WWF

PLASTIC POLICY SUMMIT

Domestic Solutions for a Global Problem

Outcomes and Actions

July 2023

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Building a Vision for a Plastic Pollution-Free Future

Plastic waste in nature is an urgent issue with major adverse impacts on wildlife, ecosystem health, the integrity of food supplies, communities, and livelihoods. Currently, the equivalent of one dump truck's worth of plastic enters our oceans every minute. By 2040, plastic production is predicted to double and plastic pollution entering the ocean is expected to triple.[1] By 2050, plastic production is expected to account for at least 10%–13% of all global emissions, or 56 gigatons of greenhouse gas emissions annually.[2] With a global treaty on plastic pollution expected to be negotiated by 2025, there is no time to waste in reshaping our current single-use economy.

Moving from a linear to a circular economy requires a reevaluation of the way we do business, use materials, and manage our natural resources. A circular economy requires us all, as stakeholders, to align globally on high-level obligations, nationally on intervention measures, and locally on implementation practices.

In the United States, policy avenues to curb plastic waste and enable a circular economy for materials are being explored, legislated, and implemented. Given the hyperlocal yet universal nature of plastics and other packaging materials, policy models must be aligned across jurisdictions to realize the full potential of a circular economy. It is important that proactive, full life cycle approaches to plastic and all other materials be consistent across jurisdictions for the benefit of businesses and the public.

Sam Hurd Photography

[1] "Evaluating scenarios toward zero plastic pollution," Science Magazine, July 23, 2020
[2] "Plastic & Climate: The Hidden Costs of a Plastic Planet," Center for International Environmental Law, May 2019

Event Overview

On March 29–30, 2023, World Wildlife Fund (WWF) convened the Plastic Policy Summit in Washington, DC, that brought together leaders from all relevant sectors to discuss ongoing efforts to address the plastic pollution crisis and ways in which they can work together to achieve a future in which plastic no longer enters nature. Among the participants were federal agency representatives, state and local policymakers, nonprofit and corporate partners, and members of Congress, who took part in discussions on what is needed to end plastic pollution, both in the United States and around the globe, and how to spur collective action toward that outcome.

Attendees discussed existing and proposed methods to decrease plastic waste and pollution at all stages of the life cycle. Sessions emphasized tangible solutions and collaboration, recognizing that effective solutions will require participation and action at all levels of society, government, and the private sector. The Plastic Policy Summit identified nine key interventions to reduce plastic pollution through immediate and long-term action items. Each section of this document focuses on an intervention, providing an overview, the key components of the relevant breakout discussions, the action items that emerged, case studies, and additional resources. These summaries represent the perspectives that speakers and participants shared in discussions and the content from Summit resources shared in the pre-read and throughout the event. The information in this document should not be considered the formal consensus of all participants.

Interventions to Eliminate Plastic Pollution

1. **Reduce plastic production at the source.**
2. **Pilot and scale reuse systems.**
3. **Implement effective Extended Producer Responsibility.**
4. **Understand and mitigate public health risks of plastics.**
5. **Increase data transparency and standardization.**
6. **Maximize public-private partnership outcomes.**
7. **Empower circularity initiatives in cities.**
8. **Expand deposit return systems.**
9. **Drive state policy leadership opportunities.**

Overarching Themes

The problem and opportunity are clear. Throughout the Summit, participants emphasized that stakeholders already know that plastic pollution is a problem. While it is important to continue gathering data and supporting research on the most effective solutions, the plastic pollution problem is urgent and immediate action is necessary. Solutions have already been identified that could reduce leakage of plastic into the ocean by at least 80% by 2040.[3] Furthermore, curbing plastic pollution offers social and economic benefits, including creating at least 700,000 jobs and improving the health and livelihoods of nearly 11 million waste reclaimers.[4]

Environmental justice must be prioritized. A circular and just economy should ensure that local communities and environments are no longer subjected to the negative impacts of plastic production, use, disposal, or mismanagement. Communities that have historically borne the burden of plastic pollution should be equipped with the tools and funding necessary to mitigate these impacts, prevent future infringements on health and well-being, and restore their communities. Centering environmental justice means working closely with local communities and ensuring they're involved in decision-making processes for planning, implementation, and investment in any new interventions. In addition to ensuring a just approach to future interventions, efforts should be undertaken to remediate the negative impacts that plastic production and pollution have had on many communities. Environmental justice and community-led principles should be incorporated in each of the proposed strategies in this document. Such considerations are included in many of the action items in this document but should not take the place of directly seeking inputs and guidance from local communities themselves.

A full life cycle approach is key. Plastic harms people and the environment throughout its full life cycle, from extraction of fossil fuels and plastic refining processes to plastic use and disposal. Accordingly, a full life cycle approach is necessary to effectively address plastic waste at all levels. A life cycle approach includes pursuing a range of measures to achieve multiple ends: reducing overall virgin plastic production, ensuring product and design standards that limit impacts, reusing and repurposing existing materials to their fullest extent, recycling materials that are no longer in use, and properly disposing of any materials that could leak out into nature. These measures should be supported by strong policies, when possible, and voluntary efforts where policy has not yet advanced sufficiently.

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[3] "Breaking the Plastic Wave: Top Findings for Preventing Plastic Pollution," Pew Trusts Foundation, July 23, 2020
[4] "Breaking the Plastic Wave: Top Findings for Preventing Plastic Pollution," Pew Trusts Foundation, July 23, 2020

Attendee Perspectives

"In Congress, we are working in a bipartisan manner to strengthen recycling infrastructure across our country and ensure there is a market for collected items. At the same time, we need plastic producers to step up and take greater responsibility for the life cycle of their products. If we work together, I'm confident that we can improve plastic recycling, reduce waste, protect our oceans, and promote a truly circular economy."
— US Senator Tom Carper (D-DE), Chairman of the Senate Environment and Public Works Committee

"We all play a role in stemming the tide of plastic pollution and marine debris. Through the Marine Debris Program, the Department of Commerce and NOAA are leading action across the federal government and in partnership with multiple sectors to implement novel solutions. Only through these collective and coordinated efforts can we achieve a global ocean that is free from the impacts of plastic pollution."
— Jainey K. Bavishi, Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy NOAA Administrator

"Plastic pollution allows dangerous chemicals to seep into our air, water, and soil, threatening the health of all Americans, and especially communities of color and low-income communities. If oil companies can invent a million uses for plastic, surely, we can invent better alternatives—let's end single-use plastics!" ***—US Senator Merkley (D-OR), Chair of the Enviro & Public Works Subcommittee on Chemical Safety Waste Management, Environmental Justice & Regulatory Oversight***

"While this is a global challenge, solutions must come from local communities and individual action."
— Dan Gelber, Mayor, City of Miami Beach and Chair, US Conference of Mayors Environment Committee

"One of our industry's highest priorities is to create a circular economy for our plastic bottles. It's why we are taking action at every stage of the life cycle of our bottles to help them make their way back and be remade as intended. We are carefully designing our bottles to be 100% recyclable, investing in modern recycling systems, and advocating for better collection policies as we also look at other innovative opportunities to reduce our plastic footprint and keep our bottles out of nature."
— Kevin Keane, Interim President and CEO of American Beverage

"We all play a role in stemming the tide of plastic pollution and marine debris. Through the Marine Debris Program, the Department of Commerce and NOAA are leading action across the federal government and in partnership with multiple sectors to implement novel solutions. Only through these collective and coordinated efforts can we achieve a global ocean that is free from the impacts of plastic pollution."
—Jainey K. Bavishi, Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy NOAA Administrator

"Science plays a key role in addressing plastic pollution. Although we have enough information to take action, data remains an important piece, and keeping data open and in the hands of community members and decision-makers is essential so that they have the power to make context-sensitive choices. The Circularity Informatics Lab (CIL) at the University of Georgia is proud to work with communities to collect data and to work with many of the partners at the summit to address plastic pollution from the ground up."
—Jenna Jambeck, Distinguished Professor of Environmental Engineering, University of Georgia

"Communities in Louisiana's Cancer Alley, such as my hometown of Wallace, can no longer bear the burden of plastics. The WWF Plastic Policy Summit gave me the opportunity to express this concern to some of the biggest plastic users in hopes that we can work toward equitable solutions to reduce and relieve the harmful impacts of plastic on suffering communities."
—Jo Banner, o-Founder and Co-Director, The Descendants Project

"The Association of Plastic Recyclers (APR) is pleased to participate in this meeting and stand among national leaders in shaping a path forward to reduce plastic pollution. We can recycle more plastic so we can all use less. Our members represent the full value chain of the plastics recycling industry and are committed to working with other partners in supporting effective recycling policies at the state, national, and international levels." ***—Kate Bailey, Chief Policy Officer, Association of Plastics Recyclers***

"We can only tackle the plastic waste problem with action and commitment from leaders across the public, private, and NGO sectors. To drive real change for our planet and future generations, we will need data-driven action, well-designed policy, and public-private collaboration."
—Keefe Harrison, CEO of The Recycling Partnership

"The global plastics treaty is an unprecedented opportunity to make progress on one of the biggest environmental challenges of our time, plastic pollution. To solve this crisis, the science is clear that we need to do it all: drastically cut virgin plastics production and single-use plastics and packaging; collect, manage and recycle the plastics we do need and use; and clean up plastics in the environment. No single NGO, government, business, or other entity can accomplish that alone, which is why gatherings like this are so important."
—Nick Mallos, Vice President of Conservation, Ocean Plastics, Ocean Conservancy

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Post-Summit Activations

Through the breakouts, plenary sessions, and Summit polling exercise, WWF received a great deal of useful feedback about potential post-Summit activations that would enable participants to execute on the recommended action items. This section contains a list of proposed activations and their timeline.

