



MOVING TOWARDS ZERO PLASTIC WASTE

Manitoba Recycling and Waste
Reduction Forum
November 3, 2021



OUTLINE

- Plastics: A Global Issue
 - Canadian Context
 - Federal Agenda
 - Canada Wide Strategy and Action Plan
 - Personal Protective Equipment
 - Regulatory Action on Plastics
 - Recycled Content
 - Compostable Plastics
 - Single-Use Plastics
 - Extended Producer Responsibility
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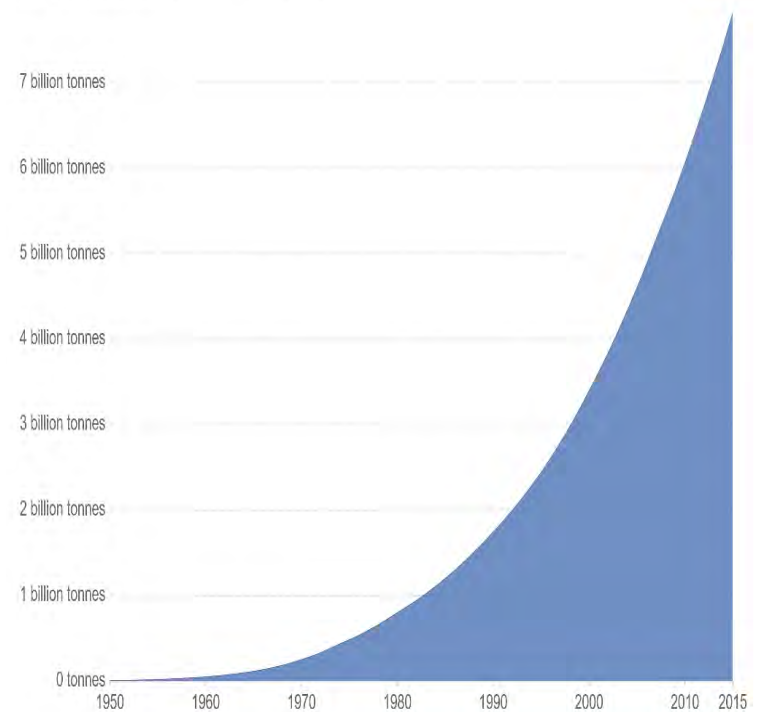
PLASTICS: A GLOBAL ISSUE

- **Plastics in the global economy:**
 - Over 7 billion tonnes produced between 1950 and 2015,
 - >380 million tonnes produced/year, using 6% of current total oil production
- **Plastic waste and pollution:**
 - 24 to 34 million metric tons entered aquatic ecosystems in 2020, could reach 90 million/year by 2030
 - At current rates, plastic-related emissions could reach 1.34 gigatons/year
 - Costs society up to \$2.5 trillion annually in ecological, economic and social impacts

Cumulative global plastics production, 1950 to 2015

Cumulative global production of plastics, measured in tonnes.

Our World
in Data

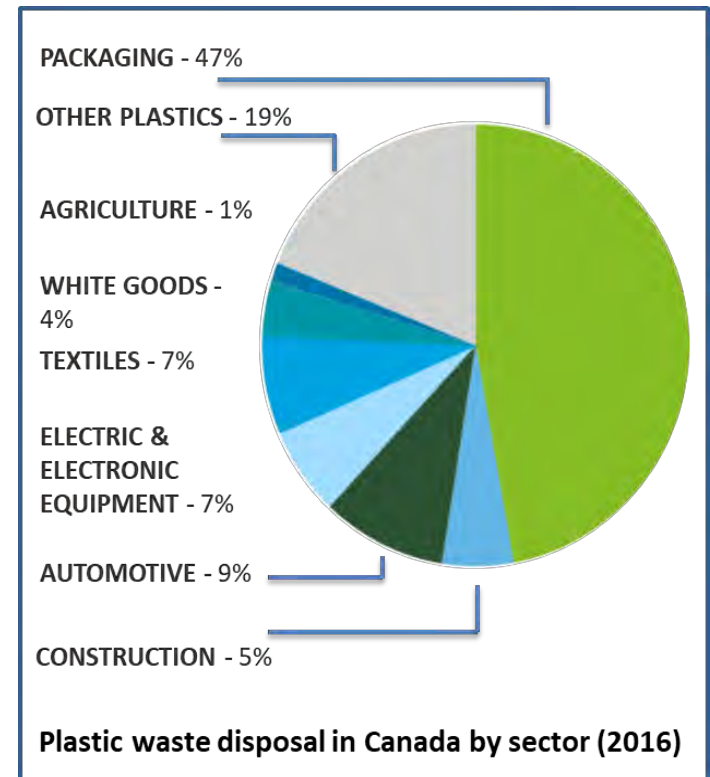


Source: Geyer et al. (2017)

