



*Input from the Center for International Environmental Law (CIEL)
to the upcoming report on the lifecycle of plastics and human rights
by the U.N. Special Rapporteur on toxics and human rights*

Submitted on April 30, 2021

Since 1989, the Center for International Environmental Law (CIEL) has used the power of law to protect the environment, promote human rights, and bring about a just and sustainable society. In the sections that follow, we provide responses to the Rapporteur's call for inputs that draw from CIEL's various areas of expertise and experience.

The life cycle of plastics

The majority of human beings worldwide are exposed on a daily basis to plastics at multiple stages of its life cycle. Plastics are synthetic organic polymers, which are giant synthetic molecules composed of long chains of shorter molecules.¹ 99% of plastics are produced from petrochemicals that are sourced from fossil fuels.² The global production of resins and fibers is estimated to have increased from 2 million metric tons (Mt) in 1950 to 380 million Mt in 2015. 8300 million metric tons of virgin plastic were produced through the end of 2015.³ A 2016 report estimated that “*if the current strong growth of plastics usage continues as expected, the plastics sector will account for 20% of total oil consumption and 15% of the global annual carbon budget by 2050.*”⁴

At the international level, despite the growing recognition that a long-term, comprehensive, and multilateral action is necessary due to plastics adverse effects on human health and the environment, no international agreement yet exists that focuses primarily on the life cycle of plastics. The global community urgently needs a dedicated and legally binding instrument with a human rights based approach.⁵

According to CIEL’s 2019 report on Plastic & Health “roughly two-thirds of all plastic ever produced has already been released into the environment and it remains there in different

¹ CIEL et al (2019) “The Hidden Costs of a Plastic Planet: Plastics & Health.”

<https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>

² CIEL (2017) “Fossils, Plastics, & Petrochemical Feedstocks”, 1.

<https://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Fossils-Plastics-Petrochemical-Feedstocks.pdf>

³ Geyer, R., J. R. Jambeck and K. L. “Production, use, and fate of all plastics ever made,” (2017), 1.

<https://advances.sciencemag.org/content/advances/3/7/e1700782.full.pdf>

⁴ Ellen MacArthur Foundation (2016) “The New Plastics Economy- Rethinking the future of plastics”. 17

https://www.ellenmacarthurfoundation.org/assets/downloads/EllenMacArthurFoundation_TheNewPlasticsEconomy_Pages.pdf

⁵ CIEL et al (2020) “The Convention on Plastic Pollution: Toward a new global agreement to address plastic pollution”

<https://www.ciel.org/wp-content/uploads/2020/06/Convention-on-Plastic-Pollution-June-2020-Single-Pages.pdf>

forms, - as debris in the oceans, as micro- or nanoparticles in air and agricultural soils, as microfibers in water supplies, or as microparticles in the human body."⁶ Plastic poses significant threats to water, the environment, and human health across its life cycle, from the oil or gas wellhead to the refinery, from store shelves to kitchen tables, and from waste heaps to the environment.⁷ In order to understand the full scope of the human rights impacts related to plastics, it is necessary to understand how infringements of specific rights happen at each stage of the life cycle of plastic, including the right to equality and the non-discrimination principle.

Extraction, transport and production

Looking at the extraction phase, there is well documented evidence of negative impacts of the oil and gas extractive sector activities causing or contributing to human rights infringements. This includes racial discrimination, lack of free prior and informed consent, land tenure conflicts, inadequate and ineffective access to remedy and compensation mechanisms, as well as disproportionate consequences for certain persons, groups and peoples in vulnerable situations. For instance, oil and gas extraction operations have caused severe impacts on indigenous peoples who rely on the health of their natural environment.⁸ These activities affect indigenous peoples' individual and collective rights such as an adequate standard of living, self-determination, the right to pursue their own priorities for development and in some cases, endanger their very existence as distinct peoples.⁹

