

Belmopan Pilot Project in Belize

In the framework of the project "Prevention of plastic waste in the Central America and Caribbean Sea" (Circular Caribbean)



Location	Belmopan City, Belize
Counterparts of the pilot project	Department of the Environment (DoE) Solid Waste Management Authority (SWMA) Belmopan City Council
Period	March 2022 - September 2024
Scope	<p>Assist the DoE in the analysis of legal instruments, recycling sector, Extended Producer Responsibility (EPR) for evidence-based decision making.</p> <p>Support port authorities, tourism, and private sector in providing capacity building, tools, and technical assistance through three mechanisms: (1) Circular Ports, (2) Less Plastic Guide, and (3) a Capacity Building Program, one for each mentioned sector.</p> <p>Strengthen capacities (technical knowledge, equipment,) of local plastic recyclers to increase market opportunities for collected/recovered plastic and recycled plastic products.</p>

Context

Belize is bounded to the north by Mexico, to the east by the Caribbean Sea, and to the west and south by Guatemala. According to Belize's National Tourism Policy:

- tourism has been growing in Belize, with a steady increase in visitor arrivals over the last ten years that exceeds global and regional averages.
- It is strategic to develop standard operating procedures for the management of tour operations outside the ports and collaborate with managers of sites visited by cruise passengers to set carrying capacities.
- the DoE has identified pollution as an issue of primary concern in the tourism sector and solid waste.
- it is promoted to install appropriate infrastructure and processes in local destinations for recycling and waste treatment as well as promote a reduce, reuse, recycle approach amongst tourism businesses and visitors, including the use of plastic water bottles or combat the use of Styrofoam.

According to the Belize – Waste Data report (Asia Pacific Waste Consultants, 2019):

- There is large variability in the volumes of waste in urban areas, with existing systems capturing 80 to 100 percent of the urban agglomerates. In rural areas where there are no collection services, waste is being disposed of through burning, burying, and dumping in uncontrolled dump sites. The Regional Sanitary Landfill could reach capacity 30 years before previous estimates based on current waste-generation patterns.
- Recycling and composting of household food waste could add 10 to 15 years to its lifespan. In rural areas, collection systems are poor, ad hoc, or completely absent.
- 340.1 tons of plastics (PET bottles, HDPE bottles and other plastics) are available, representing 17% household, 25% commercial, 19% combined and 33% litter in the overall composition by weight.
- The Returnable Containers Act (RCA) targets beverage containers for the prevention of waste. The RCA includes a deposit fee per type of container.
- Given the importance of tourism, existing legal regulations on plastic waste management and marine protection, Belmopan was selected in conjunction with DoE as the territory from which the strategic actions that make up the pilot intervention in the country will emerge.

Face-to-face attendance is a key factor

The initial intervention strategy was the basis for the formalization of the relationship with local partners (signatures of Memorandums of Understanding -MoU-) that allowed the formalization, as well as the active and proactive participation and exchange during the development of the pilot.

The main technical advice was provided by 2 international organizations that included onsite missions to understand better the local context and strengthen synergies. Since GIZ does not yet have offices in the country, local experts and periodic onsite missions are strategic to plan and follow up the implementation.

Main activities implemented

Analysis and studies on the related current national legislation.

Capacity building for different sectors (community, civil society, private and state).

Waste Flow Diagram tool:

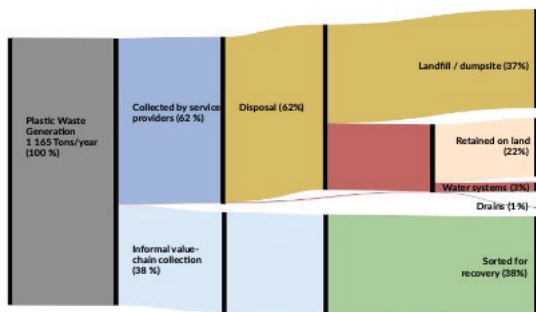
- 1 virtual training on the use of the tool
- 1 regional conference for the exchange of experiences in the application.

