

# TOWARD AN INTERNATIONAL LEGALLY BINDING AGREEMENT ON PLASTICS AND PLASTIC POLLUTION

## RETHINKING PLASTIC

Plastics persist in the environment for centuries, representing an ever-growing legacy of pollution with enduring and profound intergenerational impacts on humans, ecosystems, flora and fauna. While the problems of plastics in our oceans have gained particular attention in recent years, the negative externalities extend beyond just the marine environment; plastics also affect climate change, terrestrial and freshwater environments, and public health with widespread environmental, economic and social implications.

- **Oceans (SDG 14).** Up to 12 million metric tonnes of plastic leak into our oceans each year, a figure that could double by 2025 without large-scale improvements to waste management systems.<sup>[1]</sup> Annual economic costs are over \$13 billion and rising exponentially, primarily hitting tourism, fisheries and shipping industries.<sup>[2]</sup> Under business-as-usual (BAU), there could be more plastic than fish in the ocean by 2050.<sup>[3]</sup>
- **Climate Change (SDG 13).** The feedstocks used to produce virtually all plastics are derived from fossil fuels—namely oil, natural gas and coal—with carbon expended throughout their life-cycle, including during extraction, pipeline and refinery operations, production and conversion, and end-of-life treatment, such as incineration.<sup>[4]</sup> Under BAU, global plastic production “will account for 20% of total oil consumption and 15% of the global annual 2°C carbon budget by 2050.”<sup>[5]</sup>
- **Terrestrial and Freshwater Environments (SDG 15 and SDG 6).** Annual plastic releases to land are estimated to be 4-23 times more than releases to oceans, and more than half of microplastics remain on land.<sup>[6]</sup> Impacts on terrestrial and freshwater ecosystems are as yet relatively poorly studied and understood,<sup>[7]</sup> but samples of drinking water in five continents have detected significant contamination rates for plastic fibers.<sup>[8]</sup>
- **Public Health (SDG 3).** Plastics are combinations of polymers and additives including stabilizers and plasticizers, such as phthalates, which pose risks to human health.<sup>[9]</sup> Microplastics also attract and transport persistent organic pollutants and other toxins.<sup>[10]</sup> Under BAU, 1.2 million tonnes of additives could enter our oceans per year by 2050,<sup>[11]</sup> and combined with accumulations in soil and freshwater, will cumulatively contaminate our food chain and water supplies. Moreover, fossil-fuel extraction and refining impact air and water quality of local residents and are often associated with human rights abuses in many indigenous communities.

It is time the global community rethink plastics.

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The United Nations Environment Assembly (UNEA) and several global environmental agreements have taken an interest in plastic pollution, recognising it as a serious and rapidly growing issue of global concern that needs an urgent global response<sup>[12]</sup>. In 2016, UNEA requested a report on the current governance frameworks for plastic pollution, including an assessment of gaps and options for addressing them to be presented in 2017.<sup>[13]</sup>

The case for an international agreement on plastics and plastic pollution is growing<sup>[14]</sup>. Existing frameworks, including the UN Convention on the Law of the Seas (UNCLOS), UN Regional Seas Programmes and the Sustainable Development Goals among others, have spurred the adoption of measures to reduce marine plastic pollution. However, current initiatives primarily focus on the symptoms of the problem (e.g. marine litter) and lack the scale, mandate and accountability required to address plastics from production and product design to consumption and final treatment. The challenges posed by plastics therefore need to be addressed through a new global agreement, for example a

Convention on Plastics and Plastic Pollution, which would be complementary to and compatible with existing treaties and targets.

Because plastics are both a product and pollutant, similar to ozone-depleting substances used in refrigeration and air-conditioning, any Convention on Plastics and Plastic Pollution would be well-served to consider the benefits of the approach taken by the Montreal Protocol on Substances that Deplete the Ozone Layer, which is widely considered to be the most successful multilateral environmental agreement, while incorporating elements from other agreements.<sup>[15]</sup>

## POSSIBLE FEATURES OF A CONVENTION ON PLASTICS AND PLASTIC POLLUTION

**Binding Global Reduction Target.** Set a time-bound global reduction goal for plastic pollution, establishing periodic review mechanisms to assess action plans, monitor progress and enable learning.