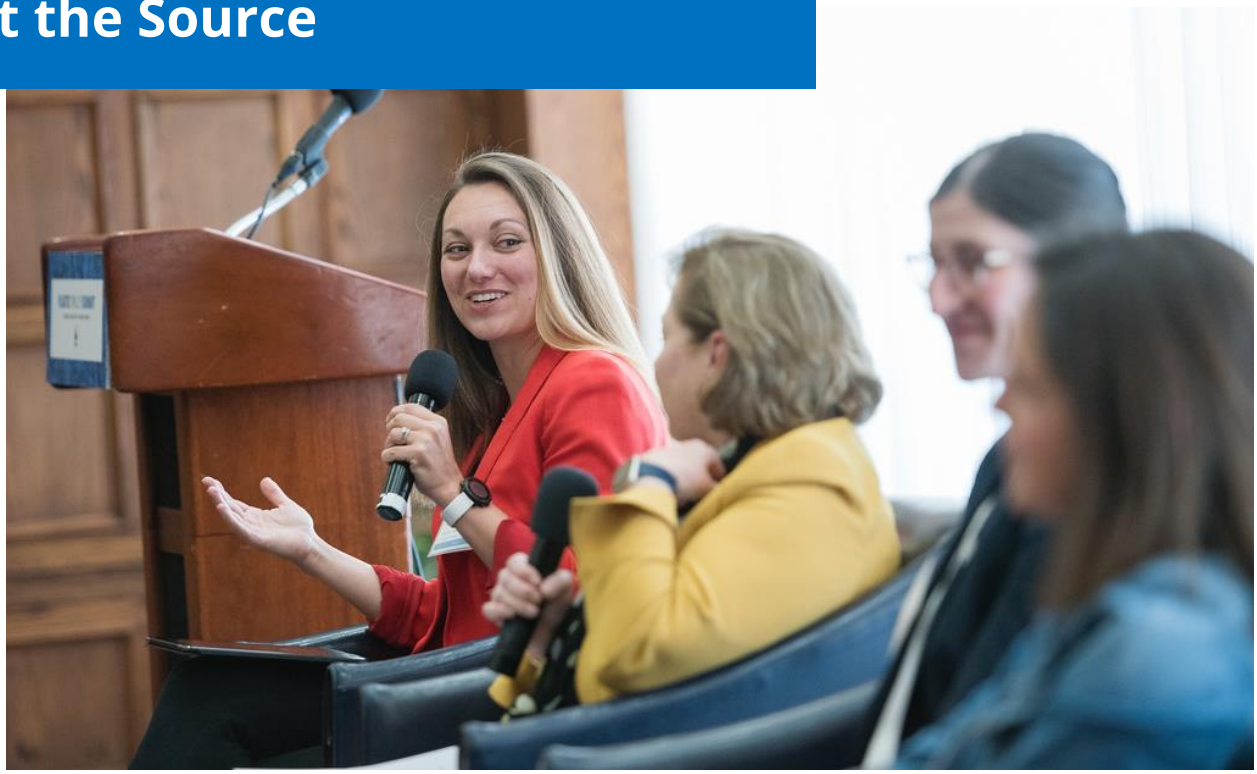
- **State of Play Panel:** The Summit's State of Play panel is available to view and share with colleagues. Representing local government, nonprofit, activist, and corporate perspectives, this panel provides an overview of the key issues with respect to plastic pollution as well as key opportunities for collaborative action.
- **Bioplastics 101 Webinar:** Prior to the publishing of this report, WWF hosted a Bioplastics 101 Webinar to share information about biobased and biodegradable plastic and responsible production of biobased feedstocks. The recording can be found here (passcode: qq#d+U@9).
- **Public-Private Partnership (P3) Follow-up Panel:** Several attendees requested a virtual session of the Summit panel on P3 partnerships, as not everyone was able to attend. This session will focus on case studies of effective public-private partnerships and expand on the recommended action items.
- **Health Presentation and Discussion:** As a possible follow-up to the "Additives and Health" breakout, panelists may provide an overview of the recent reports and a deeper discussion about action items, particularly opportunities for immediate actions.
- **Congressional Briefing:** Traditional briefing in person or virtually to share the key findings and recommended action items with Congressional representatives.
- **State and Local Government Briefing:** Similar to the Congressional briefing, to share key findings and local/regional opportunities with local governments that were not able to travel to DC for the Summit.
- **Source Reduction Webinar:** Taking the breakout conversation to the next level, this webinar would focus on specific case studies of both voluntary and mandatory source reduction.
- **Plastic Policy Summit 2:** Based on positive feedback from attendees, WWF aims to host a second Summit in spring 2024. This Summit could dive deeper into the solution areas identified and utilize workshops, panels, and presentations to generate clear action plans for each set of stakeholders.

Contact and Suggestions

WWF welcomes additional suggestions for activations that Summit attendees would find beneficial. Please reach out to Anthony Tusino and Meredith Soward (anthony.tusino@wwfus.org; meredith.soward@wwfus.org) with any activation suggestions and speaker recommendations.

Attendees are invited to share any topics and questions they would like to see addressed in the next summit.

Reduce Plastic Production at the Source



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Overview

Fundamentally, ending plastic pollution requires decreasing the total amount of plastic that exists and can become pollution in the first place. Source reduction refers to the methods by which producers and other upstream stakeholders reduce the amount of virgin plastic materials used and created—using fewer materials and using them more effectively and responsibly. Methods of source reduction include eliminating unnecessary packaging and shifting materials to recyclable, reusable, and refillable alternatives. The state of California has pursued source reduction by establishing regulatory targets, as have several countries. Voluntary efforts have also been pursued.

By preventing the creation and use of unnecessary plastic, source reduction alleviates the burdens on waste management systems to properly dispose of these materials and keep them out of the environment. Single-use plastics provide a high impact intervention opportunity—single-use plastics alone compose more than 40% of all plastics generated each year and are most likely to escape the waste stream, polluting nature and communities.[5] In addition to decreasing plastic pollution, source reduction can provide benefits such as reducing the externalized economic costs of plastic, including costs associated with production, waste management, pollution management, and environmental and human health; decreasing greenhouse gas emissions; and lessening the risk of toxins being released into the environment.

[5] "Production, use, and fate of All Plastics Ever Made," Science Magazine, July 19, 2017

Panelists emphasized that successful source reduction will benefit from a consistent definition of the term and clear, achievable, and measurable targets. Specific components should include utilizing a holistic life cycle approach, understanding existing regulatory measures, and creating a methodology to evaluate material performance, replacement, and reduction. Specific examples of regulatory targets include California legislation SB54, and voluntary actions include the U.S. Plastics Pact's Problematic and Unnecessary Materials List. If, after use, the product or material is unlikely to be recycled or reused effectively, the material or format should be eliminated or transitioned to a format that is reusable or recyclable in practice.

Recommended Actions: Source Reduction

For GOVERNMENTS	*For* BUSINESSES
• **Classify specific harmful toxins in plastic as "pollutants"** or define specific plastic formats as "easily littered," which would enable us to address plastic pollution within systems that already exist for pollution reduction and enforcement (e.g., Clean Air Act, Clean Water Act). • **Use the Federal Trade Commission Green Guides** to enable clear, consistent messaging on reduction, reuse, and recyclability and to provide standards and recognition for those pursuing source reduction. • **Set clear definitions and standards** for source reduction, single-use plastics, recyclability, avoidable and unnecessary plastics, and other key terms. A standard definition of "source reduction" can ensure all players are operating with the same understanding of the issue and how to address it. • **Gather data through legislation.** California is utilizing annual reports, audits, and interim targets guided by an advisory board to measure reduction.	• **Assess value chain for opportunities to reduce plastic use** without environmental trade-offs, especially along with other policies/systems. • **Support state and national Extended Producer Responsibility systems** with eco-modulation, which can incentivize upstream and life cycle design changes. • **Voluntarily report current plastic use rates** and other data through reporting streams such as the EMF Global Commitment, the U.S. Plastics Pact, and *WWF's Resource: Plastic*. This will enable companies to set baselines, measure change over time, and prepare for possible required reporting that may come through a global treaty or other legislation.

For ALL STAKEHOLDERS

- **Support data-gathering and data-sharing efforts** to establish the current baseline for production so that the effectiveness of different source reduction interventions can be accurately measured.
- **Establish an accurate methodology for measuring source reduction** that can encourage transformation and circular solutions rather than approaches that do not actually address reduction, such as lightweighting.
- **Use the U.S. Plastics Pact's Problematic and Unnecessary Materials List** as guidance in packaging design, sourcing, and procurement, and/or as the basis for targeted policies.
- **Develop systems for true cost accounting of plastics**—pricing plastics according to their full life cycle costs, including the cost of landfilling, cleanup of leaked plastic, and monitoring of effluent discharge from production plants, not just their production costs—in order to increase cost parity between single-use and other options.
- **Use the National Academies of Science report as a baseline** and help inform source reduction interventions going forward.

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Case Studies

SB54: California Plastic Pollution Prevention and Packaging Producer Responsibility Act

In June 2022, California passed SB54, the first state legislation to require source reduction, including decreasing single-use foodware packaging by 25% in the next 10 years. Reuse and refill mandates are included in this reduction, along with direct elimination, measured in both weight and unit. Ocean Conservancy scientists estimate that if implemented successfully in California, this 25% requirement would reduce 23 million tons of single-use packaging, which is equivalent to 150 million tons of carbon dioxide.[6] Implementation is still in early stages and can provide guidance and lessons learned to other states.

