出國報告(出國類別：出席國際會議)

出席「第 10 次巴塞爾公約開放式工作組會議-OEWG 10」

服務機關：行政院環境保護署

姓名職稱：洪榮勳 專業研究員

派赴國家：肯亞奈洛比

出國期間：105 年 5 月 27 日至 6 月 4 日

報告日期：105 年 8 月 8 日

摘要

第 10 次巴塞爾公約之開放式工作組會議-OEWG 10 於 2016 年 5 月 29 日至 6 月 2 日於肯亞奈洛比舉行。本次會議重點包括審查卡塔基納廢棄物預防宣言執行狀況，制定友善環境之管理準則、更新電子廢棄物之相關技術準則、法律管理及強制執行問題、公約夥伴關係與國際海事組織合作及 2018 至 2019 年工作計畫等。

此次參與會議除關注本屆討論議題外，與美國 Basel Action Network(BAN)執行長 Jim Puckett 進行會談，其在周邊會議上對臺灣廢棄物管理、運輸、有害化學物質等相關環境問題管理，給予正面肯定及高度評價，雙方認同未來可有合作空間，並針對廢棄物之管理、有害化學物質之管制及其他各項環保議題，能有進一步交流及技術移轉等。

透過與國外 NGO 會談，增加交流機會、擴大交流網絡，並針對廢棄物管理及其他各項環保議題進行資訊及經驗交換。

目　錄

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壹、　目的

隨著廢棄物越境轉移至他國處理的情形日益頻繁，為確保廢棄物於運送過程不會造成二度環境污染與落實廢棄物之流向追蹤。1989 年聯合國環境署於瑞士巴塞爾召開管制有害廢棄物跨國境移動及處理公約簽定大會，共 116 國參與，並締結「巴塞爾公約」，迄今已有 184 個國家及組織締結此公約。

我國於制定環保相關法規與推動廢棄物管理政策時，均參考各先進國家之立法經驗期與國際接軌，惟網路上之公開資料相當有限，唯透過實際國際參與，及實務交流，才能取得完整之資訊。

我國雖非公約締約國，但自 2002 年以來便積極參與國際公約及相關會議以增加我國廢棄物管理成果於國際舞台交流機會，其目的在於：（1）取得更為完整之國際資訊，以供我國環保主管機關決策參考；（2）提供國際公約最新發展趨勢及公約技術指引內容，以協助國內相關單位或產業掌握國際發展動脈；（3）爭取參與空間及適時展示我國成果，以提升我國曝光率及國際合作之契機。

貳、　過程

一、 公約簡介

為解決廢棄物跨國運送衍生之環保及健康問題，在聯合國推動下，於 1989 年完成控制有害廢棄物越境轉移及其處置巴塞爾公約 (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal)之草擬作業及 105 個國家之簽署，並於 1992 年正式生效。巴塞爾公約宗旨：

(一) 減少有害廢棄物之產生，並避免跨國運送時造成的環境污染。

(二) 提倡就地處理有害廢棄物，以減少跨國運送。

(三) 妥善管理有害廢棄物之跨國運送，防止非法運送行為。

(四) 提升有害廢棄物處理技術，促進無害環境管理之國際共識。

公約組織共分為三大架構，包含締約國大會、秘書處與附屬機構。此公約最高決策機構為締約國大會，並於每 2 年舉辦 1 次會議，藉由締約國大會之舉辦，審查評估世界各國對於公約執行之成果，以及審議並通過對公約相關之修正方案與成立執行公約所需之附屬機構。

二、 行前準備

本次會議期間為 2016 年 5 月 29 日至 6 月 2 日，我國參與會議行程為 5 月 27 日至 6 月 4 日。與會成員、行程及行前準備摘要如下。

(一) 與會成員：如表 1 所示。

表1 會議與會成員

姓名	單位	職稱	任務分工
洪榮勳	環保署廢棄物管理處	專業研究員	國際交流、雙邊會談
林錕松	元智大學	教授	國際交流、雙邊會談

(二) 與會行程：如表 2 所示。

表2 與會行程(5月27日至6月4日)

日期	地點	內容
5 月 27 日－28 日	臺北至泰國曼谷再轉機至肯亞奈洛比	啟程
5 月 29 日－6 月 2 日	肯亞奈洛比	與會
6 月 3 日－4 日	肯亞奈洛比至泰國曼谷再轉機至臺北	返程

(三) 行前準備

1. 取得會議資訊：至巴塞爾公約網站下載相關會議文件，以掌握本次會議重點，相關會議時間，以及我國關切議題資訊。
2. 蒐集國內完整資訊：
   (1). 搭配會議議題及規劃研析議題，彙整國內資訊。
   (2). 依據安排之雙邊會談預先進行主題研究，說明國內現況及問題，同時請教該國作法及對策。
3. 維繫國際人脈：規劃透過周邊會議與雙邊會談，與各國代表團分享交流廢棄物管理施行成果，同時維繫國際人脈。

三、 巴塞爾公約第 10 次開放式工作組會議議程

(一) 會議開幕

(二) 組織事項

1. 通過議程
2. 安排工作

(三) 2016-2017 年執行開放式工作組會議事項

1. 策略議題
   (1). 策略架構
   (2). 制定友善環境管理準則
   (3). 卡塔基納宣言，預防、減量、回收再利用有害廢棄物
2. 科學與技術事項
   (1). 技術準則
   (2). 國家報告
   (3). 法律遵循及執行事項
   (4). 國際海事組織合作與協調及公約夥伴關係
   (5). 財務事項

(四) 開放式工作組 2018-2019 年工作計畫

(五) 其他事項

(六) 通過報告

(七) 會議閉幕

圖1　與會成員於入口報到處

四、 會議實況

每日會議分為上午 10 點至下午 1 點及下午 1 點至傍晚 6 點兩時段進行，會議議程如附件 1，同時亦安排多場次周邊會議(Side Event)，與會者可視目標任務及議題關聯性自由參加周邊會議，周邊會議議程如附件 2。

(一) 105 年 5 月 30 日

1. 討論多個戰略議題，包含環境妥善管理之工作指引發展和卡塔基納宣言之後續追蹤，包括研擬指導草案以協助締約方制訂有效策略執行預防和危害廢棄物及其他廢棄物的減量及其處置。加拿大對戰略框架提出期中審查的建議。討論含有持久性有機污染物（POPs）或受其污染之廢棄物組成的環境妥善管理（ESM）技術準則草案，其主要專注於如何妥善地處理低濃度 POPs 廢棄物；成立技術項目聯絡小組以利於未來進一步討論此議題。
2. 研擬技術問題，討論未來關於電子廢棄物（e-waste）技術準則的相關工作，以提供技術項目聯絡小組參考及針對廢棄物流向的建議清單進行審查，特別針對掩埋工程和有害廢棄物的物化處理和生物處理。

(二) 105 年 5 月 31 日

1. 討論內容主要為：與促進公約履行與遵守機制之委員會（Committee for Administering the Mechanism for Promoting Implementation and Compliance of the Convention）（ICC）進行商議；對公約規定處理非法運輸後果的實施指導；與世界海關組織（WCO）共同商討國際商品統一分類制度（Harmonized Commodity Description and Coding System）；關於財務事項的報告；根據經修訂的國際海事組織（IMO）港口接收設施手冊研擬海陸交界的指導手冊草案；以及由烏拉圭（Uruguay）與模里西斯（Mauritus）提起關於家庭垃圾之新的巴塞爾公約夥伴關係之草案概念。
2. 法律事務聯絡小組討論術語和名詞定義以及可能的方式以更新公約附件 I， III，IV 和 IX。戰略項目聯絡小組則商討關於卡塔基納宣言之草案案文及完成電腦設備夥伴計畫（PACE）草案決議商討。

(三) 105 年 6 月 1 日

1. 技術事項聯絡小組主要討論 COP12 中的重要議題，其涉及臨時性電子廢棄物技術指引（TGs），其包含：剩餘壽命與設備使用年齡；開發中國家的故障分析、修復與翻新工程的有害廢棄物管理；過時的技術，包括陰極射線管；以及存在於二手設備中的有害成分。
2. 完成關於決定草案的“提供法律清晰度”，也討論關於非法輸送的指引草案，並批准促進公約履行與遵守機制之委員會（ICC）協商修訂的決定草案。
3. 技術事項聯絡小組核准一項決定草案，並為了 POPs 廢棄物對 TGs 設訂工作計劃，逐行地協商討論電子廢棄物的決定草案。而戰略事項聯絡小組重新對卡塔基納宣言的決定草案內文進行審議， 並編制修訂文案提及的能力建立和技術轉讓。

(四) 105 年 6 月 2 日

1. 通過 13 項決定，其中包括：戰略框架的期中評估；制定環境妥善管理(ESM)的指導方針；卡塔基納宣言；持久性有機污染物(POPS)的廢物技術準則；亦包括 COP13 之前的未來工作項目；國家報告；提供更明確的法律；與促進公約履行與遵守機制之委員會合作，包含違反巴塞爾

公約規定的非法運送處理方式之指引。

2. 另還包括：PACE 的後續追蹤；為家庭垃圾的環境無害化管理創建一個新的合作夥伴關係；巴塞爾公約和國際海事組織(IMO)之間的合作；與世界海關組織(WCO)對於國際商品統一分類制度之合作；以及 2018 年-2019 年工作計劃議程。

五、 會議重點

(一) 包含環境友善管理之工作指引、發展和卡塔基納宣言之後續追蹤，研擬持久性有機污染物（POPs）或受其污染之廢棄物組成指導草案，以協助締約方制訂有效策略執行預防和危害廢棄物及其他廢棄物的減量及其處置。

(二) 討論未來關於電子廢棄物（e-waste）技術準則的相關工作，以提供技術項目聯絡小組參考及針對廢棄物流向的建議清單進行審查，特別針對掩埋工程和有害廢棄物的物化處理和生物處理。

(三) 根據經修訂的國際海事組織（IMO）港口接收設施手冊研擬海陸交界的指導手冊草案；對公約規定處理非法運輸後果的實施指導；與世界海關組織（WCO）共同商討國際商品統一分類制度；以及由烏拉圭（Uruguay）與模里西斯（Mauritus）提起關於家庭垃圾之新的巴塞爾公約夥伴關係之草案概念。

(四) 討論 COP12 中的重要議題，其涉及臨時性電子廢棄物技術指引（TGs）建立和技術轉讓，其包含：剩餘壽命與設備使用年齡；開發中國家的故障分析、修復與翻新工程的有害廢棄物管理；過時的技術，包括陰極射線管；以及存在於二手設備中的有害成分。

(五) 與促進公約履行與遵守機制之委員會合作，包含違反巴塞爾公約規定的非法運送處理方式之指引。

(六) 通過 13 項決定，其中包括：COP13 之前的未來工作項目、策略議題的期中評估；制定友善環境管理(ESM)的指導方針；卡塔基納宣言針對有害廢棄物預防、減量、回收再利用。

(七) PACE 的後續追蹤：電腦設備夥伴計畫(PACE Ⅱ)相關草案決議，執行運作管理方式目前已大致抵定，積極表達參與的意向。

(八) 其他討論事項：為家庭垃圾的環境無害化管理創建一個新的合作夥伴關係；巴塞爾公約和國際海事組織(IMO)之間的合作；與世界海關組織(WCO)對於國際商品統一分類制度之合作；以及 2018 年-2019 年工作計劃議程。

六、 會談交流

與美國 Basel Action Network(BAN)執行長 Jim Puckett 於 6 月 2 日進行會談，其在周邊會議上對臺灣廢棄物管理、運輸、有害化學物質等相關環境問題管理，給予正面肯定及高度評價，雙方認同未來可有合作空間，並針對廢棄物之管理、有害化學物質之管制及其他各項環保議題，能有進一步交流，及技術移轉等。

圖 2　與美國 Basel Action Network(BAN)進行交流

參、　心得與建議

一、 心得

我國自 2002 年開始便積極參與巴塞爾公約及相關廢棄物國際性會議，透過實際國際參與及實務交流，維持國際人脈並爭取得國際交流機會。

本次開放式工作組會議係於肯亞奈洛比舉行，會議中討論多項廢棄物相關之議題，包括與電子廢棄物（e-waste）技術準則之相關工作。

另透過與國外 NGO 會談，增加交流機會、擴大交流網絡，並針對廢棄物管理及其他各項環保議題進行意見交換，獲益良多。

二、 建議

(一) 持續參與巴塞爾公約並持續經營國際人脈關係，提升臺灣在國際舞台之影響力。

(二) 持續關注電腦設備夥伴行動計畫(Partnership for Action on Computing Equipment, PACE)後續動作。

(三) 國際參與人員傳承及專業能力培養。

肆、　附件

附件 1　會議議程相關資料

UNITED NATIONS

UNEP

BC

UNEP/CHW/OEWG.10/INF/2

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 2 (b) of the provisional agenda*
Organizational matters: organization of work

Tentative schedule for the meeting

Note by the Secretariat

A tentative schedule for the tenth meeting of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal is set out in the annex to the present note. The schedule will be adjusted as work progresses. The present note, including its annex, has not been formally edited.

* UNEP/CHW/OEWG.10/1.

Annex

Tenth meeting of the Open-ended Working Group: tentative schedule for the meeting (30 May–2 June 2016)[1]

	Sunday	Monday	Tuesday	Wednesday	Thursday
Morning session *10 a.m.–1 p.m.*	Bureau meeting (*11 a.m.–noon.)*	**Item 1: Opening of the meeting.** **Item 2: Organizational matters:** (a) Adoption of the agenda; (b) Organization of work. **Item 3: Matters related to the work programme of the Open-ended Working Group for 2016–2017:** (a) Strategic issues: (i) Strategic framework; (ii) Developing guidelines for environmentally sound management; (iii) Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes;	**Item 3: (continued)** (c) Legal, governance and enforcement matters: (i) Consultation with the Committee Administering the Mechanism for Promoting Implementation and Compliance; (ii) Providing further legal clarity; (d) International cooperation and coordination: (i) Basel Convention Partnership Programme;	Contact groups (English only)	Consideration of results of contact groups, including draft decisions. **Item 4: Work programme of the Open-ended Working Group for 2018–2019.** **Item 5: Other matters.**
Lunch break *1–3 p.m.*		Lunch	Lunch	Lunch	Lunch
Afternoon session *3–6 p.m.*	Regional meetings (*2–5 p.m.)*	**Item 3: (continued)** (b) Scientific and technical matters: (i) Technical guidelines: a. Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants; b. 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;	**Item 3: (continued)** (d) International cooperation and coordination: (ii) Cooperation between the Basel Convention and the International Maritime Organization; (iii) Cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System; (e) Financial matters.	Contact groups (English only)	**Item 6: Adoption of the report.** **Item 7: Closure of the meeting.**

[1] Items listed in the schedule are from the provisional agenda (UNEP/CHW/OEWG.10/1).

		c. Consideration of whether to update the technical guidelines on incineration on land, on specially engineered landfill and on physico-chemical treatment and biological treatment; (ii) National reporting;			
Evening after 6 p.m.		Contact groups possible (English only)	Contact groups (English only)	Contact groups (English only)	

UNITED NATIONS

UNEP

BC

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016

Provisional agenda

1. Opening of the meeting.
2. Organizational matters:
   (a) Adoption of the agenda;
   (b) Organization of work.
3. Matters related to the work programme of the Open-ended Working Group for 2016–2017:
   (a) Strategic issues:
      (i) Strategic framework;
      (ii) Developing guidelines for environmentally sound management;
      (iii) Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes;
   (b) Scientific and technical matters:
      (i) Technical guidelines:
         a. Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants;
         b. 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;
         c. Consideration of whether to update the technical guidelines on incineration on land, on specially engineered landfill and on physico-chemical treatment and biological treatment;
      (ii) National reporting;
   (c) Legal, governance and enforcement matters:

(i) Consultation with the Committee Administering the Mechanism for Promoting Implementation and Compliance;

(ii) Providing further legal clarity;

(d) International cooperation and coordination:

(i) Basel Convention Partnership Programme;

(ii) Cooperation between the Basel Convention and the International Maritime Organization;

(iii) Cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System;

(e) Financial matters.

4. Work programme of the Open-ended Working Group for 2018–2019.

5. Other matters.

6. Adoption of the report.

7. Closure of the meeting.

附件 2　周邊會議議程

Tentative schedule of side events and other events at the Basel Convention OEWG-10
Nairobi, 30 May–2 June

	Monday, 30 May	Tuesday, 31 May	Wednesday, 1 June	Thursday, 2 June
Lunch time **13:15 – 14:45**	**Event 1: E-waste Challenge MOOC** Organized by UNEP/BRS Contact: Ms. Francesca Cenni Room: 3	**Event 1: PACE outcomes** Organized by Yorg Aerts, OVAM Belgium; Miguel Araujo, BCRC El Salvador, Leila Devia, BCRC Argentina (on behalf of the PACE Working Group) Contact: Mr. Matthias Kern Room: 3	**Event 1: The e-Trash Transparency Project: Tracking e-waste flows using GPS geolocation devices** Organized by Basel Action Network Contact: Mr. Jim Puckett Room: 3	
	Event 2: CREASOLVE Organized by Mr. E. Meuwissen, Secretary General of EUMEPS (European Manufacturers of EPS), Mr. L. Tange, Product Stewardship Manager of ICL Industrial Products Contact: Mr. E. Meuwissen Room: 11			
Evening **18:15 – 19:45**				

For questions related to side events, please contact Ms. Kei Ohno Woodall (kei.ohno-woodall@brsmeas.org).

附件 3　會議相關文件資料

UNITED NATIONS UNEP

BC

UNEP/CHW/OEWG.10/1/Add.1*

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3 March 2016

Original: English

BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 2 (b) of the provisional agenda**
Organizational matters: organization of work

Annotations to the provisional agenda

Item 1
Opening of the meeting

1. The tenth meeting of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal will be held at the Headquarters of the United Nations Environment Programme (UNEP), United Nations Avenue, Gigiri, Nairobi, from 30 May to 2 June 2016. The meeting will be opened at 10 a.m. on Monday, 30 May.

2. Opening and welcoming statements will be delivered.

Item 2
Organizational matters

(a) Adoption of the agenda

3. The Open-ended Working Group may wish to adopt its agenda on the basis of the provisional agenda (UNEP/CHW/OEWG.10/1).

(b) Organization of work

4. The Open-ended Working Group will have before it a scenario note for its tenth meeting (UNEP/CHW/OEWG.10/INF/1) and a tentative schedule for the meeting (UNEP/CHW/OEWG.10/INF/2) prepared by the Secretariat in consultation with the co-chairs of the Open-ended Working Group.

5. Pursuant to paragraph 2 of decision BC-12/19, on the work programme and operations of the Open-ended Working Group for the biennium 2016–2017, on Monday,

* Reissued for technical reasons on 23 May 2016.

** UNEP/CHW/OEWG.10/1.

30 May, Tuesday 31 May, and Thursday, 2 June, simultaneous interpretation into Arabic, Chinese, English, French, Russian and Spanish will be provided in plenary sessions. On Wednesday, 1 June, meetings of contact and other groups will be held in English only.

6. The Open-ended Working Group may wish to agree to meet in plenary on Monday, 30 May, Tuesday, 31 May, and Thursday, 2 June, from 10 a.m. to 1 p.m. and from 3 p.m. to 6 p.m., subject to adjustments as appropriate.

7. The Open-ended Working Group may wish to establish contact groups and drafting groups as it may deem necessary, and to specify their mandates.

Item 3
Matters related to the work programme of the Open-ended Working Group for 2016–2017

8. The Open-ended Working Group will consider several sub-items under agenda item 3. The sub-items are listed below in the order in which they appear in the provisional agenda, which is not necessarily the order of priority for consideration by the Open-ended Working Group. They will be taken up as decided by the co-chairs in consultation with the Bureau.

(a) Strategic issues

(i) Strategic framework

9. The Open-ended Working Group will have before it a note by the Secretariat on preparation of the midterm evaluation of the strategic framework (UNEP/CHW/OEWG.10/2). The Open-ended Working Group may wish to take note of the information provided and consider the action proposed.

(ii) Developing guidelines for environmentally sound management

10. The Open-ended Working Group will have before it notes by the Secretariat on developing guidelines for environmentally sound management (UNEP/CHW/OEWG.10/3), on revised draft practical manuals for the promotion of the environmentally sound management of wastes (UNEP/CHW/OEWG.10/INF/3), on revised draft fact sheets on specific waste streams (UNEP/CHW/OEWG.10/INF/4), on a draft outline of guidance to assist parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal (UNEP/CHW/OEWG.10/INF/5), on inventory, categorization and analysis of existing Basel Convention documents related to environmentally sound management (UNEP/CHW/OEWG.10/INF/6) and on a report of the activities undertaken by the expert working group on environmentally sound management (UNEP/CHW/OEWG.10/INF/7). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/3.

(iii) Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes

11. The Open-ended Working Group will have before it notes by the Secretariat on the Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes (UNEP/CHW/OEWG.10/4) and on a draft outline of guidance to assist parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal (UNEP/CHW/OEWG.10/INF/5). The Open-ended Working Group may wish to take note of the information provided.

(b) Scientific and technical matters

(i) Technical guidelines

a. Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants

12. The Open-ended Working Group will have before it notes by the Secretariat on technical guidelines (UNEP/CHW/OEWG.10/5), on draft technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexachlorobutadiene (UNEP/CHW/OEWG.10/INF/18), on draft technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with pentachlorophenol and its salts and esters (UNEP/CHW/OEWG.10/INF/19), on draft updated technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with polychlorinated biphenyls, polychlorinated terphenyls, polychlorinated naphthalenes or polybrominated biphenyls including hexabromobiphenyl (UNEP/CHW/OEWG.10/INF/20), on draft updated technical guidelines on the environmentally sound management of wastes containing or contaminated with unintentionally produced polychlorinated dibenzo-*p*-dioxins, polychlorinated dibenzofurans, hexachlorobenzene, polychlorinated biphenyls, pentachlorobenzene or polychlorinated naphthalenes (UNEP/CHW/OEWG.10/INF/21) and on a compilation of comments on low persistent organic pollutant content (UNEP/CHW/OEWG.10/INF/23). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in paragraph 12 of document UNEP/CHW/OEWG.10/5.

b. 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

13. The Open-ended Working Group will have before it notes by the Secretariat on technical guidelines (UNEP/CHW/OEWG.10/5) and on a summary of comments received from parties and others on issues mentioned in paragraph 5 of decision BC-12/5 and on appendix V of the interim 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 (UNEP/CHW/OEWG.10/INF/22). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in paragraph 21 of document UNEP/CHW/OEWG.10/5.

c. Consideration of whether to update the technical guidelines on incineration on land, on specially engineered landfill and on physico-chemical treatment and biological treatment

14. The Open-ended Working Group will have before it a note by the Secretariat on technical guidelines (UNEP/CHW/OEWG.10/5). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in paragraph 23 of document UNEP/CHW/OEWG.10/5.

(ii) National reporting

15. The Open-ended Working Group will have before it notes by the Secretariat on national reporting (UNEP/CHW/OEWG.10/6) and on a report including a proposal for a list of hazardous waste streams for which practical guidance on inventory could be developed (UNEP/CHW/OEWG.10/INF/8). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/6.

(c) Legal, governance and enforcement matters

(i) Consultation with the Committee Administering the Mechanism for Promoting Implementation and Compliance

16. The Open-ended Working Group will have before it notes by the Secretariat on consultation with the Committee Administering the Mechanism for Promoting Implementation and Compliance of the Basel Convention (UNEP/CHW/OEWG.10/7) and on guidance on the implementation of the Basel Convention provisions dealing with the consequences of illegal traffic (paragraphs 2, 3 and 4 of Article 9) (UNEP/CHW/OEWG.10/INF/9). The Open-ended Working Group may wish to take note

of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/7.

(ii) Providing further legal clarity

17. The Open-ended Working Group will have before it notes by the Secretariat on providing further legal clarity (UNEP/CHW/OEWG.10/8), on a revised glossary of terms (UNEP/CHW/OEWG.10/INF/10), on views received from parties and others on the review of Annexes I, III and IV and related aspects of Annex IX to the Basel Convention (UNEP/CHW/OEWG.10/INF/11), and on a report on the review of Annex IV and related aspects of Annex IX to the Basel Convention (UNEP/CHW/OEWG.10/INF/12). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/8.

(d) International **cooperation and coordination**

(i) Basel Convention Partnership Programme

18. The Open-ended Working Group will have before it notes by the Secretariat on the Partnership for Action on Computing Equipment (UNEP/CHW/OEWG.10/9) and on documents developed by the Partnership for Action on Computing Equipment (UNEP/CHW/OEWG.10/INF/13). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/9.

19. The Open-ended Working Group will also have before it notes by the Secretariat on creating innovative solutions through the Basel Convention for the environmentally sound management of household waste (UNEP/CHW/OEWG.10/10) and on a draft concept note for a household waste partnership (UNEP/CHW/OEWG.10/INF/14). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/10.

(ii) Cooperation between the Basel Convention and the International Maritime Organization

20. The Open-ended Working Group will have before it notes by the Secretariat on the cooperation between the Basel Convention and the International Maritime Organization (UNEP/CHW/OEWG.10/11) and on a revised draft guidance manual on how to improve the sea-land interface (UNEP/CHW/OEWG.10/INF/15). The Open-ended Working Group may wish to take note of the information provided and to consider the action proposed in document UNEP/CHW/OEWG.10/11.

(iii) Cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System

21. The Open-ended Working Group will have before it a note by the Secretariat on cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System (UNEP/CHW/OEWG.10/INF/16). The Open-ended Working Group may wish to take note of the information provided.

(e) Financial matters

22. The Open-ended Working Group will have before it a note by the Secretariat on a report on financial matters from January 2014 to April 2016 (UNEP/CHW/OEWG.10/INF/17). The Open-ended Working Group may wish to take note of the information provided.

Item 4
Work programme of the Open-ended Working Group for 2018–2019

23. The Open-ended Working Group will have before it a note by the Secretariat on the work programme of the Open-ended Working Group for 2018–2019

(UNEP/CHW/OEWG.10/12). The Open-ended Working Group may wish to take note of the information provided in the note and consider the action proposed therein.

Item 5
Other matters

24. The Open-ended Working Group may wish to discuss any other matters.

Item 6
Adoption of the report

25. At the last session of its meeting, the Open-ended Working Group will be invited to consider and adopt the draft report on its work prepared by the rapporteur.

Item 7
Closure of the meeting

26. It is expected that the meeting will be closed by a co-chair by 6 p.m. on Thursday, 2 June 2016.

UNITED NATIONS

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UNEP/CHW/OEWG.10/INF/1

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 2 (b) of the provisional agenda*
Organizational matters: organization of work

Scenario note for the tenth meeting of the Open-ended Working Group of the Basel Convention

Note by the Secretariat

I. Introduction

1. The present scenario note is intended to assist representatives in preparing for the tenth meeting of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal by communicating information regarding initial planning activity and expectations for the meeting.

II. Objective and possible outcomes of the meeting

2. The objective of the meeting is the consideration and possible adoption of two sets of decisions pertaining to the following:

(a) Matters to be considered by the Open-ended Working Group pursuant to decisions adopted by the Conference of the Parties at its twelfth meeting;

(b) Matters to be considered by the Open-ended Working Group to ensure the timely implementation of the Convention and the successful operation of the Conference of the Parties and the Open-ended Working Group in future years.

3. Pursuant to decisions adopted by the Conference of the Parties at its twelfth meeting, the Open-ended Working Group at its tenth meeting, among other things, is expected:

(a) To consider progress in the implementation of the strategic framework for the implementation of the Basel Convention for 2012–2021 and to review the progress report

* UNEP/CHW/OEWG.10/1.

on the preparation of the mid-term evaluation of the strategic framework (item 3 (a) (i) of the provisional agenda);

(b) Regarding developing guidelines for environmentally sound management (item 3 (a) (ii) of the provisional agenda):

(i) To review the inventory and categorization of existing Basel Convention documents related to environmentally sound management referred to in paragraph 14 of decision BC-12/1;

(ii) To review the revised set of draft practical manuals and revised fact sheets referred to in paragraph 15 of decision BC-12/1;

(iii) To review the progress made in the implementation of the work programme of the expert working group on environmentally sound management;

(c) To review the progress that parties and others have made in the implementation of the road map for action on the implementation of the Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes and to prepare a road map for action on the Declaration (item 3 (a) (iii) of the provisional agenda);

(d) Regarding technical guidelines (item 3 (b) (i) of the provisional agenda):

(i) To consider the revised draft of the general and/or specific technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants;

(ii) To consider the interim 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;

(iii) To consider whether to update the technical guidelines on incineration on land (D10), on specially engineered landfill (D5) and on hazardous waste
physico-chemical treatment (D9) and biological treatment (D8);

(e) To consider and agree on a list of waste streams for which additional practical guidance on the development of inventories should be developed, based on the report prepared by the Secretariat (item 3 (b) (ii) of the provisional agenda);

(f) To provide comments on the draft guidance on the implementation of paragraphs 2, 3 and 4 of Article 9 of the Convention (item 3 (c) (i) of the provisional agenda);

(g) Regarding the provision of further legal clarity (item 3 (c) (ii) of the provisional agenda):

(i) To consider the revised version of the draft glossary including explanations prepared by the small intersessional working group on legal clarity, finalize the glossary and prepare a draft decision for the Conference of the Parties at its thirteenth meeting for its consideration and possible adoption;

(ii) To consider recommendations on the review of Annex IV and related issues under Annex IX to the Convention;

(iii) To consider views from parties and others on the review of Annexes I and III to the Convention;

(h) Regarding the Basel Convention Partnership Programme (item 3 (d) (i) of the provisional agenda):

(i) To consider the revised section 3 of the guidance document on the environmentally sound management of used and end-of-life computing equipment;

(ii) To consider the draft concept note on a follow-up partnership to the Partnership for Action on Computing Equipment, which could address strengthening the environmentally sound management of waste electrical and electronic equipment at the regional and national levels;

(iii) To consider the draft concept note on a household waste partnership under the Basel Convention;

(i) To consider and finalize the revised draft guidance manual on how to improve the sea-land interface to ensure that wastes falling within the scope of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and as further amended by the Protocol of 1997, once offloaded from ships, are managed in an environmentally sound manner (item 3 (d) (ii) of the provisional agenda);

(j) To provide guidance to the Secretariat on continuing to move forward on the matter of identifying the wastes covered by the Basel Convention in the World Customs Organization Harmonized Commodity Description and Coding System (item 3 (d) (iii) of the provisional agenda).