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CANADIAN CONTEXT

- **86% of Canada's plastic waste landfilled in 2016, representing a lost value of up to \$7.8B**
 - Only 9% recycled, and 1% (29,000 tonnes) leaked into the environment in 2016
 - Plastic litter and microplastics found on three coasts and in freshwater
- **Achieving zero plastic waste by 2030 could generate >40,000 jobs and recover lost value**
 - Challenges with product design, collection, infrastructure
 - Lack of demand for collected material
 - Actions needed across lifecycle of plastics



Source: Deloitte, 2019

The Federal Zero Plastic Waste Agenda

- ECCC leads a horizontal initiative on zero plastic waste
 - Working with Fisheries & Oceans, Crown-Indigenous Relations and Northern Affairs Canada, Transport Canada, Public Services and Procurement Canada; 10+ participating federal departments
- Initial foundation to set conditions for governments and industry to act:
 - **Knowledge and capacity**: investments in research, innovation and measurement
 - **National standards and performance requirements** – working with industry and jurisdictions on recycled content, recyclability and compostability
 - **Industry collaboration** – targeted sector agreements, industry partnerships, initiatives for ghost fishing gear, Canada Plastics Pact
 - **Community action** – investment in best practices and local action - over \$5M invested since 2018
 - **Federal house** – address waste reduction measures and procurement, working with Health Canada; National Research Council; Innovation, Science and Economic Development Canada on personal protective equipment
- **International** – support for collaboration to combat plastic pollution and for the World Circular Economy Forum (co-hosted, Sept 2021)

CANADA-WIDE STRATEGY ON ZERO PLASTIC WASTE AND ACTION PLAN

- The Strategy was launched by federal, provincial and territorial environment ministers in 2018

The Strategy aims to reduce plastic waste and pollution and recover the value of plastics

It uses a comprehensive, circular-economy approach across the plastics lifecycle, and outlines priority areas of action

- The Action Plan was developed in two phases:

Phase 1, approved June 2019, includes actions to improve the plastics economy and increase value recovery

Phase 2, approved July 2020, identifies actions to reduce plastic pollution and enable efforts to achieve the zero plastic waste goal

- Multi-pronged approach informed the development of the Action Plan:

Online survey to gather input and build support

Engagement through workshops, involving municipalities, Indigenous and non-profit organizations, industry, and researchers

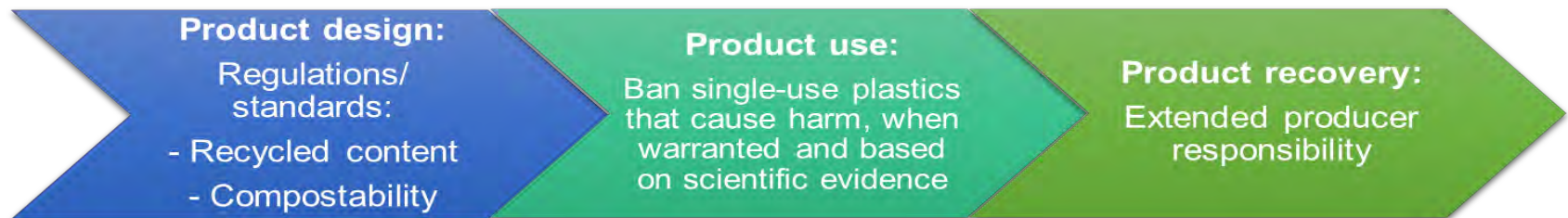


PERSONAL PROTECTIVE EQUIPMENT (PPE)

- The Government of Canada recognizes the important role that some plastics play in protecting our health
- PPE plays an important role in protecting Canadians from the spread of COVID-19 but is generating plastic waste
 - ~ 63,000 tonnes of COVID-19-related PPE waste projected by mid-2021
- ECCC is working closely with HC, and other departments to:
 1. reduce PPE litter
 2. increase the safe reuse of certain types of PPE
 3. increase the recovery and recycling of PPE waste
- For example:
 - Researchers are developing safe alternatives to single-use plastic PPE
 - Protocols are being developed to guide the decontamination for the reuse of certain PPE by hospitals
 - Innovation challenge is funding novel cellulose-based filtration material for N95 respirators, the development of recyclable or compostable surgical masks, and technologies to be able to recycle PPE waste