U.S. Plastics Pact Problematic and Unnecessary Materials List

In partnership with its more than 100 Activators (businesses, not-for-profit organizations, academic and research institutions, and government agencies), the U.S. Plastics Pact has developed and published its Problematic and Unnecessary Materials List. These materials are defined as plastic packaging items, components, or materials where consumption could be avoided through elimination, reuse, or replacement, and items that—after use—commonly do not enter the recycling and/or composting systems or, where they do, are detrimental to the recycling or composting system due to their format, composition, or size. The 11 items listed are not currently reusable, recyclable, or compostable with existing US infrastructure at scale and are not projected to be kept in a closed loop in practice and at scale by 2025.

Recommended Resources:

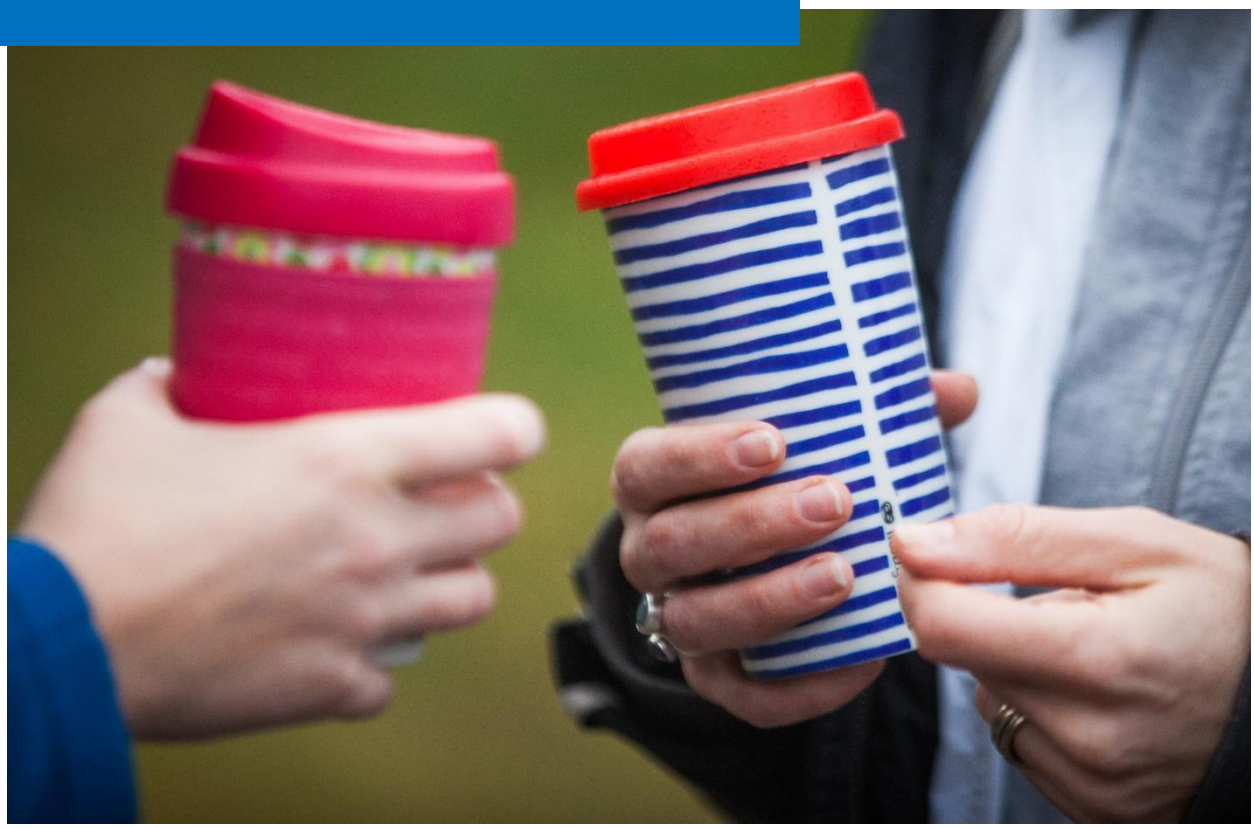
- National Academies: Reckoning with the U.S. Role in Global Ocean Plastic Waste
- Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution | Science
- U.S. Plastics Pact's Problematic and Unnecessary Materials List
- CalRecycle's Overview and Guidance on SB54

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Dr. Anja Brandon**, Ocean Conservancy
- **Margaret Spring**, Monterey Bay Aquarium
- **Emily Tipaldo,** U.S. Plastics Pact
- **Taylor Maddalene,** University of Georgia (moderator)

[6] Ocean Conservancy article on SB 54, June 30, 2022

Pilot and Scale Reuse Systems



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Overview

Reusable packaging is designed to be used multiple times, for its original intended purpose, within a dedicated system for reuse. Reusable packaging is brought back into the economy through the washing and/or repairing of the entire intact packaging (as necessitated by product and packaging category). Models of reuse are outlined below. When scaled effectively, reuse systems offer smaller material and emissions footprints compared to traditional single-use products. Several successful reuse models are being implemented in the US in event venues, companies, cities, and regions that can be replicated and scaled by collaboratively addressing the key barriers to reuse. However, wide-scale implementation of reuse is hindered by lagging infrastructure, including return systems and washing facilities, a lack of cohesive standards and approaches across different reuse projects, and limited consumer and policymaker education.[7]

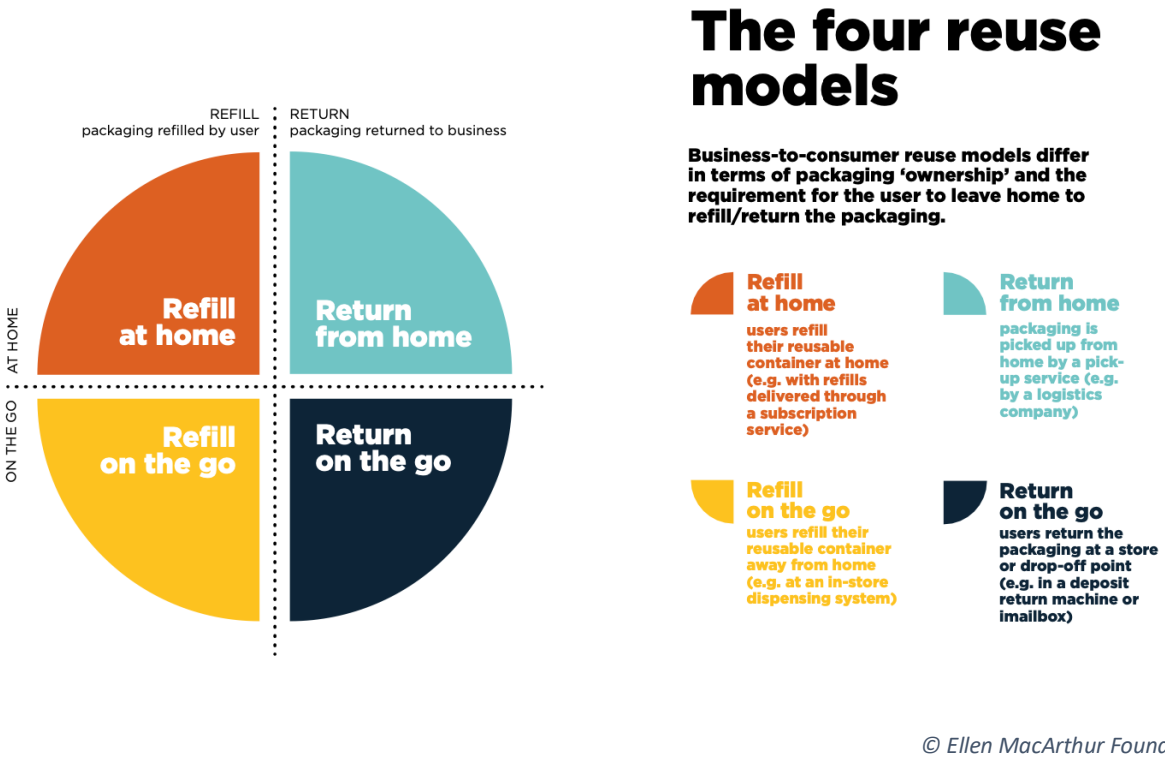
Reuse systems can decrease the overall amount of materials in circulation, reducing plastic at the source and alleviating the burden on recycling systems, as well as keeping plastic out of nature. Reusing just 10% of plastics products could reduce the equivalent of 50% of annual plastic ocean waste.[8] Scaling up reuse systems in the United States could avoid creating 7.5 million tons of material

[7] Reuse model figure from "Reuse – rethinking packaging," Ellen MacArthur Foundation, 2019

[8] "Reusing 10% Will Stop Almost Half of Plastic Waste from Entering the Ocean," World Economic Forum, July 22, 2021

and prevent 17 billion pieces of litter.[9] Accelerating reuse models that are convenient, safe, equitable, and accessible can accelerate our path toward a pollution-free future. Reuse also provides new business opportunities and untapped economic possibilities. According to the Ellen MacArthur Foundation, replacing just 20% of single-use plastic packaging with reusable materials represents a $10 billion opportunity globally, which translates into hundreds of millions of dollars in the US alone. Reuse models can provide companies with greater customer loyalty, cost savings, and higher-quality customer experiences.

Panelists at the Summit echoed the recommendation that companies in the fast-moving consumer goods space should deliver 30% of their portfolio through reuse by 2030.[10] Reuse systems should demonstrate their reduced impact compared to single-use by decreasing plastic in recycling and landfill systems, lessening production and use emissions, and decreasing overall water usage per item use. Infrastructure investment, partnership programs, intentional and well-resourced programs, and community education will be key to building and scaling reuse systems. Actions to scale reuse should also be accompanied by identifying and implementing enabling reuse policies.