4. With a view to ensuring the timely implementation of the Convention and the successful operation of the Conference of the Parties and the Open-ended Working Group in future years, the Open-ended Working Group is expected to consider and agree upon the draft work programme of the Open-ended Working Group for the biennium 2018–2019 (item 4 of the provisional agenda).

III. Meeting agenda

5. The annotations to the provisional agenda for the meeting (UNEP/CHW/OEWG.10/1/Add.1) identify issues for discussion under each agenda item and the documents that pertain to that item. Most of the meeting documents prepared identify the provisions of the Convention or the decisions of the Conference of the Parties that provide mandates for the activities discussed therein. Meeting documents also identify possible actions to be taken by the Open-ended Working Group.

6. Pursuant to paragraph 2 of decision BC-12/19, on Monday, 30 May, Tuesday, 31 May, and Thursday, 2 June, simultaneous interpretation into Arabic, Chinese, English, French, Russian and Spanish will be provided in plenary sessions. The proposed daily schedule for plenary sessions will be two 3-hour sessions per day (10 a.m.–1 p.m. and 3 p.m.–6 p.m.). Provision for regional meetings on Sunday, 29 May, has been made.

7. The meeting will begin on the morning of Monday, 30 May, with opening formalities in plenary (item 1 of the provisional agenda).

8. The Open-ended Working Group will then adopt the agenda for the meeting (item 2 (a) of the provisional agenda), amended as appropriate, and agree on the organization of work (item 2 (b) of the provisional agenda).

9. The Open-ended Working Group will then take up matters related to its work programme for 2016–2017 and other matters (items 3 and 4 of the provisional agenda). The order in which the items or sub-items will be taken up at the meeting will be determined by the co-chairs in consultation with the Bureau. The usual practice is for high-priority items, which are more likely to require work in contact groups, to be taken up earlier in the meeting. For the tenth meeting of the Open-ended Working Group, items that are more likely to require work in contact groups will be taken up in plenary on

Monday and Tuesday. Contact or drafting groups will be established as necessary to consider specific issues.

10. On Wednesday, 1 June, contact or drafting groups will meet as needed and in English only.

11. On Thursday, 2 June, the groups will report to plenary on the outcome of their deliberations. The Open-ended Working Group will then take up the remaining items of the agenda.

12. It is expected that the Open-ended Working Group will adopt the report of the meeting (item 6 of the provisional agenda) on the afternoon of Thursday, 2 June. In accordance with its usual practice, the Open-ended Working Group may wish to adopt those sections of the report that describe the conduct of the meeting until the end of the day on Tuesday, 31 May, making any amendments it deems necessary. Also consistent with its usual practice, the Open-ended Working Group may wish to agree that those sections of the report describing the Thursday plenary sessions will be prepared by the rapporteur, in cooperation with the Secretariat, and incorporated into the final report under the authority of the co-chairs.

附件 3-1 友善環境管理草案資料

UNITED NATIONS

UNEP

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UNEP/CHW/OEWG.10/INF/3

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (a) (ii) of the provisional agenda*

Matters related to the work programme of the Open-ended Working Group for 2016−2017: strategic issues: developing guidelines for environmentally sound management

Revised draft practical manuals for the promotion of the environmentally sound management of wastes

Note by the Secretariat

As referred to in the note by the Secretariat on developing guidelines for environmentally sound management (UNEP/CHW/OEWG.10/3), the annex to the present note contains the revised set of draft practical manuals for the promotion of the environmentally sound management of wastes, prepared by the expert working group on environmentally sound management on the basis of the comments received from parties and others. The present note, including its annex, has not been formally edited.

* UNEP/CHW/OEWG.10/1.

Annex

A Set of Practical Manuals for the Promotion of the Environmentally Sound Management (ESM) of Wastes

Developed by the Expert Working Group on Environmentally Sound Management

March 2016

Basel Convention

Foreword

In its decision BC-11/1 on follow-up to the Indonesian-Swiss country-led initiative to improve the effectiveness of the Basel Convention, the Conference of the Parties mandated an expert working group to further elaborate and implement actions on initial short-term work items listed in annex II to the decision, within available resources, and to develop a work programme for additional priorities and key work items and actions for the implementation of environmentally sound management (ESM).

Paragraph 1 of annex II to decision BC-11/1, which contains the terms of reference for the expert working group on environmentally sound management, requested the group to, among other things, collect available information on national and other ESM standards and practices and to develop generic guidance on how to establish ESM.

At its first meeting in December 2013, the expert working group decided to develop, intersessionally and at successive meetings, the following practical manuals for the promotion of the environmentally sound management of wastes:[2]

(a) Terminology included in the practical manuals for the promotion of the ESM of wastes (appendix I);

(b) General policies and legislation (appendix II);

(c) Permits, licenses or authorizations (appendix III);

(d) Certification schemes (appendix IV);

(e) Waste prevention (appendix V).

The manuals, which have been developed to complement the framework for the environmentally sound management of hazardous wastes and other wastes (ESM Framework),[3] are intended to provide non-exhaustive practical guidance to those stakeholders responsible for ensuring the environmentally sound management of wastes at the national level. Such stakeholders may include competent authorities and focal points designated by Parties to the Basel Convention, policy makers, legislators, enforcement authorities, operators of waste management facilities and other entities involved in the overall management, i.e. the collection, transport and disposal, including storage, of wastes.

The manuals were submitted to the twelfth meeting of the Conference of the Parties, at which time it was decided to include provision for their further development and finalization in the work programme of the expert working group adopted by the meeting in decision BC-12/1 (annex). Further revisions of the manuals are to be submitted to the Open-ended Working Group for consideration at its tenth meeting and subsequently to the Conference of the Parties for consideration and possible adoption at its thirteenth meeting.

[2] Development of a sixth manual on insurance and liability was commenced by the expert working group but not finalized. At its third meeting in January 2015, the group agreed to cease work on the manual and await the outcome of the work of the Implementation and Compliance Committee on this issue.

[3] Adopted by decision BC-11/1 and available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex) and at: http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMFramework/tabid/3616/Default.aspx

Terminology

included in the Practical Manuals for the Promotion of the Environmentally Sound Management (ESM) of Wastes

Basel Convention

I. Introduction

1. This document has been prepared to accompany the practical manuals for the promotion of the environmentally sound management (ESM) of wastes. These manuals are directly related to the Basel Convention framework[1] for the environmentally sound management of hazardous wastes and other wastes.[2]

2. To help understand the terms in this manual and why they are used, it is important to understand the legal context within which they sit, in particular that:

(a) Hazardous and other wastes are to be managed in a manner which will protect human health and the environment against the adverse effects which may result from such waste;[3]

(b) Transboundary movements of hazardous and other wastes subject to the Basel Convention should be reduced to the minimum consistent with their environmentally sound and efficient management;[4]

(c) The generation of hazardous and other wastes should be minimized.[5]

3. Additionally, in its decision BC-11/1 on follow-up to the Indonesian-Swiss country-led initiative to improve the effectiveness of the Basel Convention, the Conference of the Parties requested a small intersessional working group on legal clarity to, among other things, complete a glossary of terms[6] in an effort to provide Parties and others with consistent advice on the interpretation of certain terminology in the Basel Convention. The Conference of the Parties at its twelfth meeting in its decision BC-12/1 invited the small intersessional working group on legal clarity to continue its work and to prepare a revised version of this draft glossary with the anticipation that the tenth meeting of the Open-ended Working Group will submit a revised and finalized version to the thirteenth meeting of the Conference of the Parties for possible adoption. This manual has been developed in consideration of the work of the small intersessional working group on legal clarity and does not duplicate the terms defined in the aforementioned glossary.

4. The terminology in this manual is intended to assist in the understanding of the practical manuals for the promotion of the environmentally sound management of wastes, rather than provide a legal definition of the terms in question. It is not intended to have broader application or represent an interpretation of the Basel Convention.

5. It should be recognized that each country may have its own definitions of certain terms, for example, “permit”, “license” or “authorization”, in its national legislation.

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[1] Adopted by decision BC-11/1 and available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex) and at: http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMFramework/tabid/3616/Default.aspx

[2] Article 1 paragraph 2 read in conjunction with annex II of the Basel Convention defines the term “other wastes” as 'Y46 Wastes collected from households' and 'Y47 Residues arising from the incineration of household wastes'.

[3] Article 2 paragraph 8 defines the term “environmentally sound management of hazardous wastes or other wastes” as taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes. Additionally, the Basel Convention refers to ESM of waste in the following provisions: Preamble; Article 4 paragraphs 2, 8 and 10; Article 6 paragraph 3 (b); Article 10.

[4] Article 4 paragraph 2 (d) of the Basel Convention.

[5] Article 4 paragraph 2 (a) of the Basel Convention.

[6] Revised draft glossary of terms (available in document UNEP/CHW.12/INF/52 (annex I)). See also Revised draft glossary of terms (draft version of 22 September 2016), as adopted at the third meeting of the Small Intersessional Working Group on Legal Clarity (available in document UNEP/CHW/CLI_SIWG.3/3 (annex)).

II. List of acronyms[7]

BAT	Best available techniques
BEP	Best environmental practices
BREF	Best available techniques reference document
EIA	Environmental impact assessment
EMAS	Eco-Management and Audit Scheme
EMS	Environmental management system
EPEAT	Electronic Product Environmental Assessment Tool
EPR	Extended producer responsibility
ESM	Environmentally sound management
EWG	Expert working group
ISO	International Organization for Standardization
NGO	Non-governmental organization
NSB	National Standards Body(ies)
OECD	Organization for Economic Cooperation and Development
OHSAS	Occupational Health and Safety Assessment Series
OSH	Occupational safety and health
PIC	Prior informed consent
POP	Persistent organic pollutant
SAICM	Strategic Approach to International Chemicals Management
SME	Small and medium-sized enterprise
TBM	Transboundary movement (of wastes)
UNEP	United Nations Environment Programme
WEEE	Waste electrical and electronic equipment

[7] Chemical abbreviations, country codes, and trade names are not listed.

III. Terminology[8]

Accreditation	The formal recognition by an independent body, generally known as an accreditation body that a certification body is capable of carrying out certification. Accreditation is not always obligatory but it adds another level of confidence, as 'accredited' means the certification body has been independently checked to make sure it operates according to international standards. The International Accreditation Forum provides the contact details of national accreditation bodies. National accreditation bodies keep lists of accredited certification bodies or individuals for each country. (See certification)
Authorization	A written decision (or several such decisions) delivered by the designated authority approving the operation of a waste management facility and/or activity, subject to certain conditions which guarantee that the facility or activity complies with all the requirements established.
Broker	Anyone arranging the recovery or disposal of waste on behalf of others, including such brokers who do not take physical possession of the waste.
Certification	The provision by an independent body of written assurance (a certificate) that the product, service or system in question meets specific requirements. For example, the International Organization for Standardization (ISO). (See accreditation)
Damage	Damage[9] includes: (i) Loss of life or personal injury; (ii) Loss of or damage to property; (iii) Loss of income directly deriving from an economic interest in any use of the environment, incurred as a result of impairment of the environment.
Designated authority	Institution responsible for the development, implementation and enforcement of a regulation and/or other measure. In some countries the designated authority is also the competent authority.
Environmental management system	The need to have an environmental management system (EMS) in place within waste facilities, taking into account the size of the enterprise, the level of risk associated with the operation of the facility and other factors relevant to implementation. An EMS is often designed to be integrated into the "plan, do, check and act" model for continuous improvement and many existing systems already use this approach. It helps to ensure that environmental issues are systematically identified, controlled and monitored in the context of the need to reinforce continuous improvement. Several applicable EMS already exist in countries which are members of the Organization for Economic Cooperation and Development (OECD): ISO 14001, which is worldwide, and the Eco-Management and Audit Scheme (EMAS), which is specific to European countries and has somewhat more ambitious requirements than ISO 14001. Also considered to be applicable EMS are those that are tailor-made for individual circumstances – for example, systems designed for the purpose of specific industrial sectors or enterprises.

[8] Refer to Article 2 of the Basel Convention for further definitions.

[9] Refer to Article 2 of the Protocol on liability and compensation for damage resulting from transboundary movements of hazardous wastes and their disposal for the full definition of the term "damage".

First-party verification / Self-certification	The practice of giving information about oneself or one's company in a formal statement rather than asking a third party to do so. For example, ISO 14001 has self-certification as an option; alternatively users may choose third-party verification and certification. (See second-party verification and third-party verification)
License	A written decision (or several such decisions) delivered by the designated authority approving the operation of a waste management facility and/or activity, subject to certain conditions which guarantee that the facility or activity complies with all the requirements established.
Life cycle	The entire life cycle, from the extraction of natural resources and including material processing, manufacturing, marketing, distribution, use and waste management.
Management system standards	Standards that provide a model to follow when setting up and operating a management system. All ISO management system standards are based on the principle of continual improvement i.e. "plan, do, check, act" model. An organization or company assesses its current situation, fixes objectives and develops policy, implements actions to meet these objectives and then measures the results. With this information the effectiveness of the policy, and the actions taken to achieve it, can be continually reviewed and improved.
Minimization	Waste minimization includes strict avoidance, source reduction, direct reuse, reuse and recycling.
Monitoring	Periodic or continuous surveillance or testing to determine the level of compliance with management system requirements, or process requirements, or statutory requirements for example, of material flows or of compliance with values limiting emissions to air and releases to land and water.
Permit	A written decision (or several such decisions) delivered by the designated authority approving the operation of a waste management facility and/or activity, subject to certain conditions which guarantee that the facility or activity complies with all the requirements established.
Prevention	Practical actions that reduce the waste quantity and/or the hazard potential and/or the hazardous content of products and materials prior to becoming wastes. Prevention may include strict avoidance, source reduction and direct reuse.
Second-party verification	Where a certified company hires an audit firm, which is not a member of an independent certified body, to verify conformity with the standard. (See first-party verification and third-party verification)
Source reduction	Altering production processes to minimize the use of toxic or harmful substances and/or minimizing material or energy consumption and/or maximally substituting primary raw materials with secondary raw materials that result from high quality recycling.
Standards	Standards exist principally to provide a reliable basis on which common expectations can be shared regarding specific characteristics of a product, service or process. Standards have become a tool through which industry can demonstrate their commitment to best practices to policymakers, regulators, customers and the general public. Governments may choose to make such standards mandatory.

Storage	Activity where waste is stored prior to disposal on site or for unloading in order to allow its preparation or handling for further transport for disposal elsewhere. National legislation may apply various time limitations on the length of storage.
Strict avoidance	Involves the prevention of waste generation by elimination of the need for a product or material, or by a reduction of hazardous substances and inputs, or by reducing material or energy intensity in production, consumption, and distribution. Also includes designing products for prolonged life. Waste prevention in this latter context extends the product life and acts as a diversion of waste flows.
Third-party verification	Where the certified company uses an independent certification body (that is accredited by a formal accreditation body) to verify conformity with the standard. (See first-party verification and second-party verification)
Treatment	Treatment options are listed in annex IV to the Basel Convention. This term is used in differing ways in different countries. For example, in some countries treatment includes any physical, chemical, biological or mechanical activity and in others it includes all recovery and final disposal operations.
Waste management	Handling, collection, packaging, labelling, transport, storage, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites and actions taken by an authorized dealer or broker.
Waste management hierarchy	Recognized by decision BC-10/2 as prevention, minimization, reuse, recycling, other recovery including energy recovery, and final disposal; in doing so, encouraging treatment options that deliver the best overall environmental outcome, taking into account life-cycle thinking.

General Policies and Legislation

Basel Convention

I. Introduction

1. This manual seeks to practically outline what should be in place to ensure a Party has the information and tools necessary to implement the Basel Convention and ensure ESM at a national level. It builds on current information and guidance on implementation and enforcement of the Convention.[1]

2. This manual is geared towards policy makers; legislators; focal points and competent authorities.

II. Policy principles and approaches related to ESM

3. When establishing general policies and legislation for the promotion of environmentally sound management of wastes, the following principles and approaches related to ESM should be taken into consideration. These are detailed in the Strategic Framework,[2] the ESM Framework[3] and the Rio Declaration,[4] short references as to how these relate to ESM are included below.

A. Precautionary

4. This approach means that where there are threats of serious or irreversible environmental damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

5. In the context of ESM, this generally means that if we are uncertain about the potential environmental damage that may be caused by waste related activities, we should take precautions to prevent damage occurring.

B. Prevention

6. This principle means that practical actions should be taken to reduce the waste quantity and/or the hazard potential and/or the hazardous content of products and materials prior to them becoming wastes.

C. Sustainability: principle of intergenerational equity

7. This principle means that the current generation should make sure that the health, diversity and productivity of the environment continues for the benefit of future generations.

D. Polluter pays

8. The "polluter pays" principle means that the costs of pollution and waste should be borne by those who cause the pollution or generate waste. National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment. For example, by promoting improved valuation,

[1] A tool developed in the Basel Convention context for the development of legal frameworks is the Manual for the implementation of the Basel Convention (available in document UNEP/CHW.12/9/Add.4/Rev.1 (annex) and at: http://www.basel.int/Implementation/LegalMatters/LegalFrameworks/Tools/tabid/2750/Default.aspx).

[2] Strategic framework for the implementation of the Basel Convention for 2012 – 2021 (Strategic Framework) (available in document UNEP/CHW.10/3 (annex)).

[3] Framework for the environmentally sound management of hazardous wastes and other wastes (ESM Framework) (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)).

[4] Strategic framework for the implementation of the Basel Convention for 2012–2021 (available in document UNEP/CHW.10/3 (annex)); Framework for the environmentally sound management of wastes (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)); Rio Declaration on Environment and Development (1992).

pricing and incentive mechanisms or by making sure that the price of products reflects the true costs of both production and disposal at the end of a product's life.

E. Public participation in decision-making

9. This principle means individuals should have the opportunity to participate in environmental decision-making processes. There are different opportunities to participate in decision-making, depending on the rights given to the public under different laws.

F. Access to information and to justice

10. This means providing individuals appropriate access to information concerning the environment that is held by public authorities. Effective access to judicial and administrative proceedings, including redress and remedy, should be provided.

G. Environmental justice

11. The goal of environmental justice is the fair treatment and meaningful involvement of all people regardless of race, colour, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.

H. Proximity/Least transboundary movement

12. Waste should be treated or disposed of as near as possible to the point where it is generated. This principle is derived from:

(a) Article 4, paragraph 2 (b) of the Basel Convention, which states that each Party shall take appropriate measures to ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal;

(b) Article 4, paragraph 2 (d), which states that each Party shall take appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes is reduced to a minimum consistent with the environmentally sound and efficient management of such wastes and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement.

I. Responsibility for ESM

13. This principle, based on Article 4 paragraph 10 of the Basel Convention, means that the responsibility for ESM of hazardous waste and other waste generated within a state cannot be transferred to another state.

J. Waste management hierarchy

14. The hierarchy provides a framework for waste management practices. Stakeholders should respect the waste management hierarchy (prevention, minimization, reuse, recycling, other types of recovery, including energy recovery, and final disposal).

15. The Strategic Framework for the implementation of the Basel Convention for 2012-2021[5] recognizes the waste management hierarchy and, in applying this hierarchy, encourages treatment options that deliver the best overall environmental outcome, taking into account life-cycle thinking.

III. Establishment of a framework for ESM (legal and policy)

16. The importance of establishing a comprehensive legal framework and policies, consistent with the above principles, has been highlighted on numerous occasions in relation to the Basel Convention.[6]

A. Legal framework

[5] ESM Framework, part II, paragraph 3 (a) (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)) recognizes the waste management hierarchy (prevention, minimization, reuse, recycling, other recovery including energy recovery and final disposal) as a guiding principle. See also EMS Framework, part IV on guiding principles.

[6] For example, ESM Framework, part V, section C on strategies to implement environmentally sound management.

17. Each Party should establish a legal framework, regulations and other measures to meet its obligations under the Convention to ensure ESM is implemented. Additionally, each Party should designate one focal point and one or more competent authorities.[7]

18. Each Party should provide a sufficient mandate and sufficient resources to enable the focal point and competent authority or competent authorities to fulfil their responsibilities under the Convention. This could be provided for in national legislation, for example.

19. Each Party should determine what regulatory infrastructure and enforcement framework already exists, as well as review the country's capacity to manage hazardous wastes in relation to the quantities of waste generated, to determine what arrangements are necessary to support the implementation of the Convention. Indicators to measure progress may include:

(a) Legal instruments or requirements to implement and enforce the provisions of relevant international and/or regional instruments are in place;

(b) Schemes at the national or regional level to foster continual improvement within the waste management sector have been developed and implemented;

(c) Checklists for inspectors to support regular inspections and enforcement have been developed and implemented.

Further information on such indicators of performance is available in the ESM Framework.[8]

B. Identify and engage key stakeholders

20. It is important to identify and engage both citizens (who bring knowledge and perspective) and technical advisory groups (that bring expertise) to support the development and sustainable implementation of national legislation and other measures related to ESM. Technical advisory groups could be comprised of such stakeholders as civil society, industry, academia and other relevant stakeholders. Consultation and engagement should be considered during development of any implementing legislation and measures, and maintained on an ongoing basis thereafter. Each Party should be mindful of the goal of environmental justice for the fair treatment and meaningful involvement of all people regardless of race, colour, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.[9]

21. Negative economic and environmental impacts of the informal waste collection and management sector on the efficacy of ESM strategies can be critical. Therefore, in creating national legislation and other measures related to implementation of ESM, the scope and effect of the informal sector should be understood and taken into consideration. Strategies should be developed for establishing channels of communication with the informal waste sector, as well as for providing economic and other incentives for transforming or formalizing their activities.

C. Synergies

22. Each Party should be mindful that waste is but one medium that should be addressed in a holistic fashion in terms of protection of human health and the environment. Measures and legislative provisions aimed at fostering the ESM of hazardous wastes and other wastes are interconnected with initiatives addressing other environmental mediums or threats to human health and the environment, whether on the national or international level.

[7] Article 2 of the Basel Convention defines the terms "competent authority" and "focal point".

[8] See ESM Framework, part VIII on indicators for the verification of performance.

[9] See ESM Framework, Annex I on guiding principles.

23. On the international level, the Party may wish to take into consideration interconnections with other related institutional mechanisms, such as the Stockholm Convention on Persistent Organic Pollutants (POPs), the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Strategic Approach to International Chemicals Management (SAICM), as well as the Minamata Convention on Mercury, among others.

24. As noted above, on the national level, legislation and regulations addressing waste should be considered holistically, and implemented in concert with legislation and regulations addressing the production of certain products; occupational safety and health (OSH); toxic substance control, including pesticides; emergency planning; public access to information; and/or legislation and regulations addressing all other environmental media including marine eco-systems.

IV. Practical arrangements for implementing ESM

A. Institutions

25. In order to implement the Convention, a number of institutional arrangements should be in place within each Party to ensure ESM including:[10]

(a) Administrative mechanisms/bodies to:

(i) Liaise with and inform relevant stakeholders;

(ii) Collect and disseminate data; and

(iii) Coordinate with the Basel Secretariat, other Basel Parties and other stakeholders as necessary with regards to transmission of information e.g. national definitions and reporting.

The competent authority and/or focal point could be established within such administrative mechanisms or bodies;

(b) Scientific and technical mechanisms/bodies to:

(i) Provide technical assistance to stakeholders;

(ii) Interpret and apply the Convention with regards to waste terms, lists, and definitions;

(iii) Administer permits, licenses, and authorizations noted below and outlined in the Manual on Permits, Licenses or Authorizations;[11]

(iv) Provide certification or accreditation as may be required under the national legislation; and

(v) Undertake periodic inspections of facilities pursuant to permitting, licensing and authorization procedures e.g. waste disposal facilities;

(c) Legal mechanism/body to:

(i) Develop the legal basis and mandates for other mechanisms and/or bodies;

(ii) Promote compliance; and

(iii) Enforce the provisions of the Convention, relevant national measures and synergistic aspects related to the Convention, such as management of hazardous substances, including mercury.

This mechanism or body may also be given responsibility for providing recourse or redress.

26. The Party may wish to ensure adequate staff are available (e.g. within the Ministry of Environment, customs and enforcement officials) with sufficient resources and mandate to administer, implement and enforce the Basel Convention, its provisions on ESM and related implementing laws or other measures. The judiciary should include professionals well versed in the provisions of the Basel Convention and related legislation and other measures.

[10] It is recognized that the implementation of ESM is an evolutionary process that takes time to achieve and that existing provisions can vary greatly from country to country and from facility to facility. The capabilities and challenges faced by least developed countries, developing countries and countries with economies in transition need to be considered.

[11] The manual is part of the set of practical manuals for the promotion of the environmentally sound management of wastes (draft available in document UNEP/CHW/CLI_EWG.4/INF/5 (appendix III)).

27. The Party may also wish to establish a mechanism to ensure coordination and cooperation between the relevant bodies involved in the implementation and enforcement of the Convention (e.g. a coordination committee involving representatives of concerned ministries).

B. Infrastructure

28. In addition to institutional arrangements and waste provisions, Parties should possess practical infrastructure on the ground in order to ensure ESM. This might include the following:

(a) Adequate tools (e.g. financial resources, software/hardware, analytical capability) to administer, implement and enforce the Basel Convention and related implementing laws or other measures;

(b) Adequate laboratory facilities and analytical capability for sampling and analysis;

(c) Occupational safety and health (OSH) clinics and adequately trained industrial hygienists (expertise available at low cost);

(d) Downstream residual management (e.g. waste treatment centres for POPs wastes, heavy metals waste, other hazardous waste and sanitary landfills, etc.).

V. Transboundary movement control system

29. The Basel Convention establishes a control system that governs transboundary movements (imports, exports and transit) of hazardous wastes and other wastes to ensure ESM of wastes under the scope of the Convention. Please see the Guide to the Control System[12] for further information and guidance.

VI. National level elements for ESM

30. The link between ESM and national legislation has been underlined within various documents.[13] In addition to the establishment of a legal and policy framework, and the practical arrangements mentioned in sections IV and V above, below are a number of specific elements that should be in place through legislation and other measures to ensure ESM in accordance with the Basel Convention.

A. Waste strategy and management policies and plans, including waste prevention and minimization

31. A Party should promote waste prevention and minimization. Please consult the Manual on Waste Prevention.[14]

32. A Party should develop and implement national/domestic waste strategy and management policies and/or plan(s) that are consistent with the Convention and include the elements necessary to implement ESM. These strategies, policies and plans could be associated with the development and implementation of legislation. The strategy and plan should be periodically reviewed to keep up to date with relevant advances in environmentally sound technologies and management practices.

B. Waste generators

[12] Guide to the control system: Instruction manual for use by those persons involved in transboundary movements of hazardous wastes (available in document UNEP/CHW.12/9/Add.3/Rev.1 (annex)).

[13] See e.g. Objective 2.1 of the Strategic framework for the implementation of the Basel Convention for 2012–2021 (available in document UNEP/CHW.10/3 (annex)).

[14] The manual is part of the set of practical manuals for the promotion of the environmentally sound management of wastes (draft available in document UNEP/CHW/CLI_EWG.4/INF/5 (appendix V)).

33. Policies and legislation should provide for waste generators to internalize costs associated with their production processes and policies, including through the following:[15]

(a) Cleaner or greener design and production by implementing industrial conversion processes where feasible;

(b) Waste prevention and minimization;

(c) Prior to production, research, design and innovation in production and delivery of services, especially impact assessment at end of life, and integrated design for reuse, repair, disassembling (when appropriate), recovery and recycling;

(d) Assurance that waste disposal facilities and carriers comply with applicable legislation and hold corresponding permits, licenses or authorizations, as appropriate;

(e) A requirement for confirmation from waste disposal facilities that wastes have been managed in an environmentally sound manner;

(f) Disclosure of information on generation and disposal, including storage, of wastes and information related to the use of hazardous chemicals and substances, their use in products and wastes, their risks and their management inside and outside the facility;

(g) As appropriate, a voluntary third-party environmental certification procedure, which may include an applicable EMS;

(h) An understanding of proper implementation of and compliance with the Basel Convention for transboundary movements of wastes.

34. Please consult part VI, section B of the ESM Framework.[16]

C. Waste carriers

35. A carrier is any person who carries out the transport of hazardous wastes or other wastes.[17] This includes those considered as "transporters" and "shippers". This manual focuses on off-site transportation falling within the scope of the Basel Convention. Off-site transportation of waste includes shipments from a waste generator's property to another location for disposal. Regulated off-site transportation includes shipments of hazardous waste by air, rail, highway, or water. Carrier regulations only apply to the off-site transportation of wastes.

36. A waste carrier should comply with the requirements associated with the national legislation and other measures implementing the Basel Convention, which should include the information to be provided in the movement document, required in accordance with annex VB of the Basel Convention and decision VIII/18.[18]

37. Carriers accepting waste from a generator or another transporter may need to store waste temporarily during the normal course of transportation. A transfer facility may include loading docks, parking areas, storage areas, and other similar areas where shipments are held during the normal course of transportation. A time-limit should be stipulated in regulations in terms of the amount of time a transporter may hold waste at a transfer facility.

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[15] Further elaborated in part VI, section B, sub-section 1 of the ESM Framework (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)).

