

**The Attorneys General of New York, California, Connecticut, the District  
of Columbia, Hawaii, Massachusetts, New Jersey,  
Pennsylvania, and Vermont**

April 3, 2024

**Honorable Antony Blinken**

Secretary of State  
United States Department of State  
2201 C. St. NW  
Washington, DC 20520

**Honorable Jose W. Fernandez**

Under Secretary for Economic Growth,  
Energy, and the Environment  
United States Department of State  
2201 C. St. NW  
Washington, DC 20520

Dear Secretary Blinken and Under Secretary Fernandez:

The Attorneys General of New York, California, Connecticut, the District of Columbia, Hawaii, Massachusetts, New Jersey, Pennsylvania, and Vermont (the “States”) respectfully urge the U.S. delegation to the fourth session of the Intergovernmental Negotiating Committee in Ottawa, Canada (“INC-4”) to advocate for an ambitious, comprehensive, and legally binding international agreement to end plastic pollution (“Plastics Treaty”).<sup>1</sup> The States recognize the significant efforts the Biden Administration has taken to mitigate the plastic pollution crisis and to address the environmental justice, public health, and environmental impacts at every stage of the plastic life cycle.<sup>2</sup> The States share these values and have also taken considerable action to mitigate the pervasive harms of plastic pollution. However, as the Biden Administration and the U.S. delegation have recognized, plastic pollution is a global crisis that demands a strong and coordinated global response that addresses the full life cycle of plastic. The United States is a global

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<sup>1</sup> The States submit these comments on the United Nations Environment Programme’s (“UNEP”) Revised Draft Text of the International Legally Binding Instrument on Plastic Pollution, Including in the Marine Environment (Dec. 28, 2023), which compiled the options proposed at INC-3 in November 2023 into a single consolidated draft.

<sup>2</sup> See, e.g., Exec. Order No. 14,096, Revitalizing Our Nation’s Commitment to Environmental Justice for All (Apr. 21, 2023); The White House, Fact Sheet: President Biden Signs Executive Order to Revitalize Our Nation’s Commitment to Environmental Justice for All (Apr. 21, 2023), <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/21/fact-sheet-president-biden-signs-executive-order-to-revitalize-our-nations-commitment-to-environmental-justice-for-all/>.

leader in plastic production and consumption,<sup>3</sup> and despite federal, state, and local efforts, remains a major generator and exporter of plastic waste. The United States is uniquely situated to advocate for an ambitious Plastics Treaty that can produce meaningful and tangible results. We therefore urge the State Department to take the following positions on behalf of the United States at INC-4.

First, we encourage the delegation to advocate for a comprehensive Plastics Treaty that incorporates meaningful controls at every stage of the plastic life cycle, from production to disposal.<sup>4</sup> This approach would be consistent with United Nations Environment Assembly Resolution 5/14, which called on the global community to develop a legal instrument to end plastic pollution;<sup>5</sup> the U.S. Environmental Protection Agency’s (“EPA”) longstanding recommendation of source reduction and reuse as the most preferred waste management strategy;<sup>6</sup> and President Biden’s historic commitment to environmental justice.

Second, because a successful Plastics Treaty requires a dramatic reduction in global plastic production, we encourage the delegation to support mandatory, ambitious, and internationally determined upstream controls on plastic polymer production, chemicals of concern in plastic, avoidable plastic products, and intentionally added microplastics to achieve global aggregate reduction targets.<sup>7</sup> This approach would align with actions the Biden administration has taken, and the federal government already has many statutory and regulatory tools that it can use to address domestic plastic production and toxic additives in plastic.<sup>8</sup>

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<sup>3</sup> In 2016, the United States had roughly 4.3 percent of the world’s population but generated 10.5 percent of global plastic waste. In 2019, the United States had the largest plastic waste footprint of any country, generating approximately 486 pounds per capita. See EPA, Draft National Strategy to Prevent Plastic Pollution 6 (2023), [https://www.epa.gov/system/files/documents/2023-04/Draft\\_National\\_Strategy\\_to\\_Prevent\\_Plastic\\_Pollution.pdf](https://www.epa.gov/system/files/documents/2023-04/Draft_National_Strategy_to_Prevent_Plastic_Pollution.pdf).

<sup>4</sup> See U.N. Env’t Assembly Res. 5/14, U.N. Doc. UNEP/EA.5/Res.14, End Plastic Pollution: Towards an International Legally Binding Instrument (Mar. 2, 2022), [https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG\\_PP\\_1\\_INF\\_1\\_UNEA%20resolution.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG_PP_1_INF_1_UNEA%20resolution.pdf).

<sup>5</sup> See *id.*

<sup>6</sup> *Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy*, EPA, <https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy> (last updated Feb. 21, 2024).

<sup>7</sup> See Ctr. for Int’l Env’t L. (“CIEL”) et al., National Implementation Plans and National Action Plans: Key Elements to Consider in the Context of a Treaty to End Plastic Pollution (2023), [https://www.ciel.org/wp-content/uploads/2023/08/National-Implementation-Plans-and-National-Action-Plans-Key-Elements-to-Consider-in-the-Context-of-a-Treaty-to-End-Plastic-Pollution\\_August-2023.pdf](https://www.ciel.org/wp-content/uploads/2023/08/National-Implementation-Plans-and-National-Action-Plans-Key-Elements-to-Consider-in-the-Context-of-a-Treaty-to-End-Plastic-Pollution_August-2023.pdf).

<sup>8</sup> See Margaret Spring et al., Env’t L. Inst. & Monterey Bay Aquarium, Existing U.S. Federal Authorities to Address Plastic Pollution: A Synopsis for Decision Makers (2024), <https://www.montereybayaquarium.org/globalassets/mba/pdf/newsroom/aquarium-report-existing-US-federal-authorities-to-address-plastic-pollution.pdf>.

Third, because human health, safety, and livelihoods are implicated at every stage of the plastic life cycle, the United States should ensure that the Plastics Treaty grounds its purpose and intent in a respect for human dignity and facilitates an equitable transition to sustainable livelihoods across the plastics supply chain, with a focus on environmental justice communities.<sup>9</sup>

Fourth, the Plastics Treaty should not endorse or rely on false solutions to the plastic pollution crisis, such as purported fixes to conventional recycling, chemical recycling, and the replacement of petrochemical-based plastics with alternative plastics or bioplastics, unless and until significant improvements are made to eliminate public health and environmental harms.

Fifth, any extended producer responsibility programs and design criteria under the Plastics Treaty should prioritize the development of reuse systems over recycling and ensure that packaging and products are free of toxics.

Finally, the States urge the U.S. delegation to advocate for a scientific body under the Treaty, along with a dedicated multilateral fund.<sup>10</sup> A trusted scientific body is necessary to implement the most essential upstream controls under the Plastics Treaty, such as amending and strengthening annexes on chemical phaseouts and reduction timelines, and a multilateral fund would ensure reliable funding to achieve the substantive provisions of the Plastics Treaty. These mechanisms have supported implementation of other successful global environmental treaties.

The States applaud the U.S. delegation's support for "meaningful and feasible universal obligations for Parties to address plastic pollution throughout the lifecycle of plastic."<sup>11</sup> Unfortunately, many of the options in the Revised Draft Text of the Plastics Treaty ("Revised Draft")<sup>12</sup> lack the requisite ambition and strength to curb plastic production and, in turn, meaningfully reduce global plastic pollution. The States therefore urge the U.S. delegation to adopt the recommendations described in this letter.

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<sup>9</sup> See Exec. Order No. 14,096 ("To fulfill our Nation's promises of justice, liberty, and equality, every person must have clean air to breathe; clean water to drink; safe and healthy foods to eat; and an environment that is healthy, sustainable, climate-resilient, and free from harmful pollution and chemical exposure.").

<sup>10</sup> See *Small Island Developing States*, U.N. Off. of the High Representative for the Least Developed Countries, Landlocked Developing Countries & Small Island Developing States, <https://www.un.org/ohrlls/content/least-developed-countries>.

<sup>11</sup> U.S. Intervention at INC-3, General Views on Document UNEP/PP/INC.3/4 at 1, [https://resolutions.unep.org/resolutions/uploads/united\\_states\\_of\\_america\\_1.pdf](https://resolutions.unep.org/resolutions/uploads/united_states_of_america_1.pdf).

<sup>12</sup> UNEP, Revised Draft Text of the International Legally Binding Instrument on Plastic Pollution, Including in the Marine Environment (Dec. 28, 2023), <https://wedocs.unep.org/bitstream/handle/20.500.11822/44526/RevisedZeroDraftText.pdf>.

## BACKGROUND

### **Plastic Pollution Is a Global Crisis that Harms Our Communities and Demands a Comprehensive International Solution.**

Plastic pollution is a global environmental and public health crisis, deeply interwoven with climate change and biodiversity loss. As the Biden Administration has recognized, plastic causes substantial environmental and public health harms at every stage of its life cycle, and like most environmental harms, the detrimental effects of plastic are not borne equally.<sup>13</sup> Across the States and across the world, harms from plastic production, use, and disposal are disproportionately suffered by low-wealth communities and communities of color, exacerbating environmental injustices and inequity.

Plastic pollution is ubiquitous, especially microplastics<sup>14</sup> and nanoplastics<sup>15</sup> (collectively “microplastics” for purposes of this letter), which disperse globally through our water, air, and soil. We eat, drink, and inhale microplastics,<sup>16</sup> and these plastic particles can cross the blood-brain barrier, imbed in organs and tissues, and enter the human placenta, indicating that children are first exposed to plastic waste in the womb.<sup>17</sup> Microplastics can readily enter the lungs and move through the body via the bloodstream,<sup>18</sup> and recent research suggests that the

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<sup>13</sup> Press Release, EPA, Biden-Harris Administration Announces Latest Steps to Reduce Plastic Pollution Nationwide (Apr. 21, 2023), <https://www.epa.gov/newsreleases/biden-harris-administration-announces-latest-steps-reduce-plastic-pollution-nationwide>.

<sup>14</sup> Microplastics are small plastic particles less than 5 millimeters long. See *What Are Microplastics*, Nat'l Ocean Serv., <https://oceanservice.noaa.gov/facts/microplastics.html> (last updated Dec. 14, 2023).

<sup>15</sup> Nanoplastics are even smaller than microplastics, with dimensions ranging from 1 nanometer to 1 micrometer. See Ernesto Alfaro & Ayse Basak Engin, *Nanoplastics and Human Health: Hazard Identification and Biointerface*, 12 *Nanomaterials* (Basel) 1298 (2022).

<sup>16</sup> See, e.g., Martin Pletz, *Ingested Microplastics: Do Humans Eat One Credit Card Per Week?* 3 *J. Haz. Materials Ltrs.* 100071 (2022); Philip J. Landrigan, *Plastics, Fossil Carbon, and the Heart*, 390 *New Eng. J. Med.* 948–50 (2024); World Health Org., *Dietary and Inhalation Exposure to Nano- and Microplastic Particles and Potential Implications for Human Health* (2022), <https://www.who.int/publications/i/item/9789240054608>; Raffaele Marfella et al., *Microplastics and Nanoplastics in Atheromas and Cardiovascular Events*, 390 *New Eng. J. Med.* 900–10 (2024); Rodrigo Barbano Weingrill et al., *Temporal Trends in Microplastic Accumulation in Placentas from Pregnancies in Hawai'i*, 180 *Env't Int'l* 108220 (2023); Antonio Ragusa et al., *Raman Microspectroscopy Detection and Characterisation of Microplastics in Human Breastmilk*, 14 *Polymers* (Basel) 2700 (2022).

