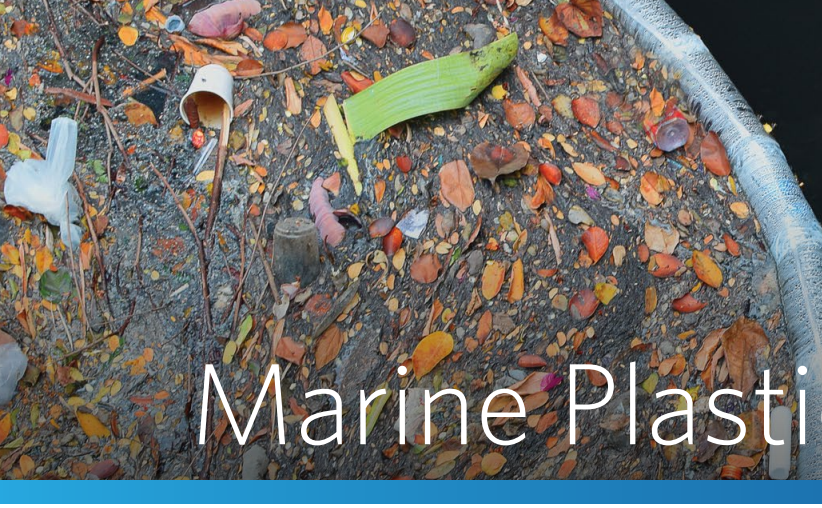

Sixth GEF Assembly Viet Nam 2018

Marine Plastics

ISSUE We are witnessing a crisis in the making. What looked like a marginal, local, and esthetic disturbance is now recognized as a global challenge that is probing the adaptiveness of an entire industry, challenging entrenched consumer behaviors, and prompting governments to take leadership into new territory: marine plastics. This call to action is spurred by the relatively new recognition that 8 – 13 million tons of plastic end up in our oceans every year, the equivalent of one garbage truck full of plastic dumped into the ocean each minute.

As a tangible issue to which the public can relate, plastics is a portal to broader environmental concerns. Conversations are occurring now that were not possible three years ago. We need to leverage this awakening.

Plastic makes up 80% of all marine debris, from surface waters to deep-sea sediments. Plastic has been detected on shorelines of all the continents, with more plastic materials found near popular tourist destinations and densely populated areas. Invisible plastic has been identified in tap water, beer, salt, and seafood. These microplastics are present in all samples collected in the world's oceans, including the Arctic. The main sources of marine plastic are land-based: urban and storm runoff, sewer overflows, inadequate waste disposal and management, industrial activities, construction, and illegal dumping. Ocean-based plastic originates mainly from the fishing industry, nautical activities, and aquaculture.

Plastic pollution threatens not only ocean health, but also food safety and quality, human health and coastal tourism, and contributes to climate change. The impacts to marine life are well documented: seabirds, whales, fishes, and turtles mistake plastic waste for prey, and many die of starvation as their stomachs fill with plastic debris. Animals can become entangled in or suffocated by plastics. Floating plastics also contribute to the spread of invasive marine organisms and bacteria, which disrupt ecosystems. Less appreciated are the environmental impacts of the entire lifecycle of plastics: greenhouse gas emissions during fossil fuel extraction for plastic production and hazardous chemical emissions during production and improper disposal. Further, several chemicals used in the production of plastic materials are carcinogenic and interfere with the body's endocrine system, causing developmental, reproductive, neurological, and immune disorders in both humans and wildlife.

SOLUTION

Given the sheer magnitude and pervasiveness of this problem, ocean and coastal clean-ups are coming too little, too late. Reversing the tide with marine plastics requires preventing it from entering the ocean

through the 5 Rs: rethink, redesign, reduce, reuse, and recycle. The solution requires eliminating plastics that do not serve a purpose (e.g. plastic straws), improving collection and waste management systems, and promoting innovative alternatives. The solutions require addressing the entire plastic value cycle: material engineering, product and process design, consumer use and behavior, and collection systems and recycling. This circular economy approach to marine plastics not only reduces marine debris but it also reduces greenhouse gas emissions through reduced fossil fuel extraction, reduces hazardous chemical emissions through both improved end-of-life practices to capture and properly dispose of these substances, and reduces hazardous chemical emissions through redesigned materials and products.

Addressing the challenge of marine plastics requires engaging the breadth of public and private partners. While single-use packaging is widely recognized as the priority concern, there are a variety of sectors that need to be addressed ranging from the food and beverage industry to retail to transportation to health. Clearly a cross-sectoral approach is required.