[16] Available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex) and on the Basel Convention website at: http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMFramework/tabid/3616/Default.aspx

[17] Article 2 of the Basel Convention defines the term "carrier".

[18] Revised notification and movement documents for the control of transboundary movements of hazardous wastes and instructions for completing these documents (available in document UNEP/CHW.8/5/Add.6/Rev.2 (annex I, annex II)).

D. Waste disposal

38. To complement and enhance the permitting, licensing or authorization process(es), legislation and other measures should include requirements to ensure waste management facilities or services possess plans to provide a holistic system to ensure that wastes are managed and disposed in a safe and environmentally sound manner.[19]

39. The following elements should be considered in developing legislation, regulations and other measures relating to the regulation of facilities and stakeholders involved in ESM of wastes:

(a) Capacity:

Waste management facilities should demonstrate through a permitting, licensing or authorization programme that they possess the technical ability and capacity to treat the waste streams identified as wastes falling under the scope of the Basel Convention in an environmentally sound manner. The facility should follow the best available techniques (BAT) and best environmental practices (BEP). Key control features include measures to contain, monitor and treat any emissions, discharges or releases and appropriate control devices;

(b) Health and safety plans:

Programmes should be in place to define the responsibilities of staff; ensure they are knowledgeable about good housekeeping practices; and that they receive training on the safe and environmentally sound operation of waste management facilities, with the provision of personal protection equipment, among other requirements;

(c) Emergency action plans:

(i) Programmes should be in place to implement emergency preparedness and response plans should an emergency occur on-site at the facility or off-site during transportation;

(ii) An action plan should be developed to respond to emergencies or accidents. The plan should locate and provide emergency equipment at pre-designated spots in the facility. This equipment should include fire extinguishers and personal protection equipment (e.g. special clothing, face masks and respirators, spill absorbents, shovels) as required by the process and materials at the facility. This should be accompanied by employee training on proper use of personal protection equipment and guidance for the response to and remediation of a spill;

(iii) The plan should ensure prompt reduction of any adverse effects of an accident if one should occur. Training exercises should be carried out periodically to ensure readiness. Special handling requirements for the wastes managed on-site should be included;

(iv) The plan should include a procedure for public outreach and for notification of unusual occurrences (e.g. emergencies, spills, releases to the environment);

(d) Monitoring:

[19] Various technical guidelines have been developed under the Convention and are available on the Convention website at: http://www.basel.int/Implementation/Publications/TechnicalGuidelines/tabid/2362/Default.aspx.

(i) Waste generators should regularly inform the competent authority of the quantity and characteristics of hazardous wastes or other wastes generated, exported, imported and transiting through the territory in the previous year.[20] Further, the generator should regularly provide the competent authority with information on pertinent measures it has adopted relating to waste management as described above. Finally, the generator and other stakeholders if relevant should provide the competent authority with information on accidents which have occurred during the transboundary movement and disposal of hazardous wastes and other wastes and on the measures taken to deal with them;

(ii) Monitoring provides a picture of a facility's environmental performance and indicates processing problems. A system should be in place to monitor the performance of the waste management operations, for both record-keeping purposes and to detect discharges, releases, and accidents, and to take appropriate action if performance does not comply with targets. Monitoring should be analyzed and reviewed at regular intervals to provide information for decisions needed to improve the process and reduce potential impacts on environmental and human health;

(e) Record Keeping:

Stakeholders involved in waste management activities should develop and put in place systems for record keeping in terms of how the management operation is performing, including reporting discharges; emissions; accidents causing damage; or the potential for causing damage to workers' safety, health and the environment;

(f) Closure:

There should be a plan in place in the event of shutdown or closure of a facility managing wastes. This includes a plan for remediation of buildings and land and for financial insurance or guarantee that a proper shutdown will happen in an environmentally sound manner. In order to demonstrate "clean closure", an owner or operator should demonstrate that levels of contamination from hazardous wastes and other wastes at the facility do not exceed exposure levels contained in a country's regulations;

(g) Post-closure:

(i) Post-closure care should be undertaken at facilities where final disposal of wastes occurs. This would address the period after closure during which owners and operators conduct monitoring and maintenance activities to preserve the integrity of the disposal system. The post-closure period normally lasts for 30 years after closure is completed, but can be extended or shortened by the designated authority;

(ii) Post-closure care consists of two primary responsibilities: ground water monitoring and maintaining the waste containment system (e.g. covers, caps, and liners).

E. Permits, licenses or authorization to operate

[20] In order to enable the Party to report in accordance with Article 13 of the Basel Convention.

40. For more detailed information on permits, licenses and authorizations, please consult the Manual on Permits, Licenses or Authorization.[21]

F. Provisions for insurance

41. For more detailed information on insurance and liability, please consult the Manual on Insurance and Liability.[22]

G. Waste classification

42. Legislation should provide guidance for waste classification, including appropriate reference to and consistency with annexes I, II, III, VIII, and IX of the Basel Convention to assist stakeholders, e.g. waste generators, in properly identifying and classifying their waste to ensure proper management at all stages of the waste management process. Under the Convention, there are various provisions for determining wastes covered by the control procedures of the Convention and particularly hazardous wastes.[23] Pursuant to national law, it is normally the duty of the exporter or any other person (e.g. generator) engaged in exporting the waste, to prove, if necessary, that the waste in question does not possess or exhibit any of the hazardous characteristics, so that the waste will not be subject to control under the Convention.

H. Waste storage

43. Requirements should be in place to ensure that waste is properly stored in such a manner as to protect human health and the environment.[24] Such requirements should provide for proper storage in containers, tanks, drip pads or containment buildings. Hazardous waste containers should be closed and marked with the date that the storage began.

I. Emergency preparedness and employee training

44. Facilities managing or handling wastes should designate one or more emergency coordinator(s) to test and maintain emergency equipment. An emergency plan should also be developed, put in place and updated as needed, with formal written contingency plans and emergency procedures in the event of a spill or release. Facility personnel should be trained in the proper handling of hazardous waste through an established training programme.

J. Pre-transport requirements

45. Pre-transport regulations should be in place to ensure safe and environmentally sound transportation of wastes being shipped off-site from the point of generation for treatment, storage, or disposal. If the hazardous waste is treated on-site, pre-transport regulations would not be applicable, although other regulations may apply outside the scope of this manual.

46. Pre-treatment provisions should require appropriate packaging and labelling. This includes proper packaging to prevent leakage of wastes, particularly hazardous wastes, during both normal transport conditions and potentially dangerous situations (for example, if a drum falls off of a truck). Labelling of the packaged waste is necessary to

[21] The manual is part of the set of practical manuals for the promotion of the environmentally sound management of wastes (draft available in document UNEP/CHW/CLI_EWG.4/INF/5 (appendix III)).

[22] This manual is still under development by the expert working group on environmentally sound management.

[23] See section 2.2 of the Guide to the Control System (available in document UNEP/CHW.12/9/Add.3/Rev.1 (annex)).

[24] Various technical guidelines have been developed under the Convention and are available on the Convention website at: http://www.basel.int/Implementation/Publications/TechnicalGuidelines/tabid/2362/Default.aspx

identify the characteristics and dangers associated with the transport of the hazardous waste.

K. Tracking provisions

47. Provisions should be included for tracking waste shipments and receipt of waste, taking into account the information to be provided on the notification according to annex VA and the movement document according to annex VB of the Basel Convention.

L. Record keeping

48. Legislation and other implementing measures should ensure that adequate record keeping and reporting requirements are in place for all stakeholders involved in waste management. This would include transmitting relevant information to authorities, so as to facilitate transmission of information by the Party according to its national reporting obligations.

M. Public access to information

49. Parties should provide the public with appropriate access to information concerning ESM (e.g. government records on waste disposal facilities and waste transports, inspection records, notices of violations etc.).

N. Awareness raising and education

50. Access to information should be accompanied by active awareness raising and education. Parties have an important role to play in raising awareness of key issues concerning sustainable production and consumption in general, and ESM and TBM specifically. Awareness raising campaigns, targeting a specific part of the public, industry or society, are an example of awareness raising activities. Integrating training on ESM in school programmes is another example.

VII. Enforcement

51. Each Party has an obligation to take appropriate legal, administrative and other measures to implement and enforce the provisions of the Convention, including measures to prevent and punish conduct in contravention of the Convention.[25] National legislation should provide authority for enforcement bodies to impose administrative, civil and criminal sanctions. Penalties should be sufficient to serve as a deterrent. Provision should also be made to facilitate communication, coordination and cooperation between various national authorities that may have a role to play in implementing these provisions e.g. customs officials, competent authorities, prosecutors, environmental inspectorates, etc.

52. Additionally, as part of a Party's efforts in implementing the above obligations, national legislation should make provisions for take-back of illegal traffic of hazardous wastes and other wastes pursuant to Article 9 of the Convention.[26]

VIII. National reporting of hazardous wastes and other wastes

53. Under the Basel Convention, all Parties are required to report annually through the Secretariat, by completing a questionnaire, information required by the Convention regarding transboundary movements of hazardous wastes or other wastes, among others.

[25] Article 4, paragraph 4 and Article 9 paragraph 5 of the Basel Convention. See also Guidance Elements for Detection, Prevention and Control of Illegal Traffic in Hazardous Waste available on the Convention website at:

http://www.basel.int/Implementation/Publications/GuidanceManuals/tabid/2364/Default.aspx

[26] See also the draft Guidance on the implementation of the Basel Convention illegal traffic take-back provision (available in document UNEP/CHW.12/9/Add.2 (annex)).

This information is presented in an annual national report, which includes statistical tables of the data.

54. All Parties should periodically carry out checks to ensure that available data transmitted in the national reports is of the highest quality.

55. Further information and guidance on national reporting is available on the Basel Convention website.[27]

IX. Incentives

56. Please consult the document on private sector incentives.[28]

X. Additional information/References

Framework for the environmentally sound management of wastes
http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMFramework/tabid/3616/Default.aspx

Strategic framework for the implementation of the Basel Convention for 2012–2021
http://www.basel.int/Implementation/StrategicFramework/Overview/tabid/3807/Default.aspx

Rio declaration on environment and development (1992)
http://www.unep.org/documents.multilingual/default.asp?documentid=78&articleid=1163

Basel Convention manual for the implementation of the Convention (includes a checklist for the legislator)
UNEP/CHW.12/9/Add.4/Rev.1 (annex)

Basel Convention revised guide to the control system: Instruction manual for use by those persons involved in transboundary movements of hazardous wastes
UNEP/CHW.12/9/Add.3/Rev.1 (annex)

Guidance elements for detection, prevention and control of illegal traffic in hazardous waste
http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/Guidance/tabid/3423/Default.aspx

Draft guidance on the implementation of the Basel Convention illegal traffic take-back provision[29]

Instruction manual on the prosecution of illegal traffic of hazardous wastes or other wastes
http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/Guidance/tabid/3423/Default.aspx

Basel Convention training manual on illegal traffic for customs and enforcement agencies
http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/Guidance/tabid/3423/Default.aspx

[27] Further information available at:
http://www.basel.int/Countries/NationalReporting/OverviewandMandate/tabid/2314/Default.aspx

[28] See Report on assessing possible incentives to encourage the private sector to invest in environmentally sound management (draft version) (available in document UNEP/CHW.12/INF/6 (annex II)).

[29] For consideration and possible adoption at the thirteenth meeting of the Conference of the Parties in 2017.

Permits, Licenses or Authorizations

Basel Convention

I. Introduction

1. The permitting, licensing or authorization of installations and activities by designated authorities is essential for ensuring the environmentally sound management (ESM) of hazardous waste and other waste. This manual provides information on procedures and requirements associated with permits, licenses and authorizations.

2. This manual provides a general overview of how to establish procedures and requirements for facilities to obtain permits, licenses or authorizations to conduct waste management activities. Most important is the incorporation of these general rules into national legislation, and their practical implementation to ensure ESM. Only when adequate waste management practices are promoted can the necessary investments be made by facilities and other stakeholders to bring about environmentally sound waste management practices. Therefore, it is of the greatest importance to enable the main actors to access the necessary information: this manual provides an overview of the necessary information with some references.

II. Permits, licenses or authorization procedures

3. Waste management activities, sites and facilities should hold a permit, license, or other authorization (e.g. information provision, registration, as appropriate).

4. National, regional, or state legislation should clearly state the process by which facilities can obtain a permit, license or other authorization and the designated authorities to contact.

5. Waste management facilities may only operate if the operator holds a permit, license, or other authorization containing requirements and conditions and is in compliance with these requirements for the protection of the environment, as well as to avoid adverse effect on human health. Waste management facilities should adhere to provisions regarding the waste management hierarchy (prevention, minimization, reuse, recycling, other types of recovery, including energy recovery and final disposal), transportation, storage, accident prevention, site clean-up, and any other matters as specified in the permit, license or authorization.

6. Because of the connection between different permits, licenses or authorizations (e.g. for buildings, water discharge, or environmental protection in general), such procedures should be fully coordinated, and start with preliminary discussions with the operator before commencing the "official" permitting, licensing or authorization procedure according to legislation.

7. Costs for the application and approval procedure and monitoring by designated authorities can be covered by a fee payable by the operators of the permitted, licensed or authorized activity.

A. Planning

8. Ideally, the first stage of the permitting, licensing or authorization process begins with planning as follows:

(a) Designated authorities should be subjected to an obligation to develop a strategy and plan of the national/regional/local waste management infrastructure according to the needs of capacities (waste management plan) and in the course of spatial planning (including land use, urban, regional, transport and environmental planning, etc.).[1] This plan should be updated regularly, taking into account the evolution of the amounts and types of waste generated, the availability of waste management technologies, the implemented legislation and other policy related measures;

[1] Proper positioning and planning of the facility should be assessed by superimposing the spatial location on other maps such as road, rail, water supply, residences, community services, etc.

(b) The operators of waste management facilities and services should plan their activities prior to applying for a permit, license or authorization;

(c) The designated authority should be informed by the operator at a very early stage of its planning activities to ensure a timely and efficient permitting, licensing or authorization procedure;

(d) The designated authority should make an assessment of appropriate action to be taken in case of non-compliance of a facility's operations.

B. Application

9. The permit, license or authorization should be issued to legal person(s) registered within the provisions of the relevant national, regional, or state legislation;

10. The person(s) applying for a permit, license or authorization should submit an application including the following:

(a) Name of the company, registered office, management address;

(b) Location of the planned waste management site or facility/service;

(c) Type (e.g. Basel code and name), quantity and origin of waste to be accepted and managed;

(d) Type of waste management activities/operations for which the application is submitted;

(e) Methods and technologies that will be applied (BAT/BEP should be considered, as appropriate);

(f) Downstream waste management of residual wastes;

(g) Maximum capacity of the installations;

(h) The proposed technology and other techniques for preventing or, where this is not possible, reducing discharges/emissions/releases from the installation into each medium (air/soil/water);

(i) Indication of discharges/emissions/releases and resulting waste streams (type, description, quantities and destinations) to be expected;

(j) Measures planned to monitor discharges/emissions/releases into the environment;

(k) Safety and precautionary measures that will be taken as appropriate (and specification as to what these measures would address);

(l) Specific competencies and skills of employees;

(m) Measures and technologies for closure and after-care operations at waste management sites;[2]

(n) Adequate and appropriate contingency[3] and emergency plans;

(o) A report of an environmental impact assessment (EIA), if required;

(p) A detailed waste management plan, if required, including a description of:

[2] The need for closure plans and financial insurance or guarantees is determined by applicable laws and regulations, taking into consideration the level of risk. Closure plans should be updated periodically and financial insurance or guarantees should ensure that necessary measures are undertaken upon cessation of activities to prevent any environmental damage and to return the site of operation to a satisfactory state, as required by the applicable laws and regulations.

[3] For example, appropriate action to be taken in case of exceeding emission limits arising from the facility's operations.

(i) The waste management operation(s) or service(s) that will be carried out, including how wastes will be stored;

(ii) Sufficient measures to safeguard occupational safety and health (OSH);

(iii) (Appropriate and adequate) contingency and emergency plans;

(iv) Training programme for personnel;

(v) Monitoring and reporting programme;

(vi) Plan for closure and after-care;

(vii) Financial insurance or guarantees for liabilities resulting from accidents, emergency spills, environmental damages and/or clean-up, closure and after-care;

(viii) Other information according to the requirements of national, regional or state legislation.

11. The application should be submitted to the designated authority in the appropriate format according to the national, regional or state legislation.

C. Approval process

12. The designated authority should, among other things:

(a) Set time limits for each stage of the application and approvals procedure. Time limits will lead to reduced costs for applicants and ensure designated authorities are accountable and efficient;

(b) Decide whether the application and its accompanying documentation complies with regulatory requirements, including the environmental impact assessment (EIA) and an assessment of the implementation of BAT/BEP, if required by national, regional or state legislation;

(c) Inspect the site and discuss details with the applying person(s);

(d) Consult with other relevant authorities, and the public, if required, in order to gather facts and opinions that would contribute to the assessment of the application;

(e) If necessary ask the applicant to provide additional relevant information and/or undertake actions in order to comply with national, regional or state legislation to issue the permit, license or authorization for the particular waste management activity;

(f) Issue or refuse to issue the permit, license or authorization in accordance with national, regional or state requirements;

(g) If appropriate, lay down specific conditions for carrying out waste-related operations;

(h) Have a process in place to involve the public for example through public meetings, public review and commenting periods on the application for a permit, license or authorization.

D. Change/cancellation/termination of permits, licenses or authorizations

13. A permit, license or authorization can be changed, cancelled or terminated as follows:

(a) It can be amended or supplemented as deemed necessary by the designated authority;

(b) It can be amended or supplemented upon request of the permit, license or authorization holder;

(c) The operator should inform the designated authority of any planned change in the nature or functioning, or an extension of the installation that may have consequences for the environment. Where appropriate, the designated authority should update the permit, license or authorization;

(d) Substantial changes of an installation, waste management facility or service, should result in prior updating of the permit, license or authorization. In this case the operator should apply for an amendment to the permit, license or authorization;

(e) The permitted, licensed or authorized operations should be terminated, for example:

(i) After the expiration date of the permit, license or authorization (if no renewal is sought);

(ii) If violations are not addressed;

(iii) If the permit, license or authorization holder requests a termination.

III. Requirements

14. This section provides examples of requirements that are generally addressed with respect to the ESM of waste. Many countries take different approaches to establishing requirements in order to determine what may constitute ESM of waste.

A. Environmental requirements

15. Environmental requirements may include the following:

(a) Air emissions from thermal processing:

(i) Thresholds for: CO_2, SO_x, NO_x, fine dust, HCl, HF, dioxins and furans, gaseous and vaporous organic substances, expressed as total organic carbon (TOC), and heavy metals such as mercury, lead, arsenic, chromium;

Note: Dioxins are produced in small concentrations when organic material is burned in the presence of chlorine. Furans are also usually produced from thermal processes.

(ii) Quantities and maximum concentration of contaminants in the ashes;

(b) Waste water:

(i) Categorizing of discharged water/fluids and receiving medium (water body, sewer, water treatment plant);

(ii) Thresholds for: Biochemical oxygen demand (BOD), chemical oxygen demand (COD), mercury, cadmium, arsenic, lead, chromium, copper, nickel, zinc, cobalt;

(iii) Conditions for waste water from flue gas cleaning;

(iv) Thresholds of contaminants in the discharges/effluent (from waste water treatment) and in the ashes and slags (from thermal treatment) for final disposal;

(c) Other (odour, light, noise etc.):

Requirements for minimum standards of odour, light and noise;

(d) Landfill sites:

Quantities and concentration of contaminants in the ashes and slag due for final disposal in landfill.

B. OSH Requirements

16. Occupational safety and health (OSH) requirements may include the following:

(a) Hygiene and nuisance control;

(b) Sufficient measures to safeguard OSH:

Workers at waste management facilities or services should not be exposed to unacceptable OSH risks related to the content of the materials they are handling or discharges/emissions/releases from those materials and the equipment being used. The waste may include hazardous chemicals or toxic metals; it may generate discharges/emissions or release harmful dust. Workers may have to handle heavy loads, and be exposed to vibrations and the noise of machinery. Also, the risk of fire and explosion may exist in some cases. Consequently, adequate measures should be taken to avoid unacceptable OSH risks. Adequate measures should be established by national, regional or state legislation, in the authorization of facilities or by voluntary agreements;

(c) Facilitate periodic medical examination for employees;

(d) Facilitate periodic training of employees of waste facilities:

Personnel involved in the management of waste and materials, in particular hazardous waste and materials, should be capable and adequately trained to identify and properly handle the materials, operate equipment and

follow processes, eliminate risk situations, control releases and carry out safety and emergency procedures;

(e) Sufficient measures to ensure that children are not present within the grounds of the waste facility;

(f) Auditing committees should be established for different OSH and environmental issues.

17. In addition, the operators of the waste management facility should ensure protection of the communities surrounding the hazardous waste facility from air pollutants, wastewater discharges, groundwater pollution, noise, etc. during operation of the facility. There should also be a well-maintained follow-up programme by the designated authority as ensuring the health and safety of surrounding communities is often not part of the direct legal obligations of the owner or operator of the waste facility. Measures should be taken to prevent access by children to hazardous areas of a waste facility both during active operation and following closure of the facility.

IV. Monitoring and control

18. The facility should have a regularly updated plan for monitoring, reporting and responding to accidental or otherwise exceptional discharges/emissions/releases.

A. Monitoring

19. The facility should have standardized sampling and testing methods in order to facilitate the monitoring of its operations.

20. The facility should have a monitoring and reporting programme that covers:

(a) Relevant legal requirements;

(b) Compliance with applicable safety requirements;

(c) Groundwater quality, discharges and emissions, as well as other requirements established (relating to soil, noise, odour, etc.);

(d) Incoming, stored and outgoing waste, in particular for hazardous waste;

(e) Type and amount of wastes disposed of and disposal methods employed;

(f) Record keeping for a specified time.

B. Appropriate and adequate emergency plan

21. This plan should include emergencies such as accidents, fires, explosions, abnormal operating conditions, etc. The emergency plan should be based on the evaluation of existing and potential risks. This plan should be regularly tested and revised as appropriate, in particular after the occurrence of accidents or emergency situations.

C. Records and reports

22. There should be an obligation to provide information and reports which cover the requirements listed in section A on monitoring above: waste management facilities and services should maintain records on the generation, collection, transport or disposal of waste, its type and amounts. These records are to be made available to the designated authorities upon request for a specified time period.

D. Control

23. On a periodic basis, in accordance with national, regional or state legislation, designated authorities should inspect the facility(ies) or services for which the permit, license or authorization has been issued to verify compliance of the conditions for waste management with those stated in the permit, license or authorization issued and compliance with the requirements of the legislation.

24. Follow-up actions in case of non-compliance should be developed and documented. For example, measures that may be taken include the issuance of fines, temporary closure and other judicial and administrative penalties.

Certification Schemes

Basel Convention

I. Introduction

1. In recent years, voluntary standards that set out environmental performance criteria, often developed by private sector stakeholders, NGOs and standardization bodies, that may include government involvement, have become a tool in which industry can demonstrate their commitment to best industry practices to policymakers, regulators, customers and the general public. Sometimes governments may choose to make such standards mandatory through legislation.

2. Certification is a means to determine conformity with a standard and to recognize and reward those that adhere to such standards. Certification programmes typically rely on independent, third-party auditing – e.g. by an accreditation body – to verify conformity to a standard. Under the Basel Convention, such certification schemes have been recognized as a potentially valuable tool for promoting or facilitating the implementation of environmentally sound management (ESM) at the facility level.[1]

3. This manual provides guidance to policymakers, regulators, facility managers, consumers and the general public on how standards and certifications can help implement ESM globally. The topics of the manual include:

(a) How to use standards and certification to support the implementation of ESM;

(b) Environmental performance standards for waste management and for the support of ESM;

(c) Quality assurance of standards associated with waste management and for the support of ESM;

(d) Examples of standards that could address waste management and support/promote ESM.

II. Standards and certification for the support and promotion of ESM implementation

A. How to use standards and certification to support the implementation of ESM

1. At facility level

4. Voluntary schemes provide a tool for facilities and services to demonstrate their commitment to best industry practices to customers and thereby provide market advantages to the facility. Such schemes can allow for the gradual adoption by the sector, allowing the system to develop and improve over time. There may be a financial advantage or benefit for companies that decide to implement the standard before being required to do so. A clear example is in the United States (US) electronics recycling market where certification for companies is not required but customer demand, among other reasons, has promoted rapid growth in the use of voluntary standards (or environmental performance standards). Since 2010, over 530 US electronics recycling facilities have been certified to accredited standards, which covers, by volume, the vast majority of the US market.[2]

5. Facilities and services are required to comply with all applicable legal requirements for waste management, including national, regional and state requirements. Some governments may allow companies to use standards and certifications as an option or tool to demonstrate regulatory compliance.

6. Auditors can determine and verify a facility's conformance to the environmental performance or waste management standard in support of ESM. Thorough audits are

[1] Framework for the environmentally sound management of hazardous wastes and other waste (ESM Framework) (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)).

[2] Data provided by the Institute of Scrap Recycling Industries Inc. (ISRI).

typically performed periodically (i.e. every three years). Unannounced, annual spot checks can also help to improve conformity.

7. In general, standards and certification schemes benefit the environment and public health, but they also give rise to benefits for corporations which implement them. These include, but are not limited to:

(a) Enhanced compliance with legal requirements:

(i) Certification provides mechanisms and management systems to ensure compliance with all relevant legal requirements;

(ii) Enhanced compliance with international, regional and national requirements on transboundary movements of waste, can reduce cases of illegal traffic;

(b) Reduction of liabilities:

(i) Certification and audits can help to bring market players into compliance with standards and thereby promote ESM;

(ii) Reduced chemical exposure, less risk of spills and releases, and reduced environmental and public health risks associated with waste management may reduce insurance premiums;

(c) Economic benefits derived from increased plant efficiency:

Raw material savings; reduction in chemical use; prevention and minimization in waste stream generation; prevention and minimization in waste disposal costs; reduction in costs associated with hazardous waste disposal liability, including banking and insurance charges; more efficient and streamlined waste reporting and tracking, and raw material and waste handling. Some facilities and services reference an operational cost reduction of 10% on average after implementing a quality and environmental management system;[3]

(d) Trade benefits:

Enhanced communication throughout the supply chain and amongst governments facilitates a more efficient and profitable flow of materials;

(e) Improved safety:

Improved employee safety leading to better morale and productivity and improved community safety through reduced environmental and public health risks in a facility's local setting;

(f) Improved relationships with regulators and the public:

Recognition by regulators and the public of a facility's commitment to conducting its business in a manner exceeding regulatory requirements in its main area of focus as well as in worker safety, and protecting human health and the environment through its day-to-day business activities;

(g) Improved business relationships:

Recognition by partners in the supply chain of the facility's commitment to ESM of materials and wastes, and its reliability as a high quality source of services and supplies;

(h) Protection of stockholders and stakeholder interests:

Protection of facility investments and ongoing business value from reduced/eliminated costs of upsets (non-compliance fines and/or costs from clean-up from accidents or emergencies) and liabilities;

(i) Competitive advantage in the market place:

Certified companies attract more market share as customers seek responsible actors.

2. At governmental level

[3] Data provided by the Institute of Scrap Recycling Industries Inc. (ISRI).

8. Environmental performance standards and certification schemes that address waste management and/or which promote ESM can be used in a number of ways. Governments may choose to utilize voluntary certification and auditing schemes in support of certain standards as a compliance tool at the facility level.[4] Environmental performance standards addressing waste management or other specific key elements of ESM can be implemented voluntarily, allowing the private sector to provide oversight with accreditation and certification bodies and independent auditors. Governments may choose to utilize certification schemes as a compliance tool but need to ensure that their requirements are consistent with existing legal obligations international trade and waste management related regulations. However, many governments, particularly in industrialized countries, still rely on prescriptive legislation to ensure ESM at the facility level and, to date, do not require voluntary standards or certification. Depending of the nature of the sector, governments can choose to wait until such standards are sufficiently embraced in a specific sector before legally requiring them.

9. There is no "one size fits all" solution. Policymakers need to weigh the use of standards and certification with the needs of their particular country and region. In addition, policymakers may need to consider the individual needs of small and medium-sized enterprises (SMEs) with regard to the use of standards and certifications because of cost or feasibility. Governments may consider subsidizing the costs of certification in order for SMEs to achieve ESM at a low cost or may consider making certain allowances for SMEs to be able to confirm their adherence to certain elements of ESM without going through a potentially costly certification.

10. Appropriate hazardous waste and other waste management laws, emergency response capabilities, and general infrastructure may need to be considered to evaluate overall ESM in a country.

B. Environmental performance standards for waste management and for the support of ESM

11. Facility based standards that seek to confirm compliance with waste management requirements can demonstrate ESM and should include the following key performance elements:

(a) Top management commitment to a systematic approach:

Demonstrate commitment of top management to integrate a systematic approach to achieve ESM in all aspects of facility operations, which often includes an environmental health and safety management system;

(b) Environmental health and safety management system:

Utilize an environmental health and safety management system to plan and monitor the facility's environmental, health, and safety practices. Facilities and services may choose to have the system separately certified to an accredited management system standard;[5]

(c) Adherence to waste management hierarchy (prevention, minimization, reuse, recycling, other types of recovery, including energy recovery, and final disposal):

Written policies and procedures to manage waste based on the waste management hierarchy should be included;

[4] ESM Framework (available in document UNEP/CHW.11/3/Add.1/Rev.1 (annex)).

[5] In the event that domestic environmental management systems (EMS) are employed as part of a national approach to ESM, special consideration should be given to provide specifically tailored EMS systems for SMEs. Whatever EMS system will be selected, it is recommended that the government or large companies have a programme in place to provide support for SMEs in terms of information and know-how sharing.