REGULATORY ACTION ON PLASTICS

- ECCC published a proposed Integrated Management Approach to Plastic Products to Prevent Waste and Pollution
 - Outlines a **Management Framework for Single-Use Plastics** used to determine which items are environmentally and value recovery problematic, and have alternatives
 - Identified 6 single-use plastic items: checkout bags, cutlery, food service ware made from problematic plastics, ring carriers, beverage stirrers and straws
 - Announced plans to develop **regulations for minimum recycled content**
 - Announced federal support for provinces and territories as they work to harmonize their **extended producer responsibility systems**



STRENGTHENING END MARKETS FOR RECYCLED PLASTICS



Product design:
Regulations/ standards:
- Recycled content
- Compostability

- To achieve its zero plastic waste vision, Canada must **substantially increase the re-circulation of plastic materials through the economy**
- **Recycled content requirements** ensure a stable and predictable market demand for recycled plastics; important to spur investments, expansions, and innovation in recycling
 - The *Economic Study of the Canadian Plastic Industry, Markets and Waste* (Deloitte, 2019) identified **recycled content requirements** as a “first domino” that needs to fall to unlock infrastructure investments
- **Additional actions** will support increased recycled content use & circularity
 - Working with provinces and territories to develop consistent standards and regulations for extended producer responsibility programs
 - Assessing infrastructure needs, investing in business innovation, supporting standards work

9 *Increased use of recycled plastics would **reduce GHG gas emissions,** and **promote a circular economy***

PROPOSED REGULATIONS: RECYCLED CONTENT

- Recycled content requirements establish a market demand for recycled plastics which lessens pressures for recyclers to compete with the cost of virgin resin.
- Proposed regulations and accompanying guidance would establish:
 - **a minimum percentage of recycled content** as an outcome-based requirement that producers would need to meet to comply with the regulations
 - **rules for measuring and reporting** to evaluate a product's conformity with claims of recycled content
 - Study completed: *A Comparative Assessment of Standards and Certification Schemes for Verifying Recycled Content in Plastic Products in cooperation with Standards Council of Canada* (published October 2021).
 - **technical guidelines and related tools** to help companies meet their requirements, such as standards, specifications and terminologies
- Further consultations to take place prior to publication of draft regulations

Will drive investment in recycling infrastructure, spur innovation in technology and product design to extend life of plastic materials

COMPOSTABLE PLASTICS

Potential

- Reducing dependence on non-renewable resources from biobased feedstock
- Supporting diversion of organic waste, from landfills:
 - compostable bin liners; closed loop systems & events
- Economic opportunities: business innovation & advancing bio-economy



End of life challenges

- Contamination with 'look alike' plastics
- Mismatch between lab-based processing times & facility operating practices
- Variable processing technologies and operating practices in Canada
- Costs to organics facilities

Activities

- Joint work in 2021/22 with Ontario Ministry of Environment, Conservation and Parks
 - Support for protocol and pilot testing in Ontario facilities
 - Stakeholder workshop on standards needs (May 2021)
- Federal support for R&D and innovation
- CCME Guidance on the use of labels and terms (e.g. biodegradable, compostable)

Any future measures will be developed in consultation with stakeholders

REGULATIONS: PROHIBITING OR RESTRICTING CERTAIN SINGLE-USE PLASTIC ITEMS

Product use:

Ban single-use plastics that cause harm, when warranted and based on scientific evidence

- The Government of Canada's Science Assessment on Plastic Pollution (October 2020) concluded that macro plastic pollution poses an ecological hazard, including physical harm to animals and their habitat
- "Plastic manufactured items" were added to Schedule 1 of CEPA (May 2021)
 - allows Government to take action in support of reaching the goal of zero plastic waste and to create the conditions for a circular plastics economy
- A Proposed Integrated Management Approach to Plastic Products was posted in October 2020 forms the basis of our public engagement
 - A What We Heard Report was recently posted (October 2021)
- Regulations target 6 items : check-out bags, cutlery, foodservice ware made from problematic plastics, ring carriers, stir sticks, and straws
- Draft regulations published in the coming months for a 70-day public comment period
- Comments will be considered in the development of the final regulations

EXTENDED PRODUCER RESPONSIBILITY

Product recovery:
Extended producer responsibility

- Collaborating with provinces and territories as part of the **CCME Phase 1 Action Plan on Zero Plastic Waste** to develop national guidance that will facilitate **consistent, comprehensive and transparent** extended producer responsibility policies for plastics
- This guidance will include:
 - common material categories and product definitions
 - performance standards to guide reuse and recycling programs
 - options to encourage innovation and reduce costs
 - standard monitoring and verification approaches

QUESTIONS?

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