As part of their extended producer responsibility, businesses are catalyzing change from within and also recognizing that this is a pre-competitive issue. Global corporations are already waking up to the need to adopt sustainable practices, as evidenced by the announcement of 11 leading brands, retailers, and packaging companies, including Unilever, Coca-Cola and Ikea, to work towards 100% reusable, recyclable, or compostable packaging by 2025 through the New Plastic Economy initiative, led by Ellen MacArthur Foundation. Recognizing plastics as both a challenge and an opportunity, small and medium-sized enterprises are growing in the areas of alternative materials (e.g. seaweed based), redesign (e.g. disposable plastic bottles with attached caps), consumer use (e.g. shared coffee cup systems) and recycling facilities (e.g. improved sorting technology for home and commercial use).

At the same time, an increasing number of governments are moving toward plastic bag and/or straw levies and/or bans, including Chile, China, Colombia, France, Kenya, Marshall Islands, South Africa, and Vietnam (to name a few) as a first step toward wider plastic 'rethink' policies and incentives. More promising, comprehensive initiatives are also being announced. India committed to no single-use plastics by 2022. Five of the seven G7 countries (Canada, Germany, France, Italy and the UK) recently signed a non-binding agreement to eradicate plastics pollution. Released in January, 2018 by the European Commission, A European Strategy for Plastics in a Circular Economy establishes a vision for Europe's new plastics economy that includes improving the economics and quality of plastics recycling, curbing plastic waste and littering, driving innovation and investment towards circular solutions and harnessing global action. Meanwhile, with Asia supplying over 50% of plastic pollution globally, Thailand and Vietnam are pursuing ASEAN to become engaged in this issue. At a national level, the Indonesian government has developed a National Plan of Action for Marine Plastic Debris Management and has pledged USD1 billion to curb ocean waste by 70% by 2025, working closely with the private sector alliance, PRAISE. Multilateral initiatives are also supporting these government efforts, such as the UN Environment through its Beat the Pollution and CleanSeas campaign.

Given the transboundary nature of marine plastics, global and regional alliances building on public-private partnerships are critical to the solution, such as the recently proposed Global Plastic Action Partnership put forward by the World Economic Forum, UN Environment, World Resources Institute, UN Friends of the Ocean, and other key global players. Global non-governmental organization campaigns play a critical role and include the Trash Free Seas Alliance led by Ocean Conservancy, Plastic Pollution Coalition, Litterati, 5 Gyres, Plastic Soup Foundation, Beat the MicroBead and the Ocean Plastic Lab. Global efforts and commitments need to be tied to national action, such as ensuring materials standards align with recycling facilities and policies encourage use of recycled material.

Finally, blended financing through grants, loans, and impact investors are increasingly being pursued through, for example, the Plastic Solutions Fund and Closed Loop Ocean in order to foster innovation and ensure the long-term financial sustainability of marine plastic initiatives. Increasingly development

banks, such as the World Bank and Asia Development Bank, are investing in solutions along the lifecycle of plastics, which has the benefit of catalyzing private funds. These investors play a critical role in bringing innovative solutions to scale.

LOOKING AHEAD

The circular economy approach to marine plastics is well-aligned with the GEF commitment to promoting global environmental benefits, including protecting biodiversity, reducing greenhouse gas emissions, and minimizing hazardous chemical emissions.

Recognizing the relevance of this issue to the GEF agenda, the GEF has highlighted marine plastics within the GEF-7 strategy under the International Waters and Chemicals and Waste Focal Areas. In considering the existing and emerging players and alliances in this frontier space, there are several strategic intervention points for GEF that relate to the major phases of the plastic life cycle:

- ***Material and design engineering*** - promoting the use of recycled content & alternative sources of feedstock for plastics and redesigning products to foster reuse, recycling, shared use, and extended life through innovation awards, incubation, investor services, infrastructure for circular supply chains, industry standard setting, alliance building, and national policies and incentives to enable circular material flows;
- ***Consumer use*** - changing the behavior of individuals and businesses that use plastic (e.g. restaurants) to catalyze demand for sustainable products and processes as well as to foster reuse, repair, remanufacturing, and recycling through awareness raising and national policies and incentives; and,
- ***Recovery and recycling*** - improving efficient waste collection, tracking, management, and trade markets to prevent improper incineration and discharge into waterways and promoting recycling of material back to the first intervention point through market analyses, hot spot analyses, awareness programs, financial models, information systems, and national policies and incentives.

Along with many partner organizations, the GEF also recognizes the global nature of this issue and, consequently, the value of global investments, which may include efforts to raise government and private sector awareness regarding plastic solutions and opportunities, fostering public-private partnerships, promoting best practices and shared experiences, including policies and incentives, monitoring and evaluation protocols, and working with the public and private sectors to set global standards.