(d) Confirm compliance with legal requirements associated with waste management:

Identify, assess and confirm fulfillment of applicable legal requirements, including but not limited to: legislation and regulations; decrees and directives; permits, licenses, or other forms of authorization, as for example certificates of approval; orders issued by regulatory agencies; and/or judgments of courts or administrative tribunals, including discharges and emissions to air;

(e) Implementation of non-waste related policies and/or technical guidance:

Facilities and services should also take into consideration other applicable policies, such as customary or indigenous law and treaties, protocols, Basel Convention technical guidelines, and BAT/BEP;[6]

(f) On-site environment, health and safety controls:

Contain facility practices and controls to protect worker and public health and safety and the environment under both normal and reasonably foreseeable circumstances (including accidents or emergency response);

(g) Risk assessment, prevention and minimization:

Address whether the facility has identified all actual and/or potential hazards and risks to public and worker health and safety, and the environment, that are associated with activities, products and services. Eliminate risks where possible, and in all cases strive to prevent and minimize actual and/or potential hazards and risks to public and worker health and safety, and the environment, that are associated with activities, products and services;

(h) Monitoring, recording and reporting programme:

Confirm that facility maintains records, monitors, tracks and evaluates its performance as appropriate for waste types and quantities managed;

(i) Insurance, closure plan and financial responsibility:

Confirm that the facility has adequate insurance provisions to cover the potential risks and liabilities associated with the nature and size of the facility's operations, as well as adequate legal and financial assurances for the proper closure of the facility;

(j) Awareness, competency and training:

Ensure employees have an appropriate level of awareness, competency and training with respect to the effective management of occupational risks;

(k) Corrective action:

Take appropriate action to address significant actual and/or potential risks to public and worker health and safety, and the environment and correct identified deficiencies in achieving ESM;

(l) Transparency and verification:

Provisions to support transparency and verification throughout each of the above building blocks, subject to appropriate protection for confidential

[6] For example, BAT and BEP guidance available on the Stockholm Convention website at: http://chm.pops.int/Implementation/BATBEP/Guidelines/tabid/187/Default.aspx; and EU reference documents available at: http://eippcb.jrc.ec.europa.eu/reference/. See also OECD Guidance Manual on Environmentally Sound Management of Wastes providing further information and available at: http://www.oecd.org/env/waste/39559085.pdf

business information, which can help facilities and services to provide public assurances that operations and activities are compatible with ESM. Such provisions may include for example participating in third-party audits and inspections;

(m) Downstream due diligence:

A demonstrated commitment, that a facility takes all practicable steps to avoid harm to other persons or their property within their downstream material flow should be provided. This can include, to the extent feasible, assurances that shipments of hazardous waste and other waste are limited to facilities and services that are authorized to dispose of such waste in an environmental sound manner.

C. Quality assurance of standards associated with waste management and for the support of ESM

1. Evaluation/Verification

12. Standards are only as good as their evaluation. Standards can be *first-party verified* (self-certified), *second-party verified*, where the certified company hires an audit firm to verify conformity with the standard, or *third-party verified*, by independent certification bodies that are accredited to certify to a standard by formal accreditation bodies. Although self-certification can be a beneficial approach, third-party verification may be better at ensuring conformity with the standard and send a stronger message of assurance to all stakeholders.

2. Accreditation, certification and auditing

13. Conformance with standards meant to support ESM can be verified or formally accredited by accreditation bodies. Accreditation is the independent evaluation of conformity assessment bodies (certification bodies) against standards to ensure their impartiality and competence. Accreditation bodies provide necessary oversight and quality assurance over certification bodies.[7]

14. Certification bodies should operate in a non-discriminatory manner so as not to impede or inhibit access by applicants. They utilize trained auditors to ensure conformity to the standard and are responsible for granting certifications and provide a publically available list of certified organizations.

15. A third-party, independent audit can be critical to ensure conformity with the selected standard throughout a facility. Performance standards addressing waste management that rely on continual improvement in the facility's practice allow auditors to work with facilities to conform to the requirements of the standard, especially if there is an issue of non-conformity that needs to be addressed. Thorough facility audits are typically performed every three years. Unannounced, annual spot checks can also help to ensure conformity.

3. General elements supporting ESM

16. Although all standards are not identical, standards utilized to help facilitate, promote or otherwise support facility level implementation of ESM should contain similar key elements. As there are unique differences between waste streams, standards designed to manage specific waste streams should account for any unique detail not covered in a general environmental performance standard. Therefore, it may be important to include specific waste management elements, norms, or any other factors for guiding the appropriate management of these specific wastes.

D. Examples of standards that could address waste management and support/promote ESM

[7] Lists of International Accreditation Forum members are available at: www.iaf.nu/

17. The following examples are not specifically applicable to waste management but include elements that can be adapted to ensure the environmentally sound management of wastes.

1. Management system standards[8]

(a) ISO 14001

18. ISO 14001, first released in 1996 and last revised in 2015, is a generic environmental management system (EMS) standard developed for any type of organization, large or small, and within any business sector.[9] The standard is based on a continual improvement and regulatory compliance model designed to help organizations: (1) minimize how their operations (processes, etc.) negatively affect the environment (i.e. adverse effects to air, water, or land); (2) comply with applicable laws, regulations, and other environmentally-oriented requirements, and (3) continually improve on the above.

19. ISO 14001 may be used for third-party certification. As of 2013, at least 301,647 certificates in 171 countries have been issued, with an increase of 6% with respect to the previous year.[10]

20. This international standard has been revised in 2015 to be aligned to a high level structure for all management systems standards. The new version of 2015 incorporates some updated concepts to the previous standard such as life-cycle thinking, community involvement, risk assessment and will give greater importance to the governance and interested parties of the organization, among others.

(b) EU Eco-Management and Audit Scheme (EMAS)

21. EMAS is a management instrument developed by the European Commission for companies and other organizations to evaluate, report, and improve their environmental performance.[11] EMAS is open to every type of organization eager to improve its environmental performance. It spans all economic and service sectors and is applicable worldwide. The requirements of ISO 14001 are an integral part of EMAS. EMAS's requirements are more demanding than ISO 14001 concerning performance improvement, legal compliance and reporting duties.

22. Currently, more than 4,500 organizations and approximately 8,150 sites are EMAS-registered worldwide. Among them are many multinational enterprises and smaller companies as well as public authorities.

(c) Recycling Industry Operating Standard (RIOS™)

23. RIOS is the recycling industry's management system standard for quality, environment and health and safety. Specifically designed for the recycling industry, RIOS integrates the key operational elements found in other standards, such as ISO 9001 (quality), ISO 14001 (environment), and OHSAS 18001 (health and safety), bringing them together into one streamlined management system. There are currently 101 facilities certified to RIOS. RIOS is accredited by ANAB (ANSI-ASQ National Accreditation Board) and requires an independent, third-party audit in order to obtain certification.

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[8] The ESM framework sets out guiding principles (part IV and annex I) and strategies to implement ESM (part V, section C). The framework further contains references to a number of standards and certification schemes (annex II) (available in document UNEP/CHW.11/3/Add.1/Rev.1).

[9] Further information on the ISO 14001 standard is available at: http://www.iso.org/iso/home/standards/management-standards/iso14000/iso14001_revision.htm?= ; and https://committee.iso.org/sites/tc207sc1/home/projects/published/iso-14001---environmental-manage.html

[10] ISO Survey of Management System Standard Certification of 2014 available at: http://www.iso.org/iso/iso_survey_executive-summary.pdf

[11] Further information on EMAS available at: http://ec.europa.eu/environment/emas/index_en.htm

2. Voluntary accredited environmental performance standards addressing specific waste/material streams

24. Below are several examples of accredited standards that incorporate the key elements of ESM for the target waste stream. These standards can help a facility, located anywhere in the world, to demonstrate conformity to key elements of ESM.

(a) R2:2013, Responsible Recycling (R2)™

25. The Responsible Recycling (R2) Standard for Electronics Recyclers is a set of specifically designed guidelines for use by electronics recyclers to promote better environmental, health and safety, and security practices when recycling waste electronics. There are currently 521 facilities in 14 countries that are certified to R2. This standard is accredited by ANAB (ANSI-ASQ National Accreditation Board) and requires an independent, third-party audit to demonstrate conformity in order to be granted a certification.

(b) Electronics Product Stewardship Canada (EPSC) Recycling Standard

26. All electronics recyclers seeking to operate under the industry-funded Electronics Product Recycling Association (EPRA) programmes in Canada must be audited and approved by the Recycler Qualification Office to meet the requirements of the EPSC Electronics Recycling Standard (ERS). Certification to the internationally recognized Sustainable Electronics Recycling International (SERI) Responsible Recycling (R2) Standard for electronics recyclers is a prerequisite to the EPSC Electronic Recycling Standard, in addition to compliance with other Canadian-specific requirements. SERI's R2 Standard ensures accreditation through a third party certification body. EPRA's Recycler Qualification Office (www.rqp.ca) maintains a list of approved recyclers that are permitted to receive EPRA material. Electronic Products Recycling Association is the industry-led, not-for-profit organization that operates regulated recycling programmes across Canada to ensure that end-of-life electronics are handled in a safe, secure and environmentally-sound manner.

(c) e-Stewards®

27. The e-Stewards standard is for use by organizations that perform electronics recycling, processing, asset management, and refurbishment operations. The standard incorporates Basel Convention definitions and requirements, including the Basel Ban Amendment and also requires companies to be certified to ISO 14001. The e-Stewards standard requires an entire company and all of its facilities to be certified, and not just individual facilities.

28. This standard is an example of where NGOs and non-state actors support the use of voluntary environmental performance standards by participating in or contributing to their development and helping to maintain the quality through assistance with implementation at the facility level.

(d) WEEELABEX

29. WEEELABEX (Waste Electrical and Electronic Label of Excellence) standards were developed by the WEEE Forum in cooperation with stakeholders from the producers' community and processing industry and were introduced in April 2011. They include standards on collection, logistics and treatment of WEEE and monitoring procedures to guarantee harmonized conformity verification in EU and European Free Trade Association (EFTA) member states. They are in line with the legislative requirements of the EU directive on WEEE.[12]

30. The standards require a management system to be in place for environment, health and safety purposes and which addresses the requirements for all treatment

[12] Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) available at : http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012L0019

operations, including preparing for reuse, handling, sorting, storage and treatment of WEEE (including the full treatment of hazardous fractions). In the development of the standards, the BAT for waste treatment and recycling developed in Best Available Techniques Reference (BREFs) documents have been taken into consideration. The standards further include requirements concerning specific types of WEEE such as temperature exchange equipment, cathode ray tubes (CRTs) display appliances, flat panel displays, lamps and others.

31. The audits of "conformity verification" are conducted by auditors trained by the WEEELABEX Organization which was created to help with the implementation of these standards across Europe. The WEEELABEX Organization requires third-party verification of conformity (and not certification). Second-party verification is also allowed but only for a transition period. Facilities verified under the standard are identifiable through a visual identifier (or mark or quality label) issued by the WEEELABEX Organization.

(e) European standards for the treatment of WEEE

32. In application of the EU directive on WEEE (2012/19/EU), the European Commission mandated the European Standardisation Organizations (ESO), to develop standards for the treatment (including recovery, recycling and preparing for reuse) of WEEE.[13] These standards are being developed by the European Committee for Electrotechnical Standardization (CENELEC), within its Committee CLC/TC111X (Environment) Working Group 6.

33. In executing this mandate, in March 2014 CENELEC published the standard EN 50625-1 (Collection, logistics and treatment requirements for WEEE - Part 1: General treatment requirements). This standard contains general requirements applicable to the treatment of all types WEEE. These general requirements will be supported by other standards covering particular treatment requirements for lamps, flat panel displays, CRTs, photovoltaic panels and other equipment containing volatile fluorocarbons or volatile hydrocarbons. In particular the standards to be developed are the following:

(a) EN 50625-2-1: Collection, logistics & treatment requirements for WEEE - Part 2-1: Treatment requirements for lamps;

(b) EN 50625-2-2: Collection, logistics & treatment requirements for WEEE - Part 2-2: Treatment requirements for WEEE containing CRTs and flat panel displays;

(c) EN 50625-2-3: Collection, logistics & treatment requirements for WEEE - Part 2-3: Treatment requirements for WEEE containing volatile fluorocarbons or volatile hydrocarbons;

(d) EN 50625-2-4: Collection, logistics & treatment requirements for WEEE - Part 2-4: Treatment requirements for photovoltaic panels.

34. Under the standards, treatment facilities have to be certified by an accredited conformity assessment body following an audit. The conformity assessment body shall be accredited by a European accreditation body in accordance with EU Regulation (EC) No 765/2008. Certified facilities hold a certificate of conformity to specific standard(s).

[13] EC DG ENV, Mandate to the European Standardisation Organisations for standardisation in the field of WEEE (Directive 2012/19/EU (WEEE)), 24 January 2013, Ref. M/518 EN, available at: http://ec.europa.eu/environment/waste/weee/pdf/m518%20EN.pdf

III. Additional information/References

Accredited management system standards:

ISO Standards
www.iso.org/iso/home.html

ISO 14001 standard
http://www.iso.org/iso/iso_catalogue/management_and_leadership_standards/environmental_management/iso14000

British Standards Institution, OHSAS 18001 Occupational Health and Safety Management
http://www.bsigroup.com/en-GB/ohsas-18001-occupational-health-and-safety/

European Union Eco-Management and Audit Scheme (EMAS)
http://ec.europa.eu/environment/emas/index_en.htm

Recycling Industry Operating Standard (RIOS)
http://www.certifymerecycling.org

Accredited ESM certification schemes:

Certification Programs for Electronics Recyclers
http://www.epa.gov/wastes/conserve/materials/ecycling/certification.htm

"R2" Responsible Recycling Practices for use in Accredited Certification Programs, an accredited standard governed by R2Solutions
www.r2solutions.org/

Electronic Product Stewardship Canada Recycling Standard
http://www.epsc.ca/index.php?option=com_content&view=article&id=14&Itemid=24&lang=en

e-Stewards standard for responsible recycling and reuse of electronic equipment
http://e-stewards.org/certification-overview/

WEEELABEX
http://ec.europa.eu/environment/waste/weee/data_en.htm, and http://www.weeelabex.org/

Mandate to the European standardisation Organizations (ESO) for standardization in the field of Waste Electrical and Electronic Equipment (WEEE) (Directive 2012/19/EU (WEEE)), 24 January 2013, Ref. M/518 EN
http://ec.europa.eu/environment/waste/weee/pdf/m518%20EN.pdf

Appendix V

Waste Prevention

Basel Convention

I. Introduction

1. This manual provides stakeholders with general guidance on waste prevention principles, strategies and possible measures and tools. It provides examples and gives references to already existing information and experience.

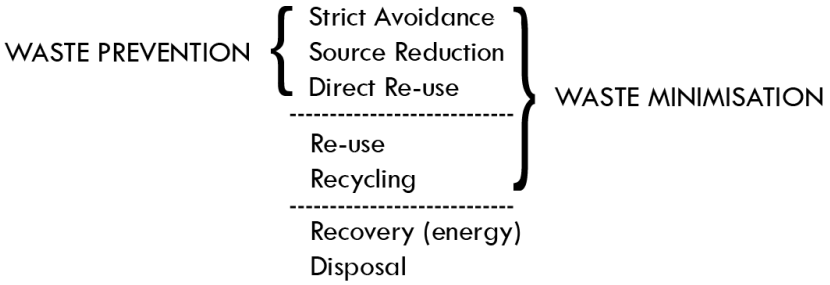
2. This manual is aimed at all groups of stakeholders, especially governmental authorities working on national strategies and plans related to the environmentally sound management (ESM) of hazardous wastes and other wastes, but also commercial and private waste generators interested in measures to reduce the generated amounts and/or hazard potential of waste. The private sector is also a key partner and stakeholder in waste prevention strategies.

3. This manual is an introduction to waste prevention issues. It includes a definition, general information, concrete measures and tools, and references to relevant sources for further information.

II. Role of waste prevention

4. Waste prevention includes practical actions that reduce the waste quantity and/or the hazard potential and/or the hazardous content of products and materials *prior to* them becoming wastes.

5. Waste prevention is fundamentally different from all other activities within the waste management hierarchy as they are implemented *after* products or materials become wastes. Waste prevention strategies and measures occur prior to waste management, as part of strategies and actions promoting or even mandating environmentally sound production, trade and consumption. While some stakeholders may define their respective waste management hierarchies in slightly different ways, this manual references the general concept of a waste management hierarchy as illustrated below.



6. Waste prevention is the highest priority in the waste management hierarchy. Waste prevention actions at the top of the waste management hierarchy, are in the first instance positioned to eliminate the need for recycling, energy recovery or disposal, and secondly, they avoid or reduce extraction of primary resources from nature (resource protection). Waste prevention shifts waste management policy from a merely end-of-life approach aimed at pollution remediation and best practice recovery and recycling, to sustainable materials management, aimed at avoidance of the depletion of natural resources, pollution and of energy use.

7. Waste prevention may involve the following strategies:

(a) *Strict avoidance* involves the complete prevention of waste generation by elimination of the need for a product, or material, or by a reduction of hazardous substances and inputs, or by reducing material or energy intensity in production, consumption, and distribution.[1] Strict avoidance also includes designing products for

[1] Strategic Waste Prevention, Organisation for Economic Co-operation and Development (OECD) Reference Manual (available in document ENV/EPOC/PPC(2000)5/FINAL).

prolonged life. Waste prevention in this latter context extends the product life and acts as a diversion of waste flows;

(b) *Source reduction* involves altering production processes to minimize the use of toxic or harmful substances and/or minimizing material or energy consumption and/or maximally substituting primary raw materials with secondary raw materials that result from high quality recycling.[2] Waste prevention in this context reduces or eliminates waste and pollution at source through process changes;

(c) *Direct reuse* means the using again of a product, object or substance that is not waste for the same purpose for which it was conceived without the necessity of repair or refurbishment;[3]

(d) Where waste prevention is practiced at the industrial level rather than at the consumer or household level, it is known as *clean* or *cleaner production*.

A. Waste prevention in the context of the Basel Convention

8. Waste prevention is referenced in the third recital of the preamble of the Basel Convention, which affirms that "the most effective way of protecting human health and the environment from the dangers posed by hazardous wastes and other wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential".

9. In Article 4, paragraph 2 (a) of the Convention, waste prevention is set out as an obligation of the Parties to "ensure that the generation of hazardous and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects". Many Basel guidance documents have cited waste prevention as an essential aspect of ESM and as appropriate to be included in the preparation of technical guidelines, but no concrete guidance on waste prevention strategies, tools or measures was ever incorporated.

10. Most recently, the Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes (2011) noted "that prevention and minimization of hazardous waste and other wastes at source are a critical stage of the waste management hierarchy".[4]

III. Strategies and tools

11. Waste is generated from industrial, commercial and consumer activities throughout the life-cycle of materials and products. Therefore, a successful waste prevention strategy targets all relevant stakeholders throughout all life stages of a material[5] or a product in order to effectively meet waste prevention objectives.

12. There are three essential strategies that have been widely used to prevent waste from industrial, commercial and consumer activities. These are: education, motivation and legislation. These strategies can work together and are often most successful when integrated into a comprehensive approach that educates, motivates and mandates preventative measures or actions:

[2] Ibid.

[3] This definition stems from the Revised draft glossary of terms (draft version of 22 September 2016), as adopted at the third meeting of the Small Intersessional Working Group on Legal Clarity (available in document UNEP/CHW/CLI_SIWG.3/3 (annex, section II)).

[4] Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes (2011) (available in document UNEP/CHW.10/28 (annex IV)).

[5] For the purposes of this manual, a material can be defined as any substance that is mined, reclaimed, grown, processed, produced, distributed, used, discarded or reprocessed, or any object (product) that is produced, distributed, used, discarded or reprocessed, including the derived wastes.

(a) Educate for change through public awareness efforts to encourage behavioural change;

(b) Motivate for change through measures that incentivize change or disincentivize the status-quo;

(c) Mandate change through regulatory action;

(d) Promote innovation.

13. All four strategies can be employed at various life-cycle stages of materials and products to promote waste prevention by engaging in strict avoidance, source reduction and direct reuse actions.

A. Information, education and awareness strategy

14. Creating awareness among the general public as well as the business community is fundamental to changing behaviour and introducing new attitudes and habits about the way people consume resources and generate waste. Sharing practical information and guiding tools about how individuals or companies can prevent and reduce waste in their daily lives, is a critical first step.

(a) Awareness raising strategies for the public:

(i) Awareness raising strategies for the public employed by governments, NGOs, industry and other stakeholders, have been widely successful in transferring knowledge about life-cycle, environmental and other benefits. Information campaigns about prolonging product use, through choosing durable rather than disposable products, like refillable water bottles, reusable tea or coffee cups or reusable shopping bags are but one example. Such information campaigns are a prime example of where public awareness activities over the past decade have led to a transformational shift in attitudes and behaviours away from single use bags or containers. Another example is the policy of several schools to provide drinking water to their students and urging them not to bring packaged beverages to school;

(ii) Eco-labelling is another important example of a tool to raise public awareness. Eco-labels help consumers identify environmentally preferable products through voluntary labelling programs. Product labels advertising less use of toxic or harmful inputs into products such as lead-free paints, phosphorous free detergents and mercury-free light bulbs or thermometers are all examples. Report cards grading consumer products on environmental impacts is another similar approach. The Electronic Product Environmental Assessment Tool (EPEAT)[6] provides a comprehensive list of computer equipment brands and models that use less toxic inputs among other environmental criteria. It identifies computers, displays, imaging equipment and televisions that have environmentally preferable attributes, including the strict avoidance of notable hazardous constituents from production. Consumers are thus conveniently and accurately informed to be able to easily make choices which prevent hazardous waste;

(b) Providing information and technical advice to enterprises:

(i) Providing information and technical advice to enterprises can sometimes be all that it is necessary to initiate waste prevention technologies and management processes. For example, in a cleaner production programme in Thailand, some universities send out students as interns to producers in order to assess and make a recommendation on how to reduce resource inputs, energy and waste. This is an educational programme for students while at the same time raising awareness among producers. Often, waste prevention results in greater efficiencies and reduced disposal costs. Part of the awareness raising then involves explaining the return on investment to process and product changes. Much work has been done already examining industrial processes for their waste prevention potential. These efforts are often characterized as Clean or Cleaner Production.

B. Motivation strategy

15. Motivating strategies aim to provide incentives to induce behavioural changes that prevent waste. These can be ‘hard’ measures like legislated financial incentives, or ‘soft’ measures that do not require laws.

16. A hard stimulus is to require the internalization of costs by invoking the *polluter pays principle*. This pre-loads environmental costs of generated wastes onto the waste generator. Ensuring that all costs for the ESM of waste are internalized into the prices of a product gives an incentive to reduce the amount of waste generated and its hazardous characteristics.

[6] Further information available at: www.epeat.net

17. *Extended producer responsibility* (EPR) is a policy instrument whereby producers should take financial responsibility for products that have become waste, thus incentivizing lowering environmental liabilities and costs. EPR can also be reflected in national or sub-national legislation. Likewise, advance recovery fees or deposits to ensure prolonged reuse of products or packaging is a well-known mechanism to prevent waste generation.

18. Product longevity and strict avoidance can be enhanced by promoting *leasing of products* rather than selling them. Corporations that lease rather than sell products have more of an incentive to ensure long-life and less environmental liabilities as they retain ownership and costs at the waste stage. For example, a company that leases carpets to an office or household will be more likely to ensure that the carpet lasts a very long time and uses less toxic inputs so that they can recycle or dispose of it more easily.

19. Financial stimuli could also be created by raising taxes on wasteful products or reducing taxes on lower waste products. For example, a *tax incentive* for the purchase and installation of renewable energy technologies that reduce energy consumption and waste generation are one such stimulus strategy. The financial stimulus subsidizes upfront costs, and ultimately prevents waste from being generated at source by reducing demand for conventional energy sources that are fossil fuel intensive. Financial incentives in the form of *cash rebates* have also been successful when offered to consumers when purchasing products that meet specific environmental compliance targets.

20. Again, transforming a facility or installation to a cleaner production unit offers great potential of increased profits, making the investments worthwhile on the longer term.

21. Finally, incentives can include non-financial ones such as *awards or recognition* for well performing individuals or companies. This gives them positive social visibility and improved reputation which creates motivation for them to continue or for others to follow suit.

C. Mandating strategy

22. Regulatory strategies, legislating directly against waste and hazard generation, are often a vital part of a comprehensive waste prevention strategy. They can take many forms, including creating bans on the use of hazardous materials in production (strict avoidance) as well as imposing limits on the volume of waste allowed to be generated (source reduction) or landfill bans. With industry at the helm of making design and production decisions that affect all other product life-cycle stages, industry is often a target for regulatory strategies. But consumers too can be required to use less wasteful or harmful methods of disposal such as landfill bans on hazardous household products. Such prohibitions can incentivize waste prevention.

23. Sustainable design requirements, producer responsibility initiatives, environmental controls through permitting and take-back mandates are all examples of regulatory strategies.

24. Other regulations have sought to restrict the use of hazardous substances in new products or limit the volume of waste generated, such as emissions targets for power production. A well known example of this is the European Union directive on the restriction of the use of certain hazardous substances (ROHS)[7] that seeks to ensure that electronic products sold on the European market contain less hazardous substances. Another example is the EU directive establishing a framework for the setting of eco-design requirements for energy-related products.[8] These restrictions, limits and

[7] Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, available at: http://eur-lex.europa.eu/legal-content/FR/TXT/?uri=celex%3A32011L0065

[8] Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, available at: http://eur-lex.europa.eu/legal-content/FR/ALL/?uri=CELEX%3A32009L0125

requirements promote clean alternatives and the prevention of waste through strict avoidance in the first and source reduction in the latter case.

D. Promoting innovation

25. Promoting, funding and rewarding waste prevention innovation is also a vital part of any comprehensive waste prevention strategy. Research institutions, academia, as well as industrial actors themselves are often the cradle of new technologies, creative policy ideas and innovative societal transitions and should be encouraged.

IV. Measures and tools

26. Measures and tools promoting waste prevention are principally initiated on a government level (governments, agencies, municipalities etc.). These ideally result in concrete actions taking place at the level of waste generation by enterprises and private persons to prevent waste at source.

27. Examples of measures and tools are:

(a) Policy measures and tools (for governments):

(i) Development of a comprehensive waste prevention plan by authorities including educational, motivational, and mandatory measures as well as measures to promote innovation;

(ii) Creating a public and corporate awareness campaign on waste prevention methods;

(iii) Development and application of systems of indicators for benchmarking and measuring waste prevention progress;

(iv) Identification of product-specific eco-design or environmental performance requirements relating to waste-preventing product design;

(v) Requiring some form of producer responsibility for waste management;

(vi) Legally binding eco-design or environmental performance requirements;

(vii) Create legislation limiting use of hazardous substances (e.g. EU ROHS directive mentioned above);

(viii) Banning non-recyclable or single-use packaging or products where appropriate;

(ix) Adaptation of the implementation aids and guidance tools for installations subject to licensing in line with the best available techniques (BAT) on waste prevention;

(x) Requiring implementation of waste prevention obligations in new corporate and public buildings and facilities;

(xi) Reduction of counterproductive subsidies;

(xii) Support programmes and measures to implement waste prevention concepts and technologies;

(xiii) Taxes on waste-intensive products;

(xiv) Consideration of waste prevention aspects in public procurement;

(xv) Mandate eco-labelling;

(b) Voluntary measures and tools (for consumers and private sector):

(i) Research into waste-preventing technologies and usage concepts for your household or business;

(ii) Industrial and household process/modifications;

(iii) Information sharing fora about sustainable design and clean production methods;

(iv) Industrial agreements and cooperation for standardization to support waste prevention;

(v) Agreements between industry/commerce and government offices on waste prevention;

(vi) Extending existing environmental management systems to include waste prevention tactics, methods and reporting;

(vii) Fix your own equipment when it needs repair;

(c) General measures and tools (government or private sector):

(i) Promotion of product service (leasing) systems;

(ii) Promotion of and education on cleaner production/waste prevention;

(iii) Practical introduction and implementation of waste prevention and management concepts in schools;

(iv) Develop waste prevention campaigns for all institutions and households, businesses;

(v) Changing procurement and consumption to purchase greener, less wasteful or toxic products;

(vi) Encouraging the reuse or multiple use of products (second-hand merchandise);

(vii) Support of repair networks (repair cafés, reuse centres, etc.) or businesses;

(viii) Development of quality standards and manuals for reuse and repair;

(ix) Cleaner events (e.g. in sport or music).

V. Challenges

28. Waste prevention at source represents a paradigm shift. Waste prevention requires a new way of thinking from the prevalent “buy, use and dispose” mentality our society has promoted. Behavioural change can be a slow process. Moving away from traditional thinking is always difficult, and this is particularly so when our marketplace often rewards those that consume and produce waste more than reduce it. Consumption brings profit to many. The resistance to change or minimize consumption often comes from the fear that the economy will stagnate if consumption and waste generation is minimized.

29. *Production and consumption patterns* need time and new businesses to develop that will seek new profits from waste prevention and its benefits and efficiencies. Companies may not initially recognize the potential benefits that may come with e.g. cleaner production. Currently, companies that make the effort to improve their performance may often suffer from the lack of a level playing field with companies that do not internalize certain costs or work informally.

30. *Lack of information* and education is in many cases a fundamental reason for not making better use of resources and implementing waste prevention or clean production. It is not a lack of know-how as much as it is a lack of awareness that lies at

the root of change. It is vital to incentivize the spread of information on the proper production processes, products or services that support waste prevention.

31. *Legislative limits, related to territory or competency*, in many cases inhibit the possibilities of public authorities to intervene in production and consumption decisions, like sustainable design. On the other hand companies are often discouraged to show in a transparent manner the environmental impacts they have and act to remediate because of possible penalizing by the authorities. Assisting these companies from an authorities' side rather than punishing them may result in better performance and eventually waste prevention.