The plastic industry is one of the major drivers of hydraulic fracturing, or "fracking" extraction techniques. Fracked gas, in particular, supplies petrochemical feedstocks used to make plastic. Fracking affects water supply and safety, and more broadly the human right to water and sanitation, since the process uses massive quantities of water. According to FracFocus, an industry registry site in the United States, wells required an average of nearly 5.5 million gallons of water injected per tap in 2015, a figure that increased to over 9.5 million gallons in 2017.¹⁰ It has also been proven that *"the extraction of oil and gas releases toxic substances into the air and water, having direct and documented impacts on skin, eyes, and other sensory organs, the respiratory system, the gastrointestinal system, and the liver, as well as the brain and nervous systems."*¹¹

Once extracted, petroleum products are transported to refineries and facilities located in and around fenceline communities, which are often already in vulnerable situations.¹² Early this year the UN human rights experts have conveyed how further industrialisation of the so-called 'Cancer Alley' in the southern US state of Louisiana, a development of

⁶ See CIEL et al (2019) "The Hidden Costs of a Plastic Planet: Plastics & Health" and Geyer, R. *idem*, 3

⁷ Tuncak, B., Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes to the General Assembly "Implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes" (2019), A/74/480, par. 72. <https://undocs.org/en/A/74/480>

⁸ O'Rourke, D. and Connolly, S., "Just Oil? The Distribution of Environmental and Social Impacts of Oil Production and Consumption" (2003), 28 Annual Review of Environment and Resources, 587.

⁹ Anaya, J. Report of the Special Rapporteur on the rights of indigenous peoples to the Human Rights Council "Extractive industries operating within or near indigenous territories" (2011), A/HRC/18/35, par. 80. <https://undocs.org/A/HRC/18/35>

¹⁰ CIEL et al., Plastic & Climate: The Hidden Costs of a Plastic Planet (2019), p. 29 and n.87 <https://www.ciel.org/wpcontent/uploads/2019/05/Plastic-and-Climate-FINAL-2019.pdf>

¹¹ CIEL et al (2019) "The Hidden Costs of a Plastic Planet: Plastics & Health", 61

¹² White, R., 'Life at the Fenceline; Understanding Cumulative Health Hazards in Environmental Justice Communities' (2018), Environmental Justice Health Alliance for Chemical Policy Reform, 10.

petrochemical complexes (such as the Formosa Plastics' project), is a form of environmental racism as regulations have failed to protect the mostly African American individuals residing in this area.¹³ Further, in the South Asia subregion, a megaport in Chennai (India) aims to increase plastic production and trade by the petrochemical industry.¹⁴ Ports play a critical role in the manufacturing and distribution of plastic, making their surroundings prone to human rights infringements.¹⁵

Once plastic is produced, potentially harmful chemicals are used, either as building blocks of the plastic material itself or as additives to provide certain properties such as color or flexibility. *“Transformation of fossil fuel into plastic resins and additives releases carcinogenic and other highly toxic substances that can impair the nervous system, create reproductive and developmental problems, cancer, and genetic impacts leading to record levels of low birth weight, cancers, and leukemia.”*¹⁶

Occupational health measures and safety standards like personal protective equipment aim to prevent and minimize unsafe exposure to hazardous substances. Unfortunately those measures are almost never extended to fenceline communities who are exposed, as well as workers, to hazardous substances and contaminated areas. This is an infringement of the right of enjoyment of the highest attainable standard of physical and mental health, among others.

