STUDY ON USED AND END-OF-LIFE GOODS

(Secretariat of the Basel Convention, 21 May 2012)

Executive Summary

In accordance with Decision BC-10/3, this study identifies options for dealing with the problem posed by the transboundary movement and disposition of used and end-of-life goods ("UELG"). These goods do not easily fit the paradigm of wastes to be permanently disposed of. The re-use or recycling of such goods can conserve resources and provide significant economic opportunity to both exporting and importing States. At the same time, export of such goods, especially when not accomplished for the purported purpose of re-use, carries risk to health and the environment, particularly in developing countries that lack the necessary capacity and infrastructure to manage them properly, including assuring environmentally sound management and disposal of any hazardous components. In addition, lack of clarity regarding the status of these goods under the Basel Convention, combined with divergent national approaches, have complicated efforts to manage effectively their transboundary movement.

A number of Parties to the Basel Convention have developed measures, strategies and policies to address this issue, and a considerable amount of guidance has been developed by public-private partnerships such as the Partnership for Action on Computing Equipment and the Mobile Phone Partnership Initiative. There is considerable agreement that goods are not wastes if destined to be re-used for the purpose they were intended, without the need for repair, refurbishment, or similar processing. However, there are differences as to whether and how much (if any) processing is allowed before a good is considered a waste, what characteristics should be demanded of the good in question, and what criteria should be applied to any refurbishment or other processing operation. A lesser degree of consensus has emerged regarding goods that are in need of such processing prior to re-use. Finally, most Parties consider that used and end-of-life goods, destined not for re-use but for recycling[1]or recovery operations[2], are wastes to be managed, if hazardous, in accordance with the Basel Convention.

This study also considers the relationship between trade and the environment as it relates to UELG, and concludes that carefully designed and targeted measures to regulate transboundary movement of such goods are not likely to violate international trade rules, if applied in the context of a widely accepted international agreement, such as the Basel Convention.

Drawing upon Party practice and the various guidance documents on the subject, this study offers several options for dealing with the problem posed by UELG, some of which

[1]For purposes of this study, the term "recycling" refers to the processing or transformation of used materials into new products. The term does not include re-use or direct re-use.

[2] For purposes of this study, the term "recovery operation" refers to processes by which materials which are no longer fit for their originally intended purpose are transformed into a usable state or by which materials are extracted in usable form. Cf, Basel Convention Technical guidelines on the environmentally sound recycling/reclamation of metals and metal compounds (R4), http://www.basel.int/DNNAdmin/AllNews/tabid/2290/ArticleType/ArticleView/ArticleID/189/Default.aspx. (Retrieved 14 May 2012.)

could include take-back obligations[3]. The following categories of operations are considered: direct re-use; re-use after some processing; and recycling/recovery.

[3] Given the paucity of references on the topic, the options presented do not attempt to clarify the concept of "charitable donations," although it is possible that such donations could be subject to different criteria than those that apply to UELG that are sold.

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INTRODUCTION

This study was prepared in response to Decision BC-10/3 of the Conference of Parties ("COP") to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (hereinafter, the "Basel Convention" or "Convention"). In that decision, adopted in furtherance of the Indonesian-Swiss "country-led initiative" to improve the effectiveness of the Convention, the COP noted that "a number of the provisions of the Convention are interpreted differently by parties and that the implementation and application of these provisions would benefit from additional legal clarity." The COP also "[r]ecogniz[ed] that there needs to be a clear distinction between wastes and non-wastes for some used equipment and second hand goods and that imports of used and near end-of-life goods that soon become waste are a matter of serious concern in some countries." The decision called for the preparation of "a study to identify options for dealing with the problem posed by used and end-of-life goods, which could include take-back obligations and clarification of the concept of 'charitable donations.'"

This study is divided into four parts. The first part explains the methodology used to prepare the study. The second part identifies problems faced by Parties with respect to used and end-of-life goods (hereinafter, "UELG"). The third part of the study summarizes how Parties address these problems, as well as other work and initiatives to address UELG. In accordance with the instructions in Decision BC-10/3, the third part also considers the relationship between trade and the environment in the context of transboundary movement of wastes and transboundary movements involving UELG. The final part of this document presents some potential options for dealing with the problems presented by UELG. These options may serve, in conjunction with the other report commissioned by Decision BC-10/3: "Implementation of the Basel Convention as it Relates to the Interpretation of Certain Terminology," as a basis for the Open ended Working Group , during its eighth meeting, to elaborate draft guidance or other approaches that would provide national authorities, regional centres and other stakeholders with consistent advice on the interpretation of the terms in question, for consideration by the Conference of the Parties during its eleventh meeting.