32. *Bureaucratic barriers* may often occur when government or industry departments working on waste develop their policies isolated from those working on green design. This creates a fundamental disconnect and prevents a feedback mechanism in design and public policy considerations.

33. *Rebound effects* are a general problem of environmental measures. A measure to prevent a certain waste flow may well cause other waste flows with related or other environmental adverse effects. A thorough preparation and insight into all aspects of any measure or initiative minimizes the risks on rebound effects.

34. *Measuring success* can be difficult, but quantitative indicators are helpful and often necessary to measure the effects of waste prevention measures and efforts to ensure their continued support. They are also necessary to formulate quantitative targets. There are many tools and approaches developed by countries, regions, NGOs and the private sector that may prove useful to other countries and stakeholders wishing to implement measurement indicators and targets for waste prevention.

VI. Additional information/References

35. This section does not aim to be exhaustive, but rather gives some initial references to the reader to start his or her discovery of waste prevention strategies:

(a) Publications:

(i) European Environment Bureau (EEB): Creating an Efficient Waste Prevention Programme http://www.eeb.org/EEB/?LinkServID=A18351AC-5056-B741-DBC96B7204BF4AA1&showMeta=0

(ii) EEB: International Waste Prevention and Reduction Practices http:// http://www.eeb.org/

(iii) EU: Waste Prevention Handbook http://ec.europa.eu/environment/waste/prevention/pdf/Waste%20Prevention_Handbook.pdf

(iv) Eu Waste Prevention Guidelines http://ec.europa.eu/environment/waste/prevention/guidelines.htm

(v) EU: Waste Prevention Best Practices Fact sheets
http://ec.europa.eu/environment/waste/prevention/practices.htm

(vi) EU: Taking sustainable use of resources forward: A Thematic Strategy on the prevention and recycling of waste
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52005DC0666

(vii) Germany: Waste Prevention Programme
http://www.bmub.bund.de/fileadmin/Daten_BMU/Pools/Broschueren/abfallvermeidungsprogramm_en_bf.pdf

(viii) OECD: Reference Manual on Strategic Waste Prevention
http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=env/epoc/ppc(2000)5/final

(ix) OECD: Towards Waste Prevention Performance Indicators
https://www.oecd.org/env/waste/1954291.pdf

(x) UK: Waste Prevention is Better than Cure
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265022/pb14091-waste-prevention-20131211.pdf

(xi) UK: Establishing the Behaviour Change Evidence Base to Inform Community Based Waste Prevention and Recycling
http://www.brooklyndhurst.co.uk/establishing-the-behaviour-change-evidence-base-to-inform-community-based-waste-prevention--recycling-_60.html

(xii) UNIDO CP Toolkit
http://www.unido.org/resources/publications/safeguarding-the-environment/industrial-energy-efficiency/cp-toolkit-english.html

(xiii) US: Source Reduction Program Potential Manual
http://infohouse.p2ric.org/ref/05/04278.pdf

(xiv) Waste & Resources Action Programme (WRAP) Household Waste Prevention Toolkit
http://www.wrap.org.uk/

(b) Links:

(i) European Environment Agency
http://www.eea.europa.eu/

(ii) European Topic Centre on Sustainable Consumption and Production http://scp.eionet.europa.eu/

(iii) California Integrated Waste Management Board Waste Prevention World http://www.calrecycle.ca.gov/ReduceWaste/

(iv) INFORM
http://www.informinc.org/pages/research/waste-prevention/overview.html

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (a) (iii) of the provisional agenda*

Matters related to the work programme of the Open-ended Working Group for 2016–2017: strategic issues: Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes

Draft outline of guidance to assist parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal

Note by the Secretariat

As referred to in the notes by the Secretariat on developing guidelines for environmentally sound management (UNEP/CHW/OEWG.10/3) and on the Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes (UNEP/CHW/OEWG.10/4), the annex to the present note sets out a draft outline for guidance to assist parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal. The present note, including its annex, has not been formally edited.

*UNEP/CHW/OEWG.10/1.

Annex

Draft outline of guidance to assist parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal

The table of contents in part I of this annex sets out the proposed structure and notes on the content of guidance to be developed by the expert working group on environmentally sound management (EWG) to assist Parties as appropriate in developing efficient strategies to achieve the prevention and minimization of the generation of hazardous wastes and other wastes and their disposal, pursuant to decision BC-12/2.

A schedule of past and planned activities of the EWG for the period between March and November 2016 in relation to the development of this guidance is set out in part II of this annex.

I. Table of contents

Chapter	Notes
1. Introduction	
1.1 Context leading to the development of the guidance	For example Indonesian-Swiss Country-led initiative to improve the effectiveness of the Basel Convention (CLI); Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes; Strategic Framework goals and objectives
1.2 Vision of the guidance	Reflecting the Strategic Framework vision to "…protect human health and the environment by controlling transboundary movements of hazardous and other wastes and by ensuring and strengthening the environmentally sound management of such wastes as a contribution to promoting sustainable livelihoods and attaining the Millennium Development Goals."[1]
1.3 Guiding principles	Reflecting the guiding principles of the Strategic Framework and sustainable waste management sources, the waste management hierarchy, cradle-to-cradle and polluter pays principles, as well as internalization of costs
1.4 Objectives of the strategies	
1.5 Means of implementation	Resources required, partnerships

[1] The target date for the Millennium Development Goals was 2015, following which the United Nations General Assembly adopted a new post-2015 development agenda, including seventeen sustainable development goals

Chapter	Notes
1.6 Target groups to whom the guidance is aimed	For example Basel Convention Parties, regional approach
1.7 Scope of the guidance	
2. Role of waste prevention and minimization	
2.1 Definitions of waste prevention and minimization as referred to in the guidance	Consideration of / reference to the EWG prevention manual[2]
2.2 What is included in and excluded from the guidance	Reference to relationship with the glossary of terms developed by the small intersessional working group on legal clarity and the ESM terminology manual[3] developed within the context of the EWG
2.3 Waste prevention and minimization	The content could include consideration of waste prevention and minimization: (a) In the context of the Basel Convention; (b) In relation to sustainable waste management e.g. sustainable consumption and production (SCP), cradle-to-cradle and life cycle approaches, circular economy, extended producer responsibility (EPR), producer pays responsibility, source reduction etc; (c) In the context of implementation of the Sustainable Development Goals (SDGs).
3. Prerequisites for waste prevention and minimization	
3.1 Legislation	
3.2 Plans and programs	
3.3 Goals and objectives	
3.4 Available information at international, regional, national and local levels including models, best environmental practices	
3.5 Approaches to addressing challenges (involvement of different ministries linked with socio-economic development and environmental quality), involvement of industry and civil society, incentives	

[2] UNEP/CHW/OEWG.10/INF/3.

[3] UNEP/CHW/OEWG.10/INF/3.

Chapter	Notes
3.6 Initiatives to strengthen and enhance collaboration between sectors and stakeholders including building partnerships	For example between government and the private sector
3.7 Capacity building, skills development and technical assistance aspects	Aspects related to the Basel Convention Regional Centres (BCRCs), National Cleaner Production Centres (NCPCs), donors
3.8 Synergies with other related conventions, programs and processes	
3.9 Legislation	
4. Promotion aspects	
4.1 By whom, to whom, how to involve all relevant stakeholders	For example high level international dialogues, private sector engagement including NGOs and civil society
5. Measures and tools	
5.1 Incorporation and application of waste management hierarchy in waste management policies including elements to encourage waste prevention and minimization by the private sector	
5.2 Waste stream	For example Waste Electrical and Electronic Equipment (WEEE), plastics, waste packaging containing hazardous substances, medical/pharmaceutical wastes
5.3 Target group approaches	For example targeted at specific sectors in the manufacturing industry, construction industry, households, informal waste recyclers in particular for WEEE
5.4 Policy measures adopted to encourage prevention and minimization	For example EPR, producer pays responsibility
5.5 Examples of policy measures: general, legislative, voluntary	
5.6 Development of environmental indicators related to waste management	
5.7 Measures and tools to formalise the informal waste sector e.g. incentives, licensing, training, information technology innovation etc.	
6. Benefits of waste prevention and minimization	

Chapter	Notes
6.1 Outline of benefits that may result from waste prevention and minimization	To include consideration of socio-economic factors and impact on: (a) Efficient production practices; (b) Economic returns; (c) Profile and public relations; (d) Quality of products produced and services delivered; Environmental responsibility and ability to comply with applicable environmental regulations, policies and standards.
7. Review process	
7.1 Indicators of performance	Assessment of impacts of measures
7.2 Monitoring of implementation	
7.3 Evaluation	
8. Additional references	List of strategic and reference documents, e.g. Rio+20, United Nations Environment Assembly (UNEA) and United Nations Environment Programme Governing Council (UNEP GC) decisions, relevant regional documents, SCP Framework, United Nations Sustainable Development Agenda and its SDGs and targets

II. Schedule of past and planned activities of the expert working group on environmentally sound management in relation to development of guidance on waste prevention and minimization (March–November 2016)

Activity	Deadline	Stakeholder
Start preparation of first draft detailed text of guidance document	Immediate	Lead members for sections, with support from Secretariat and EWG small group
Second teleconference of EWG small group	1 March 2016	EWG small group
Preparation of OEWG-10 information document (Detailed table of contents and draft schedule)	1 March 2016	EWG, with support from the Secretariat
Tenth meeting of the Open-ended Working Group (OEWG-10)	30 May – 2 June 2016	Parties and observers
Circulation of first draft detailed text of guidance document to EWG	30 June 2016	EWG small group
Comments on first draft by EWG	13–15 July 2016 (EWG5 meeting)	EWG
Circulation of second draft of detailed text of guidance, inviting comments by Parties and observers	31 August 2016	EWG small group and Secretariat
Deadline for comments by Parties and observers	30 September 2016	Parties and observers
Continue revision of third draft detailed text of guidance document	1 October 2016	EWG small group
Circulation of third draft detailed text of guidance document to EWG	15 October 2016	EWG small group
Promotion of guidance document	Continuous	EWG, with support from the Secretariat
Initial evaluation and review for inclusion in report to COP (Draft Guidance and evaluation)	9 November 2016	EWG
Finalisation of report to COP	9 November 2016	EWG

附件 3-2 技術準則資料

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
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Item 3 (b) (i) of the provisional agenda*

Matters related to the work programme of the Open-ended Working Group for 2016–2017: scientific and technical matters: technical guidelines

Technical guidelines

Note by the Secretariat

I. Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants

A. Introduction

1. In its decision BC-12/3, on technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants, the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal adopted seven technical guidelines.[1]

2. The following activities relating to the technical guidelines on persistent organic pollutants were included in the work programme of the Open-ended Working Group for the biennium
2016–2017:[2]

(a) Undertake work towards a review of all provisional low persistent organic pollutant content values in the technical guidelines referred to in paragraph 2 of decision BC-12/3;

* UNEP/CHW/OEWG.10/1.

[1] UNEP/CHW.12/5/Add.2/Rev.1, UNEP/CHW.12/5/Add.3/Rev.1, UNEP/CHW.12/5/Add.4/Rev.1, UNEP/CHW.12/5/Add.5/Rev.1, UNEP/CHW.12/5/Add.6/Rev.1, UNEP/CHW.12/5/Add.7/Rev.1, UNEP/CHW.12/5/Add.9.

[2] Decision BC-12/19, annex.

(b) Update the general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants and prepare or update specific technical guidelines with regard to the chemicals listed in Annexes A and C to the Stockholm Convention on Persistent Organic Pollutants by decisions SC-7/12–SC-7/14 of the Conference of the Parties to the Stockholm Convention, including the following:

(i) Establishment of levels of destruction and irreversible transformation for the chemicals necessary to ensure that when disposed of they do not exhibit the characteristics of persistent organic pollutants specified in paragraph 1 of Annex D to the Stockholm Convention;

(ii) Determination of which disposal methods constitute environmentally sound disposal as referred to in paragraph 1 (d) (ii) of Article 6 of the Stockholm Convention;

(iii) Establishment, as appropriate, of the concentration levels of the chemicals in order to define for the Stockholm Convention low persistent organic pollutant content as referred to in paragraph 1 (d) (ii) of Article 6 of the Convention.

3. In paragraph 12 of decision BC-12/3, the Conference of the Parties invited parties and organizations to indicate to the Secretariat by 15 August 2015 their willingness to take the lead in updating or preparing new technical guidelines, taking into account decisions SC-7/12–SC-7/14.

4. Furthermore, in paragraph 13 of the same decision, the Conference of the Parties invited the lead countries, if selected, and requested the Secretariat, if no lead country was selected and subject to the availability of funding, in consultation with the small intersessional working group on persistent organic pollutant wastes to prepare draft revised technical guidelines for consideration by the Open-ended Working Group at its tenth meeting.

5. With regard to the low persistent organic pollutant content values included in the technical guidelines, the Conference of the Parties, in paragraphs 9 and 10 of decision BC-12/3, invited parties and others to submit to the Secretariat, three months in advance of the tenth meeting of the Open-ended Working Group, comments and related information on the low persistent organic pollutant content values and requested the Secretariat to compile them for consideration by the Open-ended Working Group at its tenth meeting.

B. Implementation

6. The seven technical guidelines adopted in decision BC-12/3[3] are available in English on the website of the Basel Convention.[4] The Secretariat is raising funds to have them translated into the other five official languages of the meetings of the Conference of the Parties.

7. Pursuant to paragraph 12 of decision BC-12/3, the Secretariat sent a letter to all parties on 18 October 2015 inviting them to indicate their willingness to take the lead in updating or preparing the technical guidelines. In response, Japan informed the Secretariat that it would take the lead in preparing the technical guidelines on polychlorinated naphthalenes.

8. As at 11 December 2015, no other parties or organizations had indicated their willingness to take the lead in updating or preparing technical guidelines, including the overall lead in the work of the small intersessional working group. In the absence of such

[3] UNEP/CHW.12/5/Add.2/Rev.1, UNEP/CHW.12/5/Add.3/Rev.1, UNEP/CHW.12/5/Add.4/Rev.1, UNEP/CHW.12/5/Add.5/Rev.1, UNEP/CHW.12/5/Add.6/Rev.1, UNEP/CHW.12/5/Add.7/Rev.1, UNEP/CHW.12/5/Add.9.

[4] http://www.basel.int/tabid/4248/Default.aspx.

leads, the Secretariat is facilitating the work of the small intersessional working group and raising funds to engage consultants for preparing or updating technical guidelines in accordance with decision BC-12/3.

9. The small intersessional working group, which includes experts from the Persistent Organic Pollutants Review Committee under the Stockholm Convention, had a teleconference on 3 November 2015 and discussed its workplan. The small intersessional working group agreed:

(a) To update the general technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants;[5]

(b) To develop specific technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexachlorobutadiene, and thereafter consider how to update the technical guidelines on pesticides[6] to address hexachlorobutadiene;

(c) To update the technical guidelines on environmentally sound management of wastes consisting of, containing or contaminated with polychlorinated biphenyls, polychlorinated terphenyls or polybrominated biphenyls, including hexabromobiphenyl,[7] to include polychlorinated naphthalenes;

(d) To update the technical guidelines on the environmentally sound management of wastes containing or contaminated with unintentionally produced polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, hexachlorobenzene, polychlorinated biphenyls or pentachlorobenzene,[8] to include polychlorinated naphthalenes;

(e) To develop specific technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with pentachlorophenol and its salts and esters, and thereafter consider how to update the technical guidelines on pesticides[9] to address those chemicals.

10. The draft technical guidelines to be prepared or updated by the lead country or the Secretariat as agreed by the small intersessional working group will be posted on the Basel Convention website for comment by parties and others, as soon as available.

11. With regard to the low persistent organic pollutant content values included in the technical guidelines, as at 11 December 2015 the Secretariat had not received any comments or related information in accordance with paragraph 9 of decision BC-12/3.

C. Proposed action

12. The Open-ended Working Group may wish to adopt a decision along the following lines:

The Open-ended Working Group

1. *Takes note* of the workplan of the small intersessional working group on persistent organic pollutants wastes;[10]

2. *Welcomes* with appreciation the contribution made by Japan in taking the lead in preparing the technical guidelines on the environmentally sound management of polychlorinated naphthalenes;

[5] UNEP/CHW.12/5/Add.2/Rev.1.

[6] UNEP/CHW.12/5/Add.9.

[7] UNEP/CHW.12/5/Add.5/Rev.1.

[8] UNEP/CHW.12/5/Add.4/Rev.1.

[9] UNEP/CHW.12/5/Add.9.

[10] UNEP/CHW/OEWG.10/5, para. 9.

3. *Encourages* interested parties and organizations to take the lead in updating or preparing technical guidelines in accordance with paragraphs 11 and 12 of decision BC-12/3 or to provide financial support for such purpose;

4. *Requests* the Secretariat, or the lead countries and organizations, as appropriate, to revise the new or updated general and specific technical guidelines, in consultation with the small intersessional working group, for consideration and possible adoption by the Conference of the Parties at its thirteenth meeting.

II. 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

A. Introduction

13. In its decision BC-12/5, on 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, the Conference of the Parties adopted, on an interim basis, the technical guidelines[11] on the understanding that the technical guidelines are of a non-legally binding nature and that the national legislation of a party prevails over the guidance provided within the technical guidelines, in particular in paragraphs 31, 42 and 43 thereof.

14. In paragraph 5 of the same decision, the Conference of the Parties acknowledged the need to look further into the guidance on the distinction between waste and non-waste and agreed to include the further elaboration of work on that issue in the work programme of the Open-ended Working Group for 2016–2017[12] in order to prepare draft revised guidelines for consideration by the Conference of the Parties at its thirteenth meeting, in particular with reference to paragraphs 31 (a) and 31 (b) of the technical guidelines on the following issues:

(a) Residual lifetime and age of used equipment;

(b) Management of hazardous wastes from failure analysis, repair and refurbishment operations in developing countries;

(c) Obsolete technologies, including cathode ray tubes;

(d) Presence of hazardous components in used equipment.

15. Furthermore, the Conference of the Parties invited parties and others to provide comments on the issues mentioned in paragraph 5 of decision BC-12/5 to the Secretariat five months before the tenth meeting of the Open-ended Working Group and requested the Secretariat to publish the comments received on the website of the Basel Convention.

16. The Conference of the Parties encouraged parties to inform the Secretariat about any conditions they applied in relation to used equipment that should normally be considered waste or
non-waste and requested the Secretariat to publish any information provided by parties in that regard on the Basel Convention website.

B. Implementation

[11] UNEP/CHW.12/5/Add.1/Rev.1.

[12] Decision BC-12/19, annex.

17. The technical guidelines[13] adopted on an interim basis in decision BC-12/5 are available in English on the website of the Basel Convention.[14] The Secretariat is raising funds to have them translated into the other five official languages of the meetings of the Conference of the Parties.

18. The Secretariat sent a letter to all parties on 3 August 2015 inviting them to submit comments on the issues mentioned in paragraph 5 of decision BC-12/5 by 31 December 2015. The invitation for comments was also published on the website of the Convention.

19. The Secretariat will publish any comments received on the website of the Basel Convention, based on which the small intersessional working group on e-waste is expected to recommend the next steps in the further elaboration of work of the technical guidelines for consideration by the Open-ended Working Group at its tenth meeting. The Secretariat is raising funds to engage a consultant, if necessary, to implement the relevant activities.

20. In response to the invitation to submit the information on any conditions they apply in relation to used equipment that should normally be considered waste or non-waste, as at 11 December 2015 the Secretariat had received submissions from Costa Rica and the European Union and its member States and published them on the Basel Convention website.[15]

C. Proposed action

21. The Open-ended Working Group may wish to consider the recommendations of the small intersessional working group on how to reach agreement on the remaining issues of the interim technical guidelines for consideration and possible adoption by the Conference of the Parties at its thirteenth meeting.

III. Technical guidelines on incineration on land (D10), on specially engineered landfill (D5) and on hazardous waste physico-chemical treatment (D9) and biological treatment (D8)

A. Introduction

22. The work programme of the Open-ended Working Group for 2016–2017, set out in the annex to decision BC-12/19, includes the consideration of whether the technical guidelines on incineration on land (D10),[16] on specially engineered landfill (D5)[17] and on hazardous waste physico-chemical treatment (D9) and biological treatment (D8)[18] should be updated.

B. Proposed action

23. The Open-ended Working Group may wish:

(a) To consider whether the technical guidelines on incineration on land (D10), on specially engineered landfill (D5) and on hazardous waste physico-chemical treatment (D9) and biological treatment (D8) should be updated;

[13] UNEP/CHW.12/5/Add.1/Rev.1.

[14] http://www.basel.int/tabid/4248/Default.aspx.

[15] http://www.basel.int/tabid/2377/Default.aspx.

[16] Decision III/13.

[17] Decision III/13.

[18] Decision V/26.

(b) To invite parties and organizations to take the lead in updating the above-mentioned technical guidelines or to provide financial support for such purpose, if it concludes that those technical guidelines should be updated.

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Matters related to the work programme of the Open-ended Working Group for 2016–2017: strategic issues: developing guidelines for environmentally sound management

Inventory, categorization and analysis of existing Basel Convention documents related to environmentally sound management

Note by the Secretariat

1. As referred to in the note by the Secretariat on developing guidelines for environmentally sound management (UNEP/CHW/OEWG.10/3), the annexes to the present note set out the following documents:

(a) Annex I: analysis of the inventory and categorization of existing Basel Convention documents related to environmentally sound management prepared by Canada;

(b) Annex II: inventory and categorization of existing documents referred to above and a list of Basel Convention documents under development related to environmentally sound management, both prepared by the Secretariat.

2. The present note, including its annexes, has not been formally edited.

* UNEP/CHW/OEWG.10/1.

Annex I

Analysis of the inventory and categorization of existing Basel Convention documents related to environmentally sound management

I. Introduction and purpose

This analysis was prepared by Canada in support of the Secretariat's work to develop the inventory of Basel Convention documents related to environmentally sound management (ESM) and to support Parties' reflection on a few related matters:

(a) The demand on resources for the development of documents and recent shortcoming of funds to translate and publish documents adopted by the Conference of the Parties (COP);

(b) How to integrate and take into consideration existing relevant guidance in new work and what is the appropriate format to disseminate guidance to the targeted users; and,

(c) How does new work effectively address gaps in Basel guidance concerning priority waste streams, waste prevention, minimization and management and emerging issues?

The publication of documents of all kinds requires an investment of time, financial and human resources from their development to their dissemination, whether they are delivered with assistance from consultants or through in-kind efforts of Parties. The recent adoption of nine technical guidelines and other documents at COP12 also highlighted the resource pressures related to their publication which involves editing, translation, printing and dissemination costs.

The inventory of Basel Convention documents related to environmentally sound management can be a useful tool for Parties and others when making choices about new documents to be developed. It can serve to avoid the duplication of effort, highlight where linkages with existing documents ought to be made, and support more informed decision making concerning the purpose and format of new documents so that they can better serve the needs of targeted users.

The inventory of existing Basel Convention documents related to environmentally sound management and the list of Basel Convention documents under development related to environmentally sound management are set out in annex II.

II. Characterization of the inventory and Basel documents

Different categories of documents are currently used to provide guidance on the environmentally sound management of wastes. Based on their format even if some cover similar topics, we have identified the following categories of documents and their quantities as follows:[25]

[25] There are over 25 documents listed in the inventory which were developed under the auspices of regional centres which at this time have not been included in the analysis.

Overarching	Technical	Short/targeted	Training	Other
- Framework (3) - Declarations (5)	- Technical guideline (24) - Guideline (9) - Guidance paper/document (6) - Recommendations (1) - Approach (1)	- Leaflet (7) - Factsheet[26]	- Training manual (3) - Methodological guide (1)	- Case study (2) - Pilot project[27] - Glossary (2) - Report (1)

III. Key findings

The key findings are as follows:

(a) There are a fair amount of documents currently available from the Basel Convention which cover diverse waste streams. The inventory has identified 65 Basel Convention documents providing guidance on ESM. Some priority waste streams such as e-waste and polychlorinated biphenyls (PCBs) are addressed by several documents. Emerging waste streams of concern (e.g. nanomaterials, end-of-life vehicles,[28] abandoned vessels, etc.) have not been addressed;

(b) To date, the format most used for transferring ESM information has been guidelines. Decision 12/1 is orienting new work under the programme of work of the expert working group on ESM to develop information and guidance under new formats such as practical manuals, fact-sheets and pilot projects;

(c) Half of the ESM documents are fairly recent, many are old and others not dated. The age of the documents, is as follows:[29]

(i) Less than 5 years (2015-2011): 33

(ii) Between 5 and10 years (2010-2006): 7

(iii) More than 10 years (2005-1994): 20

(d) ESM documents contribute to the goals and objectives of the Strategic Framework for 2012-2021 and the Cartagena Declaration. In the last 5 years the development or update of documents was substantial and is an important contribution to the achievement of Goal 1 (Objective 1.1)[30] and Goal 2 (Objective 2.1)[31] of the Framework;

(e) Guidance related to waste prevention and minimization in general and for specific waste streams is underdeveloped. No document on waste prevention and minimization has been published. These concepts are directly linked to Objective 2.2[32] of the Strategic Framework and the focus of the Cartagena Declaration. New work arising

[26] Fact sheets on various waste streams are currently under development by the expert working group on environmentally sound management. Final versions are not yet available.

[27] Under the expert group on environmentally sound management, pilot projects are currently being undertaken. Final reports are not yet available.

[28] The expert working group on environmentally sound management is developing a fact sheet on end-of-life vehicles (ELVs). The latest draft is available in document UNEP/CHW/CLI_EWG.4/INF/6, Annex II.

[29] Declarations/statements at meetings of the Conference of the Parties and ESM documents developed under the auspices of Regional centres have not been included in the analysis.

[30] Objective 1.1: To reach a common understanding among parties of the definition, interpretation and terminology of wastes covered by the Convention, including the distinction between waste and non-wastes.

[31] Objective 2.1: To pursue the development of environmentally sound management of hazardous and other wastes, especially through the preparation of technical guidelines, and promote its implementation in national legislation.

[32] Objective 2.2: To pursue the prevention and minimization of hazardous waste and other waste generation at source, especially though supporting and promoting activities designed to reduce at the national level the generation and hazard potential of hazard and other wastes.

from Decision BC-12/2 on road map for action on the implementation of the Cartagena Declaration directs the advancement of work in this area;

(f) Pilot projects are key activities to implement several objectives of the Strategic Framework. Many projects implemented by BCRCs have produced either guidance materials or reports. Their visibility and accessibility may vary. There is valuable information and lessons that can be transferred from these projects that should be considered in the development of new ESM documents and guidance.

IV. Ideas for discussion

The ideas for discussion are as follows:

(a) Should we undertake an assessment of documents older than 10 years old to determine if they are still relevant and/or need updating?

(b) Are there emerging waste streams that should be considered and would need some form of ESM guidance?

(c) There seems to be an interest in using documents that are shorter than traditional technical guidelines. We should reflect on the pros and cons of various formats, their purpose and determine if we need to change our choices of formats.

(d) Should there be more concerted efforts to disseminate information (including experiences and best practices) from pilot projects?

Annex II

Inventory and categorization of Basel Convention documents related to environmentally sound management

Part I: Inventory of existing Basel Convention documents related to environmentally sound management

Please note that the documents in the highlighted boxes below have been adopted by the COP. Documents indicated with an asterisk * remain under further development or review.