Some UN Committees have already identified infringements of fundamental labour rights, including migrant workers suffering abusive practices and conditions¹⁷, allowances or pay rates based on gender-sex¹⁸, and worst forms of child labour.¹⁹ The International Labour Organisation supervising bodies have also raised concerns on a breach of labour Conventions, including outbreaks of occupational illnesses due to chemicals that are often unsafely used in producing resin, all forms of plastics.²⁰

Consumer use and health impacts caused by chemicals in plastic

¹³ OHCHR (2 March 2021), “USA: Environmental racism in “Cancer Alley” must end – experts”, <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26824&LangID=E>. Already in 2014 US review, the Committee on the Elimination of Racial Discrimination (CERD) was “concerned that individuals belonging to racial and ethnic minorities, as well as indigenous peoples, continue to be disproportionately affected by the negative health impact of pollution caused by the extractive and manufacturing industries.” [CERD/C/USA/CO/7-9 \(CERD, 2014\)](https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26824&LangID=E), par. 10, and issued specific recommendations to the US.

¹⁴ Shobana Rupakumar, (2021) ‘[Why are Ennore residents protesting against Adani's Kattupalli Port expansion project?](#)’, *DownToEarth*.

¹⁵ Session on Human Rights impacts of Plastics in the South Asian subregion on 2nd UN South Asia Forum on Business and Human Rights, available at <https://www.youtube.com/watch?v=xEg49ovXh3E>

¹⁶ See Clifford P. Weisel, “Benzene exposure: An overview of monitoring methods and their findings”, 184 *Chemico-Biological Interactions* 58, 58-66 (2010), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4009073>; U.S. Dep’t of Labor, Occupational Safety and Health Admin. (OSHA), “1, 3-Butadiene”, <https://www.osha.gov/butadiene/health-effects>

¹⁷ ILO [Direct Request \(CEACR\) - adopted 2017, published 107th ILC session \(2018\)](#), *Forced Labour Convention, 1930 (No. 29)* - Azerbaijan.

¹⁸ ILO [Direct Request \(CEACR\) - adopted 1998, published 87th ILC session \(1999\)](#), Equal Remuneration Convention, 1951 (No. 100), Australia.

¹⁹ ILO [Observation \(CEACR\) - adopted 2016, published 106th ILC session \(2017\)](#), Minimum Age (Industry) Convention (Revised), 1937 (No. 59) - Bangladesh.

²⁰ [Observation \(CEACR\) - adopted 2010, published 100th ILC session \(2011\)](#), Chemicals Convention, 1990 (No. 170) - China.

Plastic packaging represents 42% of all nonfiber plastic produced.²¹ *“Plastic food packaging and drinking water are significant sources of food contamination, through both microplastics and associated toxic chemicals. However, contamination extends beyond packaged food, and natural food chains are also a source of human contamination.”*²² Usage of plastic materials disproportionately impacts women due to higher exposure to plastics in the household as well as in feminine care products.²³

Plastic products can contain hundreds of hazardous chemicals, including endocrine-disrupting chemicals (EDCs) that can mimic human hormones and impair the endocrine system. Exposure to EDCs can cause negative health impacts, ranging from diabetes to cancers.²⁴ Reproductive health disorders caused by EDCs can have long term ripple effects on health of men and women in general.²⁵ Women, children and especially developing fetuses are uniquely vulnerable to EDCs.²⁶ For example, a study found that 92% of urine samples from children (6 years and older) and adults contained bisphenol A (BPA), a known EDC that can affect brain development²⁷, and is used in plastic.²⁸ Moreover, the negative health impacts do not stop with the exposed mother or child.²⁹ There is growing scientific evidence that EDCs’ adverse health effects are heritable to future generations, thereby harming the rights of individuals across several generations.³⁰ Polybrominated diphenyl ethers (PBDEs) are another example of chemicals with severe adverse health impacts. DecaBDE, for instance is an EDC and a persistent organic pollutant used as a flame retardant in several plastic products (e.g. housing electronic and electrical equipment, construction and building materials).³¹ DecaBDE can interfere with the nervous system (on learning, memory and abnormal aging).³² Despite DecaBDE being listed under the Stockholm Convention for its global elimination from

²¹ Geyer, R. *idem*, 1.

