

Old Challenges and New Risks to the Circular Economy: The Basel Convention

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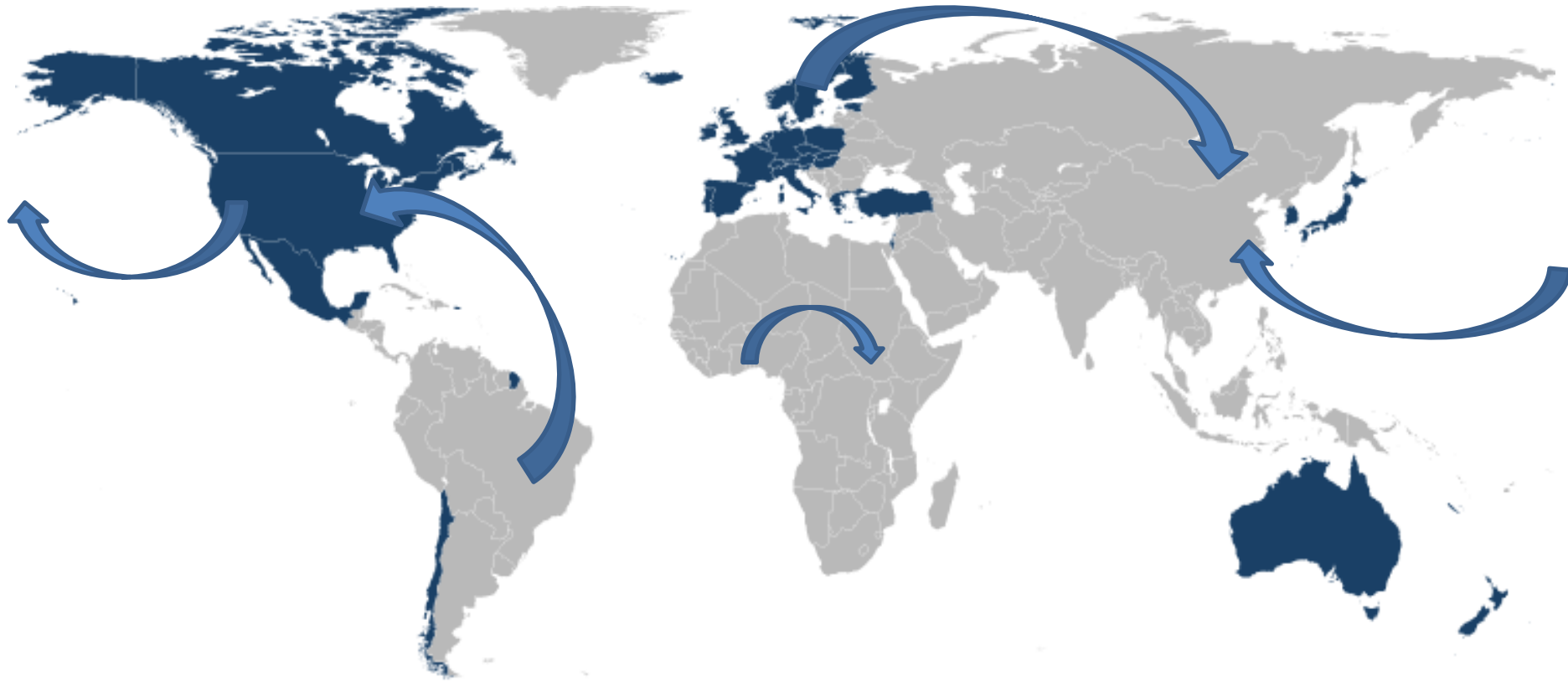
Basel Convention and the Circular Economy

- Global government to government notice and consent regime covering waste shipped for disposal or recycling
- Provides framework for hazardous waste classifications
- Covered shipments subject to prior notice, consent, documentation
- Trade bans
- Implications for EPR programs, repair, and circular economy
- 186 parties (but not the U.S.)



BASEL CONVENTION

Basel and the Circular Economy



OECD Countries:



Non-OECD Countries:



Scope at a Glance

- “Hazardous wastes” under the Convention:
 - (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and
 - (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.
- “Wastes” are substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law.
- “Disposal” means any operation specified in Annex IV to this Convention.

