



Circular Solutions to Plastic Pollution Integrated Program

The Issue

Plastic production, consumption, and waste is expanding exponentially, affecting marine, freshwater, and terrestrial ecosystems and contributing to greenhouse gas (GHG) and hazardous chemical emissions with consequent implications for human health, economies, and social well-being around the world. Plastic production—from car tires to water bottles—has increased 9% since 1950, outpacing any other manufactured material. Most recently, during the COVID-19 pandemic, single-use plastic consumption and subsequent waste has further increased. Packaging (e.g. bags, lids, bottles, clamshells) is the primary use of plastic (30%) with single-use plastic constituting over half of plastic waste.^{1,2} The food and beverage industry is a particular concern due to the high volume of single-use packaging. Nine out of 10 of the most common beach clean-up items are tied to the food and beverage sector.³ Meanwhile, the top brands tied to plastic pollution are associated with the food and beverage industry.⁴

Historically, action on plastic has focused on disposal (i.e. collection, recycling, waste-to-energy, incineration, landfill). However, eliminating plastic pollution requires stopping the flow of plastic at its source by controlling production and consumption. Such solutions require addressing the entire plastic value cycle: material engineering; product and process design; consumer use and behavior; and collection systems and recycling.

The Integrated Solution

The Circular Solutions to Plastic Pollution Integrated Program tackles plastic pollution using a circular economy approach. Packaging, particularly single-use related to the food and beverage sector, will be the priority since it is the main source of plastic waste in developing countries.

Interventions will cross the entire plastic value chain—from production to consumption to disposal. Such a holistic approach leverages the interlinkages across the processes and sectors contributing to plastic pollution. As plastic pollution efforts tend to focus on waste collection, recycling and clean-ups, the GEF will prioritize actions early in the plastic value chain, i.e. production and consumption. By aligning with existing waste management efforts, the program will address the full value chain.

The program emphasizes upstream measures to reduce plastic production and consumption, the engagement of the private sector, and single-use packaging in the food and beverage sectors. It has several objectives:

- Eliminate production and use of problematic and unnecessary plastic products (e.g. single-use plastic packaging) and phase out plastic products containing chemicals of concern, using green chemistry to create sustainable materials.
- Innovate for circularity through increased reusability, recyclability, and composability of products; innovate better reuse, refill, repair, remanufacturing, and recycling business models, including service as product; reengineer products toward materials made from recycled materials, are recyclable and are ocean-safe if they leak into the ocean; and promote innovative solutions such as reuseable to-go food container programs.



- Ensure products are actually reused or recycled by shifting consumer behavior, by improving waste collection and recycling, and by fostering markets for recycled material.
- Create cross-cutting enabling conditions by strengthening coordination along the plastic value chain, sharing best practices, and establishing transparent means of monitoring and evaluation.

The program will include global, regional, national and city-level projects. At the global scale, the program will pursue establishing metrics, benchmarks and standards; addressing the trade of plastic products and waste; advising businesses on moving toward circular practices through innovation; sharing best practices; and raising awareness of circular economy opportunities and the business case for adopting circular practices. At the regional, national and city levels, the program will tackle plastic pollution by working with governments on circular policies, with businesses to adopt circular practices, with financiers to invest in circular solutions, and with the general public to raise awareness and shift consumer behavior.

Expected Impacts

Reducing the production, consumption, and disposal of plastic products will reduce GHG emissions in support of the Paris Agreement. It will also reduce emissions of hazardous chemicals, including unintentional persistent organic pollutants (uPOPs), in support of the Stockholm Convention. In addition, reducing plastic waste from entering the environment will help maintain the health of ecosystems and the species affected by entanglement and ingestion. This, in turn, will support the Convention on Biological Diversity, and other relevant agreements.

The program will also contribute to socioeconomic co-benefits, including diversified livelihoods and economic growth. It will achieve these benefits through innovative, circular solutions; improved labor conditions for the informal sector; women's empowerment throughout

the value chain; and improved human health through potable water and uncontaminated food. Increased job opportunities are also expected from the business opportunities associated with zero waste solutions. At a global scale, such a system change is predicted to cut government costs by \$70 billion and save businesses \$1.3 trillion compared to a business-as-usual trajectory.

The program will generate the following direct global environmental benefits:

- 16 million mtCO₂e GHG emissions mitigated
- 1,400 gTEQ POP emissions reduced
- 10,000 mt hazardous chemicals eliminated
- 1 shared water ecosystem under improved governance

1 <https://www.unep.org/resources/report/mapping-global-plastics-value-chain-and-plastics-losses-environment-particular>

2 <https://www.unep.org/interactive/beat-plastic-pollution/>

3 https://oceanconservancy.org/wp-content/uploads/2019/09/Final-2019-ICC-Report_EMBARGOED-UNTIL-9.3.19.pdf

4 <https://www.breakfreefromplastic.org/globalbrandauditreport2020/>

The Global Environment Facility (GEF) is a family of funds dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health. Its grants, blended financing, and policy support help developing countries address their biggest environmental priorities and adhere to international environmental conventions. Over the past three decades, the GEF has provided more than \$23 billion and mobilized \$129 billion in co-financing for more than 5,000 national and regional projects.

Contact for Circular Solutions to Plastic Pollution IP:

Leah Karrer
lkarrer@thegef.org