

# JOINT POSITION STATEMENT

## FIRST MEETING OF THE AD HOC OPEN-ENDED EXPERT GROUP ON MARINE LITTER AND MICROPLASTICS

The Women's Major group and NGO Major group, and undersigned organizations offer this joint position statement on the 1<sup>st</sup> meeting of the Ad Hoc Open-Ended Expert Group on Marine Litter and Microplastics

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## INTRODUCTION

The adoption of plastics as a substitute for traditional materials has expanded almost exponentially since the 1950s when large-scale plastic production began. Annual plastic production—*i.e.* the production of virgin resins or polymers from fossil-fuel feedstocks for use in products and packaging—reached about 311 million tonnes in 2014 and continues to rise rapidly, fuelled by inexpensive shale gas.<sup>i</sup> Estimates based on current investments indicate that production of ethylene and propylene, the two main precursors used during the production of plastic, will increase by 33-36% by 2025.<sup>ii</sup>

Scientists became aware of the problems from marine plastic pollution in the 1950s. Understanding of its nature and severity grew over the ensuing next decades, but with few policy measures taken until recently, and these largely at the national level.<sup>iii</sup> A series of resolutions and reports on marine litter and microplastics culminated in the decision to establish an Ad Hoc Open-Ended Expert Group (OEEG) at the 3<sup>rd</sup> session of the United Nations Environment Assembly (UNEA), which provides a policy window to finally address the issue of Marine Plastic Pollution.

This paper presents preliminary input by the undersigned public-interest civil-society organizations as well as NGO, and Women's Major groups to the 1<sup>st</sup> meeting of the OEEG following the call for

input received on March 27<sup>th</sup> 2018, in which the UN Environment Program identifies 3 main questions on which stakeholders' views are sought:

- Major barriers to combating marine litter and microplastics;
- Potential Response options and associated environmental, social and economic costs;
- Feasibility and effectiveness of different response options.

As a preliminary note, the undersigned organizations wish to highlight the large body of existing work addressing these very questions, in particular the reports prepared for UNEA-2 and UNEA-3.<sup>iv</sup> The present paper builds on this existing work as well as additional recent research. Given the rapidly increasing impacts of plastic pollution, and urgency of the situation, it is imperative that the OEEG builds on this existing work to avoid any further delay in addressing the urgent question of marine plastic pollution.

## MAJOR BARRIERS TO COMBATING MARINE LITTER AND MICROPLASTICS

Plastic pollution is a transboundary and complex problem with significant and long lasting social, economic and environmental impacts. As recognized by UNEA, addressing marine plastic pollution in the face of increasing primary plastic production and consumption in products and packaging is a major challenge.<sup>v</sup> As the world works to address the growing crisis of plastics in the environment, ocean, wildlife and human bodies, it must simultaneously confront the role of expanding primary plastic production in that crisis. The undersigned see the anticipated major increase in the production of virgin resins and polymers as one of the main barrier to efficiently combating marine plastic pollution.

Recent shifts in shale gas development in the United States are driving a massive investment in new upstream plastic production facilities that, if constructed, will produce the fundamental materials from which most plastics are made. This new wave of US investment follows recent and ongoing expansions in China, the Middle East, and other parts of Asia and Europe. By 2025, production capacity is expected to increase by 33-36% (approximately 100 million tonnes) for both ethylene and propylene.<sup>vi</sup> If constructed, this massive expansion in capacity could lock in a world of even cheaper, more ubiquitous, and more disposable plastics for decades to come, undermining efforts to reduce consumption and reverse the marine plastics crisis.<sup>vii</sup>

Up to 80% of ocean litter—much of which is plastic—is estimated to be delivered by river systems from inland sources.<sup>viii</sup> Although microplastics have been detected in every major ocean and many freshwater lakes and rivers, less data are available depicting freshwater pathways of litter and microplastics.<sup>ix,x</sup> Studies show that plastics contain chemical additives, adsorb organic contaminants from the surrounding area, and when ingested by organisms, can serve as vectors for these chemical and microbial contaminants.<sup>xi</sup> Several research papers published lately, especially the proposal from Rochman and others to classify plastic marine debris as a hazardous substance,<sup>xii</sup> or the proposal to list microplastics as persistent organic pollutants (POPs),<sup>xiii</sup> indicates substantial

concern from the scientific community.<sup>xiv</sup>

Current waste management facilities are inadequate to deal with our existing levels of plastic production. The vast majority of plastics produced today are not collected or adequately managed,<sup>xv</sup> and recovery of plastics once they have entered our waterways is virtually impossible, as is the case for textile microfibers.<sup>xvi</sup>

