pfas/data-research/facts-stats/index.html.

[24] (A/RES/64/292)

[25] (A/HRC/RES/48/13)

[26] (A/RES/76/300)

[27] Kannaiyan, N., et al. (2022). Microplastics in the high-altitude Himalayas: Assessment of microplastic contamination in freshwater lake sediments, Northwest Himalaya (India), *Chemosphere*, 290. doi: 10.1016/j.chemosphere.2021.133354

[28] Peng, X., et al. (2018). Microplastics contaminate the deepest part of the world's oceans. *Geochem. Persp. Let., 9, 1-5. doi: 10.7185/geochemlet.1829*

[29] Chen, G., et al. (2020). Mini-review of microplastics in the atmosphere and their risks to humans. *Science of the Total Environment.* doi: 10.1016/j.scitotenv.2019.135504

[30] Sajjad, M., et al. (2022). Microplastics in the soil environment: A critical review. *Environmental Technology and Innovation.* doi: 10.1016/j.eti.2022.102408

[31] Koelmans, A.A., et al. (2019). Microplastics in freshwaters and drinking water: Critical review and assessment of data quality. *Water Res., 155: 410–422. doi: 10.1016/j.watres.2019.02.054*

plants,[32] oceans,[33] animals (including humans),[34] and outer space.[35]

Research shows plastics impact all nine planetary boundaries,[36] and according to UNEP, the plastic supply chain obstructs progress to all 17 Sustainable Development Goals.[37] Human health depends upon a healthy planet. The continued production of plastics and fossil fuels drives environmental injustice, undermines human rights, and exacerbates what the UN has dubbed the triple planetary crisis of climate change, biodiversity loss, and pollution. As the UN warns, "the common thread … that runs through this triple planetary crisis is unsustainable production and consumption."

2. In your case, what are the main challenges slowing the progress in combating plastic pollution? List and describe them briefly.

    - In the U.S., the full lifecycle of plastic is poorly regulated. Political will, heavy fossil fuel and plastic industry lobbying, as well as the current anti-regulatory Administration, make passing effective national laws challenging.
    - False solutions are promoted by the producers of plastic products and lobbied heavily to decisionmakers, stalling progress. For example, "advanced recycling" or "chemical recycling"—technologies that turn discarded plastic into low-grade fossil fuels and petrochemicals by subjecting it to high heat, microwave radiation, pressure, and/or chemicals—cause serious harm to people and the environment.[38] These hazardous processes emit high quantities of greenhouse gases and pollute the air, soil, and water with toxic chemicals and waste, overwhelmingly within low-income, rural, and People of Color communities.
    - While robust science reveals the health risks linked with microplastics and plastic additive chemicals, plastic producers market doubt of the validity or severity of the crisis, and the current Administration is pursuing more research over taking regulatory action.[39]
    - There is not yet an agreed upon UN Global Plastics Treaty to set binding standards to hold countries accountable for plastic pollution, including even potential non-parties like the U.S., that could still be impacted by this framework; for example, by barring the export of plastic pollution overseas.

3. What measures (legislative, administrative, institutional, or other), if any, exist to address plastics and plastic pollution? Have human rights implications been taken into account in their adoption and implementation? Are there good practices or lessons learned in regulating plastics and plastic pollution that include a human rights-based approach?

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[32] Oliveri Conti, G., et al. (2020). Micro- and nano-plastics in edible fruit and vegetables. The first diet risks assessment for the general population. *Environmental Research*, 187. doi: 10.1016/j.envres.2020.109677
[33] Eriksen, M., et al. (2023). A growing plastic smog, now estimated to be over 170 trillion plastic particles afloat in the world's oceans—Urgent solutions required. *PLOS ONE. doi: 10.1371/journal.pone.0281596*
[34] Prata, J.C., and Dias-Pereira, P. (2023). Microplastics in Terrestrial Domestic Animals and Human Health: Implications for Food Security and Food Safety and Their Role as Sentinels. *Animals*, 13; 4. doi: 10.3390/ani13040661
[35] Napper, I.E., et al. (2023). Protect Earth's orbit: Avoid high seas mistakes. *Science, 379; 6636, 990-991. doi: 10.1126/science.adg8989*
[36] Villarrubia-Gómez, P., Carney Almroth, B., Eriksen, M., Ryberg, M., & Cornell, S. E. (2024). Plastics pollution exacerbates the impacts of all planetary boundaries. One Earth. https://doi.org/10.1016/j.oneear.2024.10.017
[37] UNEP. (2021). *Neglected: Environmental Justice Impacts of Marine Litter and Plastic Pollution*. https://wedocs.unep.org/bitstream/handle/20.500.11822/35417/EJIPP.pdf
[38] Plastic Pollution Coalition. (2026, May 1). Three Federal Bills Are Greenwashing Plastic "Recycling" as a Solution. https://www.plasticpollutioncoalition.org/blog/2026/5/1/three-federal-bills-are-greenwashing-plastic-recycling-as-a-solution.
[39] Plastic Pollution Coalition. (2026, April 2). New U.S. Government Plan for Microplastics Falls Short of Protecting Human Health. https://www.plasticpollutioncoalition.org/blog/2026/4/2/new-u-s-government-plan-for-microplastics-falls-short-of-protecting-human-health