²² CIEL et al (2019) “The Hidden Costs of a Plastic Planet: Plastics & Health”, 52; See also, Grob, K. and others, “Food Contamination with Organic Materials in Perspective: Packaging Materials as the Largest and Least Controlled Source? A View Focusing on the European Situation” (2006) 46 *Critical Reviews in Food Science and Nutrition*, 529. <https://pubmed.ncbi.nlm.nih.gov/16954061/>

²³ Women Engage for a Common Future (WECF), (2017), “Plastics, Gender and the Environment - Findings of a literature study on the life cycle of plastics and its impacts on women and men, from production to litter”, 20.

<https://www.wecf.org/wp-content/uploads/2018/11/PlasticsgenderandtheenvironmentHighRes-min.pdf> ;

Centers for Disease Control & Prevention, “Emergency Preparedness and Response: Facts About Benzene”,

<https://emergency.cdc.gov/agent/benzene/basics/facts.asp>

²⁴ IPEN and the Endocrine Society (2020), “Plastics, EDCs & Health”, 9.

https://ipen.org/sites/default/files/documents/ipen-intro-edc-v1_9a-en-web.pdf ;

²⁵ Vivian Futran Fuhrman, Alon Tal, Shai Arnon, “Why endocrine disrupting chemicals (EDCs) challenge traditional risk assessment and how to respond”, *Journal of Hazardous Materials*,

p 593, n°2.2.3. <https://www.sciencedirect.com/science/article/abs/pii/S0304389414009959>

²⁶ IPEN and the Endocrine Society (2020), “Plastics, EDCs & Health”, 22.

²⁷ ChemTRUST (2017), “No Brainer - The Impact of Chemicals on Children’s Brain Development: A Cause for Concern and a Need for Action” <https://www.chemtrust.org/wp-content/uploads/chemtrust-nobrainer-mar17.pdf>

²⁸ Koch, H and Calafat, A. (2009) ‘Human body burdens of chemicals used in plastic manufacture’, US National Library of Medicine National Institutes of Health.

²⁹ S,Rattan and J, Flaws, (2019) ‘The epigenetic impacts of endocrine disruptors on female reproduction across generations of Reproduction, Volume 101, Issue 3, Pages 635–644. <https://doi.org/10.1093/biolre/ioz081>

³⁰ La Merrill, M.A., Vandenberg, L.N., Smith, M.T. et al. Consensus on the key characteristics of endocrine disrupting chemicals as a basis for hazard identification. *Nat Rev Endocrinol* 16, 45–57 (2020).

<https://doi.org/10.1038/s41574-019-0273-8>

³¹ CIEL et al. (2015) ‘Human Rights Impacts of DecaBDE, Human Rights Implications of Toxic Chemicals - Issue Briefs.’

³² Reverte,I. et al. “Long Term Effects of Murine Postnatal Exposure to Decabromodiphenyl ether (BDE209) on Learning and Memory are Dependent upon APOE Polymorphism and Age. *Neurotoxicology and Teratology*”, vol. 40, (2013) 17-27.

production and use, member states negotiated exemptions to continue its use, and DecaBDE has been found even in toys made of recycled plastic.³³

Plastic pollution

The plastic pollution issue contributes to the triple planetary crisis, namely climate, nature and pollution.³⁴ Research by the World Health Organization and the Global Burden of Disease has found that “*pollution is a major cause of disease, disability, and premature death.*”³⁵ The UN Human Rights Committee also affirmed that pollution forms part of one of the greatest threats to the ability of present and future generations to enjoy the right to life.³⁶

Plastic fragments are also directly entering food chains, which can affect humans.³⁷ Some region-specific issues must be highlighted in this regard. In the Pacific, small islands developing states (SIDS) are disproportionately more affected by plastics because the vast majority of people’s diet is composed of seafood, leading to increased ingestion of plastic.³⁸ In general, coastal indigenous peoples consumption of seafood per capita is 15 times higher than non-indigenous country populations.³⁹ They are therefore unequally impacted by plastics within the food chain. In the South-Asian subregion, plastic waste is accumulating in the Bay of Bengal, growing to alarming proportions, due to the movement from the southern Indian Ocean northward and continuous drainage from several major eastern Himalayan rivers.⁴⁰ As a majority of the people living along the coastlines are either partially or wholly dependent on the bay’s fisheries⁴¹, the livelihoods of these individuals are disproportionately impacted.