<sup>17</sup> See Shaojie Liu et al., *The Association Between Microplastics and Microbiota in Placentas and Meconium: The First Evidence in Humans*, 57 *Env't Sci. Tech.* 17774 (2023).

<sup>18</sup> CIEL, *Breathing Plastic: The Health Impacts of Invisible Plastics in the Air* (2023), <https://www.ciel.org/wp-content/uploads/2023/03/Breathing-Plastic-The-Health-Impacts-of-Invisible-Plastics-in-the-Air.pdf>.

presence of microplastics in human tissue is linked to a higher risk of heart disease, stroke, and death.<sup>19</sup>

Of even more concern, plastic is laden with a suite of toxic chemicals and additives that can leach into the human body, our food, and the environment. Some of these additives are already known to cause lifelong negative health outcomes;<sup>20</sup> thousands more have yet to be evaluated for safety.<sup>21</sup> Microplastics are vectors for these substances, including endocrine-disrupting chemicals, which are linked to diabetes, infertility, and various cancers.<sup>22</sup> A recent study found that, in 2018 alone, endocrine-disrupting chemicals in plastics cost the healthcare system \$249 billion, largely by contributing to chronic disease, cancer, and premature death.<sup>23</sup> Because the effects of chemical exposure are concentrated in the earliest stages of life, children may suffer both acute and lifelong health impacts from exposure to endocrine-disrupting chemicals, ranging from obesity to reproductive disorders.<sup>24</sup>

In the United States, plastic pollution imposes significant burdens on all levels of government. Even when it is properly discarded, plastic waste costs the United States \$32 billion annually to collect, sort, dispose of, and recycle.<sup>25</sup> In Massachusetts alone, single-use plastics make up nearly 11 percent of the State's municipal solid waste by weight, contributing an estimated \$43 million to annual disposal costs state-wide.<sup>26</sup>

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<sup>19</sup> See Marfella et al., *supra* note 16.

<sup>20</sup> See, e.g., Ans Punt et al., *Quantitative in Vitro-to-in Vivo Extrapolation (QIVIVE) of Estrogenic and Anti-androgenic Potencies of BPA and BADGE Analogues*, 93 Arch Toxicology 1941 (2019); World Health Org., *supra* note 16; EPA, EPA 822-F-22-002, Technical Fact Sheet: Drinking Water Health Advisories for Four PFAS (PFOA, PFOS, GenX Chemicals, and PFBS) (2022), <https://www.epa.gov/system/files/documents/2022-06/technical-factsheet-four-PFAS.pdf>.

<sup>21</sup> Martin Wagner et al., *PlastChem, State of the Science on Plastic Chemicals: Identifying and Addressing Chemicals and Polymers of Concern 40–44* (2024), available for download at <https://plastchem-project.org/>.

<sup>22</sup> *Id.* at 17; Philip J. Landrigan et al., *The Minderoo-Monaco Commission on Plastics and Human Health*, 89 Ann. Global Health 23 (2023).

<sup>23</sup> Leonardo Trasande, *Chemicals Used in Plastic Materials: An Estimate of the Attributable Disease Burden and Costs in the United States*, 8 J. Endocrine Soc'y 163 (2024).

<sup>24</sup> *Id.*

<sup>25</sup> World Wildlife Fund, *Plastics: The Costs to Society, the Environment, and the Economy 16* (2021), [https://wwfint.awsassets.panda.org/downloads/wwf\\_pctsee\\_report\\_english.pdf](https://wwfint.awsassets.panda.org/downloads/wwf_pctsee_report_english.pdf).

<sup>26</sup> This single-use plastics disposal cost was calculated based on 2022 data, the most recent data available, as follows: 4.46 million tons of municipal solid waste disposed of annually, Mass. Dep't Env't Prot. ("MassDEP"), *2022 Solid Waste Data Update*, tbl.4 (Nov. 2023), <https://www.mass.gov/doc/2022-solid-waste-data-update/download#:~:text=Total%20disposal%20in%202022%20was,tons%2C%20a%2033%20percent%20increase>. 10.7 percent of that waste made up by single-use plastics, and a conservative annual disposal tip fee of \$90 per ton. J. Fischer, Deputy Div. Dir., Solid Waste, MassDEP, personal communication Mar. 29, 2024.

Additionally, the States and municipalities are spending millions of dollars each year to combat plastic waste to safeguard their natural resources and recreational economies. A 2012 study prepared for the EPA estimates that West Coast communities with hydrological connections to the Pacific Ocean spend more than a half billion dollars annually (\$13 per capita) on efforts to clean up trash that would likely end up as marine debris.<sup>27</sup> These clean-up efforts include removing plastic pollution from public spaces (including beach and waterway cleanups), street sweeping, installation of stormwater capture devices, storm drain cleaning and maintenance, manual cleanup of litter, and public anti-littering campaigns.<sup>28</sup> In California, volunteers have participated in the Coastal Cleanup Day since 1985 and over the years have collected more than 26 million pounds of trash from beaches and inland waterways, the vast majority of which is plastic.<sup>29</sup> In 2022, the estimated value of this volunteer time was over \$4 million.<sup>30</sup> But these efforts, while significant, are not even close to what is required to actually “clean up” plastic pollution. Indeed, despite the considerable efforts of governments and volunteers, plastic pollution continues to cause the myriad harms discussed above.

The States are also deeply impacted by plastic waste in the marine environment. Approximately 33 billion pounds of plastic waste enter the oceans each year, accounting for around 80 percent of all marine debris from surface waters to deep sea sediments.<sup>31</sup> Ocean currents carry this pollution across vast distances, bringing plastic to our shores and harming marine ecosystems and the economies based on them. A significant number of fish and oysters produced by U.S. commercial fisheries, including salmon, tilapia, and catfish, are contaminated with microplastics, presenting a potential “threat to seafood security and human health” in the United States.<sup>32</sup> In California, 25 percent of the State’s commercial fish supply is contaminated with anthropogenic debris, 80 percent of which is

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<sup>27</sup> Barbara Healy Stickel et al., *The Cost to West Coast Communities of Dealing with Trash, Reducing Marine Debris* (2012), <https://static1.squarespace.com/static/612d95efbcf9590ffd8af54d/t/619afb306aa4fa4667746a7f/1637546808664/Cost+of+Dealing+With+Marine+Debris+Kier+Associates.pdf>.

<sup>28</sup> *Id.*

<sup>29</sup> See *California Coastal Cleanup Day History*, Cal. Coastal Comm’n, <https://www.coastal.ca.gov/publiced/ccd/history.html#> (last visited Mar. 31, 2024).

<sup>30</sup> In 2022, there were 39,318 volunteers, *id.*, working three-hour shifts. See *2022 Value of Volunteer Time Estimates*, Indep. Sector, <https://independentsector.org/wp-content/uploads/2023/04/Value-of-Volunteer-Time-by-State-2001-2022.pdf> (last visited Mar. 31, 2024).

<sup>31</sup> *Curbing Plastic Pollution at the Source*, Oceana, <https://oceana.org/campaign-page/plastic-pollution/> (last visited Mar. 14, 2024).

<sup>32</sup> Golam Kibria, *Impacts of Microplastic on Fisheries and Seafood Security—Global Analysis and Synthesis*, 15 *Sci. of Total Env’t* 904 (2023); Matthew S. Savoca et al., *Plastic Ingestion by Marine Fish is Widespread and Increasing*, 27 *Glob. Change Biol.* 2188 (2021).

microplastics.<sup>33</sup> In addition, marine debris impacts California’s recreational economy. A federal study found that Orange County residents avoided going to littered beaches and spent millions of dollars annually driving to cleaner beaches.<sup>34</sup> The study concluded that a 25 percent reduction in marine debris could save Orange County residents \$32 million over just three months.<sup>35</sup> Notably, pollution burdens are often concentrated in “sticky zones”—where plastic waste accumulates due to ocean currents—that can be far removed from the source of the waste.<sup>36</sup>

Plastic pollution also harms the States’ wildlife and endangered species. The sperm whale, which is listed as endangered in the state waters of New York, can ingest plastic marine debris or become entangled in discarded fishing gear, resulting in fatigue, severe injury, or death.<sup>37</sup> A study by the National Oceanic and Atmospheric Administration and the U.S. National Marine Fisheries Service found that every year, in California waters alone, at least 50 marine mammals perish either because they become entangled in plastic, or because they ingest it and it blocks their airways or digestive tracts.<sup>38</sup> Similarly, the first confirmed plastic-related disease, plasticosis, was recently identified in seabirds that ingest significant quantities of plastic waste.<sup>39</sup>

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<sup>33</sup> Chelsea M. Rochman et al., *Anthropogenic Debris in Seafood: Plastic Debris and Fibers from Textiles in Fish and Bivalves Sold for Human Consumption*, 5 *Sci. Reps.* 14340 (2015). California researchers showed that in addition to commercial fisheries, subsistence anglers had a higher risk of consuming bio-accumulated toxins. See Ross Cooper, *The Predicament of Subsistence Fishing and Seafood Contaminants*, Sea Grant Cal., <https://caseagrant.ucsd.edu/news/the-predicament-of-subsistence-fishing-and-seafood-contaminants> (last visited Mar. 31, 2024).

<sup>34</sup> Nat’l Oceanic & Atmospheric Admin., *Assessing the Economic Benefits of Reductions in Marine Debris: A Pilot Study of Beach Recreation in Orange County, California* (2014), <https://stacks.stanford.edu/file/druid:ks485yz2876/MarineDebrisEconomicStudy.pdf>.

<sup>35</sup> *Id.*

<sup>36</sup> Kathryn A. Willis et al., *Using Long-term Citizen Science Data to Distinguish Zones of Debris Accumulation*, 182 *Marine Pollution Bull.* 114028 (2022).

<sup>37</sup> *Sperm Whale*, Nat’l Oceanic & Atmospheric Admin. Fisheries, <https://www.fisheries.noaa.gov/species/sperm-whale> (last updated Jan. 30, 2023).

<sup>38</sup> Vicki Fong, *California: Marine Mammals Tangled and Intoxicated by Plastic*, Int’l Marine Mammal Proj. (Aug. 20, 2020); <https://savedolphins.eii.org/news/california-marine-mammals-tangled-and-intoxicated-by-plastic>.

<sup>39</sup> Hayley S. Charlton-Howard et al., *‘Plasticosis’: Characterising Macro- and Microplastic-Associated Fibrosis in Seabird Tissues*, 450 *J. Haz. Materials* 1 (2023). Plasticosis is defined as the inflammation, fibrosis, and scarring of gut tissue in the presence of plastics. Seabirds with plasticosis have difficulty digesting and processing foods, and may have trouble fighting infection or parasites. See also Lauren Roman et al., *A Quantitative Analysis Linking Seabird Mortality and Marine Debris Ingestion*, 9 *Sci. Reps.* 9 3202 (2019); Erica L. Donnelly-Greenan et al., *Entangled Seabird and Marine Mammal Reports from Citizen Science Surveys from Coastal California (1997–2017)*, 149 *Marine Pollution Bull.* 110557 (2019).