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[9] "840 billion single-use products could be replaced by new reuse service economy," Upstream, June 16, 2021
[10] "WWF Position: The Role of Reuse in a Circular Economy for Plastics," WWF, November 16, 2022

Recommended Actions: Reuse Pilots and Scaling

For GOVERNMENTS	*For* BUSINESSES
• **Offer federal grant funding for reuse pilots and successful efforts**, such as through the Inflation Reduction Act infrastructure grant programs. • **Support successful pilots,** investing in community education, replicating successes and using existing programs/funding sources at the local level. • **Test reuse policies at the local level** and then consider state and federal policies—which build reuse systems rather than incentivizing reusable containers with no means to actually reuse them—when legislation is proven beneficial.	• **Invest in streamlining methods of delivery, product return (at accessible return locations), and sanitization**, with a particular focus on investment in new, large-scale methods to sanitize large volumes of packaging. • **Drive thoughtful pilots with sufficient investment, education, and time** to accurately measure consumer uptakes and effectiveness of different strategies and technology, and then use these learnings to replicate and scale initiatives. • **Test new technologies and approaches in closed-loop environments**, which can limit some of the logistics and challenges associated with open-loop spaces.

For ALL STAKEHOLDERS

- **Develop and utilize public-private partnerships** to unlock access to funding, develop necessary infrastructure, and provide education for communities.
- **Utilize reuse standards and metrics**, such as PR3's Reusable Packaging System Design Standards and CBW's Measuring Reuse, and use the data generated to demonstrate the effectiveness of reuse models and **support the adoption of enabling policies** to promote them.
- **Ensure that reuse systems are physically and linguistically** accessible so that refill stations, collection centers, and wash facilities are accessible, advertised to consumers, and integrated within communities with minimal disruptions. Where possible, consider multiuse opportunities for such systems that can increase their use and uptake.
- **Promote community education and uptake** by engaging the community from the onset of development, demonstrating the economic benefits, and explaining how to use the systems through attractive, interesting, and comprehensive means.

Case Studies

Reuse Seattle

Reuse Seattle brings reusable food and beverage container solutions and services to the City's institutions, schools and universities, sports and entertainment venues, restaurants, and businesses. Its vision is for a convenient, connected, interoperable, and standardized network of reuse systems for food and beverage containers throughout Seattle. So far, Reuse Seattle has supported more than 20 music and entertainment venues, cafes, institutions, and public schools in implementing reusable foodservice ware. Reuse provider r.Cup, has opened a dedicated reuse washing facility and has been actively servicing businesses in the City (with 550,000 single-use cups reduced so far). Reuse Seattle is working closely with four other service providers to support its reuse services in Seattle. To reduce barriers and encourage more businesses to participate, Seattle has secured $225,000 in city funding for a financial incentive program, launched in March, for up to 250 cafes and restaurants to replace single-use service ware with durables or to join a reuse service. Key takeaways include starting small before scaling, following the political momentum, partnering with the private sector, offering financial incentives, and gathering outputs from pilot studies before focusing on policy.

Don't Waste Durham

Don't Waste Durham works at a city level to demonstrate the effectiveness and benefits of citywide reuse systems. In 2016, it built a citywide wash facility, routes, return stations across the city that make possible return and collection, processing, and redistribution of reusable packaging. This infrastructure enables pickup-wash-delivery for the restaurant takeout system called GreenToGo, as well as for schools, producers of consumer-packaged goods, grocery stores, institutions, local government, large venues, and events. Don't Waste Durham has tested curbside collection of reusables as a municipal utility and is now testing the feasibility of utilizing the recycling industry to facilitate a societal shift to reusables—creating new revenue streams for local recycling. Its Bull City Boomerang Bag program offers free borrow-and-return reusable bags, made from rescued materials to consumers at partner grocery stores in disadvantaged areas of the city. This program aims to offset equity concerns related to the single-use bag fee that Don't Waste Durham is pushing through city government. Its systems-level approach demonstrates that reuse keeps resources local, cultivates economic resilience and accessibility, and designs waste out of systems.

Recommended Resources:

- WWF Position: The Role of Reuse in a Circular Economy for Plastics
- Consumers Beyond Waste Guidance
- EMF Reuse: Rethinking Packaging
- PR3 Standards
- Consumers Beyond Waste Measuring Reuse

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Amy Larkin**, PR3
- **Clem Schmid**, Loop/TerraCycle
- **Crystal Dreisbach**, Don't Waste Durham
- **Thom Almeida**, World Economic Forum (moderator)

Implement Effective Extended Producer Responsibility

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Overview

Extended Producer Responsibility (EPR) is a policy approach that shifts the financial responsibility for managing the end-of-life disposal of a product from the government and taxpayers to the producers of the product. In our current linear economy, the production and use of materials is disconnected from their impacts, and virgin materials are often cheaper than recycled materials. Producers—brands that produce products—often design packaging without any consideration or knowledge of recycling practices and abilities, while consumers are responsible for end-of-life decisions for their packaging. Taxpayers and local communities bear the costs of collection and waste management. Through EPR, the producers that put products in packaging on the market pay to collect, process, and recycle discarded packaging materials and must develop a plan for accessible and effective recycling services. Producers are also held to targets for system performance, which are designed to keep materials in the system and avoid the use of problematic and unnecessary materials.

EPR can create both the regulatory and financial certainty needed to advance waste diversion targets, incentivize sustainable packaging designs, stimulate overdue investment and access to recycling systems, and provide clarity and education to consumers who face an often-overwhelming system. Importantly, EPR can provide the overarching system that incentivizes greater use of reusable and recyclable packaging through eco-modulation, where producers are penalized or incentivized based on a package's performance within existing management systems.

EPR systems that involve producers directly and an advisory council—composed of NGOs and other community stakeholders—in the development and implementation of an EPR program plan are better suited to deliver impact. The Product Stewardship Plans should be underscored by an initial needs assessment and public oversight. A comprehensive needs assessment can ensure that the plan builds on existing infrastructure and addresses known gaps and diverse demographic needs. Public oversight can ensure that producers are actively building a better system, not just passing on costs without returning high-quality recycling content and reducing problematic and unnecessary packaging.

Recommended Actions: Extended Producer Responsibility

For GOVERNMENTS	*For* BUSINESSES
• **Use data and outcomes from recent state legislation or needs assessments**, when available, to craft effective EPR legislation in other jurisdictions. • **Ensure that EPR policies include needs assessments** to inform Product Stewardship Plans. • **Develop a national framework for EPR**, which could include overall harmonization of approaches while maintaining flexibility for regional and local implementation that will be the most effective in each area.	• **Advocate for state and federal legislation to create strong EPR systems**, particularly through demonstrating unified support between different stakeholders (i.e., joint advocacy between companies and NGOs) and rely on principles designed for robust outcomes that adequately fund and develop recycling programs.
***For* ALL STAKEHOLDERS**	
• **Increase connectivity between states** that are both considering and actively implementing EPR to share key learnings, standardize approaches where possible, and decrease the up-front work of developing and implementing new policies. • **Study international examples of EPR** to replicate successful provisions and adapt from lessons learned.	

Case Studies

Colorado Legislation

In 2022, Colorado passed HB 22-1355 into law, creating a framework for the state's full producer responsibility program. Through the program, producers are assigned full financial responsibility for packaging and printed paper sold to consumers in the state. Brands were required to form a Producer Responsibility Organization (PRO) to collectively manage their obligations. Circular Action Alliance was designated as the PRO in June 2023; it is the first packaging PRO to form in the US. Through the program, producers will be responsible for investing in and paying for recycling across the state, removing the burden on local governments and consumers. The PRO will collect fees from producers that cover the cost to collect and recycle materials, including plastic, glass, metal, and paper, and must also set and meet targets for using more recycled content. Importantly, the EPR program is preceded by a needs assessment, which will evaluate the existing recycling system and gaps to set recycling goals and identify areas of collection and reprocessing that need investment. The entire process is overseen by the state agency and an advisory board of local stakeholders. The policy was championed by a strong coalition of businesses, municipalities, recyclers, and environmental organizations that came together to create this program that works for all players in the system.

WWF-ABA Joint Principles

In 2021, WWF and ABA published joint EPR principles to inform effective EPR policies, representing an agreement between a leading NGO and a major American industry association. Both organizations believe that EPR should reduce truly unnecessary material use and replace that use, where appropriate, with more sustainable alternatives; produce results that are in line with environmental justice and public health objectives; and establish the necessary incentives, standards, and public-private funding mechanisms to drive an efficient circular economy. These principles were developed in partnership by learning from best practices around the world and identifying opportunities to create positive environmental and business results. They are now used for joint advocacy on the state and federal level, including successfully showcasing multi-sectoral support for the Colorado legislation. The joint EPR principles demonstrate that alignment is possible between different sectors and that joint advocacy can have a larger influence on policymakers than individual approaches. Similar joint advocacy is brought forward through OneSource Coalition, which advocates for national extended producer responsibility and has been recognized for its ability to create positive outcomes for people, nature, and business.