Plastic Waste Management

In the last stage of the plastic life cycle, waste pickers and overall informal waste management workers, are the ones unequally exposed, often experiencing work-related

³³ IPEN (2018) “Toxic Loophole: Recycling Hazardous Waste Into New Products”
https://ipen.org/sites/default/files/documents/TL_brochure_web_final.pdf

³⁴ Statement by Susan Gardner (UNEP) during the High-Level Dialogue on Plastic Governance on the 11th of March 2021. Available at:
<https://www.genevaenvironmentnetwork.org/fr/evenements/high-level-dialogue-on-plastic-governance-beat-plastic-pollution/>.

³⁵ Landrigan PJ, Fuller R, Acosta NJR, et al. The Lancet Commission on pollution and health. Lancet (2017), 470 <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2817%2932345-0>

³⁶ Human Rights Committee, General Comment No. 36 on Article 6 (Right to life) (2019), para. 62

³⁷ IPBES (2019): “Global assessment report on biodiversity and ecosystem services”. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). 2, 117
https://www.ipbes.net/sites/default/files/ipbes_global_assessment_chapter_2_1_drivers_unedited_31may.pdf

³⁸ See Lachmann, F., Almroth, B., Baumann, H., Broström, G., Corvellec, H., Gipperth, L., Hassellöv, M., Karlsson, T., Nilsson, P., “Marine plastic litter on small island developing states (SIDS): impacts and measures”, Swedish Institute for the Marine Environment, Report no. 2017, 32

https://portal.research.lu.se/ws/files/26763360/Lachman_1641336_sime_2017_4_marine_plastic_litter.pdf and Session on Plastic pollution impacts on human rights in the pacific region at the 2020 UN Pacific Forum on Business and Human Rights on the 2nd December 2020. Recordings:
<https://www.youtube.com/watch?v=AkmFOxhud0>

³⁹ Cisneros-Montemayor AM, Pauly D, Weatherdon LV, Ota Y (2016) A Global Estimate of Seafood Consumption by Coastal Indigenous Peoples,
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166681>

⁴⁰ Bay of Bengal Filling With Plastic Trash, Asia Sentinel.
<https://www.asiasentinel.com/p/bay-of-bengal-filling-with-plastic>

⁴¹ Tariq A. Karim, “Bangladesh’s Role in Forging a Bay of Bengal Community”, National Bureau of Asian Research, February 18, 2020,
<https://www.nbr.org/publication/bangladeshs-role-in-forging-a-bay-of-bengal-community/>

illnesses.⁴² Health impacts resulting from the most common toxic chemicals in plastics associated with electronics waste during its final life cycle stages are also plentiful.⁴³ For example, Polyvinyl chloride (PVC) found in the plastic components of electronic equipment, releases harmful dioxins, furans and phthalates (which are known carcinogens and toxicants), when the e-waste is burned. Electronic components contain further cocktails of hazardous materials such as arsenic, barium, beryllium, hexavalent chromium, phthalate esters, and others, that are known to pose other adverse health impacts. Plastic components of electronic waste pose risk to a variety of rights, because of the presence of potentially hazardous substances that may be released during recycling and material recovery.⁴⁴ Studies on exposure to hazardous substances through cooking with burned plastic in low income areas, also demonstrate increased exposure of women.⁴⁵

