COMMISSION FOR ENVIRONMENTAL COOPERATION

Paper Waste Management in the US and Canada

Key Insights

This fact sheet focuses on post-consumer paper waste from residential and commercial sources, covering all discarded paper (e.g., packaging paper and cardboard, printing and writing paper, and tissue paper) in the US and Canada.

Material Flows

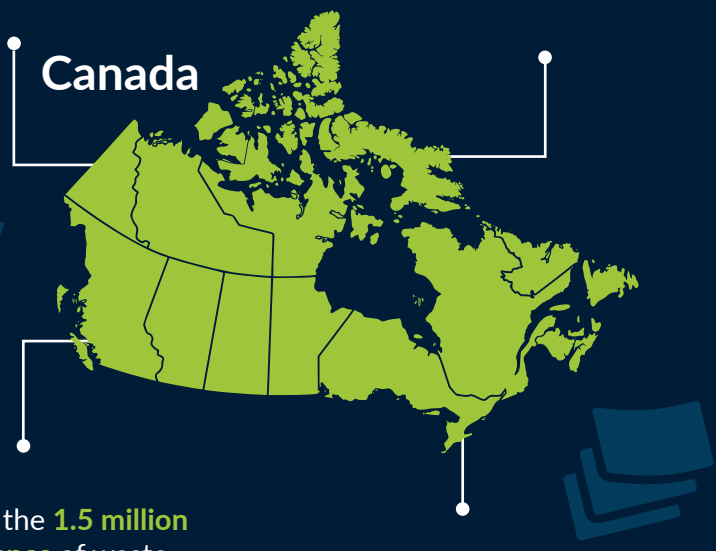
In 2021, approximately **86 million tonnes** of paper were placed on the market, of which **55%** was collected for recycling. Cardboard had the highest collection rate at **57%**, while mixed fiber had a rate of 53% and newsprint **47%**.

46 million tonnes were subsequently sorted for recycling.

In 2020, approximately **6 million tonnes** of paper was placed on the market, of which **59%** was collected for recycling. Cardboard had the highest collection rate (61%), followed by mixed fiber at **56%**, and newsprint **60%**.

3.5 million tonnes were subsequently sorted for recycling.





Out of the 17 million tonnes of gross waste paper exports from the US in **2021, 14 million tonnes** were exported from North America.

29 million tonnes of domestic paper waste (plus 0.9 million tonnes imported for recycling) entered domestic paper mills for recycling. After processing losses are considered, **28 million tonnes** of recycled paper were ultimately used in US paper production.

Of the **1.5 million tonnes** of waste paper exported from Canada in **2020, 0.9 million tonnes** were exported from North America.

3 million tonnes of paper waste (including ~950 tonnes of paper waste imported for recycling) entered domestic paper mills for recycling. When processing losses are considered, **2.8 million tonnes** of recycled paper were ultimately used in Canadian paper production.

Key Barriers to Circularity

Key barriers to paper circularity include, but are not limited to:

- **Low collection rates:** In the US and Canada, approximately half of all paper products placed on the market are not collected for recycling. In general, collection rates are lower in the residential sector than the industrial, commercial and institutional sectors. Lack of access to recycling remains a problem for some consumers, especially in rural areas.
- **Poor collection practices:** Single-stream collection in both countries results in contamination from non-targeted materials, with high quality fibers mixed with lower quality fibers, and yielding a mixture of papers with different fiber lengths and levels of inking. In the US, among the population with access to curbside collection in 2021, only 3% received separate collections of two or more material streams. Furthermore, use of uncovered containers means that paper is exposed to wet weather, leading to higher moisture content and, at worst, heavy contamination by water and other substances in the recycled materials.
- **Paper mill limitations:** Many paper mills were built prior to widespread recycling and usually, close to the forest being harvested and were designed to use this virgin fiber as their feedstock. As a result, they may not be ideally located for more distant sources of timber or the associated expense required for switching to the use of recycled fibers as their feedstock. Furthermore, it is difficult for paper mills to change their paper composition to include more recycled content, as this requires changing processes and equipment. Also, paper composition for end-products can require very specific fibers, typically secured via long-term contracts, which can lower demand for recycled fibers. Mills generally lack the capability for further sorting the paper bales delivered to them into the specific grades they require and, therefore, if bales are grades of poor quality, they may not be usable.

Looking Forward

There are a range of policy approaches and waste management practices to help overcome the barriers to paper circularity in the US and Canada. The key recommendations include:

- Improve collection practices, such as:
  - Introducing multi-stream collection services, where paper is collected as a separate stream (or at least is kept separate from glass) to overcome barriers to circularity in both the collection and sorting stages, while also retaining more waste paper within domestic recycling markets.
  - Introducing covered bins to protect waste paper collection from wet weather, thereby improving the quality of the fibers collected.
- Enact policy approaches such as:
  - Extended producer responsibility, which can improve collection rates, set recycled content targets, finance investments in recycling infrastructure, and finance education and outreach to improve consumer participation.
  - Deposit-refund systems (DRS), which can include beverage cartons to increase both the tonnage and quality of fibers collected. Even if fiber-based beverage cartons are not collected in a DRS, if the DRS covers glass beverage containers, then this can help to reduce the volume of glass in the curbside collection system, thus reducing glass contamination and improving the quality of fibers collected at the curbside.
  - Recycled content targets, which can provide a clear market signal for paper mills by creating stable demand and prices for recycled fiber.
- Make collection services more consistent by:
  - Harmonizing/standardizing the materials that can be recycled regionally or nationally.
  - Implementing country-wide labeling requirements for recyclability, including consistent color for containers/bins for recycling, based on industry best practices.
  - Implementing consistent landfill bans for paper and cardboard across jurisdictions and establishing appropriate enforcement.

The Commission for Environmental Cooperation (CEC) milestone studies on recycling and solid waste management in North America support Canada, Mexico and the United States in adopting circular economy and sustainable materials management approaches with the aim of increasing the reuse, recovery and recycling rates of paper, plastic and bioplastic waste.

Interested in these studies? Explore the complete recycling and waste management series for the US, Canada and Mexico.

Visit our Sustainable Living and Economies page to learn more about the Circular Economy in North America.