In the U.S., the Microbead-Free Waters Act of 2015[40] prohibits the manufacturing and distribution of rinse-off cosmetics containing plastic microbeads, aiming to reduce plastic pollution in waterways. Other landmark environmental legislation like the Clean Air Act,[41] Clean Water Act,[42] and Toxic Substances Control Act[43] regulate plastic pollution indirectly through water, air, chemicals, or environmental health authorities.

Under the President Biden Administration, the National Strategy to Prevent Plastic Pollution[44] released by the Environmental Protection Agency in 2024, placed particular emphasis on environmental justice concerns, though it did not explicitly mention human rights.

The Global Plastic Law database,[45] managed by Plastic Pollution Coalition with international data partners Break Free From Plastic Europe, Environmental Law Alliance Worldwide, and Surfrider Foundation U.S., tracks passed plastic legislation at the local, county, state/provincial, national, and international level. The database elevates policy solutions from around the world and can be used to find effective legislative approaches and international law trends.

Additional global examples of effective measures to address plastic pollution include, the European Union Single Use Plastic Directive, Senegal's Law No. 2020-04 Relating to the Prevention and Reduction of the Environmental Impact of Plastic Products, and Rwanda's Law No. 17/2019 Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Plastic Carry Bags and Single-Use Plastic Items.[46]

4. What gaps or challenges in existing national, regional and international policies and legal frameworks have you observed? What recommendations do you have in order to address the gaps? Please, list them according to priority.

A. The development of a legally binding Global Plastics Treaty represents a critical framework in international law, in which world leaders must ensure human rights are explicitly recognized and that a just transition from fossil fuel-based plastics to plastic-free, nontoxic alternatives is achieved. Without critical interventions plastic production is projected to triple by 2050, quadrupling its associated greenhouse gas emissions.[47] The Global Plastics Treaty must include explicit obligations to protect human rights to information, to health, and a clean, healthy, and sustainable environment.[48]
B. The U.S. needs the passage and meaningful implementation of existing and novel federal legislation that can harmonize and build on state and local efforts to reduce plastic production, set a moratorium on new plastic production facilities and "chemical recycling" technology facilities, invest in and build out reuse and refill infrastructure, end plastic and fossil fuel subsidies, protect communities from the harms of industrial facilities and processes, and eliminate human exposure to toxic chemicals and microplastics and their associated health risks.

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[40] 21 USC 331(ddd).
[41] 42 U.S.C. § 7401 et seq.
[42] 33 U.S.C. § 1251 et seq.
[43] 15 U.S.C. § 2601 et seq.
[44] U.S. Environmental Protection Agency, National Strategy to Prevent Plastic Pollution: Part Three of a Series on Building a Circular Economy for All (2024). https://www.epa.gov/system/files/documents/2024-11/final_national_strategy_to_prevent_plastic_pollution.pdf
[45] https://www.globalplasticlaws.org
[46] https://www.globalplasticlaws.org/notable-legislation
[47] Kibria, Md. G., Masuk, N. I., Safayet, R., Nguyen, H. Q., & Mourshed, M. (2023). Plastic Waste: Challenges and Opportunities to Mitigate Pollution and Effective Management. *International Journal of Environmental Research*, *17*(1), 20. https://doi.org/10.1007/s41742-023-00507-z
[48] United Nations Human Rights Office of the High Commissioner. (2024, November 21). *Plastic pollution a global threat to human rights, say UN experts*. https://www.ohchr.org/en/press-releases/2024/11/plastic-pollution-global-threat-human-rights-say-un-experts