Scavenging, sorting, recycling and disposal of plastic waste has been identified as the worst forms of child labour.⁴⁶ In some places there is a high prevalence of child labour in garbage collecting.⁴⁷ This affects a variety of rights since the likelihood of children *“falling ill is very high since they operate in unhygienic, polluted areas and consume dirty, unhealthy food and water.”*⁴⁸

All combustion technologies to eliminate plastic waste create toxic emissions and releases of toxic metals.⁴⁹ Workers and nearby communities are directly or indirectly exposed to these toxic substances.⁵⁰

Patterns of plastic waste trade

Plastic waste has been historically diverted from North American and European countries to foreign shores, which has amplified the plastic pollution problems in lower-income countries that have become swamped with the plastic waste originating in wealthier nations.⁵¹ The

⁴² Chintan Environmental Research and Action Group (2018), “Wastepickers: Delhi’s Forgotten Environmentalists?”, 27

https://www.chintan-india.org/sites/default/files/2019-09/Supreme%20Court%20Report_01.pdf

⁴³ IPEN, (2019) "Weak Controls: European E-waste Poisons Africa’s Food Chain",

https://ipen.org/sites/default/files/documents/final_ghana-egg-report-v1_6-web_copy.pdf and Basel Action Network, “Holes in the Circular Economy WEEE Leakage from Europe”,

http://wiki.ban.org/images/f/f4/Holes_in_the_Circular_Economy-_WEEE_Leakage_from_Europe.pdf

⁴⁴ CIEL et al. (2015) ‘Human Rights Impacts of E-Waste, Human Rights Implications of Toxic Chemicals – Issue Briefs.’ https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf

⁴⁵ (WECF) (2017), ‘Plastics, Gender and the Environment’ , 41-42

⁴⁶ ILO Worst Forms of Child Labour Convention 182, articles 3.d and 4.1.

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312327:NO

⁴⁷ [Observation \(CEACR\) - adopted 2018, published 108th ILC session \(2019\)](#), Minimum Age Convention, 1973 (No. 138) - Brazil; CRC/C/BRA/CO/2-4, par 81 <https://undocs.org/en/CRC/C/BRA/CO/2-4> ; Iran CRC/C/IRN/CO/3-4 (2016), par 85. <https://undocs.org/en/CRC/C/IRN/CO/3-4>

⁴⁸ [Direct Request \(CEACR\) - adopted 2005, published 95th ILC session \(2006\)](#), Worst Forms of Child Labour Convention, 1999 (No. 182) - Nepal; see also [Direct Request \(CEACR\) - adopted 2009, published 99th ILC session \(2010\)](#); Worst Forms of Child Labour Convention, 1999 (No. 182) - South Africa

⁴⁹ UNEP, “Guidelines on Best Available Techniques and Provisional Guidance on Best Environmental Practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants,” (2007), 22. <http://chm.pops.int/Portals/0/download.aspx?d=UNEPPOPS-BATBEP-GUID-GUIDELINES-All.En.pdf>

⁵⁰ CIEL et al (2019) “The Hidden Costs of a Plastic Planet: Plastics & Health”, 62 ; IPEN (2019) "Plastic Waste Flooding Indonesia Leads to Toxic Chemical Contamination of the Food Chain" https://ipen.org/sites/default/files/documents/indonesia-egg-report-long-v1_2web-en.pdf ;

⁵¹ Global Alliance for Incinerator Alternatives, (GAIA) (2019) ‘Discarded Communities on the frontlines of the global plastic crisis’, 10 <http://wastetradestories.org/wp-content/uploads/2019/04/Discarded-Report-April-22.pdf>

impacts from the shift in plastic trade to Southeast Asian countries have been staggering, especially since China's announcement in 2018 of their ban on waste imports, which “*threw the global plastic recycling industry into chaos.*”⁵² This has led to the contamination of water supplies, crop deaths, respiratory illness from exposure to burning plastic, and also the rise of crime within the areas that have been most exposed to the flood of the new imports within the Southeast Asian regions.⁵³ These countries and their people are deeply shouldering the economic, social and environmental costs of that pollution, possibly for generations to come.⁵⁴ Allowing transboundary dumping of plastic waste without proper control and regulation is against the States extraterritorial obligations to exercise care and do not harm.

