WASTE MANAGEMENT

- Waste management in the province has generally used landfilling, recycling, and community/backyard/commercial composting as primary technologies [1].

- The hierarchy of waste management is reduce, reuse, recycle, recovery, and disposal. This can be used to remove volumes of specific types of material from waste streams, creating successful waste diversion [1].

- The provincial waste management system is divided into 12 regions; 8 on the island and 4 in Labrador. Most waste generated on the island is transported either to Robin Hood Bay for eastern waste, or Norris Arm for central and western waste. Each of the 4 waste management regions in Labrador operate landfills, and 3 regions offer recycling for some materials [1].

12
Regions

- Economic and employment opportunities exist in waste management activity that can support provincial policy outcomes, such as poverty reduction, and health and social wellbeing through options including community programs, and employment at recycling depots [1].

In 2016, the Multi-Materials Stewardship Board (MMSB) estimated that 520,000 metric tonnes of waste were generated in Newfoundland and Labrador, and that the province had approximately a 25% rate of waste diverted from landfills [1]. A waste diversion rate is the percentage of total waste that is reduced or prevented from entering landfills through reducing, reusing, and recycling and composting programs. The Provincial Solid Waste Management Strategy sets a 50% waste diversion rate target [1].

520,000 MT

Only 25% Diverted

WHERE WASTE CANNOT BE PREVENTED, WASTE SHOULD BE DIVERTED FROM LANDFILLS EITHER THROUGH RECYCLING, COMPOSTING, OR OTHER INDUSTRY PROGRAMS

- Much of the materials recycled in Newfoundland and Labrador are sent overseas. In recent years, countries like China and India that serve as end-markets for these materials have placed bans on certain types of plastics, and restrictions on the waste materials they accept, with China cutting its import of plastic scraps by 96% [2]. To respond to this new challenge in the recycling industry, Newfoundland and Labrador can opt to create local end markets for these materials [1], encourage changes in consumption habits among the province's residents to adapt to these restrictions, or otherwise opt to send these materials to landfills [2].

- Since Newfoundland and Labrador implemented recycling and other waste management programs, the province has recycled, reused, or recovered over 3 billion beverage containers, over 7 million tires, over 1.3 litres of paint, and 5,567 metric tonnes of electronics, preventing these materials from ending up in landfills [3].

- Recycling, along with other aspects of the waste management hierarchy reduce, reuse, and recovery, can contribute to the circular economy which can benefit the environment through reduced resource extraction, & less waste put into landfills [5].

- A policy approach called Extended Producer Responsibility (EPR) may prove to be effective in improving recycling practices. PR is a strategy that makes large companies pay for & manage recycling, which incentivizes companies to design products that are more easily recyclable [2].

Circular Economy

The circular economy (in contrast to the linear economy in which products are designed to end in disposal) advances a circular model of consumption in which products are intended to be reused, refurbished, dismantled & recycled [5]. This reduces initial consumption & can benefit the environment & landfill lifespan.

- 3 billion beverage bontainers
- 7 million tires
- 5500 tonnes of electronics

...and more, recycled in NL

COMPOST & ORGANICS

30% of total waste generated in the province is organic material according to estimates from the MMSB [1].

When organic waste is deposited into landfills it cannot decompose properly because of the anaerobic environment, leading to the production of methane gas, a powerful greenhouse gas (GHG), thereby contributing to climate change [6]. This can be seriously reduced when organic waste can decompose properly through composting.