Recommended Resources:

- Ocean Conservancy Plastics Policy Playbook
- WWF and ABA Joint Principles for Reducing Materials Footprint and Achieving Circularity
- Colorado EPR Campaign: Recycling for All Coloradans
- OneSource Coalition Statement of Solutions

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Kate Bailey**, Association of Plastic Recyclers
- **Megan Daum**, American Beverage Association
- **Erica Nuñez**, The Ocean Foundation
- **Anthony Tusino**, World Wildlife Fund (moderator)

Understand and Mitigate Plastic Public Health Risks

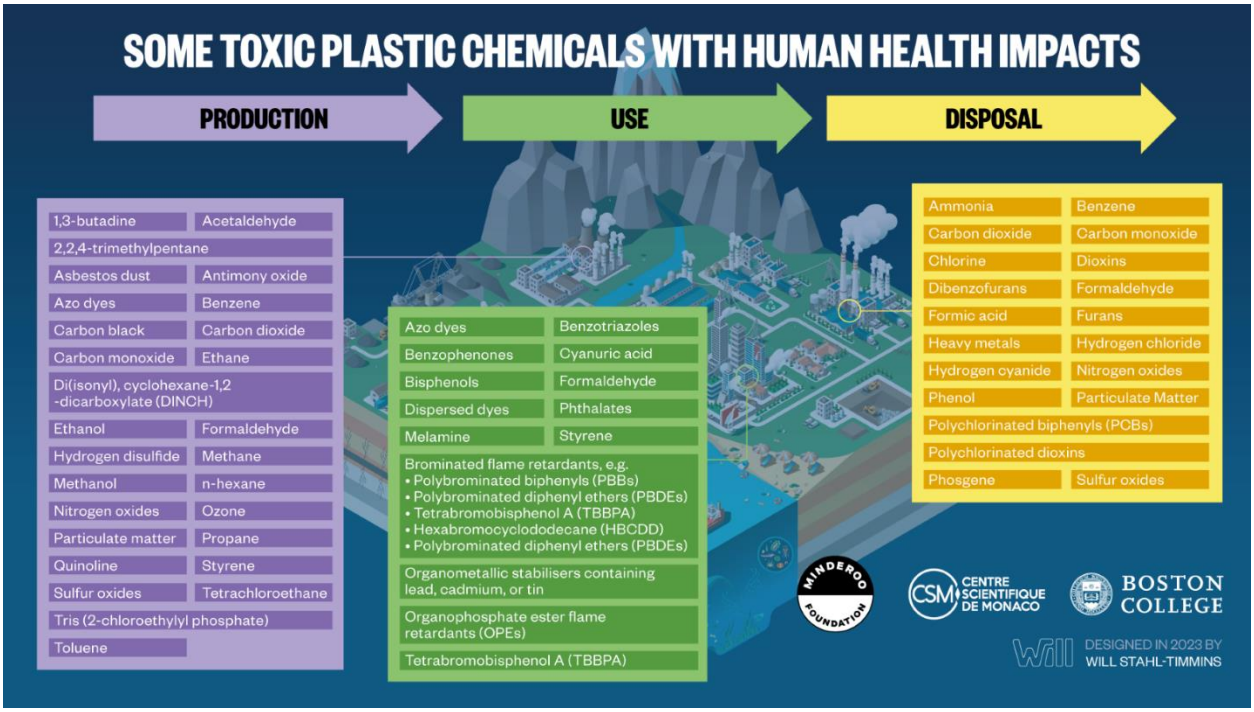
Sam Hurd Photography

Overview

The production, use, and disposal of plastic negatively affects social, environmental, and human health. The 2023 report of the Minderoo-Monaco Commission on Plastics and Human Health (Minderoo-Monaco Commission) found that plastic endangers human health and causes disease, disability, and premature death at every stage of its life cycle. Workers who extract coal, oil, and gas feedstocks for plastic production; plastic production workers; plastic textile workers; and plastic recycling workers suffer increased rates of cardiovascular, pulmonary, metabolic, and neurologic diseases and cancer. During use and also in disposal, plastics release microplastic and nanoplastic fragments along with thousands of toxic chemicals, including additives and residual monomers, into the environment and into people, with population-wide exposure to chemicals that disrupt endocrine function and increase risk for premature births, neurodevelopmental disorders, male reproductive birth defects, infertility, obesity, cardiovascular disease, renal disease, and cancer. Beyond these known hazards, many of the thousands of chemicals used in plastic production do not even have a clear hazard rating. The Minderoo-Monaco Commission's report, and many other studies, demonstrate disproportionate harm faced by vulnerable fenceline communities near production and disposal facilities, and to children and infants.

Given the ubiquity of plastic, it is essential to both study and work to counteract the negative impacts of plastics on health and well-being. With so little understood about nearly 40% of plastic additives, there is a high risk of additional unknown health complications from these chemical additives. Furthermore, addressing plastic's impact on health offers significant economic benefits. Based on plastic's carbon footprint, occupational injuries, and diseases caused by particulate air pollution, benzene, formaldehyde, and other toxic materials, the Minderoo-Monaco Commission report estimates annual global health-related costs of plastic production to exceed $250 billion. Adding to health-related costs of plastic production, the report estimates additional annual costs of $920 billion in the US alone in relation to disease, disability, and death associated with population-wide exposure to three plastic-associated chemicals with established human toxicity: PBDEs (flame retardant), PBA (monomer), and DEHP (plasticizer). In addition to their potential negative health impacts, some additives—including color additives—can adversely affect the recyclability of materials.

Panelists at the session (listed below) maintained that health risks from plastic proliferation can be responsibly mitigated through health protective, precautionary, and proven cost-effective measures. Problematic materials and additives with known human health impacts should be eliminated from the supply chain. Policy action, including measures and targets established in the treaty, can reduce the complexity of plastics and the presence of toxins in plastics design. Through community-driven approaches, those who live near production, transfer, reprocessing, and disposal sites can be given access to education and the tools to monitor and enforce the safety of their environments.



Minderoo-Monaco Commission on Plastics and Human Health

Recommended Actions: Public Health Risks

For GOVERNMENTS	*For* BUSINESSES
• **Define specific harmful toxins in plastic as "pollutants"** or define specific plastic formats as "easily littered," which would enable us to address plastic pollution within systems that already exist for pollution reduction and enforcement (Clean Air Act, Clean Water Act).	• **Eliminate problematic materials and additives** from the supply chain so that additives with known health impacts are no longer included in plastics design.

For ALL STAKEHOLDERS

- **Advocate for strong provisions in the global plastics treaty** which decreases plastic production, addresses the toxic chemicals in plastics, reduces the chemical complexity of plastics, and protects human, environmental, and community health from plastics' impacts.
- **Develop systems for true cost accounting of plastics**—pricing plastics according to their full life cycle costs such as health costs, cost of landfilling, cleanup of leaked plastic, and monitoring of effluent discharge from production plants, not just their production costs—in order to increase cost parity between fossil-based plastic and other options.
- **Reduce the complexity and amount of chemicals used in plastics** to protect human and environmental health and improve recycling rates.
- **Reduce demand for virgin plastics** through source reduction, passage of a national bottle bill, voluntary reduction, and other methods to keep both durable and single-use plastic out of the environment.
- **Fund and continue research on plastic health impacts,** particularly on the chemicals whose hazard status is unknown.
- **Consult communities in siting processes and incorporate them in decision-making processes**—taking into account potential social and environmental impacts—**and ensure they are provided with the necessary tools** to provide input and monitoring.

Case Studies

The Minderoo-Monaco Commission

The Minderoo-Monaco Commission was formed to study hazards that plastics pose to human health, the environment, and the economy, as well as equity considerations of plastic at each stage of its life cycle. Its recommendations are intended to inform negotiations for an international plastic pollution treaty. In March 2023, the commission released a report and a series of recommendations on how to address health concerns arising from plastics. Peer-reviewed scientific reports with independent authors can help make the case for policy action, ensure that stakeholders understand the specific problems created by plastic production and pollution, and help drive effective solutions that are backed by science.

The Descendants Project

The Descendants Project was founded to preserve and protect the health, land, and lives of the Black descendant community located in Louisiana's River Parishes. Residents of Louisiana's Cancer Alley face up to 47 times the lifetime cancer risk of what the EPA deems "acceptable," much of which can be attributed to the 150+ plastic production facilities in the area. Through advocacy, providing resources, engaging the descendant community, and creating strategies for a safe and sustainable economy, The Descendants Project utilizes an innovative approach that uplifts cultural and emotional enrichment. The organization's work includes challenging predatory laws and ordinances, dismantling systems that exploit vulnerable communities, and highlighting on an international stage the harmful impact of plastic production and recycling on frontline communities.

Recommended Resources:

- Monterey Bay Aquarium: A blueprint for U.S. action on plastic pollution
- Minderoo-Monaco Commission Report
- Video of the Minderoo-Monaco Report Release
- GCSE 2022 Plastic Legal Summary: Comparative Law Analysis and Recommendations Regarding Plastic Waste: France and the United States
- The emergence of microplastics: charting the path from research to regulations
- Slides from the Summit's Breakout Presentation on Additives and Health – additional resources available on slides 45 and 46

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Bonnie Monteleone**, Plastic Ocean Project
- **Jo Banner**, The Descendants Project
- **Margaret Spring**, Monterey Bay Aquarium (member of Minderoo-Monaco Commission)
- **Nina Butler**, Stina, Inc. (moderator)

Increase Data Transparency and Harmonization

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Overview

To better evaluate the current impact of plastic and its production on our environment as well as what reforms are needed, we first need to better understand the scale at which we produce and use plastic as well as what happens to it after use. Although businesses regularly collect their own data on plastic production, use, waste evaluations, and materials performance, this data is often proprietary and not shared with the public. Plastic data is not collected with harmonized metrics, nor is it tracked across both domestic production and imports for all packaging and products. Connecting design, use, and end-of-life considerations can inform clear decision-making and create effective circular systems where production and sourcing are influenced by waste management and vice versa.

Production data, which includes material types and formats, enables understanding of how much material our economy is using and creating. Production rates can inform how our waste management and collection systems should be structured to maximize the recovery of materials. Tracking production rates and practices year over year can also demonstrate the effectiveness of recovery, reuse, and reduction strategies in decreasing our reliance on virgin materials. Other key data points include the amount of material put into the market by each company and data on plastic waste and disposal, which can inform the effectiveness of different waste-minimization approaches.