Some Human Rights affected during the life cycle of Plastics

According to the Special Rapporteur on Human Rights and the Environment “*information Participation and remedy, is vital to the protection of the environment.*”⁵⁵ The right to a safe, clean, healthy and sustainable environment is for everyone, and necessary to obtain other human rights.⁵⁶

Right to information and participation

When businesses introduce plastic or products involving significant amounts of plastic into the market, how much do consumers know about it? International law protects the right to seek, receive, and impart information.⁵⁷ There is therefore an obligation by Businesses and States to ensure access to this information, particularly the information on environmental hazards posed by toxic chemicals.⁵⁸ This is especially important for chemical additives manufactured for the production process of polymer resins, which are known to be carcinogenic, and have demonstrated toxic impacts on people, especially children through the contact of the plastics.⁵⁹ The vast majority of actors along the plastic supply chain do not have access to information relating to the products they manufacture, manipulate or transform, and consumers have virtually no information at all regarding the makeup of the plastic they buy, use, or are exposed to.

Taking a human rights based approach therefore means that the persons, groups and people's most affected need to get involved, at different degrees, in the decision-making process. How can we involve for instance youth, children and women in international governance and discussions to tackle plastic pollution? A good example is the COP CC “*Decision 3/CP.25 Enhanced Lima work programme on gender and its gender action plan*” that mobilizes travel funds to increase women's participation in the UNFCCC process, including grass-roots local and indigenous peoples' communities from developing countries.

⁵² *ibid.*

⁵³ *ibid.*

⁵⁴ *ibid.*

⁵⁵ Knox, J. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment to the Human Rights Council” (2018), A/HRC/37/59, par. 2. <https://undocs.org/A/HRC/37/59>

⁵⁶ *Idem*, Annex Framework Principles on Human Rights and the Environment, para. 4; see also Tuncak, A/74/480 (2019) at para 72.

⁵⁷ *Idem*. par 17.

⁵⁸ Human Rights Committee, *ibidem*, para. 62

⁵⁹ CIEL et al (2019) “The Hidden Costs of a Plastic Planet: Plastics & Health”

Accountability and access to effective remedies for human rights abuses related to plastics' pollution and production.

States are required to prevent, reduce, and control the release of pollutants into the marine environment⁶⁰, including plastics.⁶¹ States are responsible for harm resulting specifically from marine plastic pollution, but we need a liability regime that covers all negative impacts related to plastics. Both Private or State-Owned Businesses that produce plastic, those who supply it to users, those who dispose of plastic waste.⁶²

However, according to UNEP, one of the major gaps and challenges in the international, regional and sub-regional frameworks, includes “*the lack of a global liability and compensation mechanism for pollution by plastic.*”⁶³

An effective remedy regime cannot be limited to ‘extended producer responsibility’ or more broadly to the ‘polluter pays’ principle, since businesses should not have the option to pay and walk away. A liability regime that is not exclusively focused on compensation but on the internalization of the negative externalities of plastic could be a solution. In limited cases, damage to the environment as well as harm to persons cannot be attributed to one person’s conduct but to the entire plastic industry, a cost should be imposed on polluters, users or states that fail to prevent the release of plastics into the environment. These costs can be collected in an international compensation fund. Another option could be the requirement of knowledge sharing and coordination, similar to the Warsaw International Mechanism. In that scenario, states under whose jurisdiction most plastic is produced, used or released in the environment have to cooperate in order to alleviate plastic pollution, specifically to the benefit of those states most affected.⁶⁴

Right to a healthy environment.