C. Regionally in the U.S., vulnerable communities need to be protected and compensated from the disproportionate health harms experienced by those living near industrial plastic facilities and processes, particularly those that have been repeatedly targeted for petrochemical expansion like 'Cancer Alley' in Southern Louisiana—where residents have raised cancer risks and other health problems far above the national average.[49]

5. What are the particular impacts of plastics and plastic pollution on human rights of individuals, groups and peoples in vulnerable situations (*e.g.,* marginalized communities, workers at heightened risk of occupational exposure, in particular waste pickers/reclaimers, peasants, people living in poverty, low-income households, children, youth, women, persons with disabilities, people of African descent, older persons, Indigenous Peoples, coastal communities), and how should these be mitigated, remediated and prevented?

Plastic poisons people, and it harms some people more than others. Low-income, rural, Black, Indigenous, frontline, fenceline, and People of Color communities bear the brunt of toxic exposures throughout the plastic supply chain. The industrial processes of the plastic lifecycle are unjustly concentrated in these overburdened communities.[50] This pattern is not regionally isolated; it is a global public health crisis, disproportionately impacting "impoverished, marginalized, racialized, and Indigenous communities in both low- and high-income countries."[51] These same communities are already underserved and exposed to myriad forms of environmental injustice based on class, geographic, and racial discrimination.[52]

PPC stands in solidarity with communities that exist on the frontlines of plastic pollution, and several of our staff who have lived on the frontlines and have experienced these harms firsthand. The consequences of these injustices are severe: increased exposure to environmental pollutants, reduced life span, heightened risk of physical and mental health problems, and an overall diminished quality of life.

In the U.S., 79% of plastic incinerators are located within communities facing class, geographic, and/or race based environmental risks. Such severe targeted public health crises has been recognized on a global level as a violation of human rights and failure of governments to

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[49] The New School, & The Tishman Environment and Design Center. (2019). *U.S. Municipal Solid Waste Incinerators: An Industry in Decline*. https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf; Gottlieb M. S., Shear C. L., Seale D. B. (1982). Lung cancer mortality and residential proximity to industry. Environ.
Health Perspect. 45, 157–164. doi: 10.1289/ehp.8245157; Karasik, R., Lauer, N. E., Baker, A.-E., Lisi, N. E., Somarelli, J. A., Eward, W. C., Fürst, K., & Dunphy-Daly, M. M.
(2023). Inequitable distribution of plastic benefits and burdens on economies and public health. Frontiers in Marine Science,
9, 1017247. https://doi.org/10.3389/fmars.2022.1017247

[50] Larson, H. & Sierra Club. (2021, November). *The Deep Injustice of Plastic Pollution*. https://www.sierraclub.org/articles/2021/11/deep-injustice-plastic-pollution; Environmental Protection Agency. (2024). *Facts and Figures about Materials, Waste and Recycling,*. https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling; CIEL. (2017). *Fueling Plastics: Fossils, Plastics, & Petrochemical Feedstocks*. https://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Fossils-Plastics-Petrochemical-Feedstocks.pdf; UNEP. (2021). *Neglected: Environmental Justice Impacts of Marine Litter and Plastic Pollution*. https://wedocs.unep.org/bitstream/handle/20.500.11822/35417/EJIPP.pdf

[51] Dauvergne, P. (2023). The necessity of justice for a fair, legitimate, and effective treaty on plastic pollution. Marine Policy, 155, 105785. https://doi.org/10.1016/j.marpol.2023.105785

[52] United Nations Environment Programme. (2021). Neglected: Environmental Justice Impacts of Marine Litter and Plastic Pollution. Nairobi. https://www.unep.org/resources/report/neglected-environmental-justice-impacts-marine-litter-and-plastic-pollution

prioritize protection of its most vulnerable communities.[53]

Certain populations face even greater health risks from plastic exposure, including children, babies, the unborn, pregnant people, and people who menstruate. These groups are more vulnerable to plastic's toxic impacts, with long-term health consequences such as asthma, childhood cancers, early puberty, fertility issues, and increased rates of miscarriage and preterm birth.[54]