Faced with such a massive plastic production increase, improved recycling and waste management alone would at the very best only stabilize the amount of plastic ending up in the ocean and the environment. Recent data shows that only 9% of all plastic ever discarded since 1950 has been recycled while the rest is still present in the environment, where it will remain for millennia.<sup>xvii</sup> There are no waste management mechanisms in place that can outcompete overproduction of plastic, which is supported by massive private investments, nor even curb the amount of plastic that ends up in the environment. While improved waste management approaches such as zero waste are still necessary, any intervention that only addresses waste management will fail to prevent plastic pollution unless plastic production is also reduced.<sup>xviii</sup>

Furthermore, existing solutions to manage plastic at the end of its initial-use phase, if and when it is adequately collected, are still largely insufficient to address all impacts of plastic throughout its lifecycle. Especially, incineration, “waste-to-energy,” and “plastic-to-fuel” methods undermine plastic reduction efforts as a one-way use of fossil fuels in plastic.

For example, packaging accounts for about one-third of plastic production, and much of this is designed for single-use, with 95% of its material value (or \$80-120 billion per year) lost to the economy after a short first use.<sup>xix</sup> Packaging is a major contributor to plastic pollution, only 14% of plastic packaging is collected for recycling globally and when additional sorting and reprocessing losses are factored in, only 5% of material value is available for a subsequent use, most being recycled into lower-value applications that are not subsequently recyclable. It is clear that recycling alone cannot solve the plastic pollution problem.

The recycling rate of plastics in general is even lower; plastics intended for more durable applications and/or enhanced properties may be manufactured with additive chemicals to improve the material properties. These include plasticisers to soften the product, colouring agents, or agents and chemicals to confer UV-resistance and flame-retardation. Many of these chemicals are harmful to human health and the environment during their production, use and disposal. Many consumer products contain plastics that have chemicals which are a harmful to human health and are absorbed by humans from close contact including food (pesticides) packaging, textiles, toys, body care products, Absorbent Hygiene Products (AHPs) especially menstrual hygiene products. Existing and proposed technology solutions to deal with plastic waste, such as waste-to-energy, incineration, pyrolysis, gasification, plastic-to-fuel, plastic-to-road, plastic-to-brick, chemicals recycling and downcycling,<sup>xx</sup> are incapable of adequately and safely dealing with the toxic legacy of most of the plastic produced, used and discarded.<sup>xxi</sup>

While countries in Asia are highlighted by certain studies for ocean leakage, 85% of the top 20 fast moving consumer goods companies and 95% of the top 20 plastics corporations are based in the U.S. and Europe.<sup>xxii</sup> Therefore, international policy must address the geopolitical barriers caused by plastic production and design decisions being made in different countries than those currently in the spotlight for ocean leakage. Policy emphasis must be placed on the sources of the plastic pollution problem.

As a result, addressing the challenge of marine plastic pollution should start with prevention by focusing on reducing the rapidly increasing plastic production,<sup>xxiii</sup> and the use of several harmful chemicals or chemicals of concern such as Endocrine Disruptive Chemicals (EDCs) and POPs involved in the plastic production, as well as exploring other waste management options. This will require broadening the frame of the discussion from 'Marine litter and microplastics' to a broader theme of marine plastic pollution.

## POTENTIAL RESPONSE OPTIONS AND ASSOCIATED ENVIRONMENTAL, SOCIAL AND ECONOMIC COSTS AND FEASIBILITY AND EFFECTIVENESS OF DIFFERENT RESPONSE OPTIONS

In the report *Combating Marine Plastic Litter and Microplastics: An Assessment of the Effectiveness of Relevant International, Regional and Subregional Governance Strategies and Approaches*, UN Environment provides a comprehensive review of existing frameworks and gaps as well as covering the potential legal and policy response options and their effectiveness, finding that "the existing global and regional legal landscape for addressing marine plastic litter and microplastics is fragmented and uneven" and to "address both the upstream and downstream impacts... would require a high level of coordination and expansion of the scope of these different instruments," complicated by the "different levels of ratification."<sup>xxiv</sup> It concludes that "[n]o global agreement exists to specifically prevent marine plastic litter and microplastics or provide a comprehensive approach to managing the lifecycle of plastics."<sup>xxv</sup>

Majors gaps identified in the report further include:

- No global institution with the mandate to coordinate current efforts and manage the issue upstream from the extraction of raw materials, design and use phases of plastic polymers and additives to final treatment and disposal;
- A lack of harmonized binding standards at the global level for the mitigation of pollution by plastic waste, particularly from land-based sources;
- A lack of global standards for national monitoring and reporting on consumption, use, final treatment and trade of plastic waste;
- A lack of global industry standards for environmental controls and quality specifications of plastics;
- Little recognition at the international policy level of the potential risks to human health, particularly from micro- and nanoplastics, and the application of the precautionary principle and of freedom of information in this regard;