The Special Rapporteur on human rights and the environment stated in his country visit report to Fiji, that “*the right to a clean and healthy environment includes non-toxic environments for living, working, studying and playing.*”⁶⁵ and dedicated a specific session of his report to highlight the human rights impacts related to Plastics. During their country visits reports, special procedures should systematically dedicate specific attention to impacts occurring across the full life cycle of plastics.

⁶⁰ UN Convention on the Law of the Sea arts. 207, 210, 211, Dec. 10, 1982, 1933 UNTS 397; Convention for the Protection of the Marine Environment of the North-East Atlantic art. 2(1)(a), Sept. 22, 1992, 2354 UNTS 67.

⁶¹ See e.g., Protocol for the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil art. 12(1), Oct. 14, 1994, 2742 UNTS 77.

⁶² Maljean-Dubois S. and Mayer B. (2020), “Liability and compensation for marine plastic pollution: conceptual issues and possible ways forwards”, *Cambridge University Press*, 207.

⁶³ UNEP assessment on “Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches” (2018) UNEP-EA.3/INF/5, 64 <https://undocs.org/unep/ea.3/inf/5>

⁶⁴ Maljean-Dubois S. and Mayer B. (2020), “Liability and compensation for marine plastic pollution: conceptual issues and possible ways forwards”, *Cambridge University Press*, 206-211.

⁶⁵ D. Boyd. Visit to Fiji - Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment’, A/HRC/43/53/Add.1, par. 83 <https://undocs.org/A/HRC/43/53/Add.1>

Final remarks and reflections

Human rights and environmental due diligence legislation and National Action Plans on Business and Human rights, as well as those on Marine litter and on Plastics should contain safeguards and provisions related to the full life cycle of plastics and human rights, not only as a process but as a standard of conduct, which can be linked to accountability and liability regimes.

The Plastic Waste Amendments to the Basel Convention on the Controls of Transboundary Movements of Hazardous are a step in the right direction. The prior notice and consent procedure within the amendment allows the refusal of the importation of the plastic waste, as Basel Party countries must obtain the importing country's agreement in writing to accept such exports before exportation, if their transboundary movement is not banned entirely.⁶⁶ The Basel Ban Amendment is a clear instrument for human rights protection. It prevents OECD countries from exporting their hazardous wastes to non-OECD countries. It was adopted in 1995 and entered into force in December of 2019.

The necessary global response to plastic and plastic pollution must be holistic and dynamic, with transboundary and multilateral solutions.⁶⁷ This will require coordinated action by diverse stakeholders at the national, regional, and international levels. A rights-based approach requires States to take affirmative action to prevent these risks from materializing by adequately regulating or prohibiting hazardous activities and substances:

- At the national and regional level, legislation to phase out or reduce hazardous substances, in line with the precautionary principle, can prevent and minimize pollution and infringements of human rights. Instead of regulating on a substance by substance approach, the restriction of groups of chemicals can be more efficient. For instance, the European Union recently committed to phase out the use of per- and polyfluoroalkyl substances (PFAS) as a group.⁶⁸
- Operationalize the precautionary principle with the “no data, no market” and “polluters pays principles”, and require registration of polymers and additives, with the objective that the businesses carry the burden of proof on chemicals safety.
- At the international level, complementary approaches are necessary, including the negotiation of a new international legally binding agreement on the life cycle of Plastics.⁶⁹

⁶⁶Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Revised 2019).

⁶⁷ CIEL ‘Plastic Global Law and Policy’: <https://www.ciel.org/issue/plastic-global-law-policy/>

⁶⁸ See EU Chemicals Strategy for Sustainability Towards a Toxic-Free Environment, (2020), 13 <https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf>

⁶⁹ Boyd, D. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment to the Human Rights Council on “Human rights and the global water crisis: water pollution, water scarcity and water-related disasters” A/HRC/46/28 (2021) par. 89.f <https://undocs.org/A/HRC/46/28>