New Guidance for Electronics



BC

UNEP/CHW.12/5/Add.1/Rev.1
 Date: General
 23 June 2015
 Original: English

Conference of the Parties to the Basel Convention
 on the Control of Transboundary Movements of
 Hazardous Wastes and Their Disposal
 Twelfth meeting
 Geneva, 4-15 May 2015
 Agenda item 4 (b) (i)
 Matters related to the implementation of the Convention:
 scientific and technical matters: technical guidelines

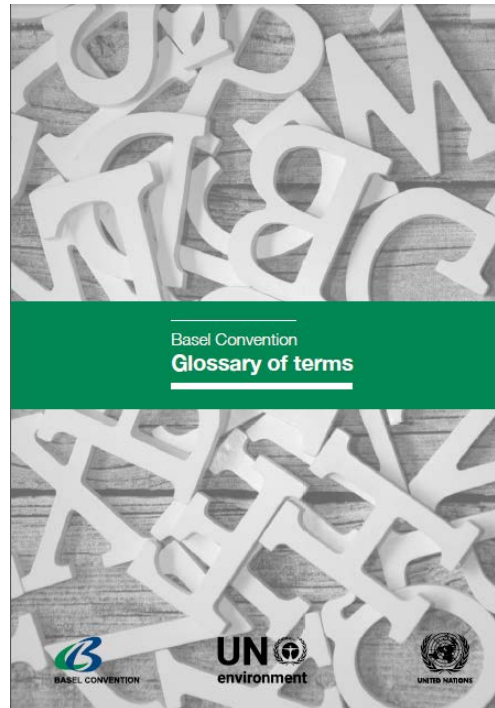
Technical guidelines

Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention

Note by the Secretariat

At its twelfth meeting, the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal adopted on an interim basis, in decision BC-12/5, the technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention on the basis of the draft technical guidelines contained in document UNEP/CHW.12/5/Add.1. The technical guidelines referred to above were prepared by the Secretariat under the guidance of the small interessional working group for the development of technical guidelines on electronic and electric wastes and taking into account comments received from parties and others by 6 March 2015, as well as the outcome of a five-to-five meetings of the small interessional working group held on 19 and 20 January 2015 in Konstanz, Germany (see document UNEP/CHW.12/INF/7). The text of the final version of the technical guidelines, as adopted on an interim basis, is set out in the annex to the present note.

31016



FactSheet

ELECTRICAL AND ELECTRONIC WASTE (E-WASTE)

This fact sheet is part of a series of fact sheets to support the implementation of the environmentally sound management (ESM) of hazardous wastes and other wastes, in accordance with the obligations of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The fact sheet provides information on the environmentally sound management of electrical and electronic waste (e-waste). It is primarily intended for use by waste recyclers.

In addition, the reader should take the account of the Technical guidelines on Transboundary Movements of Electrical and Electronic Waste and Used Electrical and Electronic Equipment, developed under the Basel Convention and adopted on an interim basis, as well as the guidance documents developed by the Mobile Phone Partnership Initiative (MPPI) and the Partnership for Action on Computing Equipment (PACE)^{2,3,4}.

Classification

The classification of e-waste according to Annex I, III, VIII and IX of the Basel Convention, is presented in Table 1 below⁵. Also identified therein is the applicable hazard class or division under the United Nations Model Regulations.

Storage

E-waste should be stored in a manner which minimises accidents, spills and breakages. Proper storage should maximize value for recovery and be secure from unauthorized access. Appropriate containers should be used for storing different types of waste separately. Storage capacity should comply with all legal and regulatory requirements. Where such provisions are not available, it is recommended to consider that the maximum amount of e-waste that can be treated within six months⁶.

Storage areas should be sheltered and have an impermeable surface with sealed drainage system with, where appropriate, provision of spillage collection facilities. Batteries, PCB-PC-containing capacitors, mercury containing components and other hazardous components should be stored in dedicated, labelled and appropriate containers.

Special attention should be given to storage of lithium batteries. Components which can be flammable or explosive, such as wires or batteries, should be stored in a manner that minimises risks of fire, away from sparks or heat. In the case of batteries, they should be

stored in a manner that protects battery terminals from contacting conductive materials and causing electrical discharge, explosion, or fires.

Packaging

E-waste should be packaged in a manner that prevents breakage and the release of hazardous components to the environment, during transportation, loading and unloading. Special attention should be given to fluorescent tubes and mercury-containing lamps to prevent breakage.

All containers should be accurately labelled according to their content, packaging type, hazard classification (if applicable).

Outside sty tubes (CRTs) should be secured to pallets with shrink-wrap or similar wrapping. Broken CRT glass should be packed into containers that will not leak, such as drums or super-tanks. Smaller, dispersive fractions of shredded copper or circuit boards should be transported in properly closed containers with lining, if needed.

Transport

Transport should be carried out by a licensed, permitted or otherwise authorized carrier, according to applicable laws and regulations.