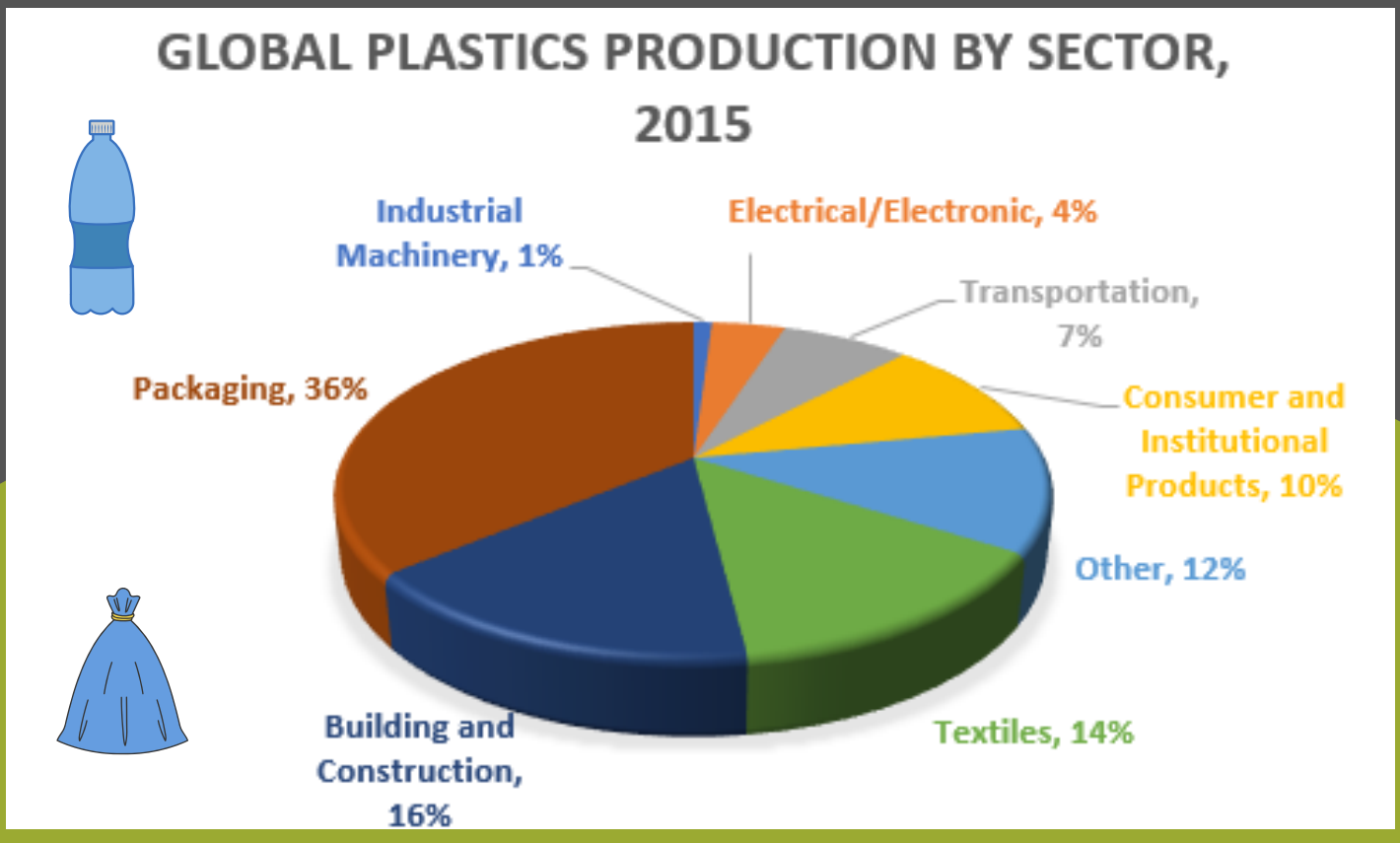
Organic waste in landfills also creates leachate which pollutes local topography and water bodies. Composting can thus result in significant GHG and pollution reductions from the avoidance of methane and leachate production in landfills [1].

The MMSB estimates that an effective landfill ban on organics could contribute 19% to overall waste diversion and divert as much as 100,000 metric tonnes of existing organic waste [1].

Many communities offer community compost programs so that residents may bring organic waste to a central location. By encouraging, investing in, or mandating backyard and community composting, towns can see annual savings of up to an estimated $20,000 in some cases [7].

PLASTICS

- Every year, more than 400million tons of plastics are produced globally [8].
- About 14% of plastics are recycled; 2% of this is effectively recycled, 8% is recycled into lower value materials, and 4% is lost in the process [8].
- In 2016, 2.8 million tonnes of plastics discarded in Canada went to landfills (roughly 24 times the weight of the CN Tower) [2].
- Although plastics have revolutionized the heath sector, safe food storage, and the growth of clean energy and made many other positive contributions to the world [8], they have also contributed to growing environmental concerns because of their durability and the large quantity of single-use plastic products [1].
- Plastics can take up to thousands of years to decompose and they pollute water and soil. Most plastics do not biodegrade but instead break down into smaller fragments known as microplastics. Microplastics enter food chains and have been found in products including table salt, and bottled and tap water. Research on the effects of microplastics and their impact on ecosystems and human health is ongoing [8].
- According to the Canada-Wide Strategy on Zero Plastic Waste, about 8 million tonnes of plastics end up in oceans from land-based sources every year [1].
- The Government of Canada outlined restrictions on the manufacture, import, and sale in Canada of six categories of single-use plastic items (plastic checkout bags, cutlery, foodservice ware made from problematic plastics, ring carriers, stir sticks, and straws). Alternative options for these plastics can include better product design preventing the need for plastic materials, or using materials such as wood or natural fibres that are durable enough to be effectively reused [9].



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Please note that this is a fluid and changing document. If any information is missing, outdated, or otherwise inaccurate please contact the Harris Centre and the document will be updated accordingly. This document is not intended to be a comprehensive or authoritative report on the topic, but to spark discussion and engagement.