As plastic pollution disperses across the globe through the air, water currents, and international trade, it is clear that we cannot fully solve the plastic pollution crisis at the state or even national level. The States urge the U.S. delegation to INC-4 to advocate for a strong Plastics Treaty that recognizes the global nature of plastic pollution and provides for a coordinated and comprehensive global response.

## **RECOMMENDATIONS**

### **I. The Plastics Treaty Must Address the Full Life Cycle of Plastic to Mitigate Impacts on Human Health and the Environment.**

The States urge the U.S. delegation to INC-4 to advocate for a comprehensive Plastics Treaty that implements protective interventions at every stage of the plastic life cycle, from plastic production to disposal. Such an approach is consistent with United Nations Environment Assembly Resolution 5/14, which calls on the parties to develop “a comprehensive approach that addresses the full life cycle of plastic” through “enhanced international collaboration,”<sup>40</sup> along with the Biden Administration’s commitment to combat the “social, economic, and public health burdens across the entire lifecycle of plastic” that are disproportionately borne by environmental justice communities.<sup>41</sup> A life cycle approach to the Plastics Treaty will not only mitigate plastic pollution, but it will also limit plastics’ massive impacts on our communities. Thus, to ensure the substantive provisions of the Plastics Treaty incorporate a life cycle approach, the Preamble and Objective should state in unequivocal language that the intent of the Treaty is to address the full life cycle of plastic.

The plastic life cycle consists of five main stages: (1) plastic production; (2) materials and product design; (3) waste generation; (4) waste management (including recycling); and (5) plastic waste in the environment. The global community, including the United States, has historically focused on waste management and the cleanup of plastic waste in the environment, which has proven insufficient to prevent plastic pollution. The EPA has recognized this failure, noting that “we need more upstream solutions to addressing plastic pollution,”<sup>42</sup> which would require controls on virgin polymer production.<sup>43</sup> Indeed, the EPA’s longstanding waste management hierarchy ranks source reduction as the most

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<sup>40</sup> See U.N. Env’t Assembly Res. 5/14, *supra* note 4.

<sup>41</sup> The White House, Fact Sheet, *supra* note 2.

<sup>42</sup> EPA, Draft National Strategy to Prevent Plastic Pollution, *supra* note 3, at 13.

<sup>43</sup> See Env’t Invest. Agency, Convention on Plastic Pollution Essential Elements: Virgin Plastic Production and Consumption (2022), <https://eia-international.org/wp-content/uploads/Essential-Elements-Production-Consumption.pdf>.



environmentally preferred waste management strategy.<sup>44</sup> As the EPA notes, pollution prevention or source reduction is, “where feasible, more desirable than recycling, treatment or disposal. It is often more cost effective to prevent pollution from being created at its source than to pay for control, treatment and disposal of waste products. When less pollution is created, there are fewer impacts to human health and the environment.”<sup>45</sup>

Upstream controls are also consistent with the stated policy of the United States, codified in the Save Our Seas 2.0 Act, to “strengthen systems that will reduce the generation” of plastic waste and to reduce “plastic waste from all sources.”<sup>46</sup> And recently, in a press release announcing pollution prevention grants under President Biden’s Investing in America Agenda, the Biden Administration aptly recognized that “[p]reventing pollution at the source rather than managing waste afterwards is an important way to support American businesses while reducing exposure to toxic chemicals in communities and conserving natural resources.”<sup>47</sup>

While plastic creates public health and environmental harms throughout its life cycle, the production phase has particularly acute impacts on climate change and environmental justice communities. Support for aggressive upstream control measures under the Treaty is warranted and would be well-aligned with President Biden’s historic leadership on both matters.<sup>48</sup>

Plastic production in the United States is driven by an abundance of ethane, an inexpensive byproduct of natural gas fracking operations.<sup>49</sup> Plastic is responsible

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<sup>44</sup> See *Learn About Pollution Prevention*, EPA, <https://www.epa.gov/p2/learn-about-pollution-prevention#p2> (last updated Feb. 20, 2024).

<sup>45</sup> *Id.*

<sup>46</sup> Save Our Seas 2.0 Act, Pub. L. No. 116–224, 134 Stat. 1072 (codified at 33 U.S.C. §§ 4201–4282).

<sup>47</sup> Press Release, EPA, Biden-Harris Administration Announces \$24 Million in Pollution Prevention Grants Under President’s Investing in America Agenda (Mar. 18, 2024),

<https://www.epa.gov/newsreleases/biden-harris-administration-announces-24-million-pollution-prevention-grants-under>.

<sup>48</sup> President Biden’s climate leadership has included the Inflation Reduction Act, the largest piece of climate legislation in U.S. history; action on super-pollutants like methane and hydrofluorocarbons; and strong vehicle emissions standards. President Biden has also made environmental justice a central focus of his administration, with actions like Executive Order 14096, Revitalizing Our Nation’s Commitment to Environmental Justice for All; the Justice40 Initiative, which directs 40% of the overall benefits of many Federal investments toward disadvantaged communities (see Exec. Order No. 14,008, Tackling the Climate Crisis at Home and Abroad, Sec. 223 (Jan. 27, 2021)); and billions of dollars for environmental justice grants and initiatives through the Inflation Reduction Act and Bipartisan Infrastructure Laws. Tackling the climate and environmental justice impacts of upstream plastic production would align with and advance these historic efforts.

<sup>49</sup> See Diane M. Sicotte, *From Cheap Ethane to a Plastic Planet: Regulating an Industrial Global Production Network*, 66 Energy Res. & Social Sci. 101479 (2020).

for 3.4 percent of global greenhouse gas emissions annually<sup>50</sup>—the vast majority (90 percent) of which occurs in the extraction and production phases.<sup>51</sup> Without significant reduction efforts, total greenhouse gas emissions from plastic are expected to double by 2060.<sup>52</sup>

Throughout the United States, plastic and petrochemical production facilities are predominantly located in low-wealth communities and communities of color. Production facilities release toxic chemicals into the air and water, worsening childhood asthma, elevating cancer risks, and increasing the risk of adverse birth outcomes.<sup>53</sup> Styrene, for instance, a building block for plastic, is an established neurotoxicant at occupational levels, and it can harm people well beyond a facility's fence line.<sup>54</sup> According to Amnesty International, toxic pollution from the petrochemical industry along the Houston Ship Channel in Texas is causing “devastating harms” to workers and members of the surrounding communities, where 86 percent of the population is Hispanic, and 41 percent of residents have a household income of less than \$25,000.<sup>55</sup> Rates for lung, esophagus, and larynx cancers in several neighborhoods in the Houston area are “statistically significantly greater than expected” compared to the rest of Texas.<sup>56</sup> Similarly, residents of “Cancer Alley” in Louisiana—an 85-mile stretch along the Mississippi River, from New Orleans to Baton Rouge, where communities exist side-by-side with 200 fossil fuel and petrochemical facilities—face elevated rates and risks of various cancers, respiratory ailments, and maternal, reproductive, and newborn health harms.<sup>57</sup> According to the EPA, St. John the Baptist Parish had the highest cancer risk in the

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<sup>50</sup> See Org. for Econ. Coop. & Dev., *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (2022).

<sup>51</sup> Env't Invest. Agency, *Virgin Plastic Production and Consumption*, *supra* note 43, at 2.

<sup>52</sup> *Plastic Leakage and Greenhouse Gas Emissions Are Increasing*, Org. for Econ. Coop. & Dev., <https://www.oecd.org/environment/plastics/increased-plastic-leakage-and-greenhouse-gas-emissions.htm> (last visited Mar. 31, 2024).

<sup>53</sup> Timothy Q. Donaghy et al., *Fossil Fuel Racism in the United States: How Phasing Out Coal, Oil, and Gas Can Protect Communities*, 100 *Energy Res. & Social Sci.* 103104 (2023).

<sup>54</sup> Emily J. Werder et al., *Environmental Styrene Exposure and Neurologic Symptoms in U.S. Gulf Coast Residents*, 121 *Env't Int'l* 480 (2018).

<sup>55</sup> Amnesty Int'l, *The Cost of Doing Business? The Petrochemical Industry's Toxic Pollution in the USA* 9, 17 (2024), <https://www.amnestyusa.org/wp-content/uploads/2024/01/WEB-Petrochemical-The-cost-of-doing-business-v3.pdf>; Huanjia Zhang, *Report Details “Devastating Harms” to TX Communities from Petrochemical Industry*, *Env't Health News* (Jan. 26, 2024), <https://www.ehn.org/petrochemical-industry-pollution-in-texas-2667078428.html>.

<sup>56</sup> Tex. Dep't of State Health Servs., *Assessment of the Occurrence of Cancer, Houston, Texas 2000–2016* 4–5 (2019), <https://www.dshs.texas.gov/sites/default/files/epitox/reports/Assessment-of-the-occurrence-of-cancer-Houston-2000-2016-Report.pdf>.

<sup>57</sup> Hum. Rts. Watch, “We’re Dying Here”—The Fight for Life in a Louisiana Fossil Fuel Sacrifice Zone (2024), [https://www.hrw.org/sites/default/files/media\\_2024/01/us\\_louisiana0124web.pdf](https://www.hrw.org/sites/default/files/media_2024/01/us_louisiana0124web.pdf).

country for much of the past decade, and today, the cancer risk is seven times the national average.<sup>58</sup>

Substantial public health harms are felt later in the plastic life cycle, too. The vast majority of plastic becomes solid waste, which eventually degrades into microplastics that leach into soil and water or become airborne contaminants.<sup>59</sup> Aging plastic debris also releases harmful volatile organic compounds via oxidative photodegradation.<sup>60</sup> Alternative methods of plastic waste management—including incineration and recycling—all have toxic impacts, largely because plastic contains thousands of hazardous additives, polymers, and other chemicals.<sup>61</sup> Plastic recycling workers suffer elevated rates of cardiovascular disease, toxic metal poisoning, and neuropathy, while communities near plastic disposal sites suffer increased risks of childhood leukemia, cardiovascular disease, and lung cancer, among other harms.<sup>62</sup> Because municipal recycling facilities are often sited in environmentally overburdened areas, the effects of plastic recycling are also disproportionately felt in low-wealth communities and communities of color.<sup>63</sup>

These public health impacts are due to the fundamental toxicity of plastic, which can actually be compounded by the recycling process. Not only does plastic feedstock contain toxic chemicals that persist through the recycling process, but when plastic is heated in the recycling process, it can generate new toxic chemicals,

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<sup>58</sup> See Maite Amorebieta et al., *Toxic School: How the Government Failed Black Residents in Louisiana's 'Cancer Alley'*, NBC News (Mar. 16, 2023), <https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504>; see also Ltr. of Concern from Lilian S. Dorka, EPA Deputy Ass't Admin. for External Civ. Rts., to Dr. Chuck Carr Brown, La. Dep't of Env't Quality Sec'y & Dr. Courtney N. Phillips, La. Dep't of Health Sec'y (Oct. 12, 2022), <https://s3.documentcloud.org/documents/23131324/20221012-final-letter-ldeq-ldh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>.

<sup>59</sup> Irena Wojnowska-Baryła et al., *Plastic Waste Degradation in Landfill Conditions: The Problem with Microplastics, and Their Direct and Indirect Environmental Effects*, 19 Int'l J. Env't Rsch. Pub. Health 13223 (2022).

<sup>60</sup> *Id.*

<sup>61</sup> Beyond Plastics, *Chemical Recycling: A Dangerous Deception* 17–18 (2023).

