COMMISSION FOR ENVIRONMENTAL COOPERATION

Plastics Waste Management in Mexico

Key Insights

This fact sheet focuses on post-consumer plastic waste from residential and commercial sources. It describes the types of resins most used in Mexico, as well as their uses in packaging manufacture, electronic products, construction and demolition products, and vehicles. Some recommendations for overcoming barriers to the reuse of these materials are also presented.

Plastics in Packaging

- These uses of plastic consume 4.5 kilotons out of Mexico's total. They are known as "conventional plastics" and are used in manufacturing bottles or packaging, toys, footwear, and lids and covers. Out of the total amount of plastics generated, 34 percent of high-density polyethylene (HDPE), 28 percent of polyethylene terephthalate (PET) and 13 percent of polypropylene (PP) are recovered.
- These three types of post-consumer plastic waste are collected in large part via neighbourhood-level collection sites and collection centers, from which recycling the waste yields better cleaning and sale at real market value.
- The activities at the basic collection sites influence participation and efficiency of the sorting plants.
- Better information on generation, on understanding the secondary market, and expanding technological options for use, as well as ensuring that the cost of recycling is competitive with the cost of virgin resin are all barriers to be overcome.

Plastic in Electric and Electronic Products

- Uses of this sort make up 13 percent of Mexico's total. These are plastics which are used to manufacture household appliances, electrical and electronic devices, medical equipment and cables.
- The various resins and chemical compounds required for uses of this sort mean that recycling is more complicated.
- Information systems pertaining to this waste do not identify the amount of plastic recycled, a severe gap.

Plastics in Construction and Demolition

- Uses of this sort make up 10 percent of Mexico's total plastic used. Such uses are for raw material packaging and maintenance, and include PVC resins, polyethylene, polystyrene, and various rubbers used in pipes, gaskets, coatings or insulation. Recovery for recycling is virtually impossible; and normally these plastics are sent for final disposal.
- Mixing with adhesives, paints, accelerators and other chemical compounds that prevent recycling, so such uses are limited to stone aggregates.

Plastics in Vehicles

- Such uses account for 568 kilotons of the total consumption of plastics, including rubber, engineering plastics, polypropylene and polystyrene.
- Of the total plastics recovered, only 12 percent come from the automotive industry, and although their cleanliness is recognized, the chemical compounds applied as flame retardants and other uses, are a barrier to their possible recycling.

Looking Forward

A range of different approaches to public policy and waste management can help overcome obstacles to the reuse of plastic waste in Mexico. The main recommendations are:

- Reducing inequality in infrastructure and budgeting municipal cleaning systems will result in more balanced waste management.
- Applying differentiated rates will provide municipalities with sufficient resources to obtain and implement infrastructure and planning, allowing improved management of plastic waste, and for waste in general.
- National and regional management plans are more useful than local ones.
- It is necessary to design strategies that solve fiscal problems related to the initial purchase of post-consumer waste; socializing market prices improves competitiveness.
- Unrestricted application of sanctions, as indicated in the published regulation, will promote a change in societal attitudes toward plastic pollution.
- Establishing a national registry of management plans and compliance with these will strengthen monitoring, oversight, and transparency in waste management in Mexico.

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.