Likewise, data standardization for collecting, sorting, and recycling can provide a clearer picture of collection processes and possible incentives, regulations, and practices at the local level to incentivize reduction, reuse, and recycling.

Data collection should be done in standardized measurements to enable the comparison of data across geographies. To improve the collection and use of plastic data, businesses can disclose their packaging portfolios, including use of single-use products, problematic or unnecessary materials, and products that do not meet standards for recyclability and reuse (which must also be defined). This transparency enables consumers to make informed decisions about their purchases and businesses to track how their products perform in the marketplace. Businesses should then use this data to track progress on goals for recyclability, recycled content, or reduction in virgin materials. Consumers, businesses, and policymakers should use this data to underpin development of new infrastructure and investments in new technologies and methods. Where appropriate, governments can require reporting of which plastics are used, which formats are produced and sold, and how materials are managed after use.

Sam Hurd Photography

Recommended Actions: Data Transparency and Harmonization

For GOVERNMENTS	*For* BUSINESSES
• **Include metric-based targets** for elimination of problematic or unnecessary materials, reuse, recycled content, and reduction of petroleum-based virgin content in any policy mechanisms, whether in statute or in producer responsibility programs, to improve unified outcomes. • **Use comprehensive needs assessments to understand gaps** in existing data; gaps in current collection, sorting, and reprocessing systems; and the role of the informal sector in domestic markets. This can prevent lost assets and inefficient investments and can ensure involvement of traditionally underserved communities. • **Develop solid waste management plans** to understand current local practices and how regional consumer behavior results in different end-of-life outcomes, such as through the SWIFR grant program that EPA is working to implement. These plans should be informed by the data collected on what is being produced, used, distributed, and disposed of in each region.	• **Voluntarily report plastic source and sales** through forums such as *ReSource: Plastic*, the U.S. Plastics Pact, and the Ellen MacArthur Foundation. • **Incorporate baseline assessments into environmental, social, and governance (ESG) commitments** and track against these metrics. • **Utilize data to implement effective source reduction efforts**, including testing, measuring, and comparing the outcomes of different reuse, reduction, recycling, and plastic pollution aversion efforts.

For ALL STAKEHOLDERS
• **Ensure that consistent and unified metrics are used** to compare packaging outcomes and identify effective local reforms. Metrics can include total weight or percentage of inputs of recycled, composed of biobased, and virgin content and identify the amount of packaging that is recyclable, compostable, or reusable.

Case Study

ReSource: Plastic

Through *ReSource: Plastic,* participating companies are able to prioritize the most impactful activities, implement innovation methodology to measure progress, and collaborate with other stakeholders to encourage new solutions and investments. *ReSource: Plastic* aims to prevent at least 50 million metric tons of plastic waste from entering nature by 2030. The ReSource Footprint Tracker, which participating companies complete annually, provides a common measurement framework to track key plastic data over time. Companies can then use this data as a starting place for developing solutions and measuring their effectiveness. The initiative's data transparency and harmonization have been integral in reducing problematic plastic waste and increasing recycling rates year by year.

Recommended Resources:

- Transparent 2022: Annual ReSource: Plastic Progress Report
- Science Behind the Scenes: ReSource Footprint Tracker Methodology
- Pew: Breaking the Plastic Wave
- Ellen MacArthur Foundation's Global Commitment
- U.S. Plastics Pact's Annual Report

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Ben Jordan**, The Coca-Cola Company
- **Dr. Kim Cochran**, EPA
- **Dr. Winnie Lau**, Pew Charitable Trusts
- **Alix Grabowski**, WWF (moderator)

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Maximize Public-Private Partnership Outcomes

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Overview

Parallel to regulatory mandates, investment is needed to advance national waste management, recycling, and circularity. Public-private partnerships are an effective way to align industry with common goals and secure funding for the means of implementation. When infrastructure projects like building or upgrading a municipal recycling facility create high up-front costs for local governments, the collaboration of public infrastructure and private investment can provide the necessary capital and approval in order to scale and implement projects.

Public-private partnerships allow the scalability of resources while delivering tangible results for businesses, the public sector, and communities. Infrastructure need assessments can reduce risk for investors while meeting local capacities and ensuring that waste management, recycling, and reuse infrastructure is equitable and accessible to all community members. Importantly, public-private partnerships incentivize tailored programs while creating scalable impact. Through targeted financing, private entities can reduce the risk and financial burden of further developing infrastructure while public oversight and goal setting ensure that solutions work in practice. Public-private partnerships also spur innovation and accountability in ways that no single organization can achieve alone.

Ideal public-private partnerships match or streamline funding from multiple sources, allowing for even more impact. Such partnerships build on existing programs, platforms, or models and extend the availability of services or business models. Partnership success can be measured by funding raised or matched, tonnage of recycled or reused materials, or increased access to infrastructure. In addition to the tangible benefits or changes to consumer or producer practices, it is important that partnership provides nonfinancial returns and is evaluated as programmatic outcomes. Consumer education, infrastructure access, and community knowledge are important outcomes through which partnerships can be evaluated and adapted.

Recommended Actions: Public-Private Partnerships

For GOVERNMENTS	*For* BUSINESSES
• **Develop and support public-private partnership models** that involve matching, pooled funding, and other ways of expanding available resources. • **Ensure that partnerships have consistent performance metrics**, such as time-bound targets to ensure that programs are implemented and scaled quickly and effectively.	• **Analyze successful projects** to create guidance for future efforts. • **Replicate and adapt successful public-private partnership models** that have been used to address other social and environmental issues. • **Connect with action-oriented, mission-driven nonprofit organizations** and explore ways to advance circularity. Many NGOs are connected to broader networks within the industry and can help bring multiple value chain players to the discussion.

For ALL STAKEHOLDERS
• **Support circularity and infrastructure projects at the local or regional levels** to improve recycling access and infrastructure. This can be accomplished through multiple channels, such as grant-making or donations to governments, partnering with local or regional NGOs that support public entities, or encouraging company staff to volunteer on local projects. • **Work directly with NGOs to research, develop, and share** educational resources for consumers about recycling. This can happen through digital resources, in stores, or in person during community events.

Case Studies

Polypropylene Recycling Coalition

Since its launch in July 2020, the Polypropylene Recycling Coalition has increased access to curbside recycling for polypropylene (PP), ensuring more recycling facilities can sort polypropylene successfully and stimulating end markets by increasing the supply of recycled polypropylene for reuse in packaging. When polypropylene was downgraded in January 2020 to a "Check Locally" label under the How2Recycle program, The Recycling Partnership brought stakeholders together from across the value chain to pre-competitively support investment in the PP Recycling Coalition, which led to the formation and launch of the Polypropylene Recycling Coalition in July 2020. In early 2022, the Coalition and How2Recycle teams began working together to assess the potential upgrade to "Widely Recyclable." The teams evaluated access and end-market criteria. In July 2022, the transformative work of the Coalition led to a How2Recycle upgrade of polypropylene rigid containers to "Widely Recyclable" in the US. As of June 2023, the Coalition marked nearly three years of impact with 41 materials recovery facilities (MRFs) receiving $10.3 million in grants to support new and improved PP sortation and expand community recycling education. To date, these grants and their catalyzed impact have improved PP recycling for nearly 11% of US households and positively improved recycling for 34.2 million people, resulting in an estimated 42 million new pounds of valuable PP recovered annually for processing in growing domestic markets.

EPA Public-Private Partnership Model

The Environmental Protection Agency has released the Draft National Strategy to Prevent Plastic Pollution that identifies ways in which the federal government, state governments, individuals, and businesses can work to end plastic pollution. The strategy is a continuation of the Draft National Recycling Strategy. EPA identified the need for a plastics-specific strategy due to the pervasive and challenging nature of plastic waste, especially its role in disrupting the recycling of other materials. In the strategy, public-private partnerships are identified as a way to reduce problematic and unnecessary plastics, develop new infrastructure, and educate consumers on best practices. Importantly, any action taken to address plastic pollution can include joint action between public agencies and private funding. When evaluating opportunities for partnership, identified projects need to go beyond financial returns and provide continuing value to communities. Through the Draft Strategy, EPA is working to identify ways to implement new systems and interventions that reduce waste and pollution at the source.

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Closed Loop Partners NextGen Consortium

The NextGen Consortium, managed by Closed Loop Partners' Center for the Circular Economy, is a multi-year consortium that aims to address single-use foodservice packaging waste by advancing the design, commercialization, and recovery of packaging alternatives. This includes advancing material science innovations, strengthening recycling and recovery infrastructure to recapture paper and polypropylene cups after use, and de-risking reusable cup systems. The Consortium's work began in 2018 with the NextGen Cup Challenge, sourcing 480 cup innovations globally, of which 12 winners were selected, and six were supported through the Consortium's Circular Business Accelerator to test and refine their solutions. Since then, the Consortium has researched and catalyzed a range of solutions to advance systems change, including fiber cup and liner innovations, and groundbreaking reusable cup systems. Today, the Consortium conducts in-market reuse testing to evaluate operational alignment, customer acceptance and environmental impact, and has published a report with key insights drawn from a series of reusable cup pilots conducted throughout the San Francisco Bay Area. The Consortium continues its work across the broader foodservice packaging value chain, conducting dozens of lab- and commercial-scale tests with recyclers, material testing labs and paper mills to evaluate the performance, recyclability, and recoverability of diverse cup solutions.