<sup>62</sup> Landrigan et al., *supra* note 22, at 23.

<sup>63</sup> Using the “CalEnviroScreen” tool (a screening methodology that identifies California communities that are disproportionately burdened by multiple sources of pollution), the Oak View neighborhood in Huntington Beach, California scored in the 93rd percentile for cumulative environmental impacts. An elementary school recently filed suit against the neighboring municipal recycling facility for causing a public nuisance through pollution emanating from their recycling operations. See Press Release, Ocean View Sch. Dist., Ocean View School District, Rainbow Environmental Services Announce Press Conference (Nov. 15, 2016), <https://www.ovsd.org/site/default.aspx?PageType=3&DomainID=4&ModuleInstanceID=35&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=2449&PageID=1>.

which are incorporated into recycled plastic.<sup>64</sup> And because plastic can absorb chemicals, pesticides, and persistent organic compounds throughout its life cycle, recycled plastic can contain a toxic mix of unidentified chemicals.<sup>65</sup> Further, many products made with “recycled” plastic (plastic bags and other plastic films, for example) require a mix of recycled and virgin plastic, so their production—even with recycled plastic—inevitably draws more toxic chemicals into circulation.

In the United States, our historical focus on waste management and recycling in lieu of reducing plastic production has been inadequate to address the harms posed by plastic waste.<sup>66</sup> The States urge the U.S. delegation to seize this opportunity to develop a truly comprehensive global instrument to reduce plastic and plastic-related pollution in the environment. To mitigate these substantial public health and environmental harms, and to align with President Biden’s commitment to environmental justice, we encourage the U.S. delegation to support universal obligations to address plastic pollution throughout the life cycle of plastic and advocate for this language in the Preamble and Objective of the Plastics Treaty.<sup>67</sup> See Revised Draft Part I.

## **II. An Effective Plastics Treaty Requires Mandatory, Ambitious, and Internationally Determined Upstream Controls on Plastic Production.**

Ending plastic pollution requires limiting plastic at its source. Weak upstream controls on primary plastic production (Revised Draft Part II.1), chemicals and polymers of concern (Revised Draft Part II.2), and problematic and avoidable plastic products, including single-use plastics and intentionally added microplastics (Revised Draft Part II.3), will not only jeopardize the efficacy of the Plastics Treaty, but will also fail to mitigate the pernicious effects of plastic production on public health, social injustices, and the environment. As the EPA stated in its Draft National Strategy, “we need more upstream solutions to addressing plastic pollution.”<sup>68</sup> The most effective upstream solution is reducing plastic production.

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<sup>64</sup> See Christian Rung et al., *Identification and Evaluation of (Non-)Intentionally Added Substances in Post-Consumer Recyclates and Their Toxicological Classification*, 8 *Recycling* 24 (2023); Greenpeace, *Forever Toxic: The Science on Health Threats from Plastic Recycling* 4 (2023), [https://www.greenpeace.org/usa/wp-content/uploads/2023/05/GreenpeaceUSA\\_ForeverToxic\\_ENG.pdf](https://www.greenpeace.org/usa/wp-content/uploads/2023/05/GreenpeaceUSA_ForeverToxic_ENG.pdf).

<sup>65</sup> *Id.*

<sup>66</sup> Nat’l Acads. Scis., Eng’g & Med. (“Nat’l Acads.”), *Reckoning with the U.S. Role in Global Ocean Plastic Waste* 155 (2022); Davis Allen et al., Ctr. for Climate Integrity, *The Fraud of Plastic Recycling* (2024), <https://climateintegrity.org/uploads/media/Fraud-of-Plastic-Recycling-2024.pdf>.

<sup>67</sup> See U.N. Env’t Assembly Res. 5/14, *supra* note 4.

<sup>68</sup> EPA, *Draft National Strategy to Prevent Plastic Pollution*, *supra* note 3, at 13.

The States urge the U.S. delegation to support mandatory upstream reduction targets and phaseouts to ensure the achievement of global aggregate targets, along with the rapid phaseout of toxic chemicals of concern. The Montreal Protocol on Substances that Deplete the Ozone Layer (“Montreal Protocol”) can readily serve as a model for upstream controls, and the federal government already has numerous statutory and regulatory tools to effectuate such controls, as discussed below. Lastly, the U.S. delegation should reject the use of nationally determined targets to achieve upstream reduction goals, and instead advocate for internationally determined requirements that can be achieved through national implementation plans.<sup>69</sup>

**A. Upstream Controls on Primary Plastic Polymers, Problematic and Avoidable Plastic Products, and Intentionally Added Microplastics Are Necessary to Curb Global Plastic Pollution.**

A successful Plastics Treaty must aggressively reduce plastic production with strong upstream controls. The States therefore support legally binding and timebound reduction targets for primary plastic polymers to achieve a global aggregate reduction.<sup>70</sup>

The Montreal Protocol could serve as a model for the provisions of the Plastics Treaty focused on reduction targets and phaseouts. The Montreal Protocol (to which the United States is a signatory) is largely regarded as the most successful multilateral environmental agreement because of its level of participation, global cooperation, and target achievement.<sup>71</sup> Much of the Montreal Protocol’s success is attributable to its clear target language and flexibility to adapt to scientific developments.<sup>72</sup> Specifically, the flexible “start and strengthen” approach set forth in Article 2 allows the parties to make “adjustments” to the ozone-depleting and global-warming potentials of the controlled substances listed in

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<sup>69</sup> See CIEL et al., *supra* note 7.

<sup>70</sup> Such an approach is supported by the National Academies of Sciences. See Nat’l Acads., *supra* note 66, at tbl. 7.1 (Implementation examples include: national goals and strategies to cap or reduce virgin plastic production, timebound targets, and limits on the plastic content of specific products and packaging.).

<sup>71</sup> See Karen Raubenheimer & Alistair McGillorm, *Is the Montreal Protocol a Model that Can Help Solve the Global Marine Plastic Debris Problem?*, 81 *Marine Pol’y* 322 (2017). Article 4 of the Montreal Protocol imposes trade restrictions to prevent leakage of controlled substances, which encouraged participation in the agreement. Montreal Protocol on Substances that Deplete the Ozone Layer, art. 4, Sept. 16, 1987, S. Treaty Doc. 100-10.

<sup>72</sup> *Id.*

the annexes and “adjustments and reductions of production or consumption of the controlled substances.”<sup>73</sup>

Such an approach would work here, too. To ensure a flexible “start and strengthen” approach, the targets should be in an annex rather than the main body of the Treaty so that they can be readily amended to adapt to scientific developments. *See* Revised Draft Part II.1, Option 1, sub-option 1. A start and strengthen approach will allow the Plastics Treaty to continue to evolve and grow in ambition as science progresses.<sup>74</sup>

The Plastics Treaty should also prioritize the phaseout of particularly problematic and avoidable plastic products, where such phaseouts are feasible and sustainable alternatives exist. Single-use plastics, for instance, account for approximately 35 to 40 percent of current plastic production, yet they are not reusable or recyclable.<sup>75</sup> This rapidly growing segment of plastic manufacturing is predicted to increase by another 30 percent by 2025.<sup>76</sup> In addition, approximately 40 percent of plastic is used for packaging, much of which is disposed of immediately after use.<sup>77</sup> The Biden administration has acknowledged the need to reduce single-use plastics through actions such as Presidential Executive Order 14,057, which directs federal agencies to minimize waste by prioritizing products that can be reused, refurbished, or recycled,<sup>78</sup> and Department of the Interior Secretarial Order 3,407, establishing the goal of phasing out single-use plastic products on Department-managed lands by 2032.<sup>79</sup> Thus, the States urge the U.S. delegation to support language that will encourage the rapid development of sustainable alternatives and require the parties to “take the necessary measures to regulate and reduce and not allow the production, sale, distribution, import or export” of problematic and avoidable plastic products, including “short-lived and single-use

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<sup>73</sup> Montreal Protocol, art. 2, ¶ 9(a)(i)–(iii). The annexes that list the ozone-depleting substances provide that “these ozone depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically.” *Id.* Annex A.

<sup>74</sup> *See* Jane Palmer, *Ever-Evolving Montreal Protocol a Model for Environmental Treaties*, Mongabay (May 12, 2021), <https://news.mongabay.com/2021/05/ever-evolving-montreal-protocol-a-model-for-environmental-treaties/>.

<sup>75</sup> Landrigan et al., *supra* note 22, at 2, 24.

<sup>76</sup> *Id.* at 11.

<sup>77</sup> *See Beat Plastic Pollution*, UNEP, <https://www.unep.org/interactives/beat-plastic-pollution/> (last visited Mar. 31, 2024).

<sup>78</sup> Executive Order No. 14,057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, § 208 (Dec. 8, 2021).

<sup>79</sup> Dep’t of the Interior, Sec. Order No. 3,407, *Department-Wide Approach to Reducing Plastic Pollution*, § 5 (June 8, 2022).

plastic products,” as defined in an annex.<sup>80</sup> See Revised Draft Part II.3, Option 1, op1 Alt 2.

The Plastics Treaty should also prioritize the phaseout of plastic products that are most likely to end up as waste and support the rapid development of feasible alternatives. Cigarette butts, for instance, are the most common pieces of litter in the United States, comprising nearly 20 percent of all litter.<sup>81</sup> Virtually all commercially-produced cigarettes contain filters made of cellulose acetate (a type of plastic), even though they have no human health benefit (that is, they do not reduce the human health risks of smoking) and they pollute the environment.<sup>82</sup> Priority items, such as cigarette butts, should be listed in an annex of the Plastics Treaty and regularly reviewed and amended by a dedicated scientific body. See Revised Draft Part II.3, Option 1, op1 Alt 2.

The Plastics Treaty should also require the phaseout of intentionally added microplastics designed for deliberate release into the environment where sustainable alternatives exist.<sup>83</sup> To this end, the States urge the U.S. delegation to support language that requires the parties to “not allow the production, use in manufacturing, sale, distribution, import or export of plastics and take the necessary measures to regulate the use of plastic products containing intentionally added microplastics.” See Revised Draft Part II.3.b, Option 1.

The States also support the establishment of dedicated programs of work for specific sectors that are responsible for substantial releases of plastic material into the environment, including fisheries, textile, agriculture, and packaging.<sup>84</sup> See

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<sup>80</sup> For example, Germany requires makers of single-use plastic to pay into a fund to combat litter. Single-Use Plastic Fund Act of 11 May 2023 (Federal Law Gazette I 2023, No. 124, dated 15 May 2023). Canada’s government added plastics as toxic substances in its Environmental Protection Act of 1999. See Order Adding a Toxic Substance to Schedule 1 to the Canadian Environmental Protection Act: SOR/2021-86, Can. Gazette, Part II, Vol. 155, No. 10 (2021), <https://canadagazette.gc.ca/rp-pr/p2/2021/2021-05-12/html/sor-dors86-eng.html>.

<sup>81</sup> See Keep Am. Beautiful, 2020 National Litter Study 4 (2021), [https://kab.org/wp-content/uploads/2021/05/Litter-Study-Summary-Report-May-2021\\_final\\_05172021.pdf](https://kab.org/wp-content/uploads/2021/05/Litter-Study-Summary-Report-May-2021_final_05172021.pdf).

