

Policy Solutions to the Ocean Plastics Crisis

Chever Voltmer Addressing Marine Plastics: A Roadmap to a Circular Economy November 18, 2020



About Us

- U.S.-based nonprofit organization
- Established in 1972
- 100+ staff
- Headquartered in Washington, D.C., with additional offices around the country





The Context

- An expert working group convened by Ocean • Conservancy first estimated that 8 million metric tons of plastics enter the ocean annually due to mismanaged waste in a paper published in Science in 2015 (Jambeck et al).
- Scientists just released updated numbers • based on more recent data, indicating that **11** million metric tons of plastics enter the ocean annually
- Ocean Conservancy co-authored a study • published recently estimating that even if we meet all current global reduction commitments, 53 million metric tons of plastics will enter lakes, rivers, and our ocean by 2030



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MARINE POLLUTION

Plastic waste inputs from land into the ocean

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Plastic debris in the marine environment is widely documented, but the quantity of plas entering the ocean from waste generated on land is unknown. By linking worldwide lata on solid waste, population density, and economic status, we estimated the mass of land-based plastic waste entering the ocean. We calculate that 275 million metric tons (MT) of plastic waste was generated in 192 coastal countries in 2010, with 4.8 to 12.7 million MT entering the ocean. Population size and the quality of waste managem systems largely determine which countries contribute the greatest mass of uncaptured waste available to become plastic marine debris. Without waste management infrastructure improvements, the cumulative quantity of plastic waste available to enter the ocean from land is predicted to increase by an order of magnitude by 2025.

orts of plastic pollution in the ocean irst appeared in the scientific literature n the early 1970s, yet more than 40 years no rigorous estimates exist of the int and origin of plastic debris enering the marine environment. In 1975, the esimated annual flux of litter of all materials to the ean was 6.4 million tons [5.8 million metric

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tons (MT)], based only on discharge vessels, military operations, and ship casu (1). The discharge of plastic from at-sea has since been banned (2), but losses still (It is widely cited that 80% of marine deb iginates from land; however, this figure well substantiated and does not inform th mass of debris entering the marine from land-based sou Plastics have become increasingly

mercial development in the 1930s and Global plastic resin million MT in 2012 (3), a 620% i 1975. The largest market sector for plastic 1



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trace the plateau's first settlers p. 708

ins is packaging (3); that is materials designed that border the Atlantic Pacific and India for immediate disposal. In 1960, plastics made oceans and the Mediterranean and Black seas up less than 1% of municipal solid waste by mass the framework includes: (i) the mass of waste in the United States (4); by 2000, this proportion generated per capita annually; (ii) the percent increased by an order of magnitude. By 2005, age of waste that is plastic; and (iii) the percentplastic made up at least 10% of solid waste by age of plastic waste that is mismanaged and

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Policy

- 75% of plastic waste entering the ocean was never collected to begin with
- The remaining 25% leaks from within waste management systems
- Low-value plastics are most likely to end up in the ocean
- Most waste management systems operate at a net cost
- To improve waste collection, we need to change the economics of these systems, minimizing costs and maximizing value





Stemming the Tide: Land-based strategies for a plastic-free ocean



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Evaluating Solutions

- Ocean Conservancy collaborated with Accenture and TFSA members
- Started with a list of 180 options
- Consolidated into 43 distinct private and public measures
- Tested these against two criteria: impact and implementation
- Evaluated focus-country relevance
- Arrived at a shortlist of 24 measures, which we then modeled



PLASTICS POLICY PLAYBOOK

Strategies for a Plastic-Free Ocean





Prerequisites for Success

- 1. Combine measures and address multiple points on the value chain
- 2. Engage the informal sector
- 3. Raise public awareness
- 4. Inspire political will
- 5. Enforce





Four Themes

- Finance the Collection
- Reduce Problematic and Unnecessary Single-Use Plastics
- Design for Circularity
- Developing Recycling and Treatment Markets



Key Takeaways

- Net financing gap for plastic waste collection of US \$28-40 per ton
- EPR, in the form of packaging material fees, has highest potential to reduce gap (<75%)
- Recycled content standards can reduce gap by up to 34%
- Bans on problematic SUPs increase efficiency, reduce gap by 3%
- Five guiding principles: combine measures, engage informal sector, drive consumer awareness, inspire political will, and improve enforcement



Using the Playbook

- Each chapter ends with a focus-country assessment
- A roadmap and checklist offers guidance to public and private sector actors
- A call to action briefly summarizes prioritizes by stakeholder group
- Remember: it's not onesize-fits-all





Call to action

This playbook has provided a framework of the most promising public and private measures to improve collection, including key principles for success and a roadmap. In doing so, it has contributed to the collective knowledge base of key stakeholders across focus countries and the world and has helped create a platform that can support action to end ocean plastic. While it is clear there is a lot to do, there are a set of actions that each stakeholder can take forward to solve this challenge. The table below (Table 8) is a call to action, focused on the most urgent and most feasible short-term actions that each of our target audience stakeholders—national government, local government, corporates and non-governmental organizations (NGOs) can adopt.

Table 8: Call to action for stakeholders

| tional vernment | Develop a clear national plan and regulatory framework with targets, strong governance frameworks down to the local level |
|--------------------|---|
| | Provide clarity to local government and the private sector around areas of uncertainty, notably helping to develop a consensus to phase out or ban unnecessary/problematic SUPs, and on a preferred set of solutions for non-recyclables, focused on scaling recycling technologies and small-scale local solutions |
| | Adopt public-private measures for improved collection, with a focus on EPR, and identify the most viable solutions by testing locally relevant operating models in pilots |
| | Develop national awareness campaigns in collaboration with local government, corporates and NGOs, targeted at key stakeholders and embedded into national education curriculums |
| | Identify opportunities to collect more data, such as on waste types or waste content, that can support collection efforts |
| cal vernment | Collaborate with nonprofits and private sector players to leverage technical assistance, particularly for the management and implementation of key measures |
| | Identify locally fit-for-purpose, cost-effective collection solutions that focus on expanding door-to-door collection, maximizing existing collection centers where possible, or fundamentally redesigning where existing collection centers have failed to succeed |

132 CHAPTER 7: ROADMAP AND CALL TO ACTION

Inclusive Recycling

- Informal sector collectors provide a valuable public service.
- Waste pickers could be incentivized to collect low-value plastics with additional support .
- Additional work is needed to build the value chain for sustainability.
- Inclusive recycling could be an important part of the solution set, with not just environmental, but also economic and social benefits.



Thank you!