Recommended Resources:

- The Recycling Partnership's Material-Specific Work
- McDonald's PPA Agreement for Solar Energy
- Solid Waste Infrastructure for Recycling Grant Program
- Closed Loop Composting Consortium
- Pollution Prevention Resource Center

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Bridget Croke**, Closed Loop Partners
- **Carolyn Hoskinson**, EPA
- **Elaine Strunk**, McDonald's
- **Rachel Kipar**, The Recycling Partnership (moderator)

Empower Circularity Initiatives in Cities

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Overview

While plastic pollution and circularity are on global and national agendas, cities are at the forefront of making change. Waste and recycling management occurs at a local level and impacts of plastic leakage are felt locally. "Circularity in cities" encompasses any locally driven efforts to increase the circularity (i.e., reduction, reuse, repair, repurpose, recycling, and compost) of materials including but not limited to plastics.

Cities can move legislation and initiatives more rapidly than larger governments can, enabling them to be effective testing grounds for new efforts. Through quick and iterative testing and piloting smaller-scale efforts that are cognizant of local contexts, successful efforts at the city level can provide the basis for replication and scaling in other communities. Circularity efforts also provide significant economic benefits for local communities, ensuring that the value of materials remains within the community rather than being wasted. By leading the way on such initiatives, municipalities can create and maintain local jobs including those focused on repair, reuse, recycling/composting, and alternative materials. These initiatives can attract new companies interested in advancing innovative efforts, enable cities to meet other sustainability goals, bolster cities' economies, garner new public-private partnerships, and build local identity and pride.

Panelists and case studies identified several enabling components for circularity in cities. Buy-in from city officials and partnerships with local companies and nonprofits can unlock funding and resources. These partnerships can enable cities to tackle circularity challenges from multiple avenues, such as simultaneously educating the community, developing new infrastructure and technology, and transforming waste management. Innovation and investment—backed by business support, federal and state grant funding, or other stakeholders—offer access to scale infrastructure, build new technology, undertake necessary studies, and conduct pilot programs. In particular, the case studies emphasize the importance of accessible grants and funding with limited red tape, robust reporting requirements, and market competition.

Sam Hurd Photography

Recommended Actions: Circularity Initiatives in Cities

For GOVERNMENTS	*For* BUSINESSES
• **Deploy resources to cities to initiate and accelerate progress** based on each city's direct needs, then scale effective initiatives on a broader scale (state and federal government). • **Increase collaboration between local stakeholders** on circularity goals and efforts, such as developing local forums to increase connectivity and synergy of initiatives (city). • **Conduct a waste stream study** at the local level to set a baseline and identify barriers and opportunities for circularity (city). • **Ensure that systems and resources are physically, economically, socially, and linguistically accessible** to all community members (city). • **Utilize existing resources** such as EPA and RTI's Environmental Justice Thriving Communities Technical Assistance Centers (city).	• **Partner directly with cities** to pilot circularity initiatives with local support and buy-in, which will increase the likelihood of successes. • **Interact precompetitively with other companies**, especially start-ups in the space, to advance multiple efforts simultaneously and reduce the variety of different initiatives and systems.

For ALL STAKEHOLDERS

- **Collaborate among government, corporate, and NGO partners on grants and investment** in reuse, repair, recycling, and composting infrastructure and innovation; use these relationships to help other communities and regions replicate and scale efforts. Existing grants include EPA SWIFR grants and other EPA opportunities, as well as the new Marine Debris Foundation.
- **Participate in regional city forums** to share success stories, identify best practices, learn from others' efforts, and brainstorm new opportunities.
- **Support community education and engagement on circularity** to ensure public support and uptake of new initiatives. This could take the form of incentive programs, social media outreach, community engagement in citizen science, and other approaches.

Case Studies

Mississippi River Cities and Towns Initiative (MRCTI)
MRCTI, an association of 103 bipartisan mayors from 10 US states along the Mississippi River, spearheads a plastic pollution initiative to gather data and reduce plastic pollution in riverside communities. Data is collected through a "citizen science" approach using the Debris Tracker mobile app, which has increased community awareness of pollution and its impacts. Using this data, MRCTI has supported the Mississippi River cities' efforts implementing plastic waste reduction actions. Local actions include bottle-filling stations, direct mini-grants, and stipends for restaurants and businesses to replace unsustainable packaging, the Circularity Assessment Protocol, and facilitating corporate and municipal partnerships to support reduction and recycling programs. For example, Greenville, Mississippi, is piloting Replenysh Greenville, an effort that builds robust recycling infrastructure, software, and knowledge for collection facilities. MRCTI also provides a space for small communities to establish larger partnerships to spread circularity across the Mississippi River. MRCTI's effectiveness with its participating cities demonstrates the power of intercity cooperation, corporate and nonprofit partners, and community engagement and awareness.

Reuse Seattle
See case study in ***Reuse Opportunities***.

Circular Cleveland and Nonprofit Partnership
Working in Cleveland, Ohio—a rust belt city that had paused recycling due to the financial cost of high contamination at the time of the China Sword policy—Circular Cleveland codesigned a strategy to identify economic opportunities that would complement the city government's Climate Action Plan and would interest corporate stakeholders. As a nonprofit initiative, Circular Cleveland has been able to support local government and ensure that circularity remains visible against competing priorities. By developing a road map, offering grassroot grants, working closely with the city on pilot plans, and engaging the community through education and workshops, Circular Cleveland has supported the relaunch of the recycling program and is developing a pathway for community composting. Core components of its success include starting small, developing corporate partnerships and an enabling economic ecosystem, encouraging resident-led projects, engaging a diverse group of stakeholders, and crafting different language to appeal to different audiences.

Recommended Resources:

- Ocean Conservancy: Urban Ocean Toolkit
- Circularity Assessment Protocol
- Reuse Seattle
- Circular Cleveland
- Mississippi River Plastic Pollution Initiative

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Divya Sridhar**, Circular Cleveland
- **Susan Fife-Ferris**, City of Seattle
- **Mayor Logan**, City of Blytheville, Arkansas; Mississippi River Plastic Pollution Initiative
- **Taylor Maddalene**, University of Georgia (moderator)

Expand Deposit Return Systems

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Overview

Deposit Return Systems (DRS), also known as bottle bills, assign a refundable value to packaging that is returned to a consumer when the package is collected. DRS create incentives for consumers to return materials and stimulates investments in dedicated recycling and reuse infrastructure. DRS typically cover beverage containers (generally made of PET, aluminum, and glass) but can be applied to a wide range of products. Ten states have existing deposit return systems for beverage containers, and legislative proposals are currently being developed in Congress that would create a national DRS. DRS can be integrated with other policies such as EPR, reuse, and source reduction.

States with established DRS have seen increased recycling rates for beverage containers and decreased rates of these materials leaking into nature. A 2020 Keep America Beautiful study estimates that states with bottle bills had half as much beverage litter as those without bottle bills.[11] DRS alleviate the burden on waste management by ensuring the collection and return of high-value bottle materials. DRS also help retain economic value within the system, which also contributes to a circular economy.

[11] "National Litter Study: Summary Report," Keep America Beautiful, May 2021

Consumer convenience is key to an effective deposit return system. Consumers need to be able to access return options to easily redeem their deposits and to establish clean recycling streams for deposit-covered materials. The most effective models to date are those that provide multiple means by which consumers can redeem their deposits, including retailer take-back, third-party redemption centers, and bag-drop facilities. Including multiple options for consumers to return containers enables participation levels to reach the critical mass needed to ensure that recycling streams deliver enough quality material to create similarly valued recycled products. Deposit amounts should match the geography they are collected in for maximum effect. In some areas, higher deposits might be needed to incentivize consumers and producers where recycling or recapture rates are lagging. Conversely, lower deposit rates might be needed in areas where deposits are a new concept, as the public may need education and capacity support to understand and utilize the system.

Sam Hurd Photography

Recommended Actions: Deposit Return Systems

For GOVERNMENTS	*For* BUSINESSES
• **Expand consumer education** in states with deposit return systems. • **Reform existing models** that don't create positive returns.	• **Support state and federal legislation** to implement and expand deposit return systems.
***For* ALL STAKEHOLDERS**	
• **Integrate effective community outreach and participation** in new and existing programs, particularly with regard to engaging informal waste collectors.	

Case Study

Oregon Deposit Return System

Oregon was the first state to pass bottle bill legislation in 1971. In the decades since, the bottler-led Oregon Beverage Recycling Cooperative has rolled out an impressive and modern container redemption system. Consumers are able to drop bottles and receive immediate refunds at modern, conveniently located BottleDrop Redemption Centers, which process 1.35 billion containers each year. Consumers can withdraw their funds for cash, use them for store credit, donate them to participating nonprofits, and transfer them into college savings plans. Return-to-retail is also an option for consumers. The bottle bill began as a five-cent deposit but transitioned to a 10-cent refund in 2017. These recent changes ensure access to refunds at over 2,000 locations throughout the state and have more than doubled the number of containers in the program since 2019.[12]

Recommended Resources:

- America's Bottle Bill
- Keep America Beautiful's National Litter Study
- WWF Policy Guidance: Circular Economy for Packaging in the United States

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Maia Corbitt**, Texans for Clean Water
- **Heidi Sanborn**, National Stewardship Action Council
- **Anthony Tusino**, WWF (moderator)

[12] "Oregon's Bottle Bill Today," Oregon Beverage Recycling Cooperative

Drive State Policy Leadership Opportunities

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Overview

State governments are increasingly identifying and implementing new ways to manage and mitigate plastic waste. To date, four states have passed EPR policies, and many states have investigated ways to advance reuse models at scale or require a reduction in problematic and unnecessary materials. EPR and DRS can work together in states to decrease plastic that leaks out of the system in all forms. States and localities are moving quickly to address pollution and circularity, and they often need capacity and resource assistance.

State policy is critical, as these frameworks can provide evidence of success for those seeking to institute similar models at a larger scale. Different states can test and compare policies and then enable successful policies to be replicated in other states and nationally. Such state-level interventions that could be applied at the national level include scaling post-consumer recycled content mandates to create national targets and investment opportunities, designing nationwide producer responsibility organizations based on local EPR models, and minimizing trade-offs and infrastructure needed for national phase-outs of problematic and unnecessary materials.