- Geographic gaps in the coverage of existing agreements, particularly on the high seas, but also with regard to internal waters and watersheds;
- Gaps in the development of legally binding instruments in key regions to manage marine pollution originating from land;<sup>xxvi</sup>
- A fragmented approach at the regional level to waste management, including wastewater treatment. This fragmented approach extends to the national level in many countries;
- Lack of data in some regions on the sources and the extent of plastics and microplastics in the marine environment, in organisms and on the associated health and ecosystem risks;
- Poor application of due diligence and the polluter pays principle within the various sectors of the plastics industry;
- Poor/inadequate design of products to meet air and water quality standards in order to reduce emission of microplastics from wear and tear during use of the product, as well as evaluating compliance with such standards when conducting lifecycle and environmental impact assessments;
- A failure to establish sustainable and profitable end-markets for all end-of-life plastics;
- A lack of effective compliance and enforcement mechanisms;
- No global liability and compensation mechanism for pollution by plastic.<sup>xxvii</sup>

The authors of the report further noted that the problem is currently escalating, and that adequate information is available to take urgent and concerted actions now. As a result, the expert group that developed this comprehensive report recommends the development of a more holistic global approach to move beyond the business-as-usual scenario and reverse the current trend of increasing volumes of plastic in the environment. In the author's review of the potential legal and policy response options and their effectiveness, they note that "There is value in developing a new global architecture for the regulation of marine plastic litter and microplastics. This long-lasting and transboundary pollutant is not addressed under a single legally binding international instrument, but is weakly distributed amongst many".<sup>xxviii</sup> Such an approach "not only provides long-term legislative security at the national level, but also provides a level playing field and security for industry if all competitors are subject to the same regulations" ... and could provide "a global liability and compensation mechanism for pollution by plastic".<sup>xxix</sup> The undersigned organizations support this approach, in particular with a view to addressing the critical issue of marine plastic pollution.<sup>xxx</sup>

In that respect, we further believe the OEEG should give significant attention to examining the feasibility and effectiveness of a new legally binding global governance framework to manage the full lifecycle of plastics in order to prevent plastic pollution in the marine and other environments and to support the goals outlined in the 2030 Agenda for Sustainable Development.

This framework should aim to address plastic production and consumption levels, drive national and regional action plans and programs toward a common objective, collaborating with existing multilateral agreements where appropriate, while otherwise filling the significant gaps in coverage that have been identified by UN Environment and others that have looked at this issue.<sup>xxxi</sup> This new framework should be subject to periodic review mechanisms to monitor progress and enable learning, and should include a financial mechanism. The Framework could also promote the adoption of global quality standards on design and labelling with restrictions on certain polymers,

additives and uses. We further believe that this should be overseen by the establishment of a new global body specific to the issue of plastics and plastic pollution more generally, without losing focus on the severe impacts on the marine environment, one that coordinates the current efforts by various institutions and harmonize approaches.<sup>xxxii</sup>

Moreover, we believe the following principles should guide identification and examination of the feasibility and effectiveness of response options, and should inform the design of any future framework:

- **Health and planetary boundary.** That our lifestyles and economy fit within the environment limits of the planet. That the lifecycle of the materials and products we use, from extraction and production, to end use, recycling, composting and disposal, sustain the health of the people and the planet. That the system we build and materials we use slow climate change, and reduce toxic exposure rather than accelerate them.
- **Prevention and precaution.** That we prevent irreversible harm and transboundary pollution that arises for example through the toxic impacts of poorly sorted waste and unrecyclable plastics exports or the circulation of plastic waste through air and ocean currents. It requires to address the question at the source by limiting the use of single-use plastics and the production of plastics overall.
- **Equity, Equality and Environmental Justice.** That human rights to life, health and to a healthy environment are upheld for all women, men, children and next generations. The longevity of plastic waste affects intergenerational equity and the transboundary nature of plastics impacts communities far from their point of production or consumption.
- **Waste Hierarchy and Technical Options.** That waste is reduced, first and foremost. That where plastic products and packages are necessary, they are re-used, repaired, or failing that, recycled. That toxic substances are eliminated from their production. That no new incinerators are constructed, and renewable energy incentives are eliminated for burning plastics and waste, including gasification, pyrolysis, cement kilns, and other burn “waste-to-energy” facilities. False “solutions” that rely on incineration should not be disguised as recycling.
- **Multi-Stakeholder Participation.** That supports full participation of all stakeholders and that strong community action and partnerships among citizens, workers, government, sector experts and supportive business leaders guide decisions about present and future material design, manufacturing and waste management in a transparent and equal manner.
- **Just Transition.** Recognising there are implications for employment in a reduction in plastics production and use, there must be a commitment to a Just Transition for *all* affected workers. This should include a commitment at company, industry and governmental levels to the necessary retraining and economic investment to ensure alternative, sustainable jobs for those workers affected upstream in oil, gas and petrochemical industries and downstream throughout the plastics life cycle, including recycling and waste management.

