

TC ABSTRACT

I. Basic Project Data

▪ Country/Region:	REGIONAL/CCB - Caribbean Group
▪ TC Name:	Management of E-Waste in Guyana, Suriname, and Trinidad y Tobago
▪ TC Number:	RG-T3726
▪ Team Leader/Members:	RIHM SILVA, JUAN ALFREDO (INE/WSA) Team Leader; LEWIS, GILROY FRANCIS (INE/WSA) Alternate Team Leader; CAYETANO, EVAN STEPHEN (INE/WSA); REYES PANTOJA, MARLE DOLORES (INE/WSA); CARCASI, GIULIA (INE/WSA); LOPEZ, LILIANA M. (INE/WSA); CORREAL SARMIENTO, MAGDA CAROLINA (INE/WSA)
▪ Taxonomy:	Research and Dissemination
▪ Number and name of operation supported by the TC:	N/A
▪ Date of TC Abstract:	08 Jun 2020
▪ Beneficiary:	Guyana, Surinam and Trinidad and Tobago
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	US\$250,000.00
▪ Local counterpart funding:	US\$0.00
▪ Disbursement period:	24 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	INE/WSA - Water & Sanitation
▪ Unit of Disbursement Responsibility:	INE - Infrastructure and Energy Sector
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation ; Economic integration; Environmental sustainability

II. Objective and Justification

- 2.1 This TC will collect data on Waste of Electrical and Electronic Equipment (WEEE) generation and composition, identification of stakeholder list, identification of existing pathways of disposal and market conditions for the recovery of recyclable materials. Based on the conducted fieldwork, updated assessment reports for Trinidad and Tobago and Suriname and an assessment for Guyana will be developed. A proposal for WEEE management for the three countries will be developed, aiming to design a sub-regional management approach if possible. Training modules for the staff that will run the WEEE sub-regional management solution will be developed. A business plan for the proposed management solution will also be developed.
- 2.2 One of the main challenges in the development of a WEEE sub regional scheme lies in the lack of information and analysis regarding the market value of the recovered materials. For this reason, the TC will support the countries in the development of a business plan and model for investment in the sub-regional WEEE management solution, which will include the identification of markets for sale of recyclable materials.
- 2.3 As in many other regions of the world, the handling of Waste Electrical and Electronic Equipment (WEEE) in the Caribbean is a matter of concern. It is estimated that approximately 70% of WEEE ends up in unreported and unknown destinations, while the incorrect disposal of this waste can be toxic for humans and the environment. The Latin American and the Caribbean (LAC) region produced 4.2 million metric tons of e-waste in 2016, with an average of 7.1 kg per capita. Guyana, Surinam and Trinidad and Tobago together generated in 2016, 32 kilotons of electronic waste, 70%

of which are generated in Trinidad and Tobago. In addition, the amount of E-waste being generated is increasing rapidly: over the years from 2016 to 2025 the global generation of e-waste is expected to grow around 20%, with an annual growth of 2.4% for the LAC region. The incorrect disposal and incineration of WEEE releases toxic emissions, which harm human health and pollutes the environment. Both direct exposures during recycling and indirect exposures through environmental contamination come with potentially severe health consequences. In addition, the incorrect disposal of this waste stream prevents the recovery of resources that have market value.

- 2.4 According to a study by BCRC-Caribbean published in 2016, the mismanagement of WEEE in Suriname has led to the disposal in landfills and public spaces of hazardous waste streams, contaminating air, water and soil through POPs and other contaminants. In Guyana, local NGOs have been reporting evidence of dumping of electronic waste in different areas of the country. In Trinidad and Tobago, the lack of policies and regulations on this area causes practices of dumping of WEEE in illegal landfills or on the sides of the roads.
- 2.5 The TC is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) and aligned to the challenges of: i) Low productivity and innovation, since the proposed e-waste management plan has the potential to boost the creation of markets for recycled materials and innovation in the e-waste recycle sector; ii) Limited economic integration, since the proposed e-waste management plan will support the creation of new regional markets for electronic waste. Additionally, this TC is aligned with the cross-cutting issue of Climate Change, since a plan for the management of WEEE will increase the environmental sustainability of the beneficiary countries, creating in turn ecosystems that are more resilient to the effects of climate change.
- 2.6 This TC is aligned as well with the 2017 Water and Sanitation Sector Framework Document, where inappropriate disposal of solid waste is identified as a current challenge and sound solid waste management is defined as a clear goal and principle that guides the Division's work. In addition, this TC tackles the challenges of strengthening institutional and operational capacities of the countries in the management of hazardous waste, as identified in the INE/WSA Solid Waste strategy, currently under elaboration.