<sup>82</sup> Evidence shows cellulose acetate filters can actually make smoking more dangerous because they make inhalation easier, are linked to an increased risk of lung adenocarcinoma (a more aggressive type of lung cancer cell), and give smokers a false sense of security. Min-Ae Song et al., *Cigarette Filter Ventilation and its Relationship to Increasing Rates of Lung Adenocarcinoma*, J. Nat’l Cancer Inst. 12–13 (2017).

<sup>83</sup> Intentionally added microplastics are found in a range of products, including (1) fertilizers and plant or seed protection products; (2) detergents and cleaning products; (3) paint, coating, and ink products; (4) food products, such as control release agents in vitamins; and (5) oil and gas additives. See Euro. Chems. Agency, Annex XV Restriction Report tbl. 6 (2019), <https://echa.europa.eu/documents/10162/05bd96e3-b969-0a7c-c6d0-441182893720>.

<sup>84</sup> See Env’t Invest. Agency, Global Plastics Treaty: Initial Considerations for INC-3 8 (2023), <https://eia-international.org/wp-content/uploads/2023-EIA-UK-ICN3-Global-Plastics-Treaty.pdf>.

Revised Draft Part II.4bis, Option 1. For instance, a dedicated program for textiles would work to significantly reduce and eliminate the release of plastic microfibers from plastic textiles, including polyester, acrylic, and nylon, and develop ways to reduce the production of plastic-containing textiles, facilitate reuse, and increase product longevity.<sup>85</sup> The program could also work to design effective microfiber filtration systems in residential and commercial washers and dryers to reduce fugitive microfiber releases into our water and air.

The States recognize that plastic is currently necessary for some uses, especially in the medical sector. For instance, plastics are used in many life-saving medical devices, such as intravenous kits and blood bags, but they are often made of polyvinyl chloride and di(2-ethylhexyl) phthalate, two chemicals with proven adverse health effects that can enter patients' bodies when they are receiving treatment.<sup>86</sup> The Plastics Treaty should address this issue by ensuring that "necessary" plastics are safe and free of potentially harmful chemicals and hold plastic producers responsible for pollution costs. The Plastics Treaty should also define necessary plastics in an annex and establish strict limits and design criteria for their use, along with timebound phaseouts where scientifically achievable. See Revised Draft Part II.5.a, Option 1, Sub-Option 1.

## **B. The Plastics Treaty Should Ban or Otherwise Limit Chemicals of Concern to Protect Public Health and the Environment.**

As the production and consumption of plastic products has escalated, so too has the production of chemicals used in plastic, such as plasticizers, flame retardants, light stabilizers, and countless other additives.<sup>87</sup> Approximately 13,000 chemicals are used in plastic production, but there is no hazard data for around 6,000 of those chemicals.<sup>88</sup> Of the chemicals with data, almost half—3,200—have been identified as chemicals of concern based on their hazardous properties, including carcinogenicity, reproductive toxicity, endocrine disruption, and toxicity to aquatic organisms.<sup>89</sup>

To ensure that the Plastics Treaty is sufficiently protective and responsive to emerging chemicals of concern, the States urge the U.S. delegation to advocate for

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<sup>85</sup> Tim Grabel et al., UNEP, *On the Road to Success: Designing an Effective Plastics Treaty* 6 (2022), <https://wedocs.unep.org/bitstream/handle/20.500.11822/40968/Perspective%202022%20OCT%20D3.pdf?sequence=1&isAllowed=y>.

<sup>86</sup> *Plastics and Health*, Health Care Without Harm, <https://noharm-global.org/content/global/plastics-and-health> (last visited Mar. 31, 2024).

<sup>87</sup> See UNEP & Secretariat of the Basel, Rotterdam & Stockholm Conventions, *Chemicals in Plastics: A Technical Report 2* (2023), <https://www.unep.org/resources/report/chemicals-plastics-technical-report>.

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*



detailed control measures with annexes to enable an adaptive “start-and-strengthen” approach.<sup>90</sup> *See* Revised Draft Part II.2, Option 1. The Montreal Protocol provides an example of annexes that include targets, criteria, and reduction schedules using science-based benchmarks that are likely to evolve.<sup>91</sup> Annexes will allow chemical-specific edits without a full treaty amendment process. In addition, because plastics contain many unintentionally added substances—such as chemicals that result from plastic production or chemicals that are absorbed by plastic during its life cycle—we urge the U.S. negotiators to support treaty language addressing both the addition and “presence” of chemicals of concern.<sup>92</sup>

Because exemptions could undermine the ambition and overall objective of the Plastics Treaty, it is crucial that any exemptions be transparent, timebound, and based on specific criteria. *See* Revised Draft Part II.4. The States urge the delegation to oppose exemptions for products or chemicals that pose adverse impacts on human health or the environment based on the best available science and indigenous or traditional knowledge. Exemptions may be appropriate, however, where there are no safe or sustainable alternatives available for a specific use, or where Least Developed Countries or Small Island Developing States provide evidence of substantial adverse socio-economic or sociocultural impacts. For instance, the Montreal Protocol includes exemptions for certain laboratory or analytical uses of ozone-depleting substances, which authorize countries to use specific amounts of a controlled substance for a limited period of time.<sup>93</sup>

### **C. The Federal Government Has Existing Authority to Meet Ambitious Upstream Controls on Plastic Production.**

The federal government can use its existing statutory and regulatory authority to meet upstream controls adopted under the Plastics Treaty. Federal agencies have broad permitting and regulatory authority over petrochemical and plastic production facilities under environmental statutes, such as the Clean Air Act

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<sup>90</sup> GAIA, Plastics Treaty Zero Draft Highlights 1 (2023), <https://www.no-burn.org/wp-content/uploads/2023/10/GAIA-Zero-draft-highlights.pdf>.

<sup>91</sup> *Id.*

<sup>92</sup> *See* Scis.’ Coal. for an Effective Plastics Treaty, Response to the Zero Draft Text (UNEP/PP/INC.3/4) 4 (2023), <https://ikhapp.org/wp-content/uploads/2023/11/Scientists-Coalition-Response-to-the-Zero-Draft-text-for-INC-3.pdf>.

<sup>93</sup> *See, e.g.*, UNEP, Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer 752–58 (2020), <https://ozone.unep.org/sites/default/files/Handbooks/MP-Handbook-2020-English.pdf> (listing the essential-use exemptions approved by the Meetings of the Parties). *See also* Minamata Convention on Mercury, art. 6, Oct. 10, 2013, T.I.A.S. 17-816, U.N.T.S. 54669 (providing a detailed procedure for requesting and evaluating exemptions in the context of a treaty to control mercury).

and Clean Water Act, among others.<sup>94</sup> To help the United States achieve reduction targets under the Plastics Treaty, federal agencies can deny, suspend, modify, or revoke permits in the public interest for new or expanded facilities, along with associated infrastructure projects.<sup>95</sup> In addition, federal agencies can object to any new permits issued to petrochemical or plastic production facilities by State-delegated authorities that fail to adequately protect public health and the environment.<sup>96</sup> Federal permitting authorities are required to evaluate the impacts of plastic production facilities in their environmental permitting and siting decisions under the National Environmental Policy Act<sup>97</sup> and pursuant to environmental justice policies.<sup>98</sup>

Federal agencies can also update or promulgate regulations using the best available science and technology to ensure that rules governing pollution from existing petrochemical and plastics facilities are as protective as possible. For instance, as the agency responsible for the administration of many of the major U.S. environmental laws and regulations, the EPA has the authority to act to reduce plastic pollution across its life cycle and mitigate its impacts on human health and the environment. The EPA could update Clean Water Act regulations for plastics facilities and establish strict requirements for eliminating plastic from wastewater and stormwater discharges.<sup>99</sup> Strong pollution controls (coupled with rigorous enforcement) would not only help to protect public health and the environment but would also prevent existing facilities from externalizing the costs of their operations to society.

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<sup>94</sup> See, e.g., 33 U.S.C. § 1342 (prohibiting the discharge of pollutants into the waters of the United States without a permit from EPA); *id.* § 1344(a) (requiring permits from the Army Corps of Engineers for dredging and filling activities); *id.* § 403 (prohibiting the obstruction or alteration of the navigable waters of the United States without a permit from the Army Corps of Engineers); 42 U.S.C. § 4332(c) (requiring agencies to evaluate any environmental impacts and adverse environmental effects “to the fullest extent possible”).

<sup>95</sup> See, e.g., 33 C.F.R. § 325.7(a) (allowing the modification, suspension, or revocation of a Clean Water Act Section 404 permit “as may be made necessary by considerations of the public interest”).

<sup>96</sup> See, e.g., 40 C.F.R. § 123.44 (EPA review and objection to state Clean Water Act permits); *id.* § 70.8(c) (EPA review and objection to state operating permits under the Clean Air Act).

<sup>97</sup> See 42 U.S.C. § 4331(a) (directing agencies “to use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans”); *id.* § 4332(c) (requiring agencies to evaluate any environmental impacts and adverse environmental effects “to the fullest extent possible”); 40 C.F.R. §§ 1500–1508 (NEPA regulations).

<sup>98</sup> See, e.g., Exec. Order No. 14,096; Exec. Order No. 14,091, Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Feb. 16, 2023); Exec. Order No. 13,985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Jan. 20, 2021); Exec. Order No. 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 16, 1994).

<sup>99</sup> See 33 U.S.C. § 1342.

Under the Clean Air Act, the EPA could issue regulations to limit emissions of microplastics as particulate matter,<sup>100</sup> and limit emissions from plastic production facilities. EPA could also use its section 309(a) review authority under the Clean Air Act to identify and reduce potential adverse impacts of plastic manufacturing and production, industrial plastic use, or other plastic-related actions.<sup>101</sup>

EPA could also initiate a rulemaking under the Resource Conservation and Recovery Act to list the most toxic types of plastic as hazardous waste due to their public health and environmental harms.<sup>102</sup> Listing these plastics as hazardous waste would trigger waste reduction measures that could have the effect of limiting upstream plastic production.<sup>103</sup> Listing would also require recordkeeping of these toxic plastics in transit, treatment, and processing, and strict criteria for disposal and export.<sup>104</sup>

In addition, the federal government has many regulatory tools to implement upstream restrictions on chemicals of concern in plastic products. Under the Toxic Substances Control Act (“TSCA”), EPA can ban or restrict the use of chemicals that pose serious health risks.<sup>105</sup> Under this authority, EPA already regulates the production, use, and disposal of toxic chemicals, including polychlorinated biphenyls (or PCBs),<sup>106</sup> asbestos,<sup>107</sup> and dioxins.<sup>108</sup> Further, TSCA could be used to strengthen review and controls on polymers and chemicals. In June 2023, the EPA proposed Significant New Use Rules that would require companies to obtain EPA approval before manufacturing or processing eighteen chemicals derived from plastic-waste feedstocks,<sup>109</sup> and many of the States submitted comments supporting this proposal.

Similarly, the Federal Food, Drug, and Cosmetic Act authorizes the U.S. Food and Drug Administration (“FDA”) to regulate “food additives,” which is defined as “any substance the intended use of which results or may reasonably be expected

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<sup>100</sup> EPA has the authority to update the National Ambient Air Quality Standards to include microplastic particles. *See also* Spring et al., *supra* note 8, at 54.

<sup>101</sup> 42 U.S.C. § 7609(a).

<sup>102</sup> *See id.* § 6903(5) (defining “hazardous waste” as “a solid waste ... which because of its quantity, concentration, or physical, chemical, or infectious characteristics may ... pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed”).

