

5. TRANSBOUNDARY MOVEMENTS (TBM) OF E-WASTE IN THE REGION

A. Overview of Transboundary Movement (TBM)

Several regulations at the national, regional, and international levels have been developed for monitoring and controlling TBM of e-waste. At the international level, the Basel Convention⁽³¹⁾ on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (commonly referred to as the Basel Convention) is the only global treaty on hazardous and other wastes that encompasses e waste [22]. The Convention was adopted on 22 March 1989 and entered into force on 5 May 1992. In 2006, Parties adopted the Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic waste [23], and in 2011 Parties adopted the Cartagena Declaration on the Prevention, Minimisation and Recovery of Hazardous Wastes and Other Wastes [24]; these declarations promoted the ESM of hazardous waste, including e-waste, its prevention, minimisation, and environmentally sound recycling, recovery, and final disposal.

The Basel Convention defines the 'hazardousness' of waste on the basis of the substances present in waste materials and classifies the waste as either hazardous or non-hazardous, depending on the chemical properties. The Basel Convention sets out a detailed Prior Informed Consent procedure with strict requirements for TBM of hazardous wastes. TBM of hazardous waste and e-waste is subject to such procedure when an importing and/or exporting Party identifies hazardousness in e-waste, as determined under the provisions of the national law. The Basel Convention identifies hazardous wastes subject to TBM under the Convention as follows:

- Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III.
- Wastes not covered under the previous group but which are considered to be hazardous waste by the domestic legislation of the Party of export, import, or transit.

It is important to note that national guidelines concerning the definition of waste may differ, and the same material regarded as waste in one country may be non-waste in another. Furthermore, besides the provisions set by the Basel Convention, some Parties set national threshold values to distinguish between hazardous and non-hazardous waste, including e-waste.

El Salvador, Costa Rica, Guatemala, Honduras, Nicaragua, and Panama are parties to a regional agreement, the Regional Agreement of Transboundary Movement of Hazardous Wastes⁽³²⁾, signed on December 11, 1992, whose objective is to control the TBM of hazardous wastes and prevent the illegal traffic and disposal of such waste in Central America. The Agreement lays down a ban on imports of any type of hazardous wastes from outside of the Central American region.

⁽³¹⁾ <http://www.basel.int/TheConvention/Overview/TextoftheConvention/tabid/1275/Default.aspx>.

⁽³²⁾ <https://www.ecolex.org/es/details/treaty/regional-agreement-on-the-transboundary-movement-of-hazardous-wastes-tre-001167/?q=regional+agreement+on+the+transboundary>.

B. Overview of E-waste and Plastic POPs' Impact on Import and Export Legislation/Policies

All countries have ratified The Basel Convention (which controls TBM of e-waste) and the Stockholm Convention for POPs.

All countries in the region have ratified the Basel Convention and the Stockholm Convention. The Latin American countries prohibit the import of hazardous waste in their territories. The countries in the region do not have specific export bans of e-waste unless they are for recycling purposes and under compliance with the Basel Convention. As for POPs, Ecuador specifically prohibits their importation, as well as other internationally prohibited agrochemicals, while Guatemala specifically mentions the prohibition of chemical mixtures and asbestos in their legislation.

All countries have ratified The Basel Convention (which controls TBM of e-waste) and the Stockholm Convention for POPs.

Though the 13 countries have ratified the Basel Convention and enacted the framework and bans in their national legal framework, the enforcement of these measures remains a significant challenge. Many countries in the region do not submit TBM reports to the Basel Convention. This makes monitoring and mapping of the TBM of e-waste, POPs, and mercury within and outside the region difficult. There is no official data on e-waste importing/exporting from 2016-2019 for Bolivia (Plurinational State of), Chile, Ecuador, and Panama.

From the information acquired, it is clear that there is TBM of materials within and outside the region that is not reflected in the reporting to the Basel Convention. For instance, e-waste operators in Honduras export valuable parts, such as printed circuit boards, to Panama, Mexico, Canada, and the United States, but these exports are not reported to the Basel Convention. The implication of the non-reporting is that hazardous materials (e.g. POPs, mercury, and e-waste) can be exported to countries where ESM cannot be assured.

All countries studied do not restrict the export of hazardous wastes and other wastes for final disposal or recovery⁽³³⁾. Some countries (e.g. Honduras) do not restrict the transit of hazardous wastes and other wastes, based on Basel PIC procedure. Though there is evidence of importing and exporting of used EEE in the region, there are no official statistics from any of the countries studied.

⁽³³⁾ <http://www.basel.int/Countries/ImportExportRestrictions/tabid/4835/Default.aspx>.

C. Overview of E-waste Importing and Exporting Quantities

The outcomes from the analysis of the TBM of e-waste in the Latin American countries are presented in Table 6.

None of the 13 countries reported cases of e-waste and POP imports to the Basel Convention.

None of the 13 countries officially reported importing of e-waste and POPs or any other hazardous materials from other countries to the Basel Convention. It is worth noting that the reporting to the Basel convention only comprises the regulated and documented TBM of e-waste and POPs and does not include illegal e-waste or used-EEE flows.

Nine countries reported TBM statistics to the Basel Convention, but only six exported materials for recycling and final disposal.

Nine countries (Argentina, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Peru, Uruguay, and Venezuela - Bolivarian Republic of) provided annual National Reports to the Basel Convention. It was reported that six of those nine countries (Argentina, Costa Rica, El Salvador, Nicaragua, Peru, and Venezuela - Bolivarian Republic of) export e-waste to several destinations for treatment and material recovery (Table 6). Argentina made three exports in 2019 to three different EU countries for treatment purposes and final disposal. El Salvador exports mostly materials/components extracted from e-waste to countries such as the United States, Mexico, and Asia (e.g. North Korea) for further processing, but data on quantities are not provided. Unreported exports to the Basel Convention also occurs in the assessed countries.