PART I: METHODOLOGY

This study is largely based on a review of information contained in:

- Responses of Parties and other stakeholders to the "Questionnaire on the implementation of the Basel Convention as relates to the interpretation of certain terminology used in the Convention and a list of other relevant terms related to the implementation of the Convention," circulated by the Secretariat pursuant to COP Decision BC-10/3 (hereinafter, the "2012 Questionnaire").[4]
- Recent communications (from 2008-2011) from Parties to the Basel Convention Secretariat regarding the subject matter of the study;

[4] The following Parties responded to the 2012 Questionnaire: Argentina, Brazil, Canada, Central African Republic, Chad, Colombia, the European Union and Member States, Ivory Coast, Japan, Lithuania, Malaysia, Montenegro, Morocco, Nicaragua, Paraguay, St. Lucia, Yemen, and Zambia. Responses were also received from the United States, BCRC Teheran, the Information Technology Industry Council, Phillips Medical, and PC Rebuilders and Recyclers, LLP. Unless otherwise indicated, responses to the 2012 Questionnaire, reproduced as Appendix 1 to this study, are the source for references to Parties' laws, regulations, views, and policies. A more detailed summary of those responses, as well as other information provided by Parties and stakeholders, is provided in Appendix 2.

- Compilation of communications from Parties and summary of national laws and regulations, prepared by the Secretariat in 2008 and 2009;
- Review of national and regional laws and other instruments;
- The Basel Convention Draft Technical Guidelines on transboundary movements of electronic and electrical waste (e-waste), in particular the distinction between waste and non-waste (UNEP/CHW.10/INF/5);
- Guidelines and guidance (some still in draft) issued by the Partnership for Action on Computer Equipment ("PACE") and the Mobile Phone Partnership Initiative("MPPI");
- Reports issued in connection with various initiatives, particularly those involving the Basel Convention, pertaining to the subject of the study, particularly regarding the distinction between waste and non-waste;
- Reports issued by the Organisation for Economic Development ("OECD"), the World Trade Organisation ("WTO") and other international organizations; and
- Publications by non-governmental organizations and academicians[5].

Information regarding the laws, practices and policies of the Parties, as well as recommendations found in the guidance documents mentioned above, was compiled and analyzed for commonalities and differences. The study highlights common and regional approaches, and draws heavily on those approaches in the options presented in Part V.

PART II: PROBLEMS POSED BY USED AND END-OF-LIFE GOODS

1. Background

Hazardous waste moved to the forefront of the global environmental agenda in the early 1980's, following the discovery in several developing countries of deposits of toxic wastes imported from abroad. In response to growing international concern about the hazards posed to human health and the environment by transboundary movement of hazardous wastes and their disposal, the Basel Convention was adopted by a conference of Plenipotentiaries in Basel, Switzerland on 22 March 1989.[6]

Although hazardous waste dumping and other unsafe final disposal practices may have precipitated development and adoption of the Convention, the instrument also applies to waste destined for certain recycling/recovery operations specified in Annex IVB, which bears the caption, "Operations which may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses."

The Basel Convention's framework rests on three pillars:(i) a global control system for the transboundary movement of wastes; (ii) the environmentally sound management of wastes; and (iii) minimizing the generation of wastes. The extent to which UELG is subject to the global control system for transboundary movement of wastes, or to other potential mechanisms for the control of international trade in UELG, has implications for the environmentally sound management of those goods and their components, particularly in developing countries. In addition, the manner and degree to which the global control system is applied to the transboundary movement of used and end-of-life goods could affect the extent to which and how such goods are in fact re-used, recycled, or recovered.

[5] Due to space limitations, few of these sources are cited in this document.

[6] *United Nations Treaty Series*, Vol. 1673, p. 57 *et seq*. The Basel Convention entered into force on 5 May 1992.