Main results achieved

- **2 MoU** were signed with SWMA and Belmopan City Council in November 2022 to officialize local interventions and manifest institutional commitment for common welfare.
- Collective construction of a preliminary baseline of the municipal solid waste management system, using the **Waste Flow Diagram tool**, resulting in the Sankey Diagram, estimating and visualizing plastic leakages into the environment.
- **1 action plan** for Circular Ports (Belize City).
- **1 community awareness** session (Caye Caulker).
- **1 technical training** session for plastic transformers (Belmopan).
- **1 situational analysis of the recycling sector** (glass, plastic, metal, paper, and other materials in Belize).
- **1 comparative analysis of the Returnable Containers Act**.
- **1 Capacity Building Program (CBP) to prevent plastic waste** and improve business competitiveness.
- **1 awareness training** on Circular Plastics Economy: an approach for solutions.
- **1 study on DRS implement** DRS providing insights for decision making.
- **1 capacity building program to introduce basic and general concepts** of Deposit Refund Systems (DRS), and to present the main findings for the country.



Workshop for co create the action plan. Credit: GIZ/Circular Caribbean



WFD Sankey Diagram. Credit: GIZ/Circular Caribbean

Lesson learnt

- The prioritization of a local intervention should be agreed according to the specific context in coordination with the national counterpart. It was more strategic working with the capital than a coastal municipality to enable a successful pilot project within the short time provided that can guide other regions.
- On-site planning and monitoring are key factors for successful implementation of a pilot project.
- The support of local personnel from the national counterpart is substantial to facilitate the involvement of different actors.

Best practices

- Technical visits to maintain regular communication and relationships and agree on next steps jointly.
- Planning of activities that are integrated in strategic, overall approach.
- Start the discussion on the needed support for the legal framework enforcement at the beginning.
- Adapt the concept and the implementation mechanism if the circumstances require it.

Transforming sustainable actions

The studies, analyses and proposals for the adaptation and implementation of the Returnable Containers Act can guide strategic decision-making oriented towards strengthening the technical capacities and provision of resources for the counterparts within the framework of its institutional competencies and functions. The results could be an input for the Recyclers Association that is in formation and a guide for future international cooperation, such as Go Circular.

- The analyses and recommendations for the adaptation and implementation of the Returnable Containers Act are now guiding strategic decision-making oriented towards strengthening the technical capacities and provision of resources for the counterparts within the framework of its institutional competencies and functions.
- The study's results are leading the main stakeholders as well as other actors (e.g. the Belizean Recyclers Association) to implement de Deposit Refund Scheme with them as a Producer Responsibility Organization.
- International cooperation initiatives (e.g. GIZ Go Circular or WWF that are already in place) can consider the recommendations to move towards a circular economy on plastic waste prevention in the country.

Impacts achieved

- The City Council of Belmopan is making use of the technical and scientific information through the open-source-tool Waste Flow Diagram that offers now an option to monitor and evaluate data.
- The team of the Department of the Environment (DoE) is applying and updating their national instruments for the Returnable Containers Act (RCA) for decision making.
- The Caye Caulker community is using measures on plastic prevention and integrated waste management from the regional experiences shared about the concept of zero waste islands.
- Technical personnel from Friends of Swallow Caye, Full Circle, Ecofriendly Solutions, Belmopan City Council, Department of Environment and Solid Waste Management Authority, were trained in types, initiatives, and recycling machinery for plastic with international examples of feasible business models.
- Several stakeholders from the public sector are now applying the lessons learnt from event inputs on plastic prevention and waste management, circular economy, and extended producer responsibility.
- Citizens and actors in Belize are making use of the communication material and technical tools produced in English language from other countries with similar contexts



Capacity Building Program, Santander Sugar Group, credits: Adelphi

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Scan here for more
information about the
Belmopan pilot



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ZERO WASTE IN THE CARIBBEAN
NEW WAYS, NEW WAVES

