

Support the development of a plastic inventory of Plastic Waste Flows in Latin America and the Caribbean (Bolivia, Ecuador, and Suriname)

ECUADOR

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Project partners	Secretariats of the Basel, Rotterdam and Stockholm Conventions (BRS) Basel Convention Regional Center for Training and Technology Transfer for the South American Region (BCRC Argentina) United Nations Institute for Training and Research (UNITAR)

Project at a Glance

Plastic waste is one of today's biggest environmental challenges. Effective management requires reliable information on plastic flows across the entire lifecycle, including plastic placed on the market (POM), waste generation, waste management practices, transboundary movements of plastic waste and unmanaged or unknown waste flows.

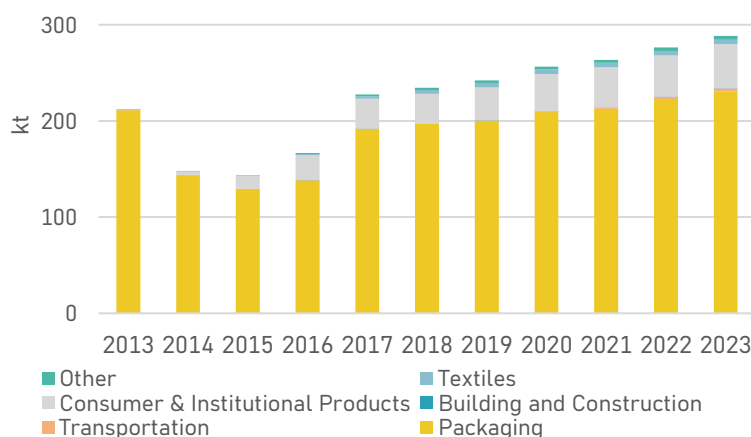
Through the development of a national plastic waste inventory, estimates of plastic POM and plastic waste generation were produced, while data on plastic waste management, imports and exports of plastic waste were compiled and analysed. The project also strengthened national capacities for data collection, analysis, and long-term monitoring of plastic flows.

Key areas covered by the inventory

- Plastic placed on the market (POM)
- Plastic waste generated
- Plastic waste formally collected and recycled
- Imports and exports of plastic waste

Key achievements

- Plastic placed on the market (POM) in Ecuador during 2020–2023 was estimated at approximately 328 thousand tonnes annually, providing an overview of national plastic consumption patterns across major product groups.
- Plastic waste generation was estimated using the Product Lifetime Methodology and a secondary approach used to benchmark and validate the results. The Product Lifetime Methodology estimated approximately 288 thousand tonnes of plastic waste generated in 2023, while a national waste-based approach estimated approximately 624 thousand tonnes. The results highlighted the importance of incorporating national domestic production data to improve future estimates. Packaging was identified as the dominant source of



plastic waste, accounting for approximately 80% of total plastic waste generated, followed by consumer and institutional products.

- Polyethylene (PE), polypropylene (PP) and polyethylene terephthalate (PET) were identified as the dominant polymers in the plastic waste stream, providing useful information for future recycling and waste management strategies.
- Plastic waste collection and management data were analysed. According to available studies, approximately 87% of plastic waste generated is collected nationally, while around 13% remains uncollected and may be subject to open burning or leakage to land and water bodies.
- The important contribution of the informal sector was highlighted, with existing studies estimating that waste pickers recover approximately 48 thousand tonnes of plastic waste annually.
- Plastic waste trade was assessed, showing a significant decline in imports and exports. Plastic waste imports decreased to less than 1 tonne in 2023 following the prohibition of plastic waste imports for recycling, while exports declined to approximately 3.8 thousand tonnes.
- An initial plastic waste inventory and a roadmap for improving plastic waste statistics and monitoring systems were developed, providing a foundation for future refinement of plastic flow estimates and policymaking.

Plastic waste generated by polymer type in 2024