2. Identification of problems posed by used and end-of-life goods

Used goods, in particular used electrical and electronic equipment ("UEEE"), play an important role in the world's economy. Access to lower-priced information and communication technology equipment can contribute to higher living standards and development in developing countries, and to the achievement of UN Millennium Development goals. Management of UEEE plays an important economic and social role in some developing countries. For example, in Accra, Ghana and Lagos, Nigeria alone, the refurbishing sector provides income to more than 30,000 people.[7] Re-use, refurbishment and recycling of UEEE can also promote resource efficiency, reduce consumption of rare metals, and reduce greenhouse gas emissions, by avoiding energy-intensive primary production of electrical and electronic equipment ("EEE") and its component materials.[8]

Despite these potential benefits, substantial concern has been raised in recent years about potential environmental and human health problems associated with the transboundary movement of UELG. Informal, unregulated, and improper recycling, recovery, and disposal practices associated with UEEE and its components have released large amounts of toxic chemicals, endangering workers, nearby communities, and the environment.[9]

Few of the respondents to the 2012 Questionnaire circulated by the Basel Convention Secretariat mentioned specific environmental or health concerns in their responses to the question: "Has your country been faced with or identified problems posed by used and end-of-life goods, particularly transboundary movements of such goods?"[10] Rather, Parties have identified two types of practical problems associated with the transboundary movement of UELG: insufficient capacity and infrastructure, and difficulties associated with the definition, classification and regulation of UELG.

a. Capacity and infrastructure -- Several Parties (Andorra, Bosnia & Herzegovina, Bhutan, Central African Republic, Chad,[11] and Montenegro) noted difficulty in providing the requisite technological expertise, processing capacity, or legal/enforcement infrastructure necessary to assure that imported UELG is handled in a safe and environmentally sound manner. Andorra reported that due to its size and resources, the Party lacks the means to treat and recover all hazardous wastes and other wastes generated within it, and accordingly would probably not restrict the export of wastes that it cannot treat or recover itself. Similarly, Bhutan has stated: "We do not have required infrastructure and facilities for recovery. This is coupled with lack of technology and capacity in managing the hazardous wastes."[12] Presumably, this concern is less acute for items that will be directly re-used, although

[7] Basel Convention Secretariat, "Where are Weee in Africa,": http://www.basel.int/Implementation/TechnicalAssistance/EWaste/EwasteAfricaProject/Publications/tabid/2553/ Default.aspx. (Retrieved 11 May 2012.)

[8] See, e.g., the Draft E-Waste Guidelines, para. 13 ("direct re-use or re-use after repair or refurbishment can contribute to sustainable development.")

[9] See, e.g., the Ghana e-waste Country Assessment, http://ewasteguide.info/files/Amoyaw-Osei_2011_GreenAd-Empa.pdf. (Retrieved 13 April 2012.) Advocates for re-use of exported UELG do not generally contest this proposition. (See, e.g., Response to 2012 Questionnaire from the Information Technology Industry Council (ITI) (acknowledging that it is "keenly aware of the problems posed by the mismanagement of end-of-life electronic goods," and "supports efforts under the Convention to ensure 'sham recycling' activities are identified and prohibited)." See also, the Draft E-waste Guidelines, para.11. .

[10] An exception was the Ivory Coast, who pointed to "Insalubrité, incapacités (financière, matérielle et institutionnelle de gestion de ces différents produits en fin de vie), pollution (du sol, de l'eau, de l'air….)". (Ellipsis in original.) In addition, Argentina reported unspecified problems with imported materials such as sludge treatment plants, used tires, and UEEE; and Brazil reported several cases of illegal transboundary movements of lead-acid automotive used batteries.

[11] Chad reported that it is supported by the Global Environment Facility (GEF) and the Basel Convention Regional Centre for Training and Technology Transfer For French speaking countries in Africa (based in Dakar, Senegal) in the management of PCBs and PCB transformers. However, Chad has no legislation governing the collection and transport for hazardous waste (PCBs).

[12] Basel Convention national reporting compilation, 2009, http://www.basel.int/Portals/4/Basel%20Convention/docs/natreporting/2009/compI/2009-question-3b.pdf

safeguards to ensure that direct re-use actually occurs may be necessary. In addition, re-use might only be possible for a limited period of time: if the good is at or near its end of life, the issue of its disposal in compliance with environmentally sound management ("ESM") requirements will soon arise.