Framework documents

Strategic Framework	• **Strategic framework for the implementation of the Basel Convention for 2012-2021** ADOPTED at COP-10 (BC-10/2, Annex) (2011)
ESM Framework	• **Framework for the environmentally sound management of hazardous wastes and other wastes** ADOPTED at COP-11 (BC-11/1) (2013) UNEP/CHW.11/3/Add.1/Rev.1 [Annex]

Technical and methodological guidelines adopted by the Conference of the Parties

Overarching	• **Framework document on the preparation of technical guidelines for the environmentally sound management of wastes subject to the Basel Convention** ADOPTED at COP-2 (BC II/13) (1994) UNEP/CHW.2/10 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx>
	• **Methodological guide for the development of inventories of hazardous wastes and other wastes under the Basel Convention** ADOPTED at COP-12 (BC-12/7) (2015) UNEP/CHW.12/9/Add.1
Waste streams a. Batteries	• **Technical guidelines for the environmentally sound management of waste lead-acid batteries** ADOPTED at COP-6 (BC VI/22) (2002) UNEP/CHW.6/22
b. Biomedical and health care waste	• **Technical guidelines for the environmentally sound management of biomedical and health care wastes (Y1, Y3)** ADOPTED at COP-6 (BC VI/20) (2002) UNEP/CHW.6/20 [Annex II]
c. Electronics	• **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 *** ADOPTED ON AN INTERIM BASIS at COP-12 (BC-12/5) (2015) UNEP/CHW.12/5/Add.1/Rev.1 [Annex]
d. Household waste	• **Technical guidelines on waste collected from households (Y46)** ADOPTED at COP-2 (BC II/13) (1994) UNEP/CHW.2/10 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/Adop

tedTechnicalGuidelines/tabid/2376/Default.aspx >

See also: BC-12/13 (2015) (mandating development of a workplan on household waste); BC VIII/17 (requesting review of technical guidelines)

e. Mercury

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury**
  ADOPTED at COP-12 (BC-12/4) (2015)
  UNEP/CHW.12/5/Add.8/Rev.1

f. Oils

- **Technical guidelines on waste oils from petroleum origins and sources (Y8)**
  ADOPTED at COP-2 (BC II/13) (1994)
  UNEP/CHW.2/10
  Available at
  <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx >

g. Persistent organic pollutants

- **General technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.2/Rev.1

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.3/Rev.1

- **Technical guidelines on the environmentally sound management of wastes containing or contaminated with unintentionally produced hexachlorobenzene, pentachlorobenzene, polychlorinated biphenyls, polychlorinated dibenzofurans or polychlorinated dibenzo-p-dioxins ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.4/Rev.1

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexabromobiphenyl, polybrominated biphenyls (PBBs), polychlorinated biphenyls (PCBs) or polychlorinated terphenyls (PCTs) ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.5/Rev.1

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexabromodiphenyl ether and heptabromodiphenyl ether, or tetrabromodiphenyl ether and pentabromodiphenyl ether ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.6/Rev.1

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexabromocyclododecane ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.7/Rev.1

- **Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with the pesticides aldrin, alpha hexachlorocyclohexane, beta hexachlorocyclohexane, chlordane, chlordecone, dieldrin, endrin, heptachlor, hexachlorobenzene, lindane, mirex, pentachlorobenzene, perfluorooctane sulfonic acid, technical endosulfan and its related isomers or toxaphene or with hexachlorobenzene as an industrial chemical ***
  ADOPTED at COP-12 (BC-12/3) (2015)
  UNEP/CHW.12/5/Add.9

- **Technical guideline on wastes consisting of, containing or contaminated with 1,1,1-trichloro-2,2-bis-(4-chlorophenyl)ethane (DDT)**
  ADOPTED at COP-8 (BC VIII/16) (2006)
  UNEP/CHW.8/5/Add.2*

h. Plastic	• **Technical guidelines for the identification of environmentally sound management of plastic wastes and for their disposal (including: Technical guidelines on the environmentally sound management of plastic coated cables)** ADOPTED at COP-6 (BC VI/21) (2002) UNEP/CHW.6/21 [Annex]
i. Ships	• **Technical guidelines for the environmentally sound management of the full and partial dismantling of ships** ADOPTED at COP-6 (BC VI/24) (2002) UNEP/CHW.6/23 [Annex] *See also*: BC-12/5 (2015) (requesting the development of further programs for sustainable ship recycling); BC VIII/13 (recognizing the need for guidance on abandoned ships)
j. Solvents	• **Technical guidelines on hazardous wastes from the production and use of organic solvents (Y6)** ADOPTED at COP-2 (BC II/13) (1994) UNEP/CHW.2/10 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx>
k. Tyres	• **Technical guidelines for the environmentally sound management of used and waste pneumatic tyres** ADOPTED at COP-10 (BC-10/6) (2011) UNEP/CHW/10/6/Add.1/Rev.1 [Annex]
Disposal Operations **D-Operations** a. D5	• **Technical guidelines on specially engineered landfill (D5)** ADOPTED at COP-3 (BC III/13) (1995) UNEP/CHW.2/10/Add.1 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx>
b. D8/D9	• **Technical guidelines on physico-chemical treatment (D9) and biological treatment (D8)** ADOPTED at COP-5 (BC V/26)) (1999) *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx>
c. D10	• **Technical guidelines on incineration on land (D10)** ADOPTED at COP-3 (BC III/13)) (1995) UNEP/CHW.2/10/Add.1 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx> *See also*: BC VIII/17 (2006) (requesting review of technical guideline)
R-Operations a. R1	• **Technical guidelines on the environmentally sound co-processing of hazardous wastes in cement kilns** ADOPTED at COP-10 (BC-10/8)) (2011) UNEP/CHW.10/6/Add.3/Rev.1 [Annex]
b. R4	• **Technical guidelines on the environmentally sound recycling/reclamation of metals and metal compounds (R4)** ADOPTED at COP-7 (BC VII/14)) (2004) UNEP/CHW.7/8/Add.3
c. R9	• **Technical guidelines on used oil re-fining or other re-use of previously used oil (R9)** ADOPTED at COP-3 (BC III/13)) (1995) UNEP/CHW.2/10/Add.1 *Available at* <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/Adop

tedTechnicalGuidelines/tabid/2376/Default.aspx >

Hazardous characteristics

a. H6.2

- **Guidance paper on the hazard characteristic H6.2: Infectious substances**
  ADOPTED ON AN INTERIM BASIS at COP-7 (BC VII/17) (2004)
  UNEP/CHW.7/11/Add.1/Rev.1

b. H11

- **Approach to Basel Convention hazard characteristic H11: Characterization of chronic or delayed toxicity**
  ADOPTED ON AN INTERIM BASIS at COP-7 (BC VII/17) (2004)
  UNEP/CHW.7/11/Add.2/Rev.1

c. H12

- **Guidelines on hazardous characteristic H12 of Annex III to the Convention: Ecotoxic**
  ADOPTED ON AN INTERIM BASIS at COP-6 (BC VI/26) (2002)
  UNEP/CHW.6/26 [Annex]

d. H13

- **Guidelines on hazard characteristic H13 of Annex III to the Basel Convention**
  ADOPTED ON AN INTERIM BASIS at COP-7 (BC VII/17) (2004)
  UNEP/CHW.7/11/Add.3/Rev.1
  Available at
  <http://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/AdoptedTechnicalGuidelines/tabid/2376/Default.aspx>

Guidelines developed within the context of the Basel Convention Partnership Programme

PACE

a. Guidance and Guidelines

- **Guidance document on environmentally sound management of used and end-of-life computing equipment (Sections 1, 2, 4 and 5) ***
  ADOPTED WITHOUT PREJUDICE TO NATIONAL LEGISLATION at COP-11 (BC-11/15) (2013)
  UNEP/CHW.11/6/Add.1/Rev.1 [Annex]
  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidanceDocument/tabid/3246/Default.aspx>

- **Revised guideline on environmentally sound testing, refurbishment and repair of used computing equipment**
  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.11/INF/12/Rev.1 [Annex]
  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

- **Guidelines on environmentally sound material recovery and recycling of end-of-life computing equipment**
  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.11/INF/13/Rev.1 [Annex]
  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

- **Environmentally sound management criteria recommendations**
  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.10/INF/25 [Annex]
  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

- **Guidance on transboundary movement of used and end-of-life computing equipment**
  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.10/INF/24 [Annex]
  Available at

<http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

- **Report on strategies, actions and incentives to promote environmentally sound management for used and end-of-life computing equipment**

  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.12/INF/27 [Annex I]

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

b. Glossary

- **Glossary of terms**

  PARTIES INVITED TO USE GUIDELINE at COP-12 (BC-12/12) (2015)
  UNEP/CHW.11/INF/13/Rev.1 [Annex: Appendix II]

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx>

MPPI

a. Guidance and Guidelines

- **Guidance document on environmentally sound management of used and end-of-life mobile phones**

  ADOPTED WITHOUT PREJUDICE TO NATIONAL LEGISLATION at COP-10 (BC-10/21) (2011)
  UNEP/CHW.10/INF/27/Rev.1 [Annex]

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidanceDocument/tabid/3250/Default.aspx>

- **Guideline on the refurbishment of used mobile phones**

  PARTIES INVITED TO USE GUIDELINE at COP-10 (BC-10/21) (2011)
  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidelinesandGlossaryofTerms/tabid/3251/Default.aspx>

- **Guideline on the collection of used mobile phones**

  PARTIES INVITED TO USE GUIDELINE at COP-10 (BC-10/21) (2011)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidelinesandGlossaryofTerms/tabid/3251/Default.aspx>

- **Guideline on material recovery and recycling of end-of-life mobile phones**

  PARTIES INVITED TO USE GUIDELINE at COP-10 (BC-10/21) (2011)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidelinesandGlossaryofTerms/tabid/3251/Default.aspx>

- **Guideline on the awareness raising – design considerations**

  PARTIES INVITED TO USE GUIDELINE at COP-10 (BC-10/21) (2011)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidelinesandGlossaryofTerms/tabid/3251/Default.aspx>

- **Guideline for the transboundary movement of collected mobile phones**

  PARTIES INVITED TO USE GUIDELINE at COP-10 (BC-10/21) (2011)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidelinesandGlossaryofTerms/tabid/3251/Default.aspx>

b. Glossary

- **Glossary of terms (2009)**

  ADOPTED WITHOUT PREJUDICE TO NATIONAL LEGISLATION AS PART OF THE GUIDANCE DOCUMENT at COP-10 (BC-10/21) (2011)
  UNEP/CHW.10/INF/27/Rev.1 [Annex: Appendix 1]
  Available at

<http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/MPPIGuidanceDocument/tabid/3250/Default.aspx>

Training manuals

- **Training manual for the preparation of national used lead-acid batteries environmentally sound management plans in the context of the implementation of the Basel Convention**

  ISBN 92-1-158652-6 / BC Convention Series / SBC No. 2004/5 (2004)

  Available at
  <http://www.basel.int/Implementation/Publications/TrainingManuals/tabid/2363/Default.aspx>

- **Training manual for the preparation of a national environmentally sound management plan for PCBs and PCB-contaminated equipment**

  ISBN 92-1-158674-7 / Basel Convention Series / SBC No. 2003/01 (2003)

  Available at
  <http://www.basel.int/Implementation/Publications/TrainingManuals/tabid/2363/Default.aspx>

- **Training manual for the destruction and decontamination technologies for PCBs and other POP wastes (Vols. A , B and C)**

  ISSN: 1020-8364 (2002)

  Available at
  <http://www.basel.int/Implementation/Publications/TrainingManuals/tabid/2363/Default.aspx>

- **Feasibility study for environmentally sound ship dismantling**

  (2013)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx >

- **Case study to develop models of compliant ship recycling facilities**

  (2012)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx >

- **Guidance for ship recycling facility operators: Guidance for compliant ship recycling facilities in consideration of the requirements of the Basel and Hong Kong Conventions**

  (2013)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx >

- **Guidance for competent authorities of ship recycling facilities: Guidance for compliant ship recycling facilities in consideration of the requirements of the Basel and Hong Kong Conventions**

  (2013)

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx >

Leaflets and brochures

- **Leaflet on the partnership of action on computing equipment**

  (2011)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on the environmentally sound dismantling of ships**

  (2010)

  Available at

<http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on the environmentally sound management of used electrical and electronic equipment (e-waste) in Asia-Pacific**

  (2010)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on meeting the challenge of e-waste in Africa**

  (2010)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on waste management for human health and livelihood**

  (2008)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on the mobile phone partnership initiative**

  (2008)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

- **Leaflet on the global programme for sustainable ship recycling**

  (2008)

  Available at
  <http://www.basel.int/Implementation/Publications/BrochuresLeaflets/tabid/2365/Default.aspx>

Declarations and statements at meetings of the Conference of the Parties

- **Cartagena declaration on the prevention, minimization and recovery of hazardous wastes and other wastes**

  ADOPTED at COP-10 (UNEP/CHW.10/28 para 176) (2011)
  UNEP/CHW.10/28 [Annex IV]

- **Bali declaration on waste management for human health and livelihood**

  ADOPTED at COP-9 (UNEP/CHW.9/39 para 61) (2008)
  UNEP/CHW.9/39 [Annex II]

- **Nairobi declaration on the environmentally sound management of electrical and electronic waste adopted on the occasion of the eight meeting of the COP**

  ADOPTED at COP-8 (UNEP/CHW.8/16* para 94) (2006)
  UNEP/CHW.8/16*[Annex IV]

- **Ministerial statement on partnerships for meeting the global waste challenge**

  ADOPTED at COP-7 (UNEP/CHW.7/33 para 186) (2004)
  UNEP/CHW.7/33 [Annex V]

- **Basel declaration on environmentally sound management**

  ADOPTED at COP-5 (BC V/1) (1999)
  UNEP/CHW.5/29 [Annex II]

ESM documents developed under the auspices of Regional Centers

a. Africa

- **Preparation of a set of tools for the selection, design and operation of hazardous waste landfills in hyper-dry areas**

  (2006)

  Documents

- Guidelines for hazardous waste landfill site selection and EIA in hyper-dry areas (EN/AR)
- Guidelines for hazardous waste landfill site design in hyper-dry areas (EN/AR)
- Guidelines for hazardous waste landfill site operation, monitoring and aftercare in hyper-dry areas (EN/AR)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAfrica/tabid/2343/Default.aspx>

- **Management of used oils in Sub-Saharan Africa**

(2006)

Document
- Terminal report (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAfrica/tabid/2343/Default.aspx>

- **Assessment and recycling of used oil in Africa**

(2005)

Documents
- Terminal report (EN)
- Pilot study on used oils in Nigeria (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAfrica/tabid/2343/Default.aspx>

b. Asia/Pacific

- **Facilitating partnerships for environmentally sound management of e-waste in India**

(2008)

Document
- Final report (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAsiaandPacific/tabid/2344/Default.aspx>

- **Development of guideline documents on methodology on inventory of e-waste and environmentally sound recycling, reuse, repair, refurbishment/disposal of e-waste**

(2007)

Documents
- Technical guidelines for electrical and electronic waste inventory (EN)
- Technical guidelines for 3R (reduce, reuse, recycle) of end-of-life electrical and electronic products (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAsiaandPacific/tabid/2344/Default.aspx>

- **Survey of the import and the environmentally sound management of electronic wastes in the Asia-Pacific Region**

(2005)

Documents
- Terminal report (EN)
- Report on the survey of the import and the environmentally sound management of electronic wastes in the Asia-Pacific Region (final publication) (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAsiaandPacific/tabid/2344/Default.aspx>

- **Hazardous waste management in small and medium-sized enterprises in the context of integrated life-cycle management of materials**

(2005)

Documents
- Terminal report (EN)
- Management guide for hazardous material and waste in small and medium enterprises in Jordan

(EN/FR/AR)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAsiaandPacific/tabid/2344/Default.aspx>

c. CEE

- **Background analysis for development and establishment of a lubricating oil management system in Bosnia and Herzegovina**

(2006)

Documents
- Terminal report (EN)
- Final project report (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinCentralandEasternEurope/tabid/2345/Default.aspx>

- **Preparation of a review on the existing national and international legislation on monitoring and control of transboundary movements of hazardous wastes and their environmentally sound management for CIS countries**

(2005)

Documents
- Terminal report (EN)
- Executive summary (EN)
- Final report (RU)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinCentralandEasternEurope/tabid/2345/Default.aspx>

d. GRULAC

- **Revised regional strategy for the environmentally sound management of used acid batteries in Central America, Colombia, Venezuela and the Caribbean island states (phase II)**

(2008)

Documents
- Revised regional strategy (EN/SP)
- Implementation plan (EN)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx>

- **Partnership with local authorities for the environmentally sound management of hazardous and other wastes in the context of the Basel Convention in South America**

(2006)

Documents
- Final report on the feasibility in the canton of Guayaquil (Ecuador) (SP)
- Final report on the feasibility study in Ecuador (Phase I) (SP)
- Report on MOU objectives (Phase II) (SP)

Available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx>

- **Training program for municipal officers in environmentally sound management of hazardous wastes**

(2005)

Documents
- Terminal report (EN)
- Guía para la gestión integral de desechos peligrosos (fundamentos) (SP)
- Guía para la gestión integral de desechos peligrosos (fichas técnicas) (SP)

Available at
http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx

- **Regional strategy for the environmentally sound management of used acid batteries in Central America, Colombia, Venezuela and the Caribbean island states**

  (2005)

  Documents

  - Terminal Report (EN)
  - Final regional strategy for the environmentally sound management of used lead-acid batteries in Central America, Colombia, Venezuela and the Caribbean Island States (EN/SP)

  Available at
  <http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx>

- **Practical guideline on environmentally sound management of obsolete pesticide in the Latin America and Caribbean Countries**

  (2004)

  Document

  - Practical guideline on environmentally sound management of obsolete pesticides in the Latin American and Caribbean Countries (EN/SP)

  Available at
  <http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx>

Part II: Basel Convention documents under development related to environmentally sound management

Technical guidelines to potentially be adopted by the Conference of the Parties

Waste streams
Y17

- **Draft technical guidelines on the environmentally sound management of wastes resulting from surface treatment of metals and plastics (Y17)**

  REQUESTED TO BE FINALIZED at COP-7 (BC VII/15)
  UNEP/CHW/OEWG/4/INF/9

Hazardous characteristics
H11

- **Proposal for *de minimis* value for hazard characteristic H11**

  WELCOMED at COP-9 (BC IX/18)
  UNEP/CHW/OEWG/6/INF/5 [Annex]

Documents developed within the context of the Basel Convention Partnership Programme

PACE

- **Guidance document on environmentally sound management of used and end-of-life computing equipment (Section 3)**

  REVISION MANDATED at COP-11 (BC-11/15)
  UNEP/CHW.11/6/Add.1/Rev.1 [Annex]

- **Draft concept note on strengthening the use of the guidelines and reports developed by the partnership, at regional and national level**

  SUBMITTED AS INF DOC at COP-12
  UNEP/CHW.12/INF/27 [Annex II]

Household waste

- **Workplan on the environmentally sound management of household waste which could include a concept for a partnership to assist municipalities**

  MANDATED at COP 12 (BC-12/13)

Training manuals and fact sheets

Manuals

- **Practical manuals for the promotion of the environmentally sound management of wastes on terminology, general policies and legislation, permits and licenses, certification schemes and prevention**

  DEVELOPED by Expert Working Group on ESM
  WELCOMED at COP-12 (BC-12/1)
  UNEP/CHW.12/3/Add.2 [Annex]

- **Draft practical manual for the promotion of the environmentally sound management of wastes on insurance and liability**

  DEVELOPED by Expert Working Group on ESM
  UNEP/CHW/CLI_EWG.3/INF/7

- **Revised guidance manual on how to improve the sea-land interface to ensure that wastes falling within the scope of the International Convention for the Prevention of Pollution from Ships, once offloaded from ships, are managed in an environmentally sound manner**

  MANDATED at COP-12 (BC-12/16)

Fact sheets

- **Fact sheets on specific waste streams: e-waste, end-of-life vehicles, medical or healthcare waste, household waste, mercury waste, used lead-acid batteries, used oils, waste tyres**

  DEVELOPED by Expert Working Group on ESM
  WELCOMED at COP-12 (BC-12/1)
  UNEP/CHW.12/INF/6 [Annex]

Pilot projects

Expert Working Group on

- **Pilot project assessing if notifications, consents, inspections and enforcement of transboundary**

ESM

movement of waste and take-back procedures for illegal traffic represent environmentally sound management

FINAL REPORT TO BE MADE AVAILABLE by EWG
UNEP/CHW/CLI_EWG.3/INF/10

- **Pilot project on assessing the status of e-waste recycling in selected countries in the Asia-Pacific region and facilitating the environmentally sound management of e-waste**

  FINAL REPORT TO BE MADE AVILABLE by EWG
  UNEP/CHW/CLI_EWG.3/INF/10

- **Pilot project on assessing the status of environmentally sound management of hazardous wastes and other wastes, including waste electrical and electronic equipment, in Central America**

  FINAL REPORT TO BE MADE AVAILABLE by EWG
  UNEP/CHW/CLI_EWG.3/INF/10

- **Pilot project on assessing if insurance, bond or other guarantees required by article 6 paragraph 11 of the Basel Convention for a transboundary movement ensures the environmentally sound management of hazardous wastes involved**

  PROJECT SELECTED at EWG-3
  UNEP/CHW/CLI_EWG.3/INF/11

- **Pilot project on assessing environmentally sound management status of ULAB treatment and transboundary movement in China and selected countries**

  PROJECT SELECTED at EWG-3
  UNEP/CHW/CLI_EWG.3/INF/11

- **Pilot project to promote the environmentally sound co-processing of hazardous wastes in industry kilns for selected countries in Asia**

  PROJECT SELECTED at EWG-4
  UNEP/CHW/CLI_EWG.4/INF/7

- **Pilot project to design a proposal for the ESM management of fluorescent tubes and compact fluorescent lamps**

  PROJECT SELECTED at EWG-4
  UNEP/CHW/CLI_EWG.4/INF/7

Ship dismantling

- **Pilot project on safe and environmentally sound ship recycling in Bangladesh**

  Document
  - Project document for Phase I
    Available at:
    <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx>

- **Pilot project on the environmentally sound management of waste from ship dismantling in Pakistan**

  Document
  - Project document

  Available at
  <http://www.basel.int/Implementation/TechnicalAssistance1/Dismantlingofships/tabid/3868/Default.aspx>

ESM documents developed under the auspices of Regional Centers

Africa

- **Towards a non-toxic environment in Africa (Keml project)**

  PROJECT SELECTED by BCRC

  Project description available at
  <http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAfrica/tabid/2343/Default.aspx>

- **Demonstration of a regional approach to environmentally sound management of PCB liquid wastes and transformers and capacitors containing PCBs**

  PROJECT SELECTED by BCRC

Project description available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAfrica/tabid/2343/Default.aspx>

Asia/Pacific

- **Development of national implementation plan for e-waste management in Sri Lanka**

PROJECT SELECTED by BCRC

Project description available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinAsiaandPacific/tabid/2344/Default.aspx>

LAC

- **Pilot program for the minimization of impacts generated by hazardous wastes**

PROJECT SELECTED by BCRC

Project description available at
<http://www.basel.int/Partners/RegionalCentres/Projects/ProjectsinLatinAmericaandtheCaribbean/tabid/2346/Default.aspx>

附件 3-3 PACE 相關資料

UNITED NATIONS

UNEP

BC

UNEP/CHW/OEWG.10/9

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (d) (i) of the provisional agenda*

Matters related to the work programme of the Open-ended Working Group for 2016–2017: international cooperation and coordination: Basel Convention Partnership Programme

Partnership for Action on Computing Equipment

Note by the Secretariat

I. Introduction

1. In paragraph 6 of its decision BC-12/12 on Partnership for Action on Computing Equipment, the Conference of the Parties requested the Partnership Working Group to complete the outstanding tasks from the 2014–2015 work programme, including the revision of section 3 of the guidance document on the environmentally sound management of used and end-of-life computing equipment,[1] the development of a strategy and workplan for the implementation of concrete actions at the regional and national levels, and the finalization of ongoing pilot projects and the development of a report on lessons learned.

2. In paragraph 7 of the same decision, the Open-ended Working Group was requested to consider, at its tenth meeting, the revised section 3 of the guidance document and to submit it, amended as appropriate, to the Conference of the Parties at its thirteenth meeting for its consideration and possible adoption.

II. Implementation

3. The Partnership Working Group and its project groups worked electronically to exchange comments on draft documents and held teleconferences to discuss the revision of section 3 of the guidance document, which deals with transboundary movements of

* UNEP/CHW/OEWG.10/1.

[1] UNEP/CHW.11/6/Add.1/Rev.1.

used and end-of-life computing equipment, the development of a strategy and workplan for the implementation of concrete actions at the regional and national levels, and a manual on the steps to establish and implement the environmentally sound management of used and end-of-life computing equipment.

4. With respect to section 3 of the guidance document,[2] the Partnership Working Group proposed not to repeat the content of 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,[3] which were adopted, on an interim basis, by the Conference of the Parties at its twelfth meeting, but instead to make reference to the technical guidelines in section 3 of the guidance document while keeping specific information already included in the guidance document such as packaging and other information directly related to used and end-of-life computing equipment. A draft revised section 3 of the guidance document prepared by the Partnership Working Group is set out in annex I to document UNEP/CHW/OEWG.10/INF/13.

5. Having discussed a draft strategy and workplan for the implementation of concrete actions at the regional and national levels, the Partnership Working Group proposed to pursue a follow-up partnership to the Partnership for Action on Computing Equipment, which could address strengthening the environmentally sound management of waste electrical and electronic equipment at the regional and national levels, taking into consideration a life cycle approach and challenges related to used electrical and electronic equipment. A draft concept for such a follow-up partnership, prepared by the Partnership Working Group, is set out in annex II to document UNEP/CHW/OEWG.10/INF/13.

6. In addition, the Partnership Working Group finalized the manual on steps to establish and implement the environmentally sound management of used and end-of-life computing equipment to provide Governments and companies with an overview of the essential elements to establish, maintain and strengthen the environmentally sound management of used and end-of-life computing equipment being collected, refurbished, repaired, recycled and recovered, as set out in annex III to document UNEP/CHW/OEWG.10/INF/13.

7. The Partnership continued to implement the pilot projects launched under its work programme for the biennium 2014–2015 in Burkina Faso, El Salvador and the Central American region, Jordan, Moldova, Serbia, South Africa in cooperation with Lesotho and Namibia, and Suriname. All the pilot projects are to be completed in 2016. A report on project experiences and lessons learned will be developed based on the outcome of the pilot projects.

8. A regional workshop on enhancing capacities for the environmentally sound management of waste electrical and electronic equipment through regional delivery in Africa was held in Lagos, Nigeria, from 20 to 23 October 2015, with financial support from the European Union, the African Union Commission and the members of the Partnership Working Group.

III. Proposed action

9. The Open-ended Working Group may wish to adopt a decision along the following lines:

The Open-ended Working Group

1. *Takes note* of the progress made in the implementation of the Partnership for Action on Computing Equipment[4] including the draft

[2] Ibid.

[3] UNEP/CHW.12/5/Add.1/Rev.1.

[4] UNEP/CHW/OEWG.10/9.

revised section 3 of the guidance document[5] and the draft concept for a follow-up partnership to the Partnership for Action on Computing Equipment;[6]

2. *Invites* parties and others to submit comments on the draft revised section 3 of the guidance document and the draft concept for a follow-up partnership referred to in paragraph 1 of the present decision, to the Secretariat by 15 September 2016;

3. *Requests* the Partnership Working Group to revise section 3 of the guidance document and the draft concept for a follow-up partnership, taking into account comments made during the tenth meeting of the Open-ended Working Group and comments submitted in accordance with paragraph 2 of the present decision, for submission to the Conference of the Parties at its thirteenth meeting for its consideration and possible adoption;

4. *Takes note* of the manual on steps to establish and implement environmentally sound management of used and end-of-life computing equipment[7] and encourages parties and others, particularly countries where environmentally sound management is not fully established, to use it.

[5] UNEP/CHW/OEWG.10/INF/13, annex I.

[6] UNEP/CHW/OEWG.10/INF/13, annex II.

[7] UNEP/CHW/OEWG.10/INF/13, annex III.

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (d) (i) of the provisional agenda**

Matters related to the work programme of the Open-ended Working Group for 2016–2017: international cooperation and coordination: Basel Convention Partnership Programme

Documents developed by the Partnership for Action on Computing Equipment

Note by the Secretariat

1. As referred to in the note by the Secretariat on Partnership for Action on Computing Equipment (PACE) (UNEP/CHW/OEWG.10/9), the annexes to the present note set out the following documents developed by the Working Group of the PACE to complete some of the outstanding tasks from the 2014–2015 work programme:

(a) Annex I: draft revised section 3 of the guidance document on environmentally sound management of used and end-of-life computing equipment set out in document UNEP/CHW.11/6/Add.1/Rev.1 and proposed additional changes to ensure consistency of the text throughout the guidance document;

(b) Annex II: draft concept for a follow-up partnership to the PACE;

(c) Annex III: manual on steps to establish and implement the environmentally sound management of used and end-of-life computing equipment.

2. The present note, including its annexes, has not been formally edited.

* Reissued for technical reasons on 24 March 2016.

** UNEP/CHW/OEWG.10/1.

Annex I

Draft revised section 3 and proposed changes to other parts of the guidance document on environmentally sound management of used and end-of-life computing equipment

In accordance with paragraph 6 (a) of decision BC-12/12, the Working Group of the Partnership for Action on Computing Equipment prepared the draft revised section 3 of the guidance document on environmentally sound management of used and end-of-life computing equipment (UNEP/CHW.11/6/Add.1/Rev.1) as follows:

"3. Transboundary movement of used and waste computing equipment

3.1 Summary

3.1.1 Regarding the transboundary movement of used and waste computing equipment, it is referred to 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 (document UNEP/CHW.12/5/Add.1/Rev.1) which were adopted on an interim basis, in decision BC-12/5, at the twelfth meeting of the Conference of the Parties to the Basel Convention. In addition, this section contains guidance specific to the transboundary movement of used and waste computing equipment

3.2 Recommendations

3.2.1 Consistent with the PACE guidelines and report on ESM criteria, each importing country should take measures to establish appropriate infrastructure to ensure that waste computing equipment is collected and recycled in environmentally sound facilities, either within or outside the country.

3.2.2 Used computing equipment is sufficiently packaged if the packaging guidelines set out in appendix III are followed."

In addition, the Working Group proposed the following changes to ensure consistency of the text throughout the guidance document:

1. **Section 1.1.3**

   Revise the section as follows:

   "The document complements guidelines prepared by various project groups and approved by the PACE Working Group. It summarizes the information provided in the report prepared by the ad interim project group on environmentally sound management criteria recommendations and guidelines prepared by project groups 1.1 (environmentally sound testing, refurbishment and repair of used computing equipment) and 2.1 (environmentally sound material recovery and recycling of end-of-life computing equipment)."

2. **Section 4.2.3.2**

   Revise the section as follows:

   "Documentation for used and refurbished or repaired equipment should certify the testing performed on the equipment to verify that it is in working condition and is fit for its intended end use (appendix VII)."

3. **Section 4.2.3.3**

   Delete the section.

4. Appendix I, Glossary of terms

Delete the following 7 terms and their descriptions: Charitable donation; Engineered landfills; RoHS; Remarketing; Segregation; States concerned; WEEE Directive.

5. Appendix III, Packaging guidelines

(a) Delete paragraph 1.

(b) Revise the first sentence of paragraph 2 as follows:

"For shipments,[xxvii] the following packaging guidelines should be followed to sufficiently pack used computing equipment:"

6. Appendix IV, (a) Voluntary notification procedure and (b) Decision tree procedure

Delete the appendix.

7. Appendix V, Functionality tests for used computing equipment

(a) Revise the test results of laptop battery for "Laptop/notebooks" as follows:

Computing equipment	Functionality tests	Test results
Laptops/notebooks	**Power on self test (POST)[2]** Switching on the laptop and successfully completing the boot-up process. This will confirm that the principal hardware is working, including power supply and hard drive. • Test screen. • Test battery functionality. • Ensure that the display is fully functional. • Ensure that cooling fan(s) is(are) functional.	**Laptop** should boot up successfully. **Laptop** should respond to keyboard and mouse input. **Display** should turn on during boot up. Image should be clear and colours, contrast and brightness correct with no screen-burned images, scratches or cracks (see also below for display devices). **Laptop battery** should retain a minimum of 1 hour[3] of run time; alternatively the battery should be tested to determine that it has a full charge capacity in watt-hours of at least one hour (see appendix VI, testing of laptop batteries).