In the context of the UN Plastics Treaty, a human rights-based approach has gained widespread support from states, stakeholders, scholars, and rights holders.[55] To be effective, negotiators must "promote justice-oriented, rights-based rules at all levels and scales of governance, avoiding policies, market mechanisms, and incentives that deepen environmental injustice, racism, or human rights abuses."[56] Ensuring robust human rights protections within the treaty requires legally binding control measures to cut plastic production, the rapid phase out of the most harmful plastics and chemical additives, the mitigation of corporate influence, among other critical measures.[57] Ending waste colonialism and embedding environmental justice principles to guide the treaty's implementation, such as common but differentiated responsibilities, Indigenous Knowledge, and just transition, will protect the rights of communities that are most vulnerable to and least responsible for the plastic pollution crisis.[58] Such principles will align with other international frameworks including the UN Framework Convention on Climate Change.[59]

6. To what extent does the expansion of fossil fuel extraction and petrochemical production contribute to plastic pollution? How do subsidies, tax incentives, or public financing for fossil fuel or petrochemical industries affect States' ability to meet their human rights obligations in the context of plastic pollution?

Fossil fuel and plastic industries are deeply interconnected, driving environmental degradation and widespread human rights violations, endangering public health around the world. A transition away from fossil fuels must include a significant reduction in plastic production.

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[53] UN News, Environmental racism in Louisiana's 'Cancer Alley', must end, say UN human rights experts (Mar. 2, 2021), https://news.un.org/en/story/2021/03/1086172.

[54] Earth Day Network. (2023). Babies Vs Plastics. https://www.earthday.org/wp-content/uploads/2023/11/BVP-Report.pdf

[55] Dauvergne, P. (2023). The necessity of justice for a fair, legitimate, and effective treaty on plastic pollution. Marine Policy, 155, 105785. https://doi.org/10.1016/j.marpol.2023.105785; Geneva Environment Network. (2023). 2023 Theme: Solutions to Plastic Pollution. https://www.genevaenvironmentnetwork.org/world-environment-day/world-environment-day-2023/; Group of Latin America and the Caribbean Countries (GRULAC). (2024, November). *Opening Statement at INC-5*. https://resolutions.unep.org/incres/uploads/grulac_inc-5_opening_statement_0.pdf; Human Rights Watch. (2022, November 23). *Global Plastics Treaty: Opportunity to Protect Rights*. https://www.hrw.org/news/2022/11/23/global-plastics-treaty-opportunity-protect-rights; Sea Circular. (n.d.). *A human rights-based approach to preventing plastic pollution*. https://www.sea-circular.org/wp-content/uploads/2020/03/UNEP-COBSEA-SEA-circular_Issue-Brief-01_A-human-rights-based-approach-to-preventing-plastic-pollution.pdf

[56] Dauvergne, P. (2023). The necessity of justice for a fair, legitimate, and effective treaty on plastic pollution. Marine Policy, 155, 105785. https://doi.org/10.1016/j.marpol.2023.105785

[57] Plastic Pollution Coalition. (n.d.). *Letter to U.S. Government to Take a Stronger Stance on the Global Plastics Treaty To: U.S. Government Officials involved in UN Global Plastics Treaty negotiations*. https://www.plasticpollutioncoalition.org/wp-content/uploads/LettertoUSGovernment-TakeStrongerStanceonGlobalPlasticsTreaty.pdf

[58] Ingersoll, K. A. (2016). Waves of Knowing: A Seascape Epistemology. Duke University Press. https://doi.org/10.1515/9780822373803; UNEP. 'Turning off the Tap: How the world can end plastic pollution and create a circular economy. Topic Sheet: Just Transition.' (2023). https://www.unep.org/resources/turning-off-tap-end-plastic-pollution-create-circular-economy

[59] United Nations Framework Convention on Climate Change FCCC/INFORMAL/84 GE.05-62220 (E) 200705.https://unfccc.int/resource/docs/convkp/conveng.pdf

Capping plastic production and ending fossil fuel subsidies is essential to ending plastic pollution and its toxic impacts on human health, ecosystems, and the climate. The accumulation of hazardous plastic particles and chemicals in our bodies and environment will only rise with continued plastic production.