b. Regulatory issues -- Several Parties (Argentina, Canada, Colombia, the European Union and its Member States (hereinafter referred to as "the EU"), Japan, Lithuania, and Morocco) cited difficulty or divergences in differentiating (either on their own part or, in the case of Japan, on the part of trading partners) between used goods and waste.[13] Customs authorities have had difficulty identifying the intended disposition, useful life, and functionality of imports. National and international import statistics generally do not distinguish between the import of new and used EEE, thus making tracking of UEEE in the country of import difficult.[14] The EU cited difficulties associated with distinguishing between used goods and wastes in the context of charitable donations, and noted that such donations had been used as a "cloak" for the export of waste. In a similar vein, Japan advised that some wastes "disguised as the second-hand items" were illegally exported and intercepted by the destined country, although it appears that differing national definitions and regulations regarding second-hands goods were also a factor. Malaysia cited illegal import and export of end-of-life cathode ray tubes and computer monitors. Nicaragua advised that too much equipment, products and materials are being imported, and that companies or importers tend to disappear, with the result that materials are illegally disposed of in landfills. Zambia voiced similar concerns. The United States stated that, "exports [of UELG] may be mismanaged abroad, causing serious public health and environmental hazards and representing a lost opportunity to recover valuable resources."

Industry has also cited concerns about divergent regulatory policies. The Information Technology Industry Council (ITI) reported that at recent meetings of the PACE Working Group, uncertainty surrounding the ability to export used equipment for repair or environmentally sound recycling was identified by its members as a significant barrier to the expansion of voluntary programs in developing countries. Likewise, Phillips Medical indicated that "transboundary shipments of used products regularly meet with administrative/bureaucratic hurdles which impede our desire to create closed loop material streams such as the recovery of rare earth from fluorescent lamps, refurbishment of medical equipment, and parts harvesting of professional products."

[13] At the Regional Workshop on Prevention of Illegal Transboundary Movement for Hazardous Waste in Asia held in Beijing in March 2007, participants "shared the perception that illegal traffic of hazardous waste, especially UEEE and waste EEE ("WEEE"), could partly be attributed to differences in interpretation and lack of mutual understanding among Asian (and other) countries regarding the concept of "reusable" products and/or "hazardous" waste and material. Participants agreed that exporting countries should respect the import controls of the countries of import regarding used/waste electrical and electronic equipment." Basel Convention Coordinating Center for Asia and the Pacific (Asia-Pacific Regional Centre for Hazardous Waste Management Training and Technology Transfer), Report of the Project on "the Import/Export Management of E-waste and Used EEE," (June 30, 2009) (hereinafter, the "BCCCAP Project Report").

[14] See Colombia response to 2012 Questionnaire and Basel Convention; See also "Where are Weee in Africa," note 7 *supra.*

PART III: ADDRESSING PROBLEMS ASSOCIATED WITH UELG

1. Approaches adopted by Parties and signatories

Parties and signatories have adopted a variety of measures, strategies, and policies to address the problems associated with UELG. A summary of these follows. More detail may be found in the Appendix 2 to this study.

a. Comprehensive programs -- The EU's legal framework for the treatment of waste[15] establishes a waste hierarchy. In order of priority are: prevention; preparing for re-use; recycling; other recovery,[16] notably energy recovery, and disposal. EU Directives require Member States to introduce legislation on waste collection, re-use, recycling and disposal of UELG. Among other things, Member States are required to: (i) promote the design and production of EEE with a view to encouraging re-use; (ii) set up separate collection systems and optimize collection and transport of WEEE for preparing for re-use, recycling and the confinement of hazardous substances; (iii) establish targets for the recovery and recycling of WEEE; and (iv) ensure that producers provide financing of the collection, treatment, recovery and environmentally sound disposal of WEEE.[17]

b. Criteria for re-use -- As is discussed in more detail in the accompanying draft report on the implementation of the Basel Convention as it relates to the interpretation of certain terminology, several Parties e.g., Argentina, Canada, China, Colombia, EU, Japan, Singapore, South Africa) , as well as the Hong Kong Special Administrative Region of China ("HKSAR"), have developed or are developing measures to clarify when a UELG is to be considered and regulated as a (hazardous) waste, particularly in the context of EEE. Among the measures undertaken are:

- excluding from waste status items that are directly re-used, without intervening repair, refurbishment, etc. between import and re-use;
- providing objective criteria to determine whether an item is sufficiently functional and marketable to be considered as intended and destined for re-use; for example:
    - Many Parties (e.g., China, Singapore) require that imported UEEE (and sometimes UEEE intended for export) be accompanied by documentation of functionality testing.
    - China requires that all imported UEEE must undergo inspection after arriving at the port of China and requires "3C certification" that the equipment is comparable to brand new EEE.[18]
    - Many Parties and the HKSAR require that imported UEEE be shipped in sufficient individual protective packaging with legible labels or signs.
- providing objective criteria to determine when an item can be prepared for re-use in a safe and environmentally sound manner; and

[15] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008.