(b) Revise footnote 3 as follows:

"One hour is the minimum charge that a battery should hold, although some laptop users may request more usable run-time. It should be noted that some end-users will also be able to make use of batteries with less capacity, for example a battery able to hold 40 minutes capacity, which could be adequate if the laptop is normally connected to a reliable electricity supply."

8. Appendix VI, Testing methods for laptop batteries

(a) Revise paragraph 1 as follows:

"This is the most commonly used method and represents a simple test, able to be undertaken by all refurbishers. The system/battery combination is tested to ensure that it can hold an appropriate charge[5] to meet the minimum run-time charge. The laptop battery should be inserted into the laptop and then fully charged. The system[6] should be started with the screensaver disabled and allowed to run functions to demonstrate the capability of operating off the power grid. The time for the battery to drain fully is recorded."

(b) Revise footnote 5 as follows:

""Hold an appropriate charge" means that a battery, when used in a particular system, is capable of powering the system for a time period that meets the needs of a target user. "Time period that meets the needs of a target user" is the end-user expected operational time for the mode of operation expected. One hour is the minimum charge that a battery should hold, although some laptop users may request more usable run-time. Users may also be able to make use of batteries with less capacity, for example when using a computer system predominantly connected to the

grid, with the battery serving as a backup to allow the work product to be saved in the event of a power outage."

(c) Delete footnote 9.

9. Appendix VII, Declaration of testing and determination of full functionality of used computing equipment

Revise the appendix as follows:

Information to be provided on testing

Holder **(responsible for testing):** Name: Address: Tel.: E-mail**:**
Declaration: I, the legal holder of the used computing equipment listed below, hereby declare that the used computing equipment, listed below, was tested after it was removed from service, or after it was repaired/ refurbished, and is in good working condition and fully functional.[1] Name: Date: Signature:

Type of equipment[2]	Model No.	Serial No. (if applicable)	Year of manufacture	Date of testing	Type of tests and comments

[1] **Fully functional/Full functionality: Computing equipment** or **components** are "fully functional" when they have been tested and demonstrated to be capable of performing the essential key functions that they were designed to perform.
Essential Key Function: The originally intended function(s) of a unit of equipment or component that will satisfactorily enable the equipment or component to be reused.
[2] List all equipment and identify types of whole equipment, such as PC, laptop, printer and scanner. Component parts, such as circuit boards, memory, hard drives, power supplies or batteries, can be sent in a batch without the details required in columns 2 and 3 but still will need to be tested.

10. Appendix VIII, Information accompanying shipments of computing equipment returned under warranty or otherwise excluded from control procedures

Delete the appendix.

11. Appendix XIV, Endnotes

(a) Delete endnotes xiii to xx and xxviii to xxix.

(b) Revise endnote xxvii as follows:

"These provisions are in addition to applicable requirements under the United Nations Recommendations on the Transport of Dangerous Goods (i.e., UN Orange Book): Model Regulations, 18th revised edition, 2013, or later version."

Annex II

Draft concept for a follow-up partnership to PACE

DRAFT

PACE

Partnership for Action on Computing Equipment

Follow-up Partnership to PACE

(exact title to be adopted at later stage)

March 8, 2016

Content:

I. Introduction

1. A creative and innovative partnership, the Partnership for Action on Computing Equipment (PACE) has successfully advanced in laying the ground for significant steps towards achieving the environmentally sound management (ESM) of used and waste computing equipment which is one of the largest growing waste streams in the world today.

2. The PACE, launched in 2008 via COP decision IX/9 as a follow-up of the Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic Waste from COP8, was developed as a multi-stakeholder public-private partnership. It was based on the positive experience of the Mobile Phone Partnership Initiative (MPPI) which developed guidelines on the environmentally sound management of used and end-of-life mobile phones. Membership of the PACE working group and participation as invited experts is open to Parties and signatories to the Basel Convention, intergovernmental organizations and all other stakeholders, including manufacturers, recyclers, refurbishers, academia, public interest non-governmental organizations and Basel Convention Regional and Coordinating Centres (BCRCs/BCCCs) which have specific expertise and experience required for the activities of this group to tackle environmentally sound refurbishment, repair, material recovery, recycling and disposal of used and waste computing equipment. PACE delivered high value products, such as guidance documents, pilot projects, regional awareness raising and training workshops and a productive platform for multi-stakeholder dialogue. According to decision BC-12/12, the PACE working group has been requested to complete some outstanding tasks from the 2014-2015 work programme up to 2017.

3. Although PACE has contributed substantially to finding solutions, the challenges of achieving ESM of used and waste computing equipment are neither solved nor diminishing, on the contrary, they continue to grow. There are also up-stream challenges, taking into consideration a life cycle approach. These challenges have similarities with wider waste electrical and electronic equipment (WEEE or e-wastes) issues which are also on the rise.

4. There is an urgent need to bring action on the ground and to involve more industries, donors and other stakeholders into the implementation of concrete activities at regional and local level. It is proposed to establish a follow-up partnership to PACE with the aim to coordinate and strengthen the implementation of ESM for waste computing equipment as well as waste mobile phones and other WEEE, at the national and regional levels in developing countries and countries with economies in transition, taking into consideration a life cycle approach. The follow-up partnership should be supported by a working structure, similar to the one used by PACE and where necessary adapted to regional or local structures, but with a strong leadership involvement by the BCRCs and BCCCs and tapping into the capacities and experience of the centres and the already built PACE network.

II. Partnership approach

A. Scope

5. The follow-up partnership should cover strengthening the ESM of used and waste electrical and electronic equipment, at regional and national levels. In addition, a life cycle approach should be taken into consideration, including issues related to used electrical and electronic equipment; in this respect, duplication of work under SAICM in relation to the emerging issue of hazardous substances within the life cycle of electrical and electronic products[40] should be avoided.

6. The current momentum of ESM advances, e.g. within the Expert Working Group on ESM of the Basel Convention, calls for initiatives that are oriented towards action and provide practical solutions. The enforcement coordination initiatives to prevent illegal traffic, e.g. The Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic-(ENFORCE), also opens the opportunity to redirect informal sector activities related to e-wastes, while simultaneously advancing towards integrating informal operations and combating illegal transboundary movement of e-wastes.

[40] See http://www.saicm.org/index.php?option=com_content&view=article&id=455&Itemid=708

7. PACE experience in promoting ESM of used and waste computing equipment and its multi-stakeholder platform will be tapped for advancing ESM on used and waste electrical and electronic equipment which is of relevance to the Basel Convention and to other conventions when looked at with a synergistic lens (e.g. Stockholm Convention in the case of brominated flame retardants, Montreal Protocol in the case of ozone depleting substances found in refrigerators, Minamata Convention in the case of mercury used in backlighting of screens). Moreover, in the case of developing countries and countries with economies in transition, considering economies of scale and the real risk of rapid expansion of crude material recovery practices, it could make sense to set up one WEEE ESM program which gradually grows on its coverage of post consumption items.

B. Objective

8. To strengthen the ESM of used and waste electrical and electronic equipment, at regional, national and local levels, taking into consideration a life cycle approach.

C. Target groups

9. The follow-up partnership will capitalize the opportunity for expanding the reach of the work developed under PACE while at the same time be able to capture topics that are highly relevant to Parties of the Basel Convention and of other related chemicals and waste conventions, as well as to national, central and local governments, and other related stakeholders like original equipment manufacturers (OEMs), international organizations, associations and chambers, recoverers, recyclers, Non-Governmental Organizations (NGOs) and academia where the value added of PACE can be tapped to support implementation, knowledge and information sharing and experience exchanges.

D. Stakeholders

10. The follow-up partnership focuses on developing a multi-stakeholder partnership, including OEMs, the International Telecommunication Union (ITU) and its counterparts at the regional and national levels, as well as bilateral and multilateral agencies, academia and NGOs, led by the BCRCs and BCCCs (see Appendix II).

E. Working principles and structure

11. The follow-up partnership will focus on activities at the national and regional levels, which cannot be carried out alone by the Secretariat of the Basel Convention (SBC). Nonetheless, it is also clear that the partnership will continue to require an important global coordination role towards facilitating the strengthening of information and experience sharing and discussion on emerging issues within the wider WEEE agenda.

12. The follow-up partnership will make the best possible use of the ESM guidelines developed within the framework of the Basel Convention, in particular those developed by MPPI and PACE and the ESM Expert Working Group, and will implement activities as referred to in section 3.

13. A two-tier approach for the organizational structure of the partnership is proposed:

(a) A global coordination group to facilitate information and experience exchange and discussion on emerging issues, led under the BCRCs/BCCCs and facilitated by the SBC;

(b) Regional coordination groups to facilitate the implementation at the regional, sub-regional or national level, under the responsibility of BCRCs/BCCCs, facilitated by a global implementation secretariat served by one BCRC/BCCC that rotates biannually. This global implementation secretariat, besides supporting implementation will facilitate the setting of South-South exchange and will seek in coordination with the Secretariat of the Basel Convention to set up standardized formats for BCRCs/BCCCs to report on their implementation advances and opportunities.

III. Partnership work programme for 2018-2019

14. A detailed partnership work programme for 2018-2019 is included in Appendix I. The work programme includes activities on information exchange, training, stakeholder dialogues, support of national activities, life-cycle approach and awards.

Appendix I: Partnership work programme for 2018-2019

Activities	*Timeline*	*Expected Outputs*	*Responsible*	*Priority (to be set at later stage)*
Information exchange				
a) Distribute the MPPI and PACE guidelines, as toolkit, at the regional and national levels, including their translation to national languages	1st quarter 2018	1. MPPI and PACE guidelines are translated into national languages 2. MPPI and PACE guidelines are distributed in all countries in the Asia/Pacific, Africa, Central and Eastern Europe (CEE), Latin America and Caribbean (LAC) regions	All BCRCs/BCCCs	
b) Disseminate the document "Manual of steps to establish and implement ESM of used and waste computing equipment" and the report on "Strategies, actions and incentives to promote ESM of used and waste computing equipment" as supporting documents for projects at regional and national levels	1st quarter 2018	Documents and reports are distributed to relevant partners as supporting documents for regional and national projects at regional and national levels in the Asia/Pacific, Africa, CEE, LAC regions	All BCRCs/BCCCs	
c) Set up an information sharing web portal which provides and disseminates up to date information on expertise and knowledge available and ongoing activities, business models and producer responsibilities systems to the ESM of waste mobile phones and computing equipment and other WEEE in different regions of the world, taking into account other relevant work on ESM, e.g. work carried out under the ESM expert group under the Basel convention and supplementing existing information systems of the Regional Centres, ENFORCE, the United Nations Environment Programme (UNEP) and other related networks	1st -2nd quarter 2018	Information sharing web portal is set up	BRS Secretariat	

Activities	*Timeline*	*Expected Outputs*	*Responsible*	*Priority (to be set at later stage)*
d) Disseminate information on the establishment of national registers of obliged persons which is the basis for extended producer responsibility (EPR) applied to WEEE	1st – 4th quarter 2018	1. Information on establishment of national registers of obliged persons is collected and summarized; 2. Information on the establishment of national registers of obliged persons is disseminated	Coordinating BCRC/BCCC All BCRCs/BCCCs	
e)-Disseminate information on registered WEEE certification bodies in the different regions	3rd quarter 2018 – 4th quarter 2019	A system to disseminate information on registered WEEE certification bodies in the different regions is set up	1 BCRC in Asia/Pacific, 1 BCRC in CEIT, 1 BCRC/BCCC in Africa, 1 BCRC/BCCC in LAC	
Training				
f) Develop a tool kit, a workshop and training programme based on the MPPI and PACE guidelines and experience from MPPI and PACE, and other WEEE relevant materials, including a possible e-learning course, webinars in coordination with related e-waste regional and national projects	1st – 3rd quarter 2018	1. 1 toolkit per region is developed 2. 1 training programme and other WEEE relevant materials, including a possible e-learning course, webinars are organized per region 3. 1 workshop per region is organized	1 BCRC in Asia/Pacific, 1 BCRC in CEIT, 1 BCRC/BCCC in Africa, 1 BCRC/BCCC in LAC	
g) Organize national workshops or trainings in national language(s) as appropriate with participation of national stakeholders from governments, public or private sectors, NGOs and other national and international organizations, associations and chambers	4th quarter 2018 – 4th quarter 2019	Up to 4 national workshops or trainings per region are organized	All BCRCs/BCCCs	

Activities	*Timeline*	*Expected Outputs*	*Responsible*	*Priority (to be set at later stage)*
Stakeholder dialogues				
h) Organize regional and national dialogues on ESM of WEEE, bringing together among others government representatives of environment, customs, health, labor, telecommunication, transport, economics and trade ministries, departments and agencies ; as well as related stakeholders from the private sector, academia and NGOs and other national and international organizations, associations and chambers	1st quarter 2019 – 4th quarter 2019	1. Each BCRC/BCCC has organized 1 regional dialogues on ESM of WEEE 2. Each BCRC/BCCC facilitates the organization of up to 4 national dialogues on ESM of WEEE	1. All BCRCs/BCCCs 2. All BCRCs/BCCCs in cooperation with national authorities	
i) Facilitate donor round tables and contacts with funding institutions, foundations and investment partners in support of programmes, projects and initiatives on ESM of WEEE at regional and national levels	1st – 2nd quarter 2018; 1st – 2nd quarter 2019	1. Each BCRC/BCCC has organized 1 donor round table at regional level 2. Each BCRC/BCCC has facilitated the organization of up to 4 national round tables	All BCRCs/BCCCs in cooperation with national authorities and donors	
Support of national activities				
j) Assist initiatives on the inclusion of ESM of WEEE as part of the national development plans (mainstreaming) and strategies, e.g. on the development of legal and enforcement systems for ESM of WEEE, the implementation of the electronic notification for the Prior Inform Consent (PIC) procedure, public procurement, building of systems of registered WEEE certification bodies, the infrastructure for collection systems, dismantling and refurbishment facilities and EPR schemes, development of partnerships of stakeholders based on the PACE model, promotion of public awareness programmes, activities and events.	4th quarter 2018 – 4th quarter 2019	Each BCRC/BCCC has established cooperation with up to 4 national projects and supported the inclusion of ESM of WEEE into the national development plans and strategies	All BCRCs/BCCCs in cooperation with national project partners	

Activities	*Timeline*	*Expected Outputs*	*Responsible*	*Priority (to be set at later stage)*
Life-cycle approach				
k) Organize international, regional and/or national stakeholder workshops on the life cycle of EEE (while seeking synergies with the work under SAICM), bringing together concerned stakeholders from the private sector, such as designing, producing and recycling industries, consumer organizations, academia and NGOs and other national and international organizations, associations and chambers, as well as among others government representatives of environment, but also energy, health, labor, telecommunication, transport, economics and trade ministries, departments and agencies;	1st quarter 2019	1 international workshop + 1 follow-up workshop are organized	Specific project group of the partnership	
Awards				
l) -Establish an international, a regional and/or national award on ESM of used and waste EEE, taking into consideration a life cycle approach, including material extraction, design, production, use, reuse, refurbishment, repair, recycling, material recovery–	1st quarter 2019	1 international, 1 regional and/or 1 national award is/are established.	Coordinating BCRC/BCCC	

Appendix II: Basel Convention Regional and Coordinating Centres (BCRCs/BCCCs)

1. The Basel Convention benefits from a network of fourteen Regional and Coordinating Centres for Capacity Building and Technology Transfer (BCRCs/BCCCs). The Basel Convention has set up a regional network of autonomous institutions which operates under the authority of the Conference of the Parties, the decision-making organ of the Convention, composed of all the countries party to the Convention.

2. The BCRCs/BCCCs are established under two types of agreement: by being hosted in an inter-governmental institution or by vesting a national institution with a regional role to support countries within a region in their implementation of the Convention.

3. The BCRCs/BCCCs deliver training, dissemination of information, consulting, awareness raising activities and technology transfer on matters relevant to the implementation of the Basel Convention and to the ESM of hazardous and other wastes in the countries they serve. The specific activities are training workshops, seminars, pilot projects on the management of priority waste streams, the production of information material and guidelines.

4. The Centres are located in the following regions:

Africa and West Asia:	Egypt Nigeria Senegal South Africa
Asia and Pacific:	China Indonesia Islamic Republic of Iran South Pacific Regional Environment Programme (Samoa)
Central and Eastern Europe:	Russian Federation Slovak Republic
Latin America and the Caribbean:	Argentina El Salvador Trinidad and Tobago Uruguay

5. Each Centre services several countries in its respective region and has a Steering Committee which is composed of members of the Centre's host country and of the countries served by the Centre.

6. BCRCs/BCCCs website: http://www.basel.int/Partners/RegionalCentres/Overview/tabid/2334/Default.aspx

Annex III

Manual on Steps to Establish and Implement Environmentally Sound Management for Used and Waste Computing Equipment

Introduction

The purpose of this manual is to provide governments and companies with an overview of the essential elements to establish, maintain and strengthen the environmentally sound management (ESM) of used and waste computing equipment being collected, refurbished, repaired, recycled, and recovered.

The manual outlines practical steps necessary at the national level to establish and implement ESM for used and waste computing equipment. The document is for use particularly in countries where ESM is not fully established with the intention to support governments and industries in their process of implementing ESM. ESM can ultimately only be achieved when any sector, including the informal sector, complies with all applicable legislation, requirements and standards.

Five steps for governments:Step 1: Assess the current realities at national level

The objective of step 1 is to assess the current realities related to used and waste computing equipment to get a national overview of the situation in your country, including baseline estimates of e-waste flows and practices in order to have all the important elements from a government's perspective to build an action plan / strategy.

National and/or state or provincial legislative and regulative review	<u>National legislative context:</u> Does national and/or state or provincial legislation exist for solid and hazardous waste management in your country? Does it cover used and waste computing equipment? Are there any other pre-existing national laws and regulations that may be applicable to the various aspects of the ESM of used and waste computing equipment? Are there any related laws at the state or provincial level? Are national and sub national laws being enforced? Does any international or national technical directive on ESM of used and waste computing equipment exist? Does the country use any international standard or indicators to assess their used and waste computing equipment management techniques? Does the country implement any international standards to assist with the recovery of rare, strategic and precious metals from used and waste computing equipment? <u>Domestic laws pertaining to exports, imports, and transits of used and waste computing equipment:</u> Are there national laws that cover the import, transit, and export of used and waste computing equipment? Do the regulations vary for different types of shipments; e.g., repaired computers vs. unprocessed computers? Are these laws being enforced? <u>Multilateral environmental agreements (MEAs):</u> Is the country party to the Basel, Rotterdam and/or Stockholm Conventions? Does

	the country follow the SAICM? If so, has your country transposed your legally-binding obligations under these agreements into your domestic laws ("enabling legislation")? Is (Are) the enabling legislation(s) for these MEAs the same as the one(s) previously identified for dealing with used and waste computing equipment management? If not, do any specific conditions applicable to the ESM of used and waste computing equipment exist within the enabling legislation? <u>Regional environmental agreements (REAs) regarding transboundary movements (export, import, transit) of used and waste computing equipment:</u> Is the country a party to any regional waste and chemicals related MEA (e.g. Bamako Convention, Waigani Convention, Izmir Protocol, Central American Protocol)? Is (Are) the enabling legislation(s) for these REAs the same as the one(s) previously identified for dealing with used and waste computing equipment management? If not, do any specific conditions applicable to the ESM of used and waste computing equipment exist within the enabling legislation? <u>Trade agreements:</u> Is the country a signatory to any bilateral or other applicable trade agreement(s)? If yes, has your country transposed your legally-binding obligations under these agreements into your domestic laws ("enabling legislation")? If yes, do any conditions apply to the transboundary movements of wastes, especially used and waste computing equipment?
Stakeholder identification	Identify all relevant stakeholders: For example all government agencies which play (or should play) a role in managing used and waste computing equipment, persons from government, collection centres, repair and refurbishing facilities, brokers, recycling/recovery facilities, solid waste and hazardous waste landfills (with and without liners and leachate controls), waste-to- energy incinerators, transporters, storage/transfer facilities, the informal sector, producers/manufacturers, distributors, importers, exporters, retailers, business association(s), research centres and universities, formal and informal disposal sites, waste generators (such as households and businesses), relevant international organizations, standards developing organizations, non-governmental organizations and any others who are dealing with used and waste computing equipment.
Estimating volumes of used and waste computing equipment	Try to estimate domestic flows, by quantity and type per year, of used and waste computing equipment[1]: Estimate the volume of used and waste computing equipment that is *available* for reuse, recycling and recovery in your country annually. Estimate the volume that is currently being collected and reused. Estimate the volume that is currently being collected and recycled and recovered. Estimate the volume going to legal final disposal. Estimate the volume going to landfills and for incineration, or other types of final disposal. Try to estimate the volume being illegally disposed of. Try to estimate the volume that is not disposed of in an environmentally sound manner. Estimate the volume that is imported and from which country(ies). Clarify if it is

[1] See References UNU-IAS and Step e-waste world map: http://www.step-initiative.org/step-e-waste-world-map.html

	legal to import it from those countries. Estimate the volume that is exported and the destination.
Technical ability	Identify the existing infrastructures for managing used and waste computing equipment in your country, including existing collection, transportation, storage, refurbishment, recycling, and recovery facilities (such as metals refineries, plastics processors, glass processors, etc.), as well as non-hazardous waste landfills, incinerators (including waste to energy incinerators), and hazardous waste disposal facilities. Include domestic infrastructure, if any, for long term, monitored, and safe storage or treatment of hazardous materials in used and waste computing equipment, such as mercury, phosphors from CRT glass, polychlorinated biphenyls, etc. Identify all the fractions that will be created by recycling/recovery operations (including those needing further processing, those needing disposal, and those that may be ready for use as a direct feedstock into manufacturing new products), and determine what infrastructure exists in the country versus what will need to be exported to ESM downstream processors/disposal facilities. Identify the existing levels of skilled, trained workers for repairing used and waste computing equipment, safely recovering recyclable materials, and safely disposing of hazardous residuals. This should include an analysis of skilled, trained personnel and pollution control equipment to ensure worker's health and safety when repairing or recycling the equipment, as well as environmental protection, such as preventing air emissions, water run-off, and explosions. Identify which are the actual categories or scope of used and waste computing equipment in your country (such as IT, consumer electronics, medical, etc.) that are sent for reuse, repair, recycling, recovery, etc., and from which type of user or waste generator. Identify if there are any domestic companies certified to standards such as ISO 14001, ISO 9001, OHSAS 18001, or RIOS and R2, e-Stewards, or CENELEC, ITU-T L.1000, ITU-T L.1001, ITU-T L.1100 etc. Identify how the used and waste computing equipment used and waste computing equipment is recycled and what techniques and technologies are used. Identify how ESM is applied in facilities in your country managing used and waste computing equipment. <u>International & National Technical standards and guidelines:</u> Are any international standards and guidelines on the ESM of used and waste computing equipment being utilised in the local context? If yes, which ones are used? (e.g. Basel Convention including PACE, ITU, UNEP, OECD) If yes, are such standards and guidelines used by the private, the public sector or both? In what context are they used?
Collection	Is there a collection program for all types of used and waste computing equipment? If not, which types of used and waste computing equipment are collected in your country? Is there a cost to users to turn in their used and waste computing equipment? Are there public and / or private collection points that are convenient to the users and efficient for the collectors across the country? How many collection points are there in total and in terms of tonnages collected? Which areas of the country have adequate collection, and which do not? Is there any legal obligation(s) for businesses / importers to become collection points? Are any stakeholders responsible for taking back used and waste computing equipment?

	Are equipment manufacturers, importers or other stakeholders required to fund convenient collection systems? Is there a collection service for households, door to door? For which types of used and waste computing equipment? How does this service work? Is the service free to the consumer/user?
Public awareness	Is the general population aware about the environmental and health problems of mismanaging used and waste computing equipment? Are there educational programs on used and waste computing equipment in schools in the country? Are there any publicity activities regarding used and waste computing equipment? Are users/consumers committed to delivering used and waste computing equipment to collection points for free? Or are financial incentives necessary to motivate the consumer to deliver the used and waste computing equipment to collection points?
Financing aspects	How is the collection and appropriate repair, refurbishment, recycling, recovery, landfilling, and incineration of used and waste computing equipment financed in your country? Are there applicable landfill and incineration fees? Do consumers/citizens pay for solid and hazardous waste collection and disposal? Are there any additional funding mechanisms available in your country such as prepaid or advanced recycling fees, taxes, recycling funds or government incentives? What are the financial flows? How is the collection, recycling, recovery, landfilling and incineration of negative valued equipment, parts and fractions from used and waste computing equipment financed? Is there a domestic market for recycled material, such as commodity grade steel, copper, circuit boards, aluminium and plastic, in your country? Has any national, regional or international financing been provided for activities that support the ESM of used and waste computing equipment? Is there an Extended Producer Responsibility (EPR) legislation in place? Are there any government incentives for projects (eco design) or manufacture (green process) of environmentally friendly products?
Project activities	Has the country participated in any international or regional projects addressing the ESM of used and waste computing equipment and/or wastes? Are there any existing plans to be part of such projects? Have any key local stakeholders participated in any international or regional projects addressing the ESM of wastes and/or used and waste computing equipment? Are there any existing plans for key local stakeholders to be part of such projects? *(N.B.: projects / project activities include technology transfer, training and public awareness initiatives among other activities)*
Others	Are appropriate government agencies carrying out any kind of long term monitoring of occupational, social and environmental exposures and releases resulting from management / lack of management of used and waste computing equipment (e.g. releases of mercury, CRT phosphors, heavy metals, private data,

	etc.)? Is there a private or governmental data base to identify damage or quality indicators of the system and are data available? Has your country a forum in which to discuss the used and waste computing equipment problem with all stakeholders, Including industry, commerce, government, universities, research centres and users / consumers?

Step 2: Collect existing information

The objective of step 2 is to provide information and examples about existing laws, regulations and guidelines concerning ESM of used and waste computing equipment to develop/improve national legislation based on the step 1 assessment.

Many legal systems and projects on ESM of used and waste computing equipment have already been developed and put in place in diverse countries. Also, several initiatives have been launched over the past few years so that a number of documentation and guidelines exist on this topic. It appears useful to have a look at the concepts and projects like pilots projects that have already been developed in others countries and other parts of the world. All the documented experience is a valuable source in order to get inspired to develop a ESM of used and waste computing equipment.

Information on the following topics should be collected:

- Collection;
- Recovery
- Recycling/Refurbishment;
- Transboundary movement (TBM), i.e. import, transit, and export; and border controls;
- Final disposal;
- Financing system, e.g. extended producer responsibility (EPR), advanced recovery fees (placed on the sale of new computing equipment), taxes, etc;
- Data security.

Relevant points to be observed by compiling information about already existing used and waste computing equipment management systems and international agreements are among others:

Which kinds of used and waste computing equipments are covered by the legislation?
Which obligation is set by the legislation and to whom it is dedicated?
How is the collection organized?
Which stakeholder is responsible to take back used and waste computing equipment?
Who has the obligation to dispose of?
What are the demands on disposal?
Which components of used and waste computing equipment have special requirements / obligations?
What is the financing model for the recycling of components of no value? Does the legislation prescribe for example a prepaid recycling fee or contribution?
(N.B.: Examples of international conventions, regional agreements and national legislations and other regulatory frameworks are provided in the Appendix.)

Step 3: Identify gaps and needs

The objective of step 3 is to identify gaps between existing realities and national needs for an effective approach to managing used and waste computing equipment in an environmentally sound manner. The result of this step is a list of activities that should be addressed when establishing or improving the ESM of used and waste computing equipment.

The identification of gaps and needs should result in a list of activities that could be implemented in a near or far future to reach ESM of used and waste computing equipment. Based on the assessment in step 1 and by having an overview of the experiences of other countries and regional international entities (step 2), the gaps in the actual national system can be identified.

Example of gaps and needs that could be addressed:

- Gaps in downstream markets and disposal facilities for both hazardous and non-hazardous materials generated by repairing, refurbishing and recycling used and waste computing equipment;
- Gaps in transposing and implementing international treaty obligations into domestic law and enforcement for export, transit, and import of used and waste computing equipment, e.g. gaps in Competent Authority[41] functionality and response time;
- Gaps identified by analysis of existing relevant national legislation, existing relevant national strategic documents and existing infrastructure

Step 4: Define relevant needs and priorities

The objective of step 4 is to define the priorities based on the gaps and needs identified in step 3 and to provide examples of tools.

Draft or amend legislation(s):	Legislation should at least contain: - Regulations for solid and hazardous waste management; - Specific regulations for used and waste computing equipment to ensure ESM; - Defined responsibilities for key stakeholders covered by the specific used and waste computing equipment law ; such as local governments, consumers, small businesses, large businesses, etc.; - Legal obligations for collection, reuse, recycling, recovery or final disposal of used and waste computing equipment; - Registrations, permits or other means of authorisation, as needed, for facilities that repair, refurbish, recycle material, recover energy, or finally dispose of used and waste computing equipment; - Restrictions on the disposal of waste computing equipment; - Reporting / recording / data management requirements; - Financing systems, as needed, for the collection and ESM of the used and waste computing equipment; - Penalties for non-compliance with the law; - Enforcement mechanisms and responsible agencies/bodies.

[41] Pursuant to article 5 of the Basel Convention, Parties are required to designate or establish one or more competent authorities to facilitate the implementation of the Convention.