**Targets and Caps on Production and Consumption.** Adopt restrictions on the production and consumption of virgin polymers, with the following objectives: (i) decouple plastic production from fossil fuels and other problematic feedstocks, thus reducing climate impacts; (ii) promote reusable packaging through innovative delivery and re-use models that replace single-use packaging; (iii) create secondary markets for recyclates, thus improving the economics of investments in collection and recycling infrastructure; (iv) promote better design and efficient use of resources as well as safe non-chemical alternatives, dis-incentivizing non-recyclable and single-use plastics; and (v) encourage the adoption of national measures to reduce consumption.

**Pre-Production Pellets.** Set out obligations on polymer producers, converters and transporters to prevent the loss of pre-production pellets, flakes and powders, which can be dramatically reduced through industry-wide implementation of best management practices at and between production and conversion facilities.

**Global Quality Standards and Market Restrictions.** Adopt global quality standards on design and labelling in addition to market restrictions on certain polymers, additives and uses, with the following objectives: (i) restrict polymers and additives in certain uses to promote recyclability and discourage downcycling; (ii) eliminate legacy substances harmful to public health and detoxify plastic waste streams; and (iii) reduce top littered items.

**Collection and Recycling.** Set out requirements on collection and end-of-life management, including infrastructure, national reuse and recycling targets and restrictions on trade in scrap plastic, as well as mandate extended producer responsibility, taking into account common but differentiated responsibilities and ensuring the best model possible specific to each country while respecting waste workers already providing collection services.

**Financial Support Mechanism and Knowledge Exchange Network.** Create a fund to support developing countries to implement sustainable zero waste management models, cover incremental compliance costs, promote technology transfers, demonstration projects, and policy development, and establish knowledge exchange networks.

**Technical, Economic and Scientific Bodies.** Establish standing bodies of experts, economists, scientists and other stakeholders to provide review and analysis to support policymaking and national authorities, with mandated multi-stakeholder participation in decision-making and implementation.

**#BreakFreeFromPlastic** is a global movement envisioning a future free from plastic pollution. Since its launch in September 2016, over 1000 non-governmental organisations from across the world have joined the movement to demand massive reductions in single-use plastics and to push for lasting solutions to the plastic pollution crisis. These organisations share the common values of environmental protection and social justice, which guide their work at the community level and represent a global, unified vision. Sign up at [www.breakfreefromplastic.org](http://www.breakfreefromplastic.org).

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## THIS STATEMENT IS SUPPORTED BY

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World Animal Net  
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- [3] Ellen Macarthur Foundation, *The New Plastics Economy: Rethinking the Future of Plastics* (2015), p. 16.
- [4] Center for International Environmental Law, *Fueling Plastics: Fossils, Plastics, & Petrochemical Feedstocks* (2017), available at <http://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Fossils-Plastics-Petrochemical-Feedstocks.pdf>
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- [7] Duis, K. and Coors, A., Environmental Sciences Europe, *Microplastics in the Aquatic and Terrestrial Environment: Sources (with a Specific Focus on Personal Care Products), Fate and Effects* (6 January 2016), p. 2.
- [8] See Chris Tyree and Dan Morrison (Orb), *Invisibles: The Plastic Inside Us* (2017), available at [https://orbmedia.org/stories/Invisibles\\_plastics](https://orbmedia.org/stories/Invisibles_plastics).
- [9] Ellen Macarthur Foundation, *The New Plastics Economy: Rethinking the Future of Plastics* (2015), pp. 29-30.
- [10] GESAMP, *Sources, Fate and Effects of Microplastics in the Marine Environment: A Global Assessment* (2015), p. 45.
- [11] Ellen Macarthur Foundation, *The New Plastics Economy: Rethinking the Future of Plastics* (2015), pp. 29-30.
- [12] United Nations Environment Assembly, *Resolution 2/11: Marine Plastic Litter and Microplastics*, UNEP/EA.2/Res.11 (May 2016), ¶ 1.
- [13] United Nations Environment Assembly, *Resolution 2/11: Marine Plastic Litter and Microplastics*, UNEP/EA.2/Res.11 (May 2016), ¶ 21; see also United Nations Environment Programme, *Combatting Marine Plastic Litter and Microplastics: An Assessment of the Effectiveness of Relevant International, Regional and Subregional Governance Strategies and Approaches* (5 October 2017), UNEP/EA.3/INF/5.
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[15] See Karen Raubenheimer and Alistair McIlgorm, *Is the Montreal Protocol a Model that Can Solve the Global Marine Plastic Debris Problem?* (Marine Policy 81 (2017) 322-329); Nils Simon and Maro Luisa Schulte, *Stopping Global Plastic Pollution: The Case for an International Convention* (2017), pp. 9 and 20.

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