<sup>103</sup> *See id.* § 6921(b).

<sup>104</sup> *See id.*

<sup>105</sup> 15 U.S.C. § 2605.

<sup>106</sup> 40 C.F.R. Part 761.

<sup>107</sup> *Id.* Part 763.

<sup>108</sup> *Id.* Part 766.

<sup>109</sup> Significant New Use Rules on Certain Chemical Substances (23-2.5e), 88 Fed. Reg. 39,804 (June 20, 2023).

to result, directly or indirectly, in its becoming a component or otherwise affecting the characteristics of any food.”<sup>110</sup> Food additive regulations clarify that “food contact substances,” or “any substance that is intended for use as a component of materials used in manufacturing, packing, packaging, transporting, or holding food if such use is not intended to have any technical effect in such food,” fall under FDA’s regulatory authority.<sup>111</sup> Because plastic is ubiquitous in food packaging, the FDA can regulate toxic food contact substances in plastics, including bisphenols and phthalates.<sup>112</sup>

The federal government can also use its vast purchasing power to encourage reductions in plastic production. Because the federal government is “the world’s single largest purchaser of goods and services, spending over \$694 billion in contracts in Fiscal Year 2022 alone,” the General Services Administration could leverage federal procurement to exert market pressures on the plastics industry and support the development of sustainable alternatives.<sup>113</sup> Presidential Executive Order 14,057 directs federal agencies to minimize waste by prioritizing products that can be reused, refurbished, or recycled;<sup>114</sup> on this basis, as noted above, Department of the Interior Secretary Deb Haaland established the goal of phasing out single-use plastic products on Department-managed lands by 2032.<sup>115</sup> A subsequent executive order could direct federal agencies to fully phaseout their use of single-use plastic products, where feasible, and direct EPA to update its Environmentally Preferable Purchasing Program to provide recommendations and standards for single-use plastic alternatives.<sup>116</sup>

Similarly, through its authority under the Federal Trade Commission Act, the federal government can help ensure that consumers—including federal agencies—are not encouraged to purchase plastic products due to misleading marketing about the environmental benefits of such products.<sup>117</sup> In particular, the Federal Trade Commission could make clear that it is deceptive under the Act to market plastic products as recyclable unless they are routinely and actually recycled into a new item, or into raw material used to manufacture a new item,

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<sup>110</sup> 21 U.S.C. § 321(s).

<sup>111</sup> 21 C.F.R. § 170.3(e)(3).

<sup>112</sup> See UNEP, *Chemicals in Plastics: A Technical Report 2* (2023).

<sup>113</sup> Gen. Servs. Admin., *Acquisition Regulation: Reduction of Single-Use Plastic Packaging*, 88 Fed. Reg. 88,856, 88,859 (Dec. 26, 2023).

<sup>114</sup> Exec. Order No. 14,057.

<sup>115</sup> Dep’t of the Interior, Sec. Order No. 3,407.

<sup>116</sup> See *About the Environmentally Preferable Purchasing Program*, EPA, <https://www.epa.gov/greenerproducts/about-environmentally-preferable-purchasing-program> (last updated Feb. 20, 2024).

<sup>117</sup> 15 U.S.C. § 45.

through a mechanical process (as opposed to so-called “chemical recycling”).<sup>118</sup> Like changes in federal procurement policy, curbing such deceptive marketing, which is currently widespread, would assist in reducing the demand for such products and support the development of sustainable alternatives. The federal government could also make sure that product labeling programs it administers, such as EPA’s Safer Choice standard,<sup>119</sup> do not contribute to misperceptions that single-use plastic products, including packaging, represent safe or environmentally sound consumer choices relative to other products.

These and other existing federal statutes and regulations provide substantial authority to meet upstream controls under the Plastics Treaty.<sup>120</sup>

#### **D. Upstream Reductions Should Be Set at the International Level.**

To achieve the goals of the Plastics Treaty, upstream reductions should be governed by ambitious requirements determined at the international level, not by targets selected by individual parties.<sup>121</sup> The U.S. delegation’s current approach of “shall take measures” lacks concrete objectives or standards; if the Plastics Treaty is limited to voluntary commitments in individual national plans,<sup>122</sup> the Treaty will inevitably lack the ambition necessary to solve the plastic waste crisis.<sup>123</sup> The Plastics Treaty will also suffer from unmonitored implementation and a lack of accountability.<sup>124</sup>

The nationally determined contributions adopted under the Paris Climate Agreement demonstrate these shortcomings, as they likely have been inadequate to limit warming to 1.5°C.<sup>125</sup> Under the Paris Agreement, nationally determined

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<sup>118</sup> See State of California et al., Comment from States of California, Connecticut, Delaware, Illinois, Maryland, Michigan, Minnesota, New Jersey, New Mexico, New York, Oregon, and Rhode Island, the Commonwealths of Massachusetts and Pennsylvania, and the District of Columbia 25–33 (Apr. 24, 2023), <https://www.regulations.gov/comment/FTC-2022-0077-0987>.

<sup>119</sup> EPA, EPA’s Safer Choice and Design for the Environment (DfE) Standard (2023), <https://www.epa.gov/system/files/documents/2023-11/epas-safer-choice-standard-november-2023.pdf>; 88 Fed. Reg 78,017 (Nov. 14, 2023).

<sup>120</sup> See Spring et al., *supra* note 8.

<sup>121</sup> See CIEL et al., *supra* note 7.

<sup>122</sup> In the context of multilateral environmental agreements, “national action plans” are policy documents developed at the national level to articulate a country’s policies, priorities, and plans to facilitate the implementation of its obligations or commitments under the international agreement. *Id.* at 3.

<sup>123</sup> *Id.* at 3–4.

<sup>124</sup> *Id.*

<sup>125</sup> See Tatjana Stankovic et al., *The Paris Agreement’s Inherent Tension Between Ambition and Compliance*, 10 *Humans. & Soc. Sci. Comms.* 550 (2023); U.N. Climate Change, “*Climate Commitments Not on Track to Meet Paris Agreement Goals*” as NDC Synthesis Report is Published

contributions are not collectively agreed upon, but are unilaterally determined by individual parties based on their own level of ambition and national capabilities.<sup>126</sup> Because nationally determined contributions are voluntary pledges set at the national level, they are not legally binding under international law, and the Paris Agreement has no enforcement mechanism if a country fails to satisfy its contribution.<sup>127</sup> This approach has likely undermined the ability of the Paris Agreement to achieve its goals and should not be used as a model for the Plastics Treaty.

The States recognize, however, that countries must retain some flexibility to adapt their internal regulations and policies to meet Treaty obligations. The States therefore support the requirement that countries develop and submit “national implementation plans” that describe how the individual country will meet internationally determined reduction targets to promote both compliance and accountability.<sup>128</sup> See Revised Draft Part IV.1. This approach would be similar to the approach taken under the Clean Air Act to reduce air pollutants, where states submit implementation plans to meet federal emission standards. Those guiding standards are an important feature of the scheme: without federal emission standards under the Clean Air Act—or internationally determined reduction targets, here—any implementation plan could just perpetuate the status quo.

In sum, without ambitious and legally binding requirements that dramatically reduce plastic production, the Plastics Treaty will fail to protect human health and the environment in the States and to fight the environmental injustices, biodiversity loss, and climate change that the Biden Administration has vigorously targeted. The States therefore urge the U.S. delegation to support strong upstream controls as the most crucial aspect of the Plastics Treaty.

### **III. The Plastics Treaty Should Ground Its Purpose and Intent in a Respect for Human Dignity and Facilitate a Just Transition to Sustainable Livelihoods Across the Plastic Supply Chain.**

Because plastic impacts human livelihoods and the environment at every stage of the plastic life cycle, the Plastics Treaty must be guided by an approach

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(Feb. 26, 2021), <https://unfccc.int/news/climate-commitments-not-on-track-to-meet-paris-agreement-goals-as-ndc-synthesis-report-is-published>.

<sup>126</sup> Paris Agreement to the United Nations Framework Convention on Climate Change, art. 4, Dec. 12, 2015, T.I.A.S. No. 16-1104.

<sup>127</sup> See *id.* (“Each Party shall prepare, communicate and maintain successive nationally determined contributions that it *intends* to achieve.”) (emphasis added).

<sup>128</sup> National implementation plans, unlike national action plans, explain how a country will meet its obligations under the treaty, including the specific policies, legislation, regulations, and resources it will use to do so. National implementation plans provide for accountability and clearly define methods of implementation. CIEL et al., *supra* note 7, at 4.

that centers the health, safety, and dignity of impacted communities, including those that may derive their livelihood from plastic-related industries. To this end, the Plastics Treaty should provide for a just transition to sustainable livelihoods across the plastic supply chain to ensure that economic opportunities coexist with a clean and healthy environment<sup>129</sup>—a goal shared by the Biden Administration.<sup>130</sup>

In the United States, a just transition would require special attention to environmental justice communities harmed by the plastics industry, such as those in Cancer Alley, the Houston Ship Channel, and Oak View, California, discussed in Part II above. President Biden, through the Inflation Reduction Act and Bipartisan Infrastructure Law, has designated federal funding that can be used to provide training and sustainable jobs for residents in these areas as they transition away from petrochemicals and plastics.<sup>131</sup> This fits well within with the scope of the Biden Administration’s commitment and directive “to prioritize building an equitable, inclusive, and sustainable economy that offers economic opportunities, workforce training, and high-quality and well-paying jobs, including union jobs, and facilitating an equitable transition of the workforce as part of a clean energy future.”<sup>132</sup>

Advocates in environmental justice communities are exemplifying what a just transition can mean in petrochemical corridors. In 2019, Formosa Plastics Corporation settled a lawsuit brought by a former shrimper for the extensive discharge of plastic pellets from its Point Comfort, Texas facility.<sup>133</sup> Of the \$50 million settlement—which required Formosa to clean up pellet pollution and cease discharges—\$20 million was dedicated to “creating a cooperative that will revitalize depleted marine ecosystems and develop sustainable fishing, shrimping, and oyster harvesting,” building new and sustainable economies in environmentally burdened communities.<sup>134</sup> Through the cooperative, impacted communities are developing

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<sup>129</sup> See *Just Transition: A Framework for Change*, Climate Just. All., <https://climatejusticealliance.org/just-transition/> (last visited Mar. 29, 2024).

<sup>130</sup> EPA, Draft National Strategy to Prevent Plastic Pollution, *supra* note 3, at 9.

<sup>131</sup> For instance, the Inflation Reduction Act of 2022 created the Environmental and Climate Justice Program under Section 138 of the Clean Air Act, which provides funding for environmental and climate justice activities to benefit underserved and overburdened communities. Inflation Reduction Act of 2022 (P.L. 117-169), § 60201 (42 U.S.C. § 7438), <https://www.congress.gov/117/plaws/publ169/PLAW-117publ169.pdf>.

<sup>132</sup> Exec. Order No. 14,096.

<sup>133</sup> Final Consent Decree, *San Antonio Bay Estuarine Waterkeeper et al. v. Formosa Plastics Corp., Texas et al.*, Civ. No. 6:17-CV-47 (S.D. Tex. Nov. 27, 2019), <https://static1.squarespace.com/static/5b58f65a96d455e767cf70d4/t/5de5306c5fb6fb30a7bdd7dc/1575301231792/Final+consent+decree.pdf>.

