
Sustainable Management of Waste Electrical and Electronic Equipment (WEEE) in Latin America



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The Context

- Mobile Penetration: 115%
- Broadband penetration: 9% fixed (9%) & mobile (24%)

ICTs growth
Year 2013 ⁽¹⁾



- The Americas: 11.7 mt
- LATAM: 3,8 mt
- S. America: 2,7 mt
- Mexico, CA & Caribbean: 1,1 mt

WEEE growth
Year 2014 ⁽²⁾



- UN-initiatives
- Government initiatives
- Private sector initiatives
- Global platforms

Initiatives



Source: (1) ITU Statistics & (2) Baldé, et al. United Nations University

Report on “Sustainable Management of Waste Electrical and Electronic in Latin America”



WEEE MANAGEMENT IN LATIN AMERICA



To provide an overview of WEEE management in Latin America



To identify challenges for sustainable management



To outline a joint roadmap for future implementation

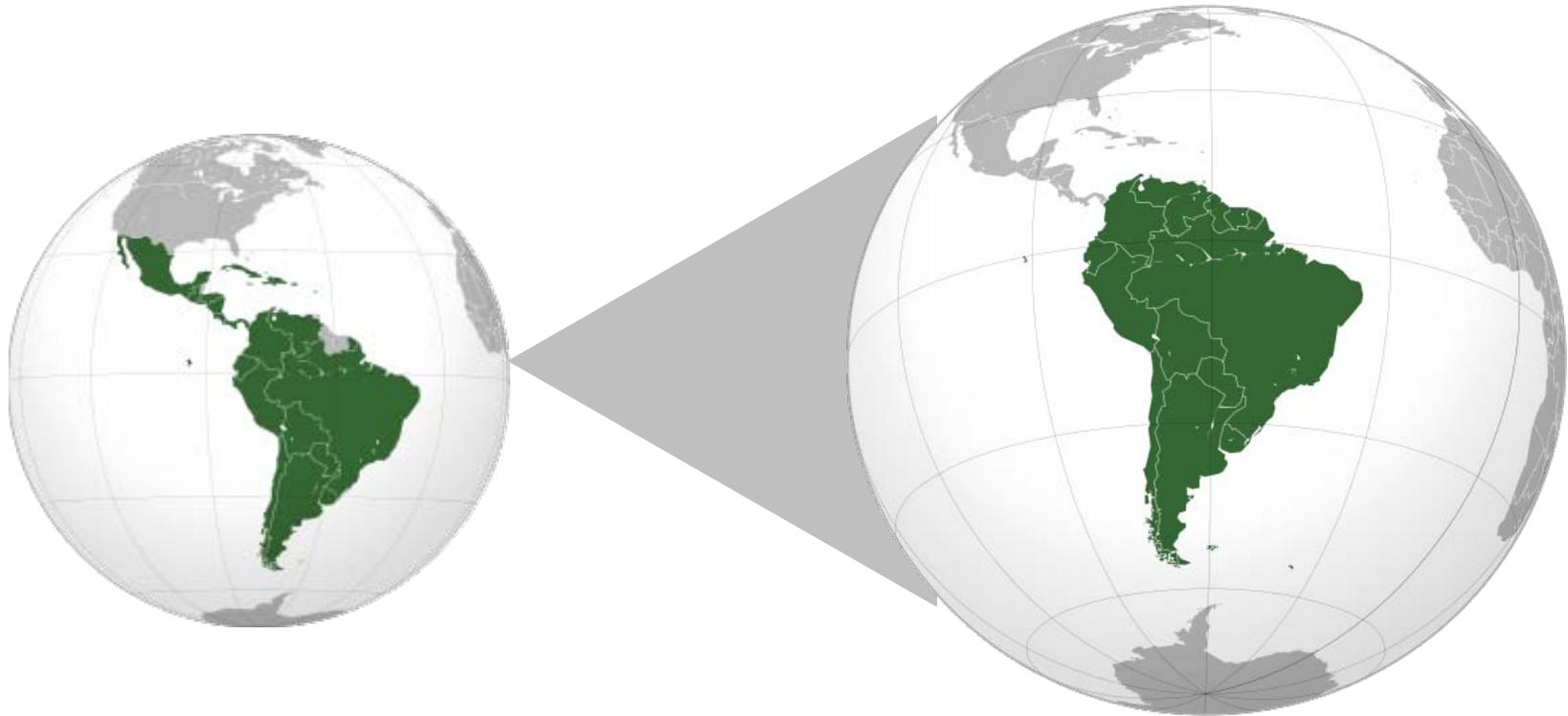
The first UN Report of its kind

Jointly developed by



Country Assessment

Scope of the Analysis



Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador Paraguay, Peru, Uruguay and Venezuela.