Emergency response information (e.g. safety data sheets, ERIC/ERD) and hazardous waste manifests (consignment notes), as required by national law,



Figure 1: E-waste stacked in layers and shrink-wrapped. (Source: <https://www.itmau.gov.tz/>)

Basel Convention Expert Working Groups (EWGs)

Technical Guidelines

- Criteria for determining legitimate shipments for repair (non-waste)
- Highly influential on national waste/non-waste determinations
- Some unresolved issues
- China leads EWG
- First meeting of the EWG on the TGs January 25-26, 2018 (Beijing)
- Second meeting April 17-19 (Geneva)

Negotiations on Annexes

- Negotiations on amendments to the Convention Annexes
- Revise Annexes I and III (covered waste streams and constituents/hazardous characteristics)
- Revise Annex IV (waste management activities (reuse))
- Revise e-waste listings in Annex IX
- Canada and Chile co-chair EWG
- First meeting of the EWG March 20-23, 2018 (Geneva)

ESM and Legal Glossary

- Legal Glossary
- Manuals for the promotion of environmentally sound management of wastes
- New fact sheets on specific waste streams, including e-waste
- Preparing manuals on EPR and financing systems for ESM
- Recent ESM EWG meeting held November 13-15 (Accra)

Basel Technical Guidelines (TGs)

- Adopted on an “interim basis” at COP-12 in 2015
- New criteria (packaging, testing and documentation) for demonstrating that shipments of functioning used equipment **for direct reuse are non-wastes**
- New criteria (packaging, documentation, contracts) for demonstrating that shipments of used equipment for **failure analysis, repair and refurbishment are non-wastes**
- Parties are slowly integrating the new criteria into national legislation and policies (with variations)
- Open Issues

Recent Meetings in Beijing

- Regional Workshop for the Asia-Pacific Region on the Environmentally Sound Management of E-wastes (January 21-23, 2018)
- Forum on the transboundary movements of used EEE and e-waste (January 24, 2018)
- First meeting of the Expert Working Group (EWG) on the e-waste technical guidelines under Basel Convention (January 25-26, 2018)
- Second EWG meeting planned for April 17-19, 2018 (Geneva)



Negotiations on Open Issues in TGs

Narrowing from Seven to Three Waste Criteria Issues

Management of hazardous waste from failure analysis, repair and refurbishment

Residual life and age of used equipment for repair or reuse (plus documentation)

Equipment contains CRTs/ Obsolete Technologies (w/exceptions)

Negotiations on Open Issues in TGs

What went away (for now)...

Parties obligated to notify Secretariat of intent to make use of the TGs and non-waste classifications for repair/reuse

Specific exemptions for medical devices and used parts

Return wastes generated from analysis, repair, refurbishment to the original exporting country

Negotiations to Amend Annexes

- At COP-13, Parties established a new EWG to review Annexes and to propose amendments
 - **Annex I:** Waste streams and constituents considered hazardous
 - **Annex III:** Hazardous characteristics
 - **Annex IV:** Final disposal and recycling operations
 - **Annex IX:** Waste entry for non-hazardous electronic waste (and related references to reuse and repair)
- Outcome legally binding on 186 Parties
- EWG held in March (Geneva); Parties to discuss at OEWG-11 (September 2018) and COP-14 (April 2019)

Proposals to Expand Scope of Annex I (Presumptively Hazardous)

New proposals to expand scope of hazardous wastes include:

- Aluminum, aluminum compounds (AZERBAIJAN)
- Brominated flame retardants (NEW ZEALAND)
- Electrical and electronic assemblies (BURKINA FASO)
- Lithium/lithium batteries (EU, CANADA)
- Nanomaterials (ARGENTINA, PERU)
- Ozone depleting substances (Basel Action Network (BAN))
- Wastes and compounds of silicon "Si" (chemical constituent of glass, glass pane) (MADAGASCAR)
- Tin and tin compounds (BAN)
- Nickel and nickel compounds (BAN)
- E-waste and waste arising from production or use of electronics (NZ)
- Other waste consumer items (NZ)
- Powdered toners (BAN)

Proposals for Concentration Values for Annex I Constituents

- Several parties have proposed consideration of minimum concentration or limit values for Annex I constituents (e.g., *de minimis* values) (EL SALVADOR, COLOMBIA, INDIA, TUNISIA).
- Could be adopted in Annex I or in the waste listings in Annex VIII and IX.
- Potential to remove barriers to trade in recovered materials and advance circular economy business models world-wide.

Proposals to Expand Annex IV.B

New proposals to expand list of covered recovery operations:

- Recovery of components not covered by other operations (e.g., separation of materials for recovery from used vehicles and e-waste)
- Re-use of components in manufactured items
- Preparing for reuse (e.g., checking, cleaning, repair, refurbishment) (EU)
- Repackaging prior to submission to any operations in Section B
- Dismantling, selection, sorting or preparation treatments for recycling, reuse/use intended, totally or a part of waste's components
- Prepare for reuse of e-waste including repair and refurbishment (EU)
- Recycling of used electrical and electronic equipment
- Proposed revision of existing R7 and R8 listing – combined and changed to read as follows:
“Cleaning, replenishing, repair or refurbishment of equipment or components in order to re-use them.”

Benefits and Risks to Circular Economy?