<sup>134</sup> See James Adams, Tim Schütz & Kim Fortun, *Late Industrialism, Advocacy, and Law: Relays Toward Just Transition*, 17 *E. Asian Sci., Tech. & Soc’y* 462 (2023).

meaningful work based on local traditions and ensuring that ecological resilience is prioritized over extractive and polluting economies.

We also urge the U.S. delegation to address the international dimensions of a just transition, especially since the United States still exports significant amounts of plastic waste around the world.<sup>135</sup> For example, informal waste pickers play an important role in waste management in developing countries and build their livelihoods collecting plastic waste and other recyclables, despite the considerable health risks.<sup>136</sup> Waste pickers tend to be economically disadvantaged and are disproportionately women, youth, or people with disabilities.<sup>137</sup> The Plastics Treaty should recognize their contribution in reducing plastic pollution, and ensure they have access to a just transition to sustainable livelihoods, for example, through the development of reuse and refill business models in affected communities that provide for fair and just compensation.<sup>138</sup> *See Revised Draft Part II.12, Option 3.*

Lastly, in providing for a just transition, the Plastics Treaty should recognize the unique circumstances and requirements of Small Island Developing States and Least Developed Countries. In prior negotiations, some developing countries have expressed concern that the Plastics Treaty will result in economic hardship for people employed in the plastics sector.<sup>139</sup> To ensure that these nations are supported, we encourage the U.S. delegation to advocate for access to financing, capacity-building, technical assistance, and technology transfer to enable them to achieve the requirements of the Plastics Treaty without sacrificing economic opportunities for their people.<sup>140</sup> *See Revised Draft Part II.12, Option 3.* This provision could be financed by a multilateral fund or extended producer responsibility fees.

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<sup>135</sup> *See* A.C. (Thanos) Bourtsalas et al., *U.S. Plastic Waste Exports: A State-by-State Analysis Pre- and Post-China Import Ban*, 344 J. Env't Mgmt. 118604 (2023).

<sup>136</sup> *A Global Treaty to End Plastic Pollution Is in Sight*, U.N. Dev. Prog. (Nov. 22, 2023), <https://www.undp.org/blog/global-treaty-end-plastic-pollution-sight>; CIEL et al., *Plastic & Health: The Hidden Costs of a Plastic Planet* 49 (2019), <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>.

<sup>137</sup> U.N. Habitat for a Better Future, *Leaving No One Behind* 14, 17 (2023), [https://unhabitat.org/sites/default/files/2023/04/en\\_2503\\_leaving\\_no\\_one\\_behind.pdf](https://unhabitat.org/sites/default/files/2023/04/en_2503_leaving_no_one_behind.pdf);

<sup>138</sup> UNEP, *Turning Off the Tap* 21–22 (2023), [https://wedocs.unep.org/bitstream/handle/20.500.11822/42277/Plastic\\_pollution.pdf?sequence=3](https://wedocs.unep.org/bitstream/handle/20.500.11822/42277/Plastic_pollution.pdf?sequence=3); Greenpeace, *Greenpeace Demands for a Strong Global Plastics Treaty 2* (2023), <https://www.greenpeace.org/static/planet4-international-stateless/2023/10/ebb883a0-greenpeace-demands-for-a-strong-global-plastics-treaty-oct-2023.pdf>.

<sup>139</sup> *A Global Treaty to End Plastic Pollution Is in Sight*, U.N. Dev. Prog., *supra* note 136.

<sup>140</sup> Such an approach is supported by the National Academies of Sciences. *See* Nat'l Acads., *supra* note 66, at tbl. 7.1 (Implementation examples include: limitations, bans, or voluntarily elimination of plastic waste exports and imports to incentivize waste reduction.).



#### **IV. The Plastics Treaty Cannot Rely on False Solutions to the Plastic Pollution Crisis.**

The Plastics Treaty should neither endorse nor rely on false solutions to the plastic pollution crisis. Specifically, the States urge the U.S. delegation to reject purported solutions that rely solely on plastic recycling, as this approach has been grossly inadequate in mitigating the plastic waste crisis. The States also urge the U.S. delegation to avoid chemical recycling as a solution to plastic waste or as “environmentally sound” waste management. Finally, the Plastics Treaty should not endorse alternative plastics and bioplastics as sustainable solutions because they may result in many of the same harms as petrochemical-based plastics, along with other environmental harms, such as increased water and energy use and the contamination of recyclable waste streams.

##### **A. The Plastics Treaty Should Not Rely Solely on Conventional Recycling to Mitigate the Plastic Pollution Crisis.**

It is undeniable that conventional recycling has failed to mitigate the plastic pollution crisis. The U.S. plastic recycling rate is believed to be only 5 to 6 percent, and globally, only 9 percent of the more than 9 billion tons of plastic ever produced (as of 2015) has been recycled.<sup>141</sup> The rest has been landfilled, incinerated, or discarded into the environment, where it often ends up in rivers, waterways, and eventually, the ocean.<sup>142</sup> Virgin plastic production has continued to escalate, as industry produces around 420 million tons of plastic per year.<sup>143</sup> Because of this track record of failure, the States urge the U.S. delegation to reject Treaty provisions targeting short-term fixes to conventional recycling as a guiding principle, and instead focus on long-term reductions in plastic production as the true way to stem the plastic pollution crisis.

The failure of conventional plastic recycling is due to a range of technical, economic, and policy reasons, along with the physical limitations of plastic polymers themselves. Conventional recycling of plastic, also known as mechanical recycling, uses physical processes to recover polymers from plastic waste for use in new plastic products. This process degrades the quality of the polymers and intermingles additives and colorants, which, in turn, compromises the economic viability of recycled plastic compared to virgin plastic.<sup>144</sup> Moreover, conventional recycling

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<sup>141</sup> Beyond Plastics, Chemical Recycling, *supra* note 61, at 18 (citing Roland Geyer et al., *Production, Use, and Fate of All Plastics Ever Made*, 3 *Sci. Advances* 1700782 (2017)).

<sup>142</sup> Beyond Plastics, Chemical Recycling, *supra* note 61, at 18.

<sup>143</sup> *Id.* at 18–19.

<sup>144</sup> *Id.* at 22, 55.

exacerbates many of the core problems associated with plastics, most notably toxicity and microplastic emissions.<sup>145</sup>

Conventional recycling is often touted as an important element of a circular economy to “close the loop” on plastic consumption, but recycled plastic does not replace virgin plastic on a one-to-one basis.<sup>146</sup> Indeed, recycled plastics “rarely compete directly with primary materials due to degradation in the quality of the polymer,” which occurs throughout its life cycle.<sup>147</sup> The bottom line is that even if plastic is recycled, it eventually becomes waste that must be managed in some way; it does not disappear. Thus, any strategy to address plastics must include an emphasis on plastic source reduction and transition to reuse.<sup>148</sup>

To ensure that the Plastics Treaty does not rely solely or primarily on conventional recycling as a solution to the plastic pollution crisis, we urge the U.S. delegation to reject a “circular economy for plastic” as a guiding principle of the Treaty.<sup>149</sup> See Revised Draft Section I.4 – Principles, Option 1.

### **B. The Plastics Treaty Should Reject Chemical Recycling as an Environmentally Sound Method of Waste Management.**

The Plastics Treaty should not rely on chemical recycling as a solution to the plastic pollution crisis or as an environmentally sound waste management technique, unless and until substantial technological improvements are made to eliminate its harmful health and environmental impacts. See Part II.9.a., Option 3. For years, the plastics industry has claimed that a range of technologies referred to as “chemical recycling” (also known as advanced recycling or molecular recycling)

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<sup>145</sup> See Greenpeace, *Forever Toxic*, *supra* note 64; Valerio Guido Altieri et al., *Treating and Reusing Wastewater Generated by the Washing Operations in the Nonhazardous Plastic Solid Waste Recycling Process: Advanced Method vs. Conventional Method*, 284 J. Env’t Mgmt. 2 (2021); see also Part I *supra*.

<sup>146</sup> See Trevor Zink & Roland Geyer, *Circular Economy Rebound*, 21 J. Indus. Ecology 1, 4 (2017).

<sup>147</sup> *Id.* at 4.

<sup>148</sup> California has enacted the Plastic Pollution Prevention and Packaging Producer Responsibility Act, which seeks to implement a circular-economy program for packaging and plastic food service items by first requiring source reduction and transition to reuse, and then turning to conventional recycling to ensure that all remaining plastics are actually remanufactured for use in responsible end markets. Cal. Sen. Bill 54, (Allen) Stats. 2022, ch. 75.

<sup>149</sup> Such an approach is supported by the National Academies of Sciences. See Nat’l Acads., *supra* note 66, at tbl. 7.1 (Implementation examples include minimal recycling solutions and focuses on the misuse of “recycling” as a term, including use of the “chasing arrows” mark and creating enforceable feedstock and performance standards for the labels “biodegradable,” “compostable,” and “biobased” to prevent “greenwashing.”).

could play a significant role in reducing global plastic waste.<sup>150</sup> However, evidence shows that chemical recycling creates environmental and public health harms through the emission of greenhouse gases and toxic air pollutants, along with wastewater discharges of hazardous chemicals.<sup>151</sup> Indeed, because chemical recycling exacerbates public health risks in the communities where it occurs,<sup>152</sup> it does not solve the plastic pollution crisis; it merely shifts the burden to environmental justice communities that can least afford to bear it.<sup>153</sup> Further, evidence shows that widespread adoption of chemical recycling would not actually reduce plastic production.<sup>154</sup>

The international community has already recognized that chemical recycling is not an environmentally sound method of waste management. The Basel Convention, which regulates transboundary trade in hazardous waste, has established a range of technical guidance on best practices to manage hazardous waste in an “environmentally sound” manner.<sup>155</sup> In 2023, over 50 countries that are parties to the Basel Convention objected to the inclusion of chemical recycling in the technical guidelines because there is no available independent data to justify chemical recycling as environmentally sound management of plastic waste.<sup>156</sup> As a result, chemical recycling is only mentioned in unadopted, bracketed, and appended

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<sup>150</sup> Veena Singla, Nat. Res. Def. Council, Recycling Lies: “Chemical Recycling” of Plastics Is Just Greenwashing Incineration 1–2 (2022), <https://www.nrdc.org/sites/default/files/chemical-recycling-greenwashing-incineration-ib.pdf>.

<sup>151</sup> See Beyond Plastics, Chemical Recycling, *supra* note 61.

<sup>152</sup> *Id.* at 40; Sharon Lerner, *This “Climate-Friendly” Fuel Comes with an Astronomical Cancer Risk*, ProPublica (Feb. 23, 2023), <https://www.propublica.org/article/chevron-pascagoula-pollution-future-cancer-risk>. A consent order between EPA and Chevron “quantified the lifetime cancer risk from the inhalation of smokestack air [from a plastic-to-fuel facility] as 2.5 cancers in 10 people.” *Id.*

<sup>153</sup> In June 2023, the EPA proposed Significant New Use Rules that would require companies to obtain EPA approval before manufacturing or processing eighteen chemicals derived from plastic-waste feedstocks, and many of the States submitted comments concerning the risks and limitations of chemical recycling. See Comments of the Attys. Gen of Maryland et al., U.S. Environmental Protection Agency Proposed Rule; Significant New Use Rules on Certain Chemical Substances (23-2.5e) (Aug. 18, 2023), <https://oag.ca.gov/system/files/attachments/press-docs/Comments%20of%20the%20AGs%20of%20MD%20CA%20MA%20DC%20and%20other%20state%20on%20SNURs.pdf>.