- **Extended Producer Responsibility and polluter pays principle.** That producers take responsibility for the full lifecycle costs and impacts of their products and packaging, and are redesigning and innovating better materials and systems.
- **Informed Choices of Safer Alternatives to Plastics.** Research and innovative solutions as alternatives to plastics should be promoted, encouraged, and supported within the context of Sustainable Consumption and Production Pattern.

## ADDRESSING MARINE PLASTIC POLLUTION SUPPORTS MULTIPLE SUSTAINABLE DEVELOPMENT GOALS

Meaningfully addressing plastics and marine plastic pollution fully supports several Sustainable Development Goals (SDG) with benefits extending far beyond just the marine environment:

- **Sustainable Consumption and Production (SDG 12).** Excess production and consumption of plastic, especially single-use plastics commonly used in packaging and other products, is causing widespread contamination of the environment, including pervasive plastics pollution in the world’s oceans. This issue affects marine environments, coastal communities, food chains and more, harming people and the environment upon which they depend. The toxic legacy of plastic has been documented throughout the plastic lifecycle – at wellheads, along pipeline routes, in the shadow of refineries and waste incinerators, in toxic consumer goods, and into ocean and other ecosystems and our food chain.
- **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>xxxiii</sup> Annual economic costs are over \$13 billion and rising exponentially, primarily affecting tourism, fisheries and shipping industries.<sup>xxxiv</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 expanded throughout their lifecycle, including during extraction, pipeline and refinery operations, production and conversion, and end-of-life treatment, such as incineration.<sup>xxxv</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>xxxvi</sup>
- **Terrestrial and Freshwater Environments (SDG 15, 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>xxxvii</sup> Impacts on terrestrial and freshwater ecosystems are as yet relatively poorly studied and understood,<sup>xxxviii</sup> but analysis of drinking water samples in five continents have detected significant contamination rates for plastic fibers.<sup>xxxix</sup>



- **Public Health (SDG 3, SDG 10).** Plastics are combinations of polymers and additives including stabilizers and plasticizers, such as phthalates, as well as chlorinated, brominated, and fluorinated compounds which pose significant risks to human health.<sup>xi</sup> Microplastics also attract and transport POPs and other toxins.<sup>xii</sup> Under BAU, 1.2 million tonnes of additives could enter our oceans per year by 2050,<sup>xiii</sup> and combined with accumulations in soil and freshwater, cumulatively contaminate our food chain and water supplies. Fossil-fuel extraction and refining also impact air and water quality of local residents and are often associated with human rights abuses in many indigenous and vulnerable communities.

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<sup>ii</sup> 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>

<sup>iii</sup> Center for International Environmental Law, *Plastic Industry Awareness of the Ocean Plastic Problem* (2017), available at <http://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Plastic-Industry-Awareness-of-the-Ocean-Plastics-Problem.pdf>

<sup>iv</sup> United Nations Environment Program, *Marine Plastic Debris and microplastics – Global lessons and research to inspire action and guide policy Action*, UNEP 2016; United Nations Environment Assembly, *Combating Marine Plastic Litter and Microplastics: An Assessment of the Effectiveness of Relevant International, Regional and Subregional Governance Strategies and Approaches* (October 2017).

<sup>v</sup> UNEP/EA.3/Res.7 <https://papersmart.unon.org/resolution/uploads/k1800210.english.pdf>

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- <sup>xxx</sup> This does not mean that these existing regional or multilateral agreements have failed, but only that we should not expect them to address a problem for which they were not specifically designed. In any future global agreement, there will still be significant roles for them to play.
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- <sup>xxxix</sup> 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).
- <sup>xl</sup> Ellen MacArthur Foundation, *The New Plastics Economy: Rethinking the Future of Plastics* (2015), pp. 29-30.
- <sup>xli</sup> GESAMP, *Sources, Fate and Effects of Microplastics in the Marine Environment: A Global Assessment* (2015), p. 45
- <sup>xlii</sup> United Nations Environment Assembly, *Resolution 2/11: Marine Plastic Litter and Microplastics*, UNEP/EA.2/Res.11 (May 2016), p 1.