III. Description of Activities and Outputs

- 3.1 **Component I: Component 1. Diagnostic on current WEEE management practices** . Identification of methodology for data collection and evaluation for the update of the assessments of the current WEEE management practices for Trinidad and Tobago, Suriname and Guyana; based on conducted fieldwork, development of updated assessment reports for Trinidad and Tobago, Suriname and an assessment for Guyana. The reports generated will provide information on generation, composition, collection, mapping of stakeholders, and existing pathways of disposal and market conditions.
- 3.2 **Component II: Component 2. Proposal for sub-regional management of WEEE.** From the diagnostic results, at least two proposals for WEEE management for the three countries will be developed to design a sub-regional management approach. The first proposal will include one treatment and disposal site for the three countries; the second proposal one site for Suriname and Guyana, and one site for Trinidad and Tobago. The best proposal will include detailed engineering designs and construction drawings for the proposed management solution.
- 3.3 **Component III: Component 3. Business plan for the proposed management solution.** Develop a business plan and model for investment in the sub-regional WEEE management solution, including identification of markets for sale of recyclable

materials. A suitable public/private/civil society entity that could be able invest in the pilot scale project will be identified. An IDB technical note or similar knowledge product will be developed, based on the elaboration of the business plan and the related methodology.

IV. Budget

Indicative Budget (in US\$)

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Component 1. Diagnostic on current WEEE management practices	US\$140,000.00	US\$0.00	US\$140,000.00
Component 2. Proposal for sub-regional management of WEEE.	US\$70,000.00	US\$0.00	US\$70,000.00
Component 3. Business plan for the proposed management solution	US\$40,000.00	US\$0.00	US\$40,000.00
Total	US\$250,000.00	US\$0.00	US\$250,000.00

V. Executing Agency and Execution Structure

- 5.1 The activities described will require coordination between local stakeholders of the three beneficiary countries as well as inputs from international stakeholders with specific expertise in the implementation of WEEE management models. To efficiently coordinate the activities developed in a centralized manner, the TC will be executed by the Bank through INE/WSA. To support the activities in the countries under Component I, the Bank has identified Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC-Caribbean). Dialogue with the local office of BCRC-Caribbean has been established to coordinate the implementation of this TC provided the previous work done by BCRC- Caribbean in e-waste management in these countries and their close relationship with the local authorities of the sector. Therefore, it is recommended to include the participation of University of Natural Resources and Life Sciences of Vienna (BOKU for its German acronym) to coordinate the activities in Component I, on a single-source selection basis, in accordance with GN-2350-9, ¶ 3.10 (d). BCRC-Caribbean will also have access to review and comment on the information prepared by BOKU and other consultants under Components 2 and 3 and will provide guidance on the development of components 2 and 3. For what concerns the Component II, the implementation of the activities will have the support of the Institute of Waste Management of the BOKU, as an institution that can provide the necessary input for the region with exceptional expertise with the development of WEEE management systems in developing countries. Therefore, it is recommended to include the participation of BOKU to coordinate the activities in Component II, on a single-source selection basis, in accordance with GN-2350-9, ¶ 3.10 (d).
- 5.2 Local stakeholders have requested that the IDB through INE/WSA execute this operation in order to expedite and facilitate the procurement process.

VI. Project Risks and Issues

- 6.1 The main risk are the possible delays in activities due to difficulties in the coordination between the different stakeholders involved in the different countries. Both regular engagement with all the stakeholders and close monitoring of the activities will be part of strategy to mitigate this risk both through BOKU as well as through BCRC-

Caribbean which is an important and respected regional authority in waste management issues.

- 6.2 Due to the COVID 19 pandemic, all the activities related to the execution of this CT will be carried out online. To avoid the risk of delays in the implementation of the project, remote working will be assumed to be the default working method for all the activities. The project team will evaluate the possibility to hire local consultants for data collections.

VII. Environmental and Social Classification

- 7.1 The ESG classification for this operation is "C".