More than 99% of plastics are made of chemicals sourced from fossil fuels, and fossil fuel energy powers every stage of the plastic supply chain—from extraction and refining to production and transport.[60] Plastics fuel both the climate crisis and toxic pollution, harming communities and ecosystems from moment their fossil fuel ingredients are extracted to their disposal in landfills, combustion in incinerators or open burns,[61] or polluted in the environment.[62]

As the global energy market shifts toward renewables, the fossil fuel industry is increasingly pivoting to the manufacturing of fossil fuels into petrochemicals for plastic production. From 1950 to 2019, plastic production skyrocketed 22,887.5%, from two million metric tons to 459.75 million.[63] If considered a country, plastic production would rank as the fifth-largest greenhouse gas emitter worldwide.[64]

Subsidies to the plastic polymer industry drive the continued expansion of petrochemicals, enabling the mass production of virgin plastic.[65] Globally, these subsidies in the top 15 plastic-producing countries amount to $15 billion annually.[66] Historically, subsidies have formed a key thread between the plastics, fossil fuel, and petrochemical industries. With legal and financial systems working covertly to maintain their dominance, we are hindering our capacity to address and reduce plastic pollution, and communities bear the cost. For example, since 2012, 64% of new or expanded plastics plants in the U.S. received taxpayer subsidies, totaling $9 billion, or averaging $278 million per factory. Of these facilities, 84% violated air pollution limits at least once in the last three years.[67]

Future plastic production is also expected to drive "half of global oil demand growth."[68] If 'business as usual' continues unchecked, plastic production alone will consume one-third of the

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[60] CIEL. (2017) Fossils, Plastics, & Petrochemical Feedstocks. https://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Fossils-Plastics-Petrochemical-Feedstocks.pdf

[61] CIEL. (2019). Plastic & Climate: The Hidden Costs of a Plastic Planet. https://www.ciel.org/reports/plastic-health-the-hidden-costs-of-a-plastic-planet-may-2019/

[62] Royer, S., et al. (2018). Production of methane and ethylene from plastic in the environment. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0200574

[63] CIEL. (2019). Plastic & Climate: The Hidden Costs of a Plastic Planet. www.ciel.org/plasticandclimate

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remaining global carbon budget—jeopardizing efforts to limit global temperature rise below 1.5°C.[69]

7. What are the measures to protect human rights in the transition to sustainable economies and societies and what lessons could be learnt from other sectors in this regard? Are there alternatives to or substitutes of plastics? What are their social and human rights implications?

The PPC report, "MATERIAL SHIFT: A Primer on Regenerative Alternatives to Plastic,"[70] highlights four categories of regenerative materials that are promising replacements for conventional fossil fuel–based plastics: agricultural residues and byproducts, hemp and other bast fibers, mycelium, and seaweed. As single-use plastic packaging is responsible for roughly 40% of global plastic pollution, and 99% of single-use plastic packaging is made from fossil fuels, the demand for biobased packaging products is increasing rapidly to not only mitigate pollution, but to reduce global dependence on gas and oil. In the transition away from single-use plastic packaging, non-toxic reuse and refill systems must serve as the foundation; however, in applications where such systems are not possible, regenerative materials could fill the need.

8. What are the particular impacts of plastics and plastic pollution on Small Island Developing States (SIDS), Least Developed Countries (LDCs) and Landlocked Developing Countries (LLDCs), and how should these be mitigated, remediated and prevented?

Just like the impacts of climate change, the communities and populations harmed most by plastic pollution, are the least responsible for creating it—yet have the fewest resources to avoid plastic use and mitigate its harms.[71] Small Island Developing States, already facing social, economic, and ecological vulnerabilities, are further threatened by the massive volume of plastic pollution carried by ocean currents.[72] This pollution devastates local economies, damaging traditional revenue sources like fisheries and tourism, while global fossil fuel dependency exacerbates climate threats like sea-level rise and extreme weather.

Industries and governments continue to target these communities as sacrifice zones for harmful and deadly industrial activities. This targeting is especially severe in the Global South, where many poorer communities are harmed by industrial infrastructure and plastic disposal. Primarily high GDP and western countries export a high volume of their plastic pollution to lower GDP states, primarily in the Global South, a trend identified as 'waste colonialism.'[73] The UN must take urgent action to address these grave environmental injustices and the human rights violations they inflict.