[16] Re-useis distinct from recovery (defined as: operation the principal result of which is waste serving a useful purpose) and recycling (defined as: any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes).

[17] directive 2011/…/EU Of The European Parliament And Of The Council On Waste Electrical And Electronic Equipment (WEEE), (recast) Articles 4-6, 11-13.

[18] BCCCAP Project Report, citing General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), China. December 31, 2002. Administrative Measure on Inspection and Supervision of Imported Used Mechanical and Electrical Products.

http://www.chinaccia.org.cn/zcfg/jdcp/jd-12.htm. 2009-05-27. (In Chinese)

- adopting domestic Harmonised System codes and export identification standards to differentiate UEEE from brand-new EEE. Import/export of used EEE are allowed, subject to documentation that appliances are in working condition and suitable for re-use.

c. Control as a waste and other import restrictions -- Some Parties (Colombia, Nicaragua, Norway,[19] Viet Nam) have decided to treat UELG as wastes. For example, in Colombia, actions to discard re-use or deliver what is considered a waste must be controlled at all stages, even when delivered to a third party for processing or subsequent treatment. Colombia declared that "transboundary movements of used or second hand electrical and electronic equipment as well as WEEE should be subject to the control procedures of the Basel Convention, regardless of whether the exporting countries classified them as hazardous or whether [or not] they are intended for recycling or recovery operations." Colombia also advocated establishment of clear policies against the import of EEE for re-use or refurbishment, noting that if such imports are allowed, importers will be considered as producers and must comply with all obligations concerning the entry of EEE into the country.

Nicaragua favors prior consultation of environmental authorities before authorizing the export of a second-hand good, whether hazardous or non-hazardous, recognizing differences to capacity in handling, use, response and responsibility to return them to their origin. Indonesia has prohibited the import (but not export) of a list of "non-new capital goods, including refrigerators, washing machines, TV, phones, air conditioners, printed circuit, valve and thermion tube, cold cathode or photo cathode tube, etc. Importation into Indonesia of used EEE and e-waste for direct (individual) consumption by consumer is prohibited."[20] Viet Nam has reportedly banned the import of waste materials, toxic chemical substances and second-hand commodities, including electronic, cooling and home appliances, as well as the import of seven categories of second-hand electronic and communications products. The decree also prohibits the import of spare and component parts for the aforesaid products. Brazil has also prohibited the importation of "virtually all used consumer goods, including motor vehicles... [and] [t]he importation of used machinery, equipment, and cargo containers will only be granted if it is proven that the products are not produced in Brazil and cannot be substituted by a similar product currently produced in that country.[21] Brazil prohibits the importation of hazardous solid waste and solid wastes that present significant risk to health or the environment, even for treatment, reform, reuse, reuse or recovery.[22]

d. Take-back -- Schemes under which exporters take back waste and other material that is not being handled in accordance with applicable legal or contractual requirements are increasingly used as a tool to address and minimize problems associated with UELG.[23] Many of these schemes are voluntary programs undertaken by manufacturers of EEE and other equipment. In addition, some Parties (e.g., Colombia, EU, Philippines) have adopted some form of take-back measure either as part of their domestic program to control waste, or in order to minimize and control the transboundary movement of UELG. The EU scheme is part of its broader program of extended producer responsibility, a broad topic that is beyond the scope of this study. The Philippines has adopted "Interim guidelines for the importation of recyclable materials containing hazardous substances," which allow the import of

[19]Norway would make an exception in the case of equipment returned under warranty to its producer.

[20]BCCCAP Project, citing H. Hamdani, "Indonesia Regulations and Policies on Export- Import Related Electronic Equipment. Regional Workshop on E-waste Identification toward the Prevention of Illegal Transboundary Movement for Hazardous Waste and Other Wastes in Asia." http://www.bcrc.cn/en/meetings/File_reg2008/06-INDONESIA-presentation%20beijing%202008.pdf, 2009-05-27

[21] Response to Questionnaire, citing National Law nº 12.305 from 02/08/2010 – National Policy on Solid Waste – Article 49.

[22]*Id.*, citing National Environmental Council (CONAMA) Resolutions Nr. 23 (December, 1996) and Nr. 235 (January 7, 1998). The legislation defines which wastes are forbidden from being imported and which are just controlled.