Parties to the Basel Convention

Participant	Signature, Succession to Signature (d)	Ratification, Acceptance (A), Approval (AA), Accession (a)	Entry into force
Argentina	28/06/1989	27/06/1991	05/05/1992
Bolivia (Plurinational State of)	22/03/1989	15/11/1996	13/02/1997
Brazil		01/10/1992 (a)	30/12/1992
Chile	31/01/1990	11/08/1992	09/11/1992
<u>Colombia</u>	22/03/1989	31/12/1996	31/03/1997
<u>Ecuador</u>	22/03/1989	23/02/1993	24/05/1993
Paraguay		28/09/1995 (a)	27/12/1995
Peru		23/11/1993 (a)	21/02/1994
<u>Uruguay</u>	22/03/1989	20/12/1991	05/05/1992
Venezuela (Bolivarian Republic of)	22/03/1989	03/03/1998	01/06/1998

1. Argentina



Specific Regulation

- Dispersed and no homogeneous regulations.
- A healthy environment is under the guardianship of the Constitution, in agreement with the Basel Convention.
- Policy N.24.051 on Hazardous waste also provides the legal framework for e-waste.

Public Policy

- Policies are scarce and disorganized
- “Renovate” incentive Programme: encourage distributors of electrical appliances to recover equipment from households

International Commitment

- Part of project *Eco-normas* of the European Union and Mercosur
- Basel Convention and the Mercosur Agreement (South Common Market Agreement)
- Part of the UNIDO project for persistent organic pollutant (POP) management from e-waste.
- The Basel Convention entered into force in Argentina in 1992.

WEEE Management

- National Institute of Industrial Technology (INTI, *Instituto Nacional de Tecnología Industrial*), announced programmes for the creation of WEEE processing plants
- Partnerships
- Foundations that offers trainings

2. Bolivia



Specific Regulation

- There is no specific regulation for WEEE management.
- A working group has been constituted with public and private sector representatives, with the aim of developing specific technical standards.

Public Policy

- Absence of public policies for WEEE management.
- At the government level, the Ministry of Productive Development and Plural Economy together with Ministry of Environment and Water are promoting national policies on e-waste management, including the Extended Producer Responsibility (EPR) principle.

International Commitment

- The Basel Convention entered into force in Bolivia in 1997.
- Part of the UNIDO project for POP management from e-waste

WEEE Management

- There are no formal recycling initiatives in the country
- There are many recycling awareness campaigns
- There are associations and private companies that work for e-waste disposal without using appropriate technologies.

3. Brazil



Specific Regulation

- National law called "Waste Law" states that everyone holds the responsibility for its e-waste generation. This applies to commerce and municipal activities as well as consumers.
- Federal Law Nº 12.305 on *National Policy on Solid Waste*, covers proper management of e-waste.

Public Policy

- Implementation regulations include tools for creating national policies and action plans for e-waste and its selective collection.

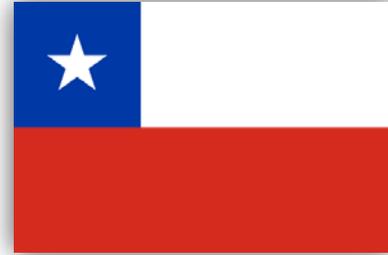
International Commitment

- The principle of Extended Producer Responsibility (EPR) is included in the regulatory frameworks of the country regarding the life cycle of e-waste.
- The Basel Convention entered into force in Brazil in 1992.

WEEE Management

- There are companies specialized in WEEE management.
- Once recycled, it goes through a reverse logistics process.

4. Chile



Specific Regulation

- There is no specific regulation for the WEEE management.
- E-waste is treated as hazardous waste.
- The Bill introducing the Extended Producer Responsibility (EPR) is under debate.

Public Policy

- Regulation on the Register of Emissions and Pollutant Transfer (REPT).
- Public access database aimed at disseminating information on emissions, waste, and transfer of pollutants.

International Commitment

- Ratification of the Basel Convention, through Decree No. 685 in 1992.
- Part of the UNIDO project for POP management from WEEE.

WEEE Management

- Two certified companies and a waste reconditioning programme.
- Informal recycling sector, is a challenge for the country.

5. Colombia



Specific Regulation

- Specific policy on integrated waste management of electronic appliances
- Law No. 1672, defines the public policy guidelines on integrated management of WEEE.

Public Policy

- Congress has established guidelines for the adoption of a public policy for integrated management of WEEE, under the guidance of the Ministry of Environment.

International Commitment

- Colombia has ratified the Basel Convention, under Law 253 in 1996 (which entered into force in 1997).

WEEE Management

- There are collection systems to manage computers, lighting, peripherals and batteries.
- There is no sufficiently automated technology for dismantling and recovery of materials.

6. Ecuador



Specific Regulation

- Ecuador has a National Regulation for Hazardous Waste.
- The Ministerial Agreement No. 161 defines the “Regulation for pollution prevention and control of chemical substances, hazardous and special wastes”.
- WEEE is treated as hazardous waste.

Public Policy

- National Policy-on post consumption of electrical equipment and disuse of electronics, applies the principle of Extended Producer Responsibility (ERP).
- The Ministry of Environment of Ecuador is currently working on the proposal for a technical standard on how to apply the ERP principle to electrical equipment and disuse of electronics.

International Commitment

- The Basel Convention entered into force in Ecuador in 1993.
- Part of the UNIDO project for POP management from WEEE.

WEEE Management

- There are nine companies that have an environmental licence to carry out activities in the different phases of waste management, storage, transportation and dismantling.