Establish or enhance a collection system	Establish collection points and mechanisms in order to ensure environmentally sound collection of used and waste computing equipment from households, communities, commercial entities and government entities. Involve the informal sector: – How will the informal sector participate in the formal system? – Will there be some government incentives?
Define a financing system supporting the ESM of used and waste computing equipment	Develop a financing model, such as establishing a recycling fund, advanced final disposal fees or levying of prepaid recycling fees, for negative valued used and waste computing equipment and components. Identify policies that attract industry and investments (incentives, awards, green procurement, etc). Provide incentives for the development of an end-use market for reusable and recycled materials derived from used and waste computing equipment.
Implement requirements regarding the treatment of used and waste computing equipment	Identify and implement the requirements for the collection, reuse and repair, recycling, recovery, landfilling and incineration of used and waste computing equipment. *(See example of PACE guidelines on ESM)*
Monitoring and control	Define monitoring and control mechanisms to manage permits, manifests and any accompanying forms. Monitor facilities, either public or private, that manage used and waste computing equipment as appropriate.
Awareness raising	Design and execute national public awareness campaigns on the used and waste computing equipment issue and national initiatives for the environmentally sound management of used and waste computing equipment, such as environmental education programs and collection campaigns.
Create a multi-stakeholder dialogue	Evaluate the role of a multi-stakeholder dialogue and install a multi-stakeholder forum that will serve as part of the implementation, monitoring and assessment mechanisms for the used and waste computing equipment activities and development of the management system.

Step 5: Implement activities

The objective of step 5 is to define a roadmap and/or a national action plan on ESM of used and waste computing equipment in order to implement the activities listed in step 4. Depending on the situation in the country, the following outcomes should be achieved:

- Establish a coordinating mechanism and organization process;
- Set goals, national objectives and reduction targets;
- Formulate an implementation plan;

An implementation plan could include, but would not be limited to the elements below:

Activity	Funding source	Lead Agency	Activity cost	timeline	Indicator

- Implement the roadmap and/or the national action plan on ESM of used and waste computing equipment;
- Develop a monitoring and evaluation mechanism for the plan.

Five steps for the private sector:

Step 1: Assess the current situation in your country

The objective of step 1 is to get an overview of the situation in your country regarding the ESM of computing equipment, including baseline estimates of e-waste flow and practices, financial aspects, technical ability and relevant stakeholders in order to have all the important elements to build a business strategy.

Used and waste computing equipment flow	How much used and waste computing equipment would be available to your business? (quantity of domestically-generated used and waste computing equipment, used and waste computing equipment imported and/or exported?)
Financing aspects	How is the collection, transport and recycling of used and waste computing equipment financed in your country? What are the financing flows? How is the recycling of the negative valued used and waste computing equipment and components financed? Is there a prepaid recycling contribution, taxes or other financing available?
Technical ability	What infrastructure exists for the ESM of used and waste computing equipment in your country, including existing repair, refurbishment, recycling, recovery, non-hazardous landfills, incineration and waste to energy, and hazardous waste disposal facilities? Which are the categories or scope of used and waste computing equipment (such as IT, consumer electronics, medical, etc.) that are sent for reuse, repair, refurbishment, recycling, recovery, etc in your country? What types of technologies are required for your "target" categories of used and waste computing equipment? Are there any companies in the country that are certified to standards such as ISO 14001, ISO 9001, or RIOS and R2, e-stewards, CENELEC, etc.?
Stakeholders	Identify key stakeholders: Stakeholders are, for example, persons from government, brokers, recyclers, the informal sector, producers, importers, retailers, consumers association(s), etc., who are dealing with used and waste computing equipment.
Public awareness	Are there educational programs concerning used and waste computing equipment in schools? Are there any publicity activities regarding used and waste computing equipment? Are users/consumers in your country committed to delivering the used and waste computing equipment to collection points for free or are there financial incentives in place to motivate consumers to deliver the used and waste computing equipment to collection points?

Step 2: Collect existing information

The objective of step 2 is to identify and assess existing laws, regulations and guidelines that must be complied with concerning the ESM of used and waste computing

equipment .Additionally, international agreements should be identified that address used and waste computing equipment management.

Domestic legislation	Identify whether legislation exists in your country for solid and hazardous waste management. Discern whether there are any specific laws that deal with used and waste computing equipment. Discern what types of used and waste computing equipment are addressed by the legislation. Discern what the legislation requires and the target regulatory audience in terms of compliance.
Organization of domestic collection systems	How is the collection organized in your country? Which stakeholder is responsible for take back? Who has the obligation to dispose of? What are the constraints on disposal? Which components have a special obligation?
Transboundary movement	Are used and waste computing equipment exports and imports regulated in your country? Does the regulation vary for different types of shipments (e.g., repaired computers vs. unprocessed computers)? Are these laws enforced? Are the countries importing and exporting used and waste computing equipment Parties to the Basel Convention or Basel Convention article 11 bilateral or multilateral agreements?
Management systems	Identify management systems that can be applied to used and waste computing equipment in the context of promoting ESM (as ISO 14001, ISO 9001, or RIOS and R2, e-stewards, CENELEC)

Step 3: Assess the situation for establishing a business

The objective of step 3 is to provide guidance to assess the situation for establishing a business based on information gathered in step 1 and step 2.

Establishing a business	What are the legal requirements for setting up a solid or hazardous waste facility? What are the legal requirements to reuse, repair and refurbish used and waste computing equipment? What are the legal requirements to recycle, recover, or incinerate used and waste computing equipment? Which techniques are available for moving and separating components? Is there a business opportunity? Where do you get material from? What legislation is available? Is there someone else active in the sector (assess competition)? Where are the valuables? What has no value? Where and how to get the used and waste computing equipment outlet market?

	How do you manage downstream waste? Which techniques / technologies can be used? How can you set up your business model/operations based on incoming waste material as well as available downstream markets and solutions (cement plant, smelter, etc. available)? What is the scope of setting up a business, e.g. does government regulate the number of recyclers; are there measures in place to prevent or at least minimise illegal movements/dumping? How do businesses work together? How closely is the government monitoring and controlling? How can you, in a transformal situation, involve the informal sector?
Commercial considerations	Develop a business plan that supports your facility "niche" operations capabilities, e.g. collection compared to reuse, refurbishment and repair compared to recovery, in order to be economically viable. Establish a plan to ensure that all hazardous substances derived from used and waste computing equipment are managed in accordance with all applicable laws and in an environmentally sound manner. Develop business relationships prior to entering the market place for key upstream and downstream markets in order to obtain the necessary volume for recycling and for end use market sales of reusable equipment and commodity grade materials, such as steel, aluminium, copper and plastics. Strategically choose your facility location based on proximity to transportation outlets, such as highways, railroads, and ports. Acquire any relevant permits, registrations or manifests needed to operate your facility. Join a trade association to network with industry leaders, learn about new, innovative technologies and best business practices. Analyse values at different steps, e.g. if a collection system is available.
Technical Considerations	What are the requirements regarding the treatment of waste computing equipment? What techniques and technologies are required for sorting, processing, recycling, material and energy recovery and final disposal? Can the company meet minimum requirements (emission limits, water usage, etc.? What is the logistics situation in the country?
Financial Considerations	Are there incentives available for solid and hazardous waste management? Are there incentives specifically for used and waste computing equipment? Does the legislation prescribe for example a prepaid recycling fee or contribution? What is the financing model for the recycling of non valued components?
ESM considerations	An used and waste computing equipment management facility should be managed in an environmentally sound manner, i.e.it must meet all basic requirements to ensure ESM of such used and waste computing equipment and commit to continual improvement in their operations. The whole life cycle of the facility should be covered, from planning and construction of a facility to its operation and subsequent dismantling or site remediation (in the event of accidents or spills during operation) or site clearance after closure, as appropriate. As such, a facility should meet the approval of the

	competent authorities concerned. The facility should have: • Appropriate design and location of the plant, taking into account potential risks to the environment, including environmentally sensitive areas; • Where appropriate, an environmental and social impact assessment, which should be conducted and approved by the appropriate authorities before a facility is constructed; • Sufficient measures in place to safeguard occupational safety and health (OSH), including: – Measures which meet the requirements of national OSH legislation; – Appropriate actions to address significant actual and/or potential risks to the health and safety of the public and of workers, based on a risk assessment, and to correct deficiencies that have been identified, including contingency arrangements in the event of plant breakdown or accidental spillages; – An appropriate and adequate training programme for personnel to ensure employees have an appropriate level of awareness, competency and training with respect to the effective management of occupational risks, including the effective management of wastes; • Sufficient measures in place to protect the environment, including: – Measures to control pollution taking into account emission limit values to air, water and soil; – Appropriate actions to address significant actual and/or potential risks to the environment, based on risk assessment, and to correct deficiencies that have been identified, including contingency arrangements in the event of plant breakdown or accidental spillages; – Waste acceptance and handling criteria, including measures to ensure due diligence and proper collection, sorting, pre-treatment, treatment, storage and downstream management of wastes and residuals; • An applicable environmental management system in place, if feasible and appropriate, which: – Describes, assesses and reviews the design, construction, operation, monitoring, management and maintenance of the facility and which will be periodically reviewed; – Demonstrates compliance with applicable legislation and regulations; – Demonstrates the commitment of management to integrating a systematic and consistent approach to achieve ESM in all aspects of facility operations; – Includes provisions to support transparency and confirm implementation of ESM by the facility, subject to appropriate protection of confidential business information, which can help assure the public that operations and activities are compatible with ESM. Such provisions may include third-party audits and inspections; • An adequate and transparent monitoring, recording, reporting and evaluation programme which covers: – Relevant legal requirements, including key process parameters; – Compliance with applicable safety requirements;

	– Effluents and emissions; – Records of incoming, stored and outgoing wastes. • An adequate emergency plan and response mechanism; • An adequate plan for closure and aftercare, which includes the identification and remediation of contaminated sites.
Monitoring and control	In the absence of an environmental management system put in place a system to monitor the performance of the used and waste computing equipment management operations, for both record keeping purposes and to detect discharges, releases, or accidents and to take appropriate actions if performance does not comply with targets.
Capacity building for compliance	Set up a workers protection, environmental and health system. Ensure compliance with all applicable legal requirements, including transboundary movements, , licenses, data security, etc.

Step 4: Define relevant needs and priorities

The objective of step 4 is to establish priorities based on the assessment done in step 3.

Identify the various gaps that exist in step 3 regarding:

- Establishing a business;
- Commercial considerations;
- Technical Considerations;
- Financial considerations;
- ESM considerations;
- Monitoring and control;
- Capacity building for compliance.

Based on the assessment, establish priorities to move forward to launch the business based on:

- Material and financing flow analysis;
- Used and waste computing equipment inventory and assessment;
- Actual types of management of used and waste computing equipment at recycling and refurbishment facilities compared to ESM at each facility.

Step 5: Implement activities

The objective of step 5 is to define a roadmap to establish a business on ESM of used and waste computing equipment.

The roadmap for activities should be developed and implemented on the basis of the assessment in step 3 and in order to take action to bridge the prioritised gaps as identified in step 4. The identified gaps will differ case by case depending on the situation in the country and the interest of the company(ies).

Appendix

Examples of international conventions, regional agreements and national legislations and other regulatory frameworks

International conventions and regional agreements

Basel Convention Stockholm Convention Rotterdam Convention	http://www.basel.int/ http://chm.pops.int/ http://www.pic.int/
Regional Agreements regarding transboundary movements (export, import, transit) of used and waste computing equipment	Waigani Treaty: Bans the exporting of hazardous or radioactive waste to and from Pacific Islands Forum countries Bamako Convention: Treaty of African nations prohibiting the import of any hazardous wastes (including radioactive) Izmir Protocol: Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal Central American Accord: Regional agreement to control the trans-boundary movement of hazardous wastes and prevent the illegal traffic and disposal of such wastes in Central America

Legislation on ESM of used and waste computing equipment

Argentina	National Legislation: • Resolution Secretary of Energy 48/2015: Approval of the General Regulations of the stimulus program called RENOVATE (Program for Promotion of Production and Marketing of Household Electric Appliance Energy Efficient) in force at December 31, 2015 http://www.infoleg.gob.ar/infolegInternet/anexos/245000-249999/245470/norma.htm Autonomous City of Buenos Aires: • Law 2807 and decree 70572011: establishes measures for the management of used electronic devices http://www.buenosaires.gob.ar/areas/leg_tecnica/sin/normapop09.php?id=120229&qu=c&ft=0&cp=&rl=1&rf=&im=&ui=0&printi=1&pelikan=1&sezion=1094565&primera=0&mot_toda=&mot_frase=&mot_alguna= Provinces: • Law 14321 Decree 2300/11 Province of Buenos Aires: establishes guidelines, obligations and responsibilities for the sustainable management of Waste Electrical and Electronic Equipment (WEEE) http://www.gob.gba.gov.ar/legislacion/legislacion/l-14321.html • Law 9737 Province of La Rioja: Recycling Program of WEEE http://www.residuoselectronicos.net/wp-content/uploads/2013/07/laRioja.jpg • Law 56 Province of Chubut: Recycling Program of WEEE http://www.legischubut2.gov.ar/digesto/lxl/XI-56.html • Law 8362 Province of San Juan: general framework for the management of used EEE and WEEE http://www.legislaturasanjuan.gob.ar/index.php/prensa/item/3222-ley-n-8362 • Law 7345 Province of Chaco: program and regulation for the management of WEEE http://200.41.235.179:83/index.php?option=com_content&view=article&id=1228:ley-7345-chaco-poder-legislativo&catid=600&Itemid=477
EU	Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE),

	http://ec.europa.eu/environment/waste/weee/legis_en.htm Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), http://ec.europa.eu/environment/waste/rohs_eee/legis_en.htm Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2012 on shipment of waste, http://ec.europa.eu/environment/waste/shipments/legis.htm
Madagascar	Decree N°2012-753 of 07/08/12, relating to the prohibition of the import of wastes within the Basel convention frameworks Decree N° 2012-754 of 07/08/12 establishing the end of life-product management procedure, wastes and hazardous waste environmentally harmful generator, within the Basel convention implementation Decree No. 2015-930 of 06/09/15 establishing Classification And Environmentally Sound Management of Electrical Electronic Equipment (WEEE) in Madagascar
Peru	Reglamento Nacional para la Gestión y Manejo de losResiduos de Aparatos Eléctricos y Electrónicos, 2012 Ministerio del ambiente N° 2012-16354 http://www.raee-peru.pe/index.php/reglamento-nacional-raae-1
Slovak Republic	Law on waste 79/2015 (e-waste is mentioned in Section 2) Secondary legislation on e-waste 373/2015
Switzerland	Ordinance on the return, the take back and the disposal of electrical and electronic equipment (ORDEE) SR 814.620; available in German, French and Italian language; see below. Verordnung über die Rückgabe, die Rücknahme und die Entsorgung elektrischer und elektronischer Geräte (VREG) SR 814.620 http://www.bafu.admin.ch/abfall/01472/01478/index.html?lang=de Ordonnance sur la restitution, la reprise et l'élimination des appareils électriques et électroniques (OREA) SR 814.620 http://www.bafu.admin.ch/abfall/01472/01478/index.html?lang=fr Ordinanza concernente la restituzione, la ripresa e lo smaltimento degli apparecchi elettrici ed elettronici (ORSAE) SR 814.620 http://www.bafu.admin.ch/abfall/01472/01478/index.html?lang=it
General data base	ECOLEX, the gateway to environmental law: http://www.ecolex.org/start.php

Technical guidelines, guidance documents and technical directives

Basel Convention (PACE)	Guidance document on the environmentally sound management of used and end-of-life computing equipment, adopted (except section 3) at COP11 in 2013 (document UNEP/CHW.11/6/Add.1/Rev.1), http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidanceDocument/tabid/3246/Default.aspx Guideline on environmentally sound testing, refurbishment and repair of used computing equipment; Guideline on environmentally sound material recovery and recycling of end-of-life computing equipment; Glossary of terms; Report with ESM criteria recommendations http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/PACE/PACEGuidelinesandGlossaryofTerms/tabid/3247/Default.aspx
Basel Convention (technical	Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and

guidelines)	non-waste under the Basel Convention, *Adopted*, on an interim basis, at COP 12 in May 2015 Advance version - document UNEP/CHW.12/5/Add.1/Rev.1: http://www.basel.int/TheConvention/ConferenceoftheParties/Meetings/COP12/tabid/4248/mctl/ViewDetails/EventModID/8051/EventID/542/xmid/13027/Default.aspx
Peru	Norma Técnica Peruana NTP 900.064, 2012: Gestion Ambiental. Gestión de residuos. Manejo de risduos de aparatos eléctricos y elcectrónicos. Generalidades, Peru Norma Técnica Peruana NTP 900.065, 2012: Gestion Ambiental. Gestión de residuos. Manejo de risduos de aparatos eléctricos y elcectrónicos. Generación, recolección interna, clasificación y almacenamiento. Centros de acopio., Peru
Switzerland	Technical guidelines for the disposal of waste electrical and electronic equipment, SENS and SWICO, Switzerland. Available in French and German language; see below Prescriptions techniques pour la récuperation des déchets d'équipements électriques et électroniques SENS et SWICO, Switzerland Technischen Vorschriften zur Entsorgung von Elektro- und Elektronikaltgeraten SENS und SWICO, Switzerland

Additional resources and examples

UNEP/IETC	E-waste Volume III - WEEE/e-waste "Take back system", August 2013 E-Waste Vol. 2: E-waste Management Manual, Dec 2007 (PDF 2.2MB) E-Waste Vol. 1: Inventory Assessment Manual, Dec 2007 (PDF 1.7MB)
UNEP	Sustainable Innovation and Technology Transfer Industrial Sector Studies Recycling – From E-Waste to Resources. http://www.unep.org/pdf/pressreleases/E-waste_publication_screen_finalversion-sml.pdf
UNU-IAS	E-waste statistics: guidelines and classification, reporting and indicators http://i.unu.edu/media/unu.edu/news/49515/E-waste-Guidelines_Partnership_2015.pdf
Solving the E-waste Problem (step)	Solving the E-Waste Problem (step) Green Paper: Recommendations on Standards for Collection, Storage, Transport and Treatment of E-waste; Principles, Requirements and Conformity Assessment: http://www.step-initiative.org/tl_files/step/_documents/Step%20Publication/Step_GP_End%20of%20Life_final.pdf Solving the E-Waste Problem (Step) White Paper: Recommendations for Standards Development for Collection, Storage, Transport and Treatment of E-waste http://www.step-initiative.org/tl_files/step/_documents/Step%20Publication/Step_WP_Standard_20140602.pdf Step e-waste world map: http://www.step-initiative.org/step-e-waste-world-map.html
Plataforma RELAC	Lineamientos para la gestión de los Residuos de Aparatos Eléctricos y Electrónicos en Latinoamérica : Resultados de una Mesa Regional de Trabajo Público-Privado / Guidelines for the management of waste electrical and electronic equipment (WEEE) in Latin America: Results of a regional public-private round table: http://www.residuoselectronicos.net/
Ministerio de Energía y Minería, Argentina	National Resolution Secretary of Energy 48/2015 establishes a system for the payment of financial compensation to the beneficiary entities Program Renovate: https://www.elclimalohacesvos.gob.ar/
IFIXIT	The free repair guide:: https://www.ifixit.com/
Project Econormas MERCOSUR	Sustainable Production and Consumption http://www.econormas-mercosur.net/es/pcs
Microsoft Refurbisher Programs	Refurbished PCs: http://www.microsoft.com/refurbishedpcs/programs.aspx

ITU's Connect 2020 Agenda	Goal 3: Sustainability: Target 3.2: Volume of redundant e-waste to be reduced by 50% by 2020: http://www.itu.int/en/connect2020/Pages/default.aspx

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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (d) (i) of the provisional agenda*

Matters related to the work programme of the Open-ended Working Group for 2016–2017: international cooperation and coordination: Basel Convention Partnership Programme

Draft concept note for a household waste partnership

Note by the Secretariat

As referred to in the note by the Secretariat on creating innovative solutions through the Basel Convention for the environmentally sound management of household waste (UNEP/CHW/OEWG.10/10), the annex to the present note sets out the draft concept note for a household waste partnership. The present note, including its annex, has not been formally edited.

* UNEP/CHW/OEWG.10/1.

Annex

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I. Introduction

1. One of the key challenges related to waste management faced by national governments and municipalities, particularly in developing countries, countries with economies in transition and small island development states (SIDS), is to achieve the prevention and minimization of household wastes and the environmentally sound management (ESM) of household wastes.

2. The ESM of household waste includes, inter alia, environmentally sound source separation, collection, transport, storage, separation, recycling, other recovery including energy recovery and final disposal of household waste. Among the key issues to be considered are sustainable financing of the ESM of household waste, possibilities for source separation, collection, in-country recycling opportunities, limiting the household waste management costs and challenges in connection with the informal sector. A lot of work related to household waste has already been done and is ongoing, for example at the UNEP IETC under the UNEP Programme of Work and in the context of other multilateral environmental agreements like to Stockholm and Minamata convention, and can to be taken into account.

3. The ***problems*** related to household waste may be attributed to a number of ***causes such as*** lack of financial resources, increasing waste management cost, inefficient institutional arrangement, inappropriate technology and equipment, weak legislation, unawareness of the public, high rate of population growth, urbanization and increase in quantities and volumes of household waste.

4. The volume of household waste in many countries is increasing while its composition is permanently changing. Based on their origin and/or composition and their characteristics, household waste may contain hazardous materials co-mingled with non-hazardous materials.-Because of the potential for contamination with hazardous substances, waste collected from households is classified under the Basel Convention as requiring special consideration (Basel Convention, Annex II, Y46).

5. At the Conference of the Parties to the Basel Convention at its twelfths meeting in May 2015 (COP 12), Parties agreed to initiate the development of a concept for a partnership that will assist governments and municipalities to support circular economy with the aim to prevent the generation and to reduce the amount of waste, separate, recover and recycle as much as possible valuable materials, separate and handle hazardous wastes safely, and create sustainable jobs.

6. COP 12 adopted decision BC-12/13 on creating innovative solutions through the Basel Convention for the ESM of household waste. The Parties agreed to include in the work programme of the Open-ended Working Group the development of a work plan on the ESM of household waste with a focus on the needs of developing countries and countries with economies in transition, and also agrees that such a workplan could include, but would not be limited to, developing guidance documents and/or manuals on, inter alia, best practices, business models and innovative solutions for the circular economy in various

socio-economic contexts, as well as developing a concept for a partnership to assist municipalities.

7. An Informal Group was established and tasked with the development of a work plan for consideration by the Open-ended Working Group at its tenth meeting.

8. This document provides elements related to the mission statement, scope, key objectives, working principles and structure, financial arrangements and work programme for 2018–2019 for the household waste partnership (here in after referred to as "Partnership") based on the decision BC-12/13 and the discussion at the COP 12 plenary for consideration by the Open-ended Working Group.

II. Mission statement

9. To achieve the prevention and minimization of household waste, to enable the decoupling of economic growth and the environmental impacts associated with the generation of household waste and its initial handling by households, and to achieve the ESM of household waste, i.e. the environmentally sound collection, transport, separation, recycling, other recovery including energy recovery and final disposal of household wastes, including the sound handling of hazardous objects and substances contained in household waste.

III. Scope

10. The Partnership will consider the ESM of household waste generated nationally and disposed of at the national level as well as household waste imported as a result of a transboundary movement from a State that does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner[1].

IV. Key Partnership objectives

11. The key objectives of the Partnership will be the following:

(a) Develop guidance documents and manuals for governments, regional and local authorities on, inter alia, best practices, business models, policies and innovative solutions for the ESM of household waste in various socio-economic contexts with the aim of preventing the generation of and reducing the amount of household waste, promoting recycling, performing other recovery including energy recovery and finally disposing of the remaining part of municipal wastes in an environmentally sound manner as well as separating and safely handling hazardous substances and objects contained in household wastes, and creating sustainable jobs;

(b) Raise awareness among relevant audiences, e.g., local government officials, schools, academia, business, non-governmental organizations and households, and develop outreach strategies for an integrated approach to the implementation of the ESM of household wastes and the promotion of a circular economy;

(c) Address challenges in connection with the informal sector.

V. Working principles

12. The working principles of the Partnership will be the following:

[1] See Article 4.9 (a) of the Basel Convention.

(a) To promote dialogue amongst governments, regional and local authorities, private sector, non-governmental organizations and academia on initiatives that could be carried out in different regions;

(b) To foster best practice solutions showing concrete and practical results consistent with the Basel Convention, and make recommendations;

(c) To coordinate and cooperate, as appropriate, with other bodies involved in household waste management activities;

(d) Decisions on all matters shall be made by consensus. Decisions taken by the Partnership Working Group shall only be effective as between its members. Any decision taken under the Partnership cannot create or abrogate rights or responsibilities of Parties under the Basel Convention.

VI. Working structure

13. It is proposed that a Partnership Working Group will be established by the Conference of the Parties in its next meeting in 2017. The Working Group shall be the operating and coordinating mechanism for the Partnership and organizational matters, and serves as a forum for information sharing.

14. The Working Group shall operate under the guidance of and report to the Open-ended Working Group of the Basel Convention, through the Secretariat of the Basel Convention.

15. The Working Group will decide on the priorities of the Partnership and will establish Project Groups to work on specific tasks. The Project Groups may establish Project Sub-Groups as needed. The Project Groups report to the Working Group which will review and approve the products and reports prepared by the Project Groups.

16. Terms of Reference for the Partnership will be developed and adopted by the Partnership members.

17. The following Project Groups (PG) structure is proposed:

(a) PG 1: To compile and discuss available technical solutions for the ESM of household wastes, define household wastes, collect and analyse data about household wastes, identify gaps and identify possible innovative approaches to:

(i) Closing material cycles taking into account the whole product life-cycle and strengthening waste prevention and minimization;

(ii) Treatment of solid waste, biodegradables and hazardous substances and objects contained in household wastes including occupational safety for workers;

(iii) Identification and classification of the components of household wastes;

(iv) Separation of household wastes at source;

(v) Collection and transport;

(vi) Recycling and other recovery including energy recovery;

(vii) Final disposal operations.

(b) PG 2: To analyse current systems of the management of household wastes at local level, including financing, e.g. using extended producer

responsibility or fees, the socio economic situation of stakeholders and vulnerable groups, business models, to identify shortcomings and barriers, and identify possible innovative approaches to efficient coordination and cooperation at local level, taking into account the following:

(i) Regulations and competent authorities at municipality level;

(ii) Facilities, equipment and systems for ESM of hazardous substances and objects contained in household wastes;

(iii) Involvement of the informal sector;

(iv) Creation of new jobs;

(v) Development of pilot projects, case studies and successful examples;

(vi) Address challenges in connection with the informal sector.

The PG 2 may by lead by one of the Basel Convention Regional and Coordinating Centres for Capacity Building and Technology Transfer (BCRCs/BCCCs) and delegate related tasks to regional Project Sub-Groups, depending on the interest of participating countries and stakeholders, e.g.: Africa (eventually with sub-sub-groups for Anglophone, Francophone and Arab-speaking African countries), South-East Asia, Latin America, SIDS and/or other sub-grouping.

(c) PG 3: To raise awareness and disseminate the Partnership outcomes by compilation and dissemination of existing information on ESM and best practices, data and tools round the world with the aim among others to advice how to develop programs, management plans and strategies for household waste management at national level.

VII. Potential partners

18. Membership of the Partnership Working Group is open to parties and signatories to the Basel Convention, regional and local authorities, intergovernmental and non-governmental organizations including private sector and academia dealing with the different aspects of waste management, e.g. prevention, minimization, recycling, material and energy recovery and final disposal, as well as manufacturers and BCRCs/BCCCs which have specific expertise and experience required for the activities of this group.

VIII. Financial arrangements

19. In order that the Partnership can begin and operate on a reliable basis, it is essential to have predictable funding. Partners involved in the Partnership should be prepared to make financial contributions as set forth below to enable a successful start to the Partnership.

20. Representatives of industry bodies or associations, individual companies, and environmental non-government organizations would be able to participate as partners in Partnership meetings and teleconferences where their body has paid the appropriate annual subscription, based on a sliding scale of assessment which will be discussed and agreed upon by the partners (see appendix). Exemption from subscriptions may have to be considered for small-scale enterprises and local non-governmental organizations.

IX. Partnership work programme for 2018–2019

21. The following tasks are to be undertaken by the Partnership Working Group and its Project Groups:

(a) Develop an overall Guidance Document for the ESM of household waste compiling the key outcomes and recommendations from the Project Groups and consider whether an updating of the Technical Guidelines on Waste Collected from Households, adopted in 1994, should be initiated;

(b) Evaluate available technical solutions and business models on the ESM of household waste, and analyze environmental, economic, political and social impacts of new strategies / solutions;

(c) Analyse current systems of the management of household wastes at local level, including financing, e.g. using extended producer responsibility or fees, identify different stakeholders and potential beneficiaries, shortcomings and barriers, and identify possible innovative approaches to efficient coordination and cooperation at local level taking into account regional specificities;

(d) Enhance awareness-raising and training on the ESM of household waste, and enhance people's participation in household waste management activities and decision-making;

(e) Coordinate outreach activities and cooperation with other organizations working on household waste management;

(f) Bring orientation for programs, management plans and strategies at national level including waste prevention and minimization programmes.

Appendix

Sliding scales of assessment for annual subscriptions to the Partnership

Individual Companies

Total asset (USD)	Annual contribution (USD)
Over 100 billion	$16,500
100 billion – 5 billion	$8,250
5 billion – 5 million	$3,300
Below 5 million[2]	$1,000

Business Associations and Environmental NGOs (not for profit organizations)

Total budget (USD)	Annual contribution (USD)
Over 10 million	$10,000
10 million to 1 million	$3,000
1 million to 100,000	$1,000
Below 100,000[3]	$200

[2] Exemption from subscriptions may have to be considered for small-scale enterprises.

[3] Exemption from subscriptions may have to be considered for small-scale environmental NGOs.