In Chile, CRT screens, connectors, and capacitors are stored until enough volume is reached for exporting them to recyclers in Belgium, but a National Report has been provided to the Basel Convention. In 2019, Nicaragua exported approximately 60 tons of e-waste from households and businesses for ESM.

According to reports submitted to the Basel Convention by countries, an estimated 7.4 tons of electronic waste are exported.

Imports of hazardous waste for recovery and final disposal are not allowed by the LATAM countries.

No e-waste has been declared by the LATAM countries to the Basel Convention, based on the annual reports to the Convention in 2018 and 2019. Four countries (Bolivia -Plurinational State of, Chile, Ecuador, and Panama) have not provided annual reports on these items to the Convention for either year. Imports of hazardous waste for recovery, final disposal, or any other purpose are not allowed by legislation in all 13 countries. In fact, Ecuador specifically prohibits the importation of POPs and other internationally prohibited agrochemicals, while Guatemala specifically mentions chemical mixtures and asbestos.

Table 6. E-waste export/import by the LATAM countries

Country	National Report Available 2016-2019	Statistics Available	Estimate on E-waste Reported Under Basel Convention (2018 and 2019) ⁽³⁴⁾	
			Import (t)	Export (t)
Argentina	Yes	Yes	-	118
Bolivia (Plurinational State of)	No	No	-	-
Chile	No	No	-	-
Costa Rica	Yes	Yes	-	1,287
Ecuador	No	No	-	-
Guatemala	Yes	Yes	-	-
Honduras	Yes	Yes	-	-
Nicaragua	Yes	Yes	-	100
Panama	No	No	-	-
Peru	Yes	Yes	-	352
El Salvador	Yes	Yes	-	3,978
Uruguay	Yes	Yes	-	-
Venezuela (Bolivarian Republic of)	Yes	Yes	-	1,551
Total	9 of 13	9 of 13	-	7,386

⁽³⁴⁾ Please note that these values represent only ones declared to the Basel Convention and not the full picture of e-waste imports and exports.

D. Issues and Impact of Import/Exports of E-waste

Non-reporting, low quality data and control of TBM of e-waste through the Basel Convention poses a threat to the ESM of e-waste and illegal movements.

Four countries have not reported TBM statistics to the Basel Convention. Therefore, a comprehensive overview of TBM of e-waste, POPs, and mercury in the 13 countries is not available.

Despite the formal steps undertaken through the ratification of the Basel Convention and through the national legal framework and bans, enforcement of these measures remains a significant challenge in all countries in the region, and reporting is still limited. Consequently, TBM of e-waste cannot easily be mapped and monitored.

Four countries (Bolivia -Plurinational State of, Chile, Ecuador, and Panama) made no report on TBM statistics to the Basel Convention for the period 2018-2019, so a complete picture of TBM of e-waste, POPs, and mercury in the 13 countries is not available. From our interviews and questionnaires, it was concluded that there is TBM of specific fractions of e-waste, such as printed circuit boards, from some countries to the United States, Mexico, and Asia. However, this TBM is not reflected in the reporting to the Basel Convention. The implication of non-reporting is that e-waste can be moved from points where ESM cannot be assured to states where value recovery using best-available technology is guaranteed. Thus, the TBM can give rise to illegal shipments of e-waste.

El Salvador is implementing an electronic tracking system of imports and exports of hazardous waste.

Some countries have companies officially licenced to collect, pre-process, and export e-waste, even though they are not reporting exports under the Basel Convention. For some countries (e.g. Nicaragua, Honduras, etc.), collected e-waste is dismantled and some valuable parts (e.g. aluminum, iron, gold, etc.) are readily sold in the internal market, while other parts (e.g. printed circuit boards, batteries, etc.) are stored in containers and exported to other countries for treatment once enough material has been accumulated.

To avoid this, El Salvador is developing an electronic platform that tracks the import and export of hazardous waste, which will assist authorities in identifying companies subject to surveillance and in maintaining the exchange of information between different national authorities involved in





the authorisation, control, and monitoring of the importation/exportation of the waste. This platform could be linked to other countries in Central America to improve regional cooperation.

Used-EEE imports result in more e-waste in the receiving countries and place burdens on existing e waste management. Meanwhile, the functionality of imported used-EEE or EEE mixed with e waste and their quantities remain unknown.

All countries' statistics do not differentiate between new or used appliances being imported and exported. As a result, no information on used-EEE imports is available. Imports of used-EEE that are actually functional and for which there is a market are not problematic, as the local population will reuse the items. Conversely, imports of used-EEE that are functional but for which there is no market (e.g. Pentium III computers) will result in the items most likely being disposed of through informal or formal channels.

However, after some time, the marketable and functional used-EEE is discarded, and depending on how the system is set up, the importer should pay under the EPR, though, they are most often not charged because they are not defined as producers in the EPR norms of some countries. As well, problems in the system may also occur; for example, no fees for collection and recycling are paid upon importation, which places an additional burden on the EPRs in countries that have such a system in place.

Furthermore, it is unknown whether the used-EEE imports are entirely (as opposed to partially) functional. If the items are partly functional, they should be considered e-waste upon arrival, as is the case for 30 percent in Western Africa [25]. In this case, used-EEE items are linked with illegal e-waste imports.