<sup>154</sup> Of the eleven constructed chemical recycling facilities in the United States, only two have the stated purpose of creating feedstock for plastic production; the others make either fuel, or a combination of fuels, chemicals, and plastic feedstocks, meaning that chemical recycling would hardly promote a circular economy for plastics. Beyond Plastics, Chemical Recycling, *supra* note 61, at 81–119.

<sup>155</sup> See *Developing Guidelines for Environmentally Sound Waste Management*, Basel Convention, <https://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/Overview/tabid/3615/Default.aspx> (last visited Mar. 31, 2024).

<sup>156</sup> See Beyond Plastics, Chemical Recycling, *supra* note 61.

text in the technical guidelines, rather than fully included in the text as a method of environmentally sound waste management.<sup>157</sup>

Like the Basel Convention, the Plastics Treaty should include clear definitions of what constitutes environmentally sound waste management to prevent the development of infrastructure that merely shifts the burden of plastic pollution rather than stopping it at its source. *See* Revised Draft Part II.9.a., Option 3 (requiring utilization of the technical guidelines for environmentally sound management of plastic waste under the Basel Convention).

### **C. The Plastics Treaty Should Not Prematurely Endorse Alternative Plastics and BioPlastics as Sustainable Solutions to the Plastic Pollution Crisis.**

The Plastics Treaty should not prematurely endorse alternative plastics or bioplastics<sup>158</sup> as solutions to the plastic pollution crisis. Such alternatives often have known or unknown trade-offs, negative externalities, and unintended consequences that may reduce any marginal environmental benefits. Many non-conventional plastics have the same end-of-life scenario as conventional plastics, such as landfill disposal or incineration, and can result in even more environmental harm than conventional plastic.<sup>159</sup> In addition, the production of “bioplastics” is often more energy-intensive than that of conventional plastics and can produce more air pollutants during the manufacturing process than conventional plastics.<sup>160</sup> “Biodegradable” plastics, a subset of bioplastics, may rapidly fragment into

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<sup>157</sup> *See* Press Release, GAIA, The Tide is Turning on Chemical “Recycling” (May 16, 2023), <https://www.no-burn.org/baselcop-may2023/>.

<sup>158</sup> “Bioplastics” is an umbrella term that refers to bio-based, biodegradable, and/or compostable plastic. Bio-based plastic is plastic made from feedstocks such as corn or potato starch, but it is functionally (and sometimes chemically) identical to conventional plastic. Biodegradable plastic refers to plastic that can be broken down by microorganisms, under certain conditions, into water, carbon dioxide, and naturally occurring minerals. Compostable plastic is a subset of biodegradable plastic that is capable of full biodegradation under specific conditions at industrial composting facilities. GAIA, Bioplastic 1 (2022), [https://www.no-burn.org/wp-content/uploads/2022/04/UNEA-publication-packet\\_bioplastic.pdf](https://www.no-burn.org/wp-content/uploads/2022/04/UNEA-publication-packet_bioplastic.pdf).

<sup>159</sup> *Id.* Such an approach is supported by the National Academies of Sciences. *See* Nat’l Acads., *supra* note 66, at tbl. 7.1 (Implementation examples include: labeling standards for “biodegradable,” “compostable,” and “biobased” products, to prevent consumer confusion and potential “greenwashing.”).

<sup>160</sup> *See* GAIA, Bioplastic, *supra* note 158; *see also* State of California et al., Comments to the U.S. Env’t Prot. Agency re: Draft National Strategy to Prevent Plastic Pollution 20–24 (July 31, 2023), <https://oag.ca.gov/system/files/attachments/press-docs/EPA%20Draft%20Plastics%20Strategy%20Comment%20Letter%20%28Final%2BBookmarks%29.pdf> (arguing that EPA should not consider any process other than mechanical recycling to qualify as “recycling” unless the process meets rigorous standards that promote true circularity and protect human health and the environment”).

microplastics when released into the environment, rather than biodegrade into water, carbon dioxide, and other naturally occurring minerals, as intended.<sup>161</sup> There is also evidence that bioplastics release chemical additives more rapidly than non-biodegradable plastics.<sup>162</sup>

Finally, bioplastics may actually hinder the recycling of conventional plastics when they are comingled in sufficient quantities. Bio-plastic mimics conventional plastic visually, but not chemically, and cannot be recycled using the same technology. Thus, when well-meaning consumers comingle bioplastics with conventional plastics in recycling bins, the waste load becomes contaminated, and it is less likely to actually be recycled.

Because the overall goal of the Plastics Treaty is to reduce pollution and harms from plastic—petrochemical-based or otherwise—the States urge the U.S. delegation not to endorse the replacement of conventional plastics with alternative or bioplastics, unless and until such products are independently verified as “safe, environmentally sound and sustainable, based on minimum design and performance criteria,” as defined in an annex to the Treaty. *See* Revised Draft Part II.5.d, Option 3. Such criteria must “build on a full life cycle analysis and take into account their potential for environmental, economic, social and human health impacts, including food security.” *See* Revised Draft Part II.5.d, Option 3.

#### **V. Extended Producer Responsibility Programs and Package Design Criteria Under the Plastics Treaty Should Be Focused on Reusability.**

Extended producer responsibility (“EPR”) is an environmental policy approach that extends a producer’s responsibility for a product to the post-consumer stage of the product’s life cycle. EPR shifts the responsibility of waste management upstream to the producer (and away from states and municipalities) and incentivizes producers to take environmental sustainability into account when designing products.<sup>163</sup> Effective EPR programs require companies to reduce their packaging, transition to reuse systems, and ensure that their products and remaining packaging are free of toxics.<sup>164</sup>

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<sup>161</sup> *See* GAIA, Bioplastic, *supra* note 158, at 1.

<sup>162</sup> *Id.*

<sup>163</sup> *Extended Producer Responsibility*, Org. Econ. Coop. & Dev., <https://www.oecd.org/environment/extended-producer-responsibility.htm> (last visited Mar. 31, 2024).

<sup>164</sup> *See* Just Zero & Beyond Plastics, Ten Requirements for Effective Packaging Reduction Policies (2023), <https://static1.squarespace.com/static/5eda91260bbb7e7a4bf528d8/t/63c19b3584929977b3b5fb44/1673632568967/Ten+principles+of+Effective+EPR+Fact+Sheet+January+2023.pdf>.

California’s Plastic Pollution Prevention and Packaging Producer Responsibility Act utilizes the EPR model for the management of single-use packaging and plastic food service ware waste.<sup>165</sup> Under this framework, producers must ensure that any plastic packaging they use or any plastic food service ware they sell is recycled and remanufactured at a responsible end market. Producers must also source-reduce plastic by switching to reusable packaging or other packaging material or relying on less plastic for their packaging and food service ware. Producers that do not meet the law’s requirements will be subject to penalties and will not be able to sell their products in California.

To implement an EPR requirement under the Plastics Treaty that properly focuses on reuse and reduced production, the EPA could provide guidelines, technical support, and funding for individual states to develop EPR programs and incentivize reuse systems. For instance, EPA could leverage available funding to prioritize innovative collaboration between all levels of government and private firms to create large scale reuse systems at the regional, state, or national level. Because many states and municipalities have already invested in the development of reuse systems, EPA could explore opportunities for co-financing and parallel funding.<sup>166</sup>

## **VI. The Plastics Treaty Should Include Provisions for a Dedicated Scientific Body and a Multilateral Fund Under the Instrument.**

To ensure its long-term efficacy, the Plastics Treaty should provide for a dedicated scientific and technical body to evaluate and underpin the criteria for control measures under the Treaty. *See* Revised Draft Part V.2. This is consistent with United Nations Environment Assembly Resolution 5/14, which called for a dedicated scientific body to “strengthen the science-policy interface at all levels, improve understanding of the global impact of plastic pollution on the environment, and promote effective and progressive action at the local, regional and global levels.”<sup>167</sup>

A dedicated scientific body is necessary to implement the most essential upstream controls under the Plastics Treaty, including amending and strengthening annexes regarding chemical, polymer, and product safety and their associated timelines.<sup>168</sup> For instance, a scientific body is necessary to review nominations for

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<sup>165</sup> Cal. Sen. Bill 54, (Allen) Stats. 2022, ch. 75.

<sup>166</sup> For instance, under its EPR law, Oregon will use some funding to developing reuse systems. Or. Rev. Stat. § 459A.941.

<sup>167</sup> U.N. Env’t Assembly Res. 5/14, *supra* note 4.

<sup>168</sup> Such an approach is supported by the National Academies of Sciences. *See* Nat’l Acads., *supra* note 66, at tbl. 7.1 (Implementation examples include: research to deliver products without

listing chemicals, polymers, and products of concern based on sound scientific, socioeconomic, and sociocultural assessments. *See* Revised Draft Part II.2, Option 4. Likewise, to implement the “start-and-strengthen” approach, a dedicated scientific body is needed to recommend to the governing body at each conference of the parties the chemicals, polymers, or plastic products of concern that necessitate regulation, along with appropriate target and timelines. *See* Revised Draft Part II.2, Option 4. A scientific body would also play a crucial role in evaluating proposed safe and sustainable non-plastic substitutes, and developing and updating the criteria for the sustainable and safe design of plastic products.

Finally, a dedicated multilateral fund is needed to ensure reliable, predictable, and efficient funding to achieve the substantive provisions of the Plastics Treaty.<sup>169</sup> *See* Revised Draft Part III.1. A multilateral fund is especially crucial for Least Developed Countries and Small Island Developing States as they improve waste management, tackle environmental pollution, and develop other forms of capacity building to comply with provisions of the Treaty. The Multilateral Fund of the Montreal Protocol could serve as a template for a multilateral fund under the Plastics Treaty, as it has successfully assisted developing countries comply with control measures required under the Protocol.<sup>170</sup>

## CONCLUSION

Plastic pollution has reached every corner of the globe, from the depths of the Mariana Trench<sup>171</sup> to the peaks of the Himalayas.<sup>172</sup> While it will take decades, or even centuries, to undo this harm, the global community is on the cusp of a truly groundbreaking international agreement that can meaningfully reduce plastic production, mitigate the climate crisis, and protect our environment and our most vulnerable communities—goals and values shared by the States and the Biden administration. The States therefore urge the State Department and the U.S. delegation to adopt the recommendations in this letter on behalf of the United States at INC-4.

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packaging; research of industrially compostable and home compostable polymers films and adhesives; and promoting industry-wide innovation, standards, collaboration, and regulation by constraining the types of resins used in some applications to maximize value and recyclability.).

<sup>169</sup> Grabiell et al., *supra* note 85.

<sup>170</sup> *See National Ozone Units & Reporting Country Programme Data*, Multilateral Fund for the Implementation of the Montreal Protocol, <http://www.multilateralfund.org/Our%20Work/countries/default.aspx> (last visited Mar. 15, 2024).

<sup>171</sup> Sanae Chiba et al., *Human Footprint in the Abyss: 30 Year Records of Deep-Sea Plastic Debris*, 96 *Marine Pol’y* 204 (2018).

<sup>172</sup> Avishek Talukdar, *Microplastic Pollution in the Himalayas: Occurrence, Distribution, Accumulation and Environmental Impacts*, 20 *Sci. Total Env’t* 874 (2023).

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