9. What strategies or initiatives (local, national, regional, or international) are most effective in raising awareness about human rights implications of plastics across its

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[73] Owens, K. A., & Conlon, K. (2021). Mopping Up or Turning Off the Tap? Environmental Injustice and the Ethics of Plastic Pollution. Frontiers in Marine Science, 8, 713385. https://doi.org/10.3389/fmars.2021.713385

lifecycle, reaching out to all relevant stakeholders and rights-holders, including consumers and societies at large?

Effective strategies for raising awareness about the human rights implications of plastics across their lifecycle include public education campaigns, community-led advocacy, policymaker engagement, media outreach, and accessible science communication.

News media coverage, social media, documentaries, webinars, educational toolkits, and opinion pieces can help reach broad audiences and translate complex scientific and policy issues into accessible narratives for consumers and the public. Advocacy directed at policymakers is also critical to ensure decision makers understand the human rights, environmental justice, and public health implications of plastics across their full lifecycle.

Rights-based awareness efforts are strongest when they are multilingual, culturally accessible, grounded in lived experiences, and focused on prevention and source reduction rather than individual consumer responsibility alone.

10. What specific barriers in business conduct hinder efforts to end plastic pollution and reduce plastic production? Are there any examples on how these barriers have been addressed or overcome? What (human rights-based) minimum standards should States impose on plastic producers to hold them responsible for the entire lifecycle of their products?

Key barriers in business conduct that hinder efforts to end plastic pollution include the prioritization of short-term profit over human health and environmental protection, continued government subsidies and financial support for fossil fuel and petrochemical industries, and corporate reliance on cheap virgin plastic production despite mounting evidence of its harms across the lifecycle. Plastic remains artificially inexpensive because many of its environmental, climate, and public health costs are externalized onto workers, communities, governments, and future generations rather than borne by producers.

Additional barriers include supply chains built around single-use plastics, inadequate investment in reuse and refill infrastructure, lack of transparency regarding chemicals used in plastics, and corporate promotion of recycling as a primary solution despite its significant failures. While markets are increasingly shifting toward non-toxic reuse systems and regenerative materials, scaling these solutions requires sustained funding, policy support, and infrastructure investment. Growing public awareness, litigation, and community advocacy have also pushed some companies and governments to make practice changes.

Human rights-based standards should include mandatory reductions in plastic production; disclosure and restriction of hazardous chemicals; and meaningful consultation with Indigenous Peoples and frontline communities.

11. How should the State regulate chemicals used in plastics, including additives to protect the rights to health and a clean, healthy and sustainable environment? Do States apply the precautionary principle or approach to plastic associated chemicals? If not, what legal or institutional barriers prevent the application of this principle?

The U.S. should robustly regulate chemicals used in plastics, banning classes of chemicals known to harm human health and closely monitoring and testing those with unknown statuses.

To date, the U.S. poorly regulates toxic chemicals and does not use a precautionary approach. It takes years of documented harms of a chemical to be reviewed, and even then, it is not always restricted or its use reduced. The “generally recognized as safe” loophole in the Federal Food,

Drug, and Cosmetic Act allows companies to self-certify chemicals added to plastic food packaging as "safe" without notifying the Food and Drug Administration or the public. The Toxic Substances Control Act, while a critical bedrock chemical regulation, evaluates chemicals at too slow a pace to effectively protect people or the environment.

12. What is the national framework to ensure access to information on plastics-related risks and harms, including identified hazards and contamination (e.g., across the plastics lifecycle and related health and environmental impacts)?

Access to information on plastics-related risks and harms is provided through a fragmented framework of federal, state, and local laws, agency reporting systems, scientific assessments, and public disclosure requirements. For example, the Clean Air Act and Clean Water Act provide public access to certain emissions and discharge data.

13. Where litigation or formal complaints are necessary, what measures does the State provide to facilitate effective and prompt access to justice and remedies for individuals and communities, including clear standing rules, legal aid or other support, and protection against retaliation?

Several federal environmental statutes contain citizen suit provisions that allow individuals, organizations, and impacted communities to bring legal actions against polluters or government agencies for failure to enforce environmental protections.

Additional support may be provided through nonprofit organizations and public interest litigation organizations that assist affected communities. Public comment periods and public hearings can also help facilitate participation and access to information relevant to legal proceedings.

Litigation is often costly, time-intensive, and technically complex, particularly for frontline and low-income communities facing cumulative pollution burdens from fossil fuel, petrochemical, and plastic-related facilities.