Benefits

- Final TGs and related changes to Annexes should remove barriers to repair, refurbishment and promote consistent approaches
- Proposals for concentration values or “limits of contaminants” for Annex I constituents could reduce scope of hazardous waste classifications

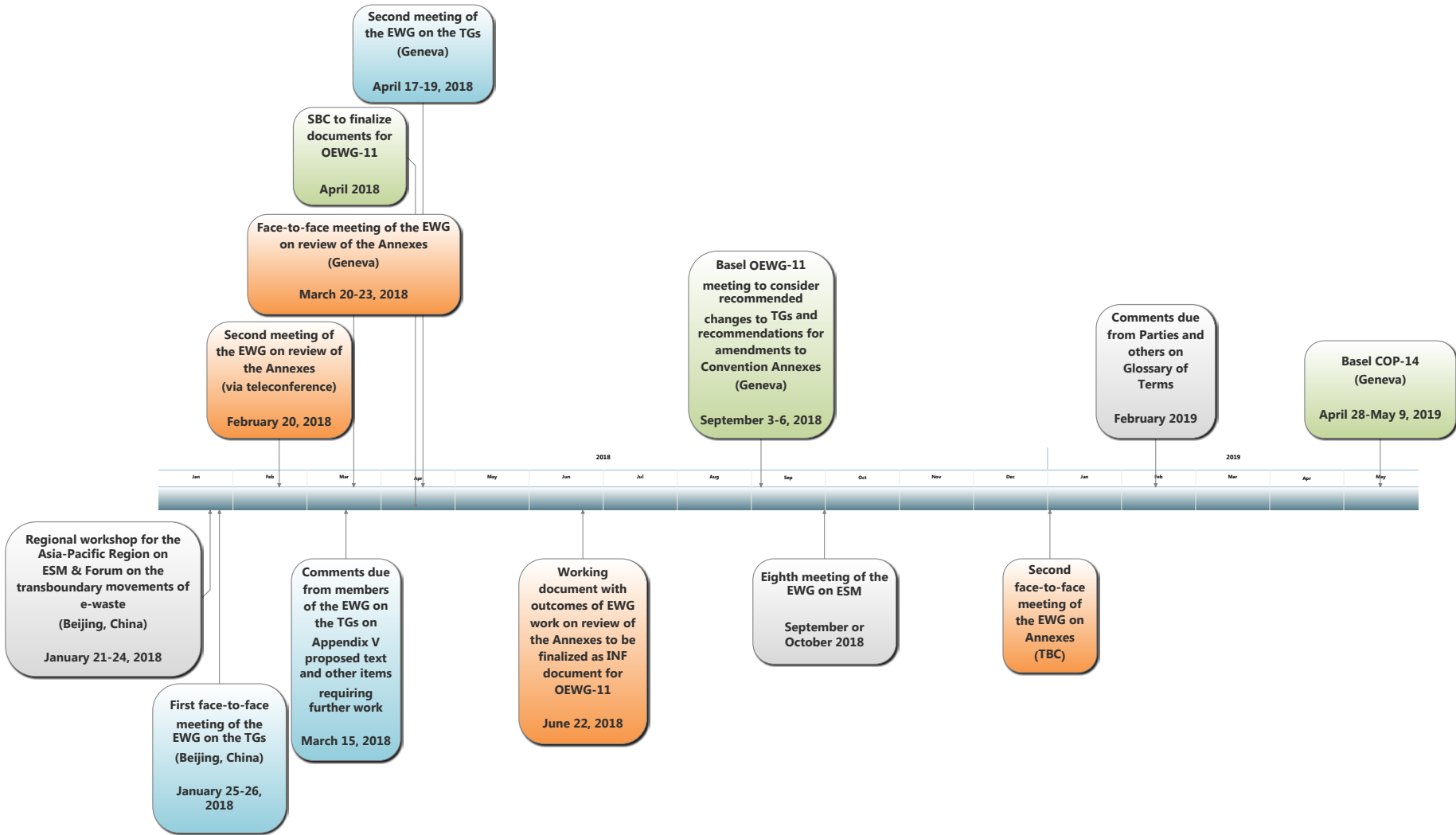
Risks

- Proposals to expand of Annex I (presumptively hazardous):
 - E-waste as a category of waste
 - Waste arising from the production and use of electronics
 - Listing lithium or other constituents in Li-ion batteries
 - Brominated flame retardants
- Proposals to include repair in Annex IV

Looking Ahead

- What are the priorities for the ICT sector?
 - Lowering legal risks and logistical barriers for repair and reuse
 - Technical issues regarding lithium batteries
 - Other proposed waste listings
 - Support for threshold values (Annex I)
- How can companies, ITI and allied trade groups engage individual governments ahead of key meetings?
- Operational and compliance challenges

Basel Convention Meetings



Discussion