

E-nnovating Quito:

Sustainable e-waste management supported by collect-and-learn vehicles

Period:	01.2021–09.2022
Countries	Ecuador
Project partners	Municipality of Quito, Vertmonde, Wuppertal Institute for Climate, Environment and Energy, cyclos

E-Waste collection in Quito, Ecuador

In 2019, up to 99 thousand tons of e-waste were generated in Ecuador, of which less than 3% have been processed by formal recycling companies. Against this background, the project's goal was to design and implement the first e-waste collection scheme in Ecuador.

The project

This project contributed to the design and pilotage of the first domestic e-waste collection and Extended Producer Responsibility (EPR) scheme in Ecuador. It developed policy recommendations on both the national and municipal level to strengthen EPR for electronics and build stakeholder commitment. Through the design of an awareness raising campaign, citizen participation and a collection initiative, the project aimed to lay the foundation for increased e-waste collection and recycling rates in Ecuador.

Activating stakeholders to co-create a sustainable management system for e-waste in Quito

The project discussed and analysed current environmental legislation to find various scenarios for an operable EPR scheme for e-waste management in Quito. After the passing of the national normative (instructive) on WEEE* according to the EPR principle was implemented, the project supported a

non-profit organisation to create a collective association for proper WEEE management. This non-profit organisation already had experience in waste, such as tires and packaging. The objective of the organisation is to involve producers, distributors and importers of EEE to assume the EPR principle to create a collective association for proper WEEE management called Producer Responsibility Organisation (PRO), engage stakeholders throughout the electronics value chain and assure the sustainability of the scheme.



Mobile collect-and-learn vehicles

A mobile unit was designed to function as mobile learning centre and WEEE collector. This innovative double function is an effective way not only to increase collection rates, but also to engage citizens for a greater positive impact. It will be used by the municipality and a PRO to carry out WEEE awareness campaigns around the city to educate the local population on how to manage e-waste sustainably. The collected electronic devices will be locally recycled by an authorised local management company, closing the loop to a circular economy. The municipality cooperates with the PRO to support awareness raising activities. The collection and awareness programme will be supported by a website that informs about the project goals, collection infrastructure available for WEEE in the city, stakeholders of the scheme, and proper e-waste management.

*WEE: Waste Electrical and Electronic Equipment

Achievements

1. The project has supported a local Producer Responsibility Organisation (PRO) to initiate an EPR scheme for WEEE.
2. Cooperation agreement on improved e-waste management in Quito: a collaboration between the municipality and the local PRO was established. This collaboration aims to significantly raise collection rates, achieving the established targets by the national law and reduce environmental degradation from improperly managed e-waste.
3. Design and start of an awareness and collection WEEE campaign for citizens using a mobile unit that serves the different neighbourhoods and schools in Quito. The visitors find playful activities to learn about the proper management of WEEE.
4. Analysis of the current plastic processing situation and providing alternatives for recycling or processing e-plastics locally.
5. Monitoring and evaluation framework: collecting data on e-waste in Quito (inventory) and developing key KPI's aligned with the baseline inventory data.

PREVENT Waste Alliance

The PREVENT Waste Alliance serves as an international 'think and do tank' for circular economy practitioners. As a platform for knowledge exchange and international cooperation, it brings together organisations from the private sector, academia, civil society and public institutions. PREVENT's mission is to advance the circular economy in low- and middle-income countries by minimising waste, eliminating pollutants, and maximising the reuse of resources in the economy worldwide.

This project was selected in a call for innovative and scalable solutions to build a circular economy.

The PREVENT Waste Alliance was launched in 2019 by the German Federal Ministry for Economic Cooperation and Development.



Imprint

Published by

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June 2023

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On behalf of

German Federal Ministry for Economic Cooperation and Development (BMZ)
Division 414 Urban Development, Mobility, Circular Economy
Bonn, Germany

This project is funded by the PREVENT Waste Alliance, an initiative of the German Federal Government.

More information: www.prevent-waste.net/en/