14. Are you aware of any reprisals that individuals and civil society, including scientists and human rights defenders, face for their work regarding plastics and plastic pollution?

Individuals and civil society organizations working on plastic pollution may face various forms of intimidation for their work. These can include strategic lawsuits against public participation (SLAPP suits), harassment, threats to employment or funding, or political pressure. Frontline communities opposing petrochemical facilities, plastic production expansion, incinerators, landfills, or fossil fuel infrastructure may face particularly severe pressures.

II. Questions for specific stakeholders and rights-holders

Questions for civil society, Indigenous Peoples, workers and environmental human rights defenders

1. Please describe the relevant work that you have done on the issue of plastics and plastic pollution and human rights. What are the key accomplishments? What challenges has your organization faced?

Plastic Pollution Coalition (PPC) was founded in 2009 to properly identify and name what was commonly referred to as "marine debris" and "litter" for what it is: plastic pollution. Since then, as the first and most established organization focused solely on plastic pollution, PPC has worked to tell the true story of plastic and advance systemic solutions in business, culture, and policy to end plastic pollution.

Key accomplishments:

- Advocated as part of a coalition of organizations for a UN Global Plastics Treaty. PPC is now deeply engaged in the negotiations, and has been working to advance human rights inclusions throughout the treaty process.
    - PPC, in collaboration with Break Free From Plastic and Greenpeace, leads Champions of Change[74]—a coalition of businesses around the world that support a strong and ambitious UN Plastics Treaty, and represent an essential voice in the treaty negotiation process.
- Developed Plastic Free Guides[75] including "A Beginner's Guide to Reducing Plastic in Your Life;" "Healthy Pregnancy Guide," and "Healthy Baby Guide," among others, and help individuals, businesses, organizations, and communities on their own unique plastic-free journeys.
- Manage the Global Plastic Law database,[76] with international data partners Break Free From Plastic Europe, Environmental Law Alliance Worldwide, and Surfrider Foundation U.S.

Key challenges our organization has faced include operating within U.S. political instability and federal chaotic dynamics. Along with other organizations in the Break Free From Plastic movement, we face the challenges of countering false solutions and greenwashing by plastic producers and companies that sell plastic products.

2. Are there sufficient mechanisms available to ensure accountability for the adverse impacts of plastics and plastic pollution on human rights? What are the main challenges that you face in terms of accessibility and effectiveness of accountability mechanisms?

In collaboration with our fiscal sponsor Earth Island Institute, we have worked to hold the plastic industry accountable to U.S. law and regulations through various legal actions.[77] In the absence of strong policies to protect human and environmental health, litigation is one important avenue for ensuring that the costs and impacts of plastic pollution do not fall on the public or the environment.

Litigation is costly and time-consuming. Federal regulatory and administrative processes are also highly complex, difficult to navigate, and can be slow to produce meaningful outcomes or enforcement actions.

3. How should the rights to access information, to participate in environmental decision-making and to access to remedy be applied in the context of the plastics life-cycle?

UNEP affirms that consumers have "rights to information" as a guiding principle of environmental justice[78]—a right to know what toxic chemicals are in plastic products, which are often concealed as confidential business information.[79] Low-income, rural, Indigenous, and People of Color communities on the frontlines of the plastic industrial lifecycle must have

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[74] https://championsofchange.breakfreefromplastic.org/
[75] https://www.plasticpollutioncoalition.org/takeaction/guides
[76] https://www.globalplasticlaws.org/
[77] https://www.earthisland.org/index.php/advocates/suit/taking-on-big-plastic
[78] United Nations Environment Programme and Secretariat of the Basel, Rotterdam and Stockholm Conventions (2023).
Chemicals in plastics: a technical report. Geneva.
https://www.unep.org/resources/report/chemicals-plastics-technical-report
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meaningful access to participation and consultation in decision-making, and equitable access to remedy and reparations for harm from the plastics lifecycle.

4. What does a just transition mean to you in relation to efforts to combat plastic pollution?

A just transition includes: fair and reliable compensation to waste workers, and other workers throughout the plastics supply chain, for their labor, the right to continue work, opportunities to transition into the zero-waste economy, the end of hazardous material and substance use that imperil health, and the inclusion of social welfare programs. All these measures must be backed with financial resources and legally binding measures nationally and internationally.