Effective state policies should involve collaboration between different states to avoid reinventing the wheel and capture key learnings across the country. While there are many benefits of state-driven efforts, plastic pollution does not adhere to state or federal lines. Thus, solutions must always work together and provide both scale and individuality where it makes sense. A global treaty that sets high specific standards, requirements, and mechanisms for monitoring and evaluation will help guide state-level policy and put wind in the sails of the US states seeking to lead the way. This will in turn help demonstrate the ability of the US to meet treaty requirements and help guide the federal government's national-level policies. Having international or national standardization that cities and counties can incorporate is vital.

Recommended Actions: State Policy Leadership

For GOVERNMENTS	*For* BUSINESSES
• **Decrease barriers to apply for and report on federal grants** so it is more accessible for rural and underserved communities to apply and comply with reporting requirements. Collaboration between federal and state governments can streamline the application process and offer more tools, staffing, systems, language accessibility, and more. • **Increase investment in rural areas of the country** to improve local management of materials, rather than increasing cost and emissions by shipping materials long distances in order to manage them effectively.	• **Advocate for effective, timely legislation in states**, and seek out successful efforts at the state level to advocate for on the federal stage.

For ALL STAKEHOLDERS
• **Work closely with leading states** to understand their successes and challenges and use this knowledge to design and propose similar state-level legislation based on these key learnings. Where possible, standardization and similar requirements—alongside local considerations and methods of implementation—can simplify the burden on consumers and companies alike. • **Propose and support federal legislation** based on clear examples of state-level success.

Case Studies

Post-Consumer Recycled Content Mandates in New Jersey

In January 2022, the governor of New Jersey signed into law a program that requires certain items to be made with recycled content by 2024. The law recognizes that markets for recycled content are dependent on being cost-competitive with virgin materials made from fossil fuels, which are volatile in price. To stabilize the market for recycled content within the state, the mandatory minimums aim to fix the demand side of the market, focusing on plastic containers, beverage containers, paper and plastic carryout bags, and trash bags. While the law does not go into effect until 2024, producers are finding ways to source recycled content to meet the program requirements. Over the past year, New Jersey legislators have evaluated ways to make meeting the requirements easier, including through extended producer responsibility programs, recycling infrastructure investment programs, and deposit return systems.[13]

Learning from State DRS

Ten states across the nation have implemented deposit return systems for beverage containers, the oldest being Oregon's deposit law passed in 1971. While states vary in size and scope of products covered, each system adapts to its own demographics and geographies. In Oregon, producers have come together through the Oregon Beverage Recycling Cooperative to implement and run collection infrastructure. The program allows consumers to bag multiple containers and deposit them in an automated counting system, reducing the need to hand count containers and staff redemption centers. Most states charge a five-cent deposit, while California charges a 10-cent deposit for containers larger than 24 oz., and Michigan and Oregon charge a 10-cent flat-rate deposit. Across these 10 states, redemption rates vary, with Oregon leading at 81% and Massachusetts at 38%. Differing collection obligations, producer responsibilities, and definitions of covered products create case studies for best practices and the potential need for national standardization.

Recommended Resources:

- The Recycling Partnership Policy Toolkit
- The Recycling Partnership: Increasing Recycling Rates with EPR Policy
- Example: Oregon Department of Environmental Quality Rulemaking

To follow up on this session's outcomes and action items, please reach out to the panelists below via the Whova app or LinkedIn.

- **Liz Chapman**, Recycle Colorado
- **Lily Schwartz**, The Recycling Partnership
- **Nicole Portley**, Oregon Department of Environmental Quality
- **Mara Herman**, National Caucus of Environmental Legislators (moderator)

[13] "New Jersey's Recycled Content Law," New Jersey Department of Environmental Protection, January 22, 2022

CONCLUSION

At WWF's Plastic Policy Summit, participants emphasized the need to take urgent and effective action on plastic waste and pollution. To build a circular economy worldwide, all countries will need to rally together for solutions alongside a full-society approach that extends beyond the national level. Attendees recognized the transformative opportunity provided by the global treaty negotiations, which will provide a common set of goals and, potentially, a common and standardized set of data and metrics to evaluate progress. However, the Summit demonstrated that action cannot wait until a global treaty has been negotiated—existing solutions are available that can and should be taken now. In the United States, that requires national action by agencies, Congress, and the White House to demonstrate our country's commitment to eliminating plastic pollution, including utilizing existing frameworks and strategies. By taking immediate actions to put in place the necessary policies and provide the needed incentives, the federal government can help lead the push for greater ambition in the treaty and lay the groundwork for its effective implementation here at home.

State- and local-level actions also play a critical role in setting and implementing priorities. Local governments can move more quickly on policy and can execute goals and targets within their local contexts. The global plastics treaty should set the standards, objectives, and requirements that will help inform effective policies at all levels—such as mechanisms of monitoring progress and the effectiveness of local initiatives. By demonstrating effectiveness and working out challenges, local policy can lay the groundwork for broader national action and for global action.

The private sector has an incredible opportunity to demonstrate leadership, undertake voluntary actions, and advocate for domestic and global policy. By leading plastic pollution initiatives, companies will improve environmental and health outcomes of materials produced, offer substantial economic opportunities to get ahead of competitors and build new models, and appeal to sustainability-minded consumers. From innovating new ways to reduce harmful materials across the value chains to pioneering reuse systems that strengthen communities and build brand loyalty, companies have clear opportunities to chart a pollution-free future.

NGOs, activists, and academia have played an integral role in defining the plastics problem and advocating for necessary action. Academic and nonprofit entities should continue researching the plastics life cycle, and particularly the effectiveness of various methods of intervention, to minimize negative trade-offs of any efforts undertaken. Through continued advocacy, demonstration of community impacts, and collaboration with both government and corporate actors, NGOs and activists can push for a just and urgent transition to a circular economy.

Core to each of these sector's efforts is collaboration. We cannot succeed without each sector doing its part and working together closely to amplify, replicate, and scale solutions. This report identifies numerous opportunities for partnerships and joint advocacy and encourages all stakeholders to build on the relationships developed at the Summit to stimulate connectivity and collaboration. By advancing the recommendations in this report, companies, NGOs, activists, academia, state and local governments, and the federal government can collectively create a future where plastic no longer enters nature or harms human well-being.

Sam Hurd Photography

Appendix 1: Event Agenda

Day 1 | Wednesday, March 29

Welcome and Opening Remarks
- Erin Simon, WWF
- Nik Sekhran, WWF

Vision for the Future: Agencies
- Deputy Assistant Secretary John Thompson, Department of State
- Assistant Secretary Jainey K. Bavishi, NOAA

State of Play
- Sheila Bonini, WWF
- Kevin Keane, American Beverage
- Mayor Dan Gelber, City of Miami Beach
- Jo Banner, The Descendants Project

Breakout Sessions
- Option 1: Source Reduction
- Option 2: Scaling Reuse
- Option 3: Extended Producer Responsibility

Breakout Sessions
- Option 1: Data and Measurement
- Option 2: Public-Private Partnerships
- Option 3: Additives + Health

Vision for the Future: Administration
- Ali Zaidi, White House National Climate Advisor

Activism and Activations
- Grace Lee, WWF

History of Environmental Justice
- Carol Browner, Former EPA Administrator
- Charles Lee, Senior Policy Advisor, Office of Environmental Justice, EPA

Vision for the Future: Senator Merkley
- Senator Jeff Merkley, Oregon

Closing
- Erin Simon and Anthony Tusino, WWF

Reception hosted by OneSource Coalition

Day 2 | Thursday, March 30

Welcome and Opening Remarks
- Erin Simon, WWF

Vision for the Future
- Jane Ewing, Walmart
- Grant Cope, EPA
- Senator Tom Carper, Delaware

Breakout Sessions
- Option 1: State Policy Opportunities
- Option 2: Deposit Return Systems
- Option 3: Circularity in Cities

Building a Plan of Action
- Erin Simon, Anthony Tusino and Meredith Soward, WWF

Closing
- Keefe Harrison, The Recycling Partnership
- Nick Mallos, Ocean Conservancy
- Jonathan Black, Council on Environmental Quality
- Erin Simon, WWF

Appendix 2: Welcome from WWF

Dear Colleagues,

It is my privilege to welcome you to the World Wildlife Fund Plastic Policy Summit. As representatives of nonprofits, companies, and governments at all levels, it is exciting to think about the challenges and opportunities that lie before us. At WWF, we believe in a future where people and nature thrive. We are committed to ambitious action to ensure plastic pollution is no longer a threat to our planet.

We will gather in the nation's capital to think collectively about the issue of plastic pollution but also, more importantly, the solutions we have at hand to create a reality where plastic no longer enters nature. We must think critically about the way we rely on materials but also the way we rely on each other as pieces of the solution.

Throughout the Summit, we have designed a program that evaluates our current linear economy and identifies the needed changes to our system that can begin to close the loop. Only when we retain the value of our natural resources to their fullest extent—by reducing our footprint, reusing our materials, and recycling our waste—can we work to eliminate pollution at its source.

I am encouraged by the global declaration adopted in March 2022 that called for an international treaty on plastic pollution. First and foremost, it recognizes that we all have a role to play in eliminating plastic pollution. We also recognize that nations must drive innovation and system change to avoid a future inundated by waste.

We are grateful for your partnership as we look to begin building a Plan of Action in the United States. Together, as collaborators, we can evaluate the needed reforms, systems, and proof of success to build a world where plastic is a valued resource kept out of nature.

Signed,

Nik Sekhran
Chief Conservation Officer
World Wildlife Fund