7. Paraguay



Specific Regulation

- There is no specific regulation for the WEEE management.
- Constitution has several articles to protect the environment.
- Law N42/90 prohibits importing, dumping and using products that are considered hazardous.

Public Policy

- WEEE started to be treated by the involved institutions in the country.
- One of the problems is the lack of awareness of the population regarding waste disposal.

International Commitment

- The Basel Convention entered into force in Paraguay with Law No. 547 in 1995.

WEEE Management

- There are no organizations dedicated to the management of WEEE.

8. Peru



Specific Regulation

- Specific Regulation for WEEE: “National Regulation for the Use and Management of Waste of Electrical and Electronic Equipment” – Decree No. 001-2012.

Public Policy

- The Ministry of Environment has developed public campaigns for the collection of WEEE.
- There are two plans on how to handle e-waste with private companies that are supported by the national government.

International Commitment

- The Ministry of environment and the Swiss Cooperation have signed an agreement to develop the project “Sustainable Recycling Industries”.
- Part of the UNIDO project for POP management from WEEE.
- The Basel Convention entered into force in 1994.

WEEE Management

- There are several companies that manage WEEE in the country.
- There is a special project with the private sector called “Corporate Social Responsibility” for the Management of WEEE.

9. Uruguay



Specific Regulation

- There is no specific regulation for the e-waste management.
- There are general regulations to protect the environment.

Public Policy

- Uruguay has a general public framework for waste management including WEEE.
- There are some initiatives driven by the National Government, such as the National Agency of Investigation and Innovation, Ceibal Plan and the Technological Laboratory of Uruguay.

International Commitment

- The Basel Convention was ratified in Uruguay in 1991, with Law No. 16.221 and entered into force in 1992.
- Uruguay is the home of the Coordinating Center of the Basel Convention and the Regional Center of Stockholm Convention for Latin America and the Caribbean.
- Part of the UNIDO project for POP management from WEEE.

WEEE Management

- It does not have appropriate entities for the final disposal of WEEE.
- There are private initiatives for waste management including WEEE collection.

10. Venezuela



Specific Regulation

- There is no specific regulation for the management of WEEE.
- Uses the established normative on general waste as a reference.

Public Policy

- There are no environmental policies for this purpose.
- It is expected that the national government will set up intergovernmental roundtables that will coordinate actions and elaborate on public policies.

International Commitment

- Signed and ratified the Basel Convention with the Approving Law No. 36.396 on 1998.
- Part of the UNIDO project for POP management from WEEE.

WEEE Management

- 5 national private companies are in charge of the waste management process that deal with collection, storage, treatment and dismantling of WEEE.
- There is no available technology for WEEE disposal.

Brief Overview

Country	National Regulation on e-waste	Public Policies	International Commitment	E-waste management technologies*
Argentina				
Bolivia				
Brasil				
Chile				
Colombia				
Ecuador				
Paraguay				
Perú				
Uruguay				
Venezuela				

* This is based on information available on identified patenting activity in these countries.

E-Waste Management Challenges in Latin America



Legal & regulatory gaps for WEEE management



Non-sustainable economic models for WEEE management



Limited technological availability & technology transfer

Sustainability management across WEEE Lifecycle (illegal exports & environmental pollution)



Exclusion of the *Extended Producer Responsibility* (ERP) principle



Lack of knowledge of WEEE management

Lack of Global E-waste Management Standards

Main Findings

- Coordination among environmental & ICT representatives is required for efficiency and sustainability of management of WEEE in the region
- Not all countries have WEEE specific regulatory frameworks. They need to develop them and their compliance mechanisms. International standards can be used as references.
- WEEE management requires effective governance models, including all stakeholders. Roles & responsibilities have to be well defined.
- Informal WEEE management has effects on health & quality of life. WEEE management must be safe across its whole lifecycle.
- WEEE programs in the region do not include economic analysis of the environmental and social risks related to a mismanagement of WEEE. Opportunities to create green-jobs and promote technological innovation should be considered.

10 Key Steps (1-5)

1. Identify sources of WEEE generation and account for management volumes.
2. Deepen the analysis at the country level, including aspects such as key actors, social framework, cultural boundaries, etc.
3. Manage e-waste considering the whole life cycle.
4. Work on preventive policies to avoid e-waste contamination. Learn from international initiatives (ITU-T Study Group 5, PACE and Step).
5. Establish initiatives for more effective project implementation and to strengthen e-waste sustainable management alliances.



10 Key Steps (6-10)

6. Promote initiatives and investments to develop the necessary infrastructure for e-waste management; including alternative management across borders.
7. Define policies to encourage recycling, repair and reuse of WEEE; and establish policies to promote eco-design of EEE to extend its life.
8. Develop greater efforts in raising awareness of consumers, businesses and policymakers regarding management of WEEE.
9. Develop synergies between existing initiatives to avoid duplication and optimize the use of scarce resources.
10. To promote innovation and technology transfer to increase availability of technology for the efficient management of WEEE.

Thank you

Download the Report at: <http://www.itu.int/en/ITU-T/climatechange/Pages/publications.aspx>

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