[23] The Basel Convention includes provisions on take-back, but these apply in case of illegal traffic (article 9.2) or when transboundary movement of hazardous waste or other waste cannot be completed within the terms of the contract (Article 8).

electronic assemblies and scrap on the condition that residuals from the recycling of materials which contain hazardous substances without any acceptable method of disposal in the Philippines must be shipped back. With respect to WEEE generated internally, Colombia has issued a series of standards requiring manufacturers and importers to establish return and recovery systems. In the United States, a number of State governments have adopted legislation that requires electronics take-back. In addition, U.S. manufacturers and distributors often have, on a voluntary basis, instituted programs where consumers can return discarded electronics. Some retail stores offer consumer electronics recycling programs, as well as locations to drop off used mobile phones, rechargeable batteries, and ink-jet cartridges.

e. Charitable donations -- Some Parties (EU, Japan) have suggested that charitable donations might be used to disguise the export of waste materials. No specific definitions of the term "charitable donations" were provided, although Brazil reports that the following supplies/ goods do not require import licenses:

> "Assets donated to hospitals, clinics and other non-profit entities for social assistance and charity, or institutions dedicated to scientific, educational or philanthropic purposes provided that the destination is intended for its own use or meet their institutional aim confirmed through its respective statutes, excluded from the ordinance vehicles such as automobiles."[24]

In addition, Colombia recommended that donation centres report the final destination and use of the units received, and that the WEEE generated by refurbishment operations at these centres should be treated and recycled properly. In Colombia's view, a donation center becomes a producer if it introduces used EEE into the market. The recipient of the equipment should be considered as a consumer of an EEE, with the attendant obligations and responsibilities. Finally, recent guidelines issued by PACE set forth a list of principles for corporate donors of functional used computing equipment.[25]

f. Particular items -- Some Parties have developed lists of goods or categories of goods as a means of, or factor for, determining whether and how UELG are subject to regulation. For example, and as previously mentioned, Indonesia prohibits import of listed "non-new capital goods," including refrigerators, washing machines, TV, phones, air conditioners, printed circuit, valve and thermion tube, cold cathode or photo cathode tube, etc.[26] Importation of used EEE and e-waste for direct (individual) consumption by consumer is prohibited".[27]

The EU recently published a recast of its Directive on WEEE.[28] The recast Directive includes several detailed lists of categories of EEE and items within those categories. Among its requirements related to WEEE management, the recast Directive sets minimum targets for the re-use of various categories of EEE. It would also require Member States to

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[24] Ordinance of the Brazilian Foreign Trade Department of the Ministry of Development - DECEX (Portaria nº 370, November, 1994), Nicaragua also provided information on its regulation of the donation of medications.

[25] Appendix 10, PACEGuidance Document on the Environmentally Sound Management of Used and End-of-Life Computing Equipment" (discussed in more detail in section 2.c., below). These principles call upon donors to: provide a useful product appropriate to the conditions of the recipient country and community; ensure and verify availability of technical support; test, certify and label functionality: support the recipient with training or training programs; ensure that the recipient community consents in writing to receiving the material in accordance with contractual terms and conditions; and export in accordance with applicable national and international controls. The PACE document does not define the term "charitable donation."

[26] BCCCAP Project, citing Minister of Industry and Trade, Indonesia, Decree No. 756/MPP/KEP/12/2003 on Import of Non-new Capital Goods and Decree No. 610/MPP/Keep/10/2004 Regarding Amendment of No. 756/MPP/Kep/12/2003.

[27] *Id.*, citing H. Hamdani, note 20, *supra.*

[28] Directive 2011/…/EU of the European Parliament and of The Council on waste electrical and electronic equipment (WEEE) (Recast).

ensure that shipments of used EEE suspected to be WEEE are carried out in accordance with detailed shipping requirements.

g. Other measures -- The United States has adopted a plan intended to enhance the management of EEE throughout the product lifecycle, including improving safe handling of UEEE domestically and internationally, and to reduce harm from U.S. exports of e-waste. Among other things, the plan contemplates: procurement requirements for the considerable amount of EEE used by the U.S. federal government; development of incentives for design of greener electronics; increasing safe and effective management and handling of used electronics in theU.S.; reduction of harm from U.S. exports of E-waste; and improvement of safe handling of used electronics in developing countries. The U.S. has also adopted a regulation applying notice and consent requirement to the transboundary movement of used and end-of-life cathode ray tubes.

2. Other initiatives to address UELG

A number of initiatives have sprouted in recent years to address issues associated with the transboundary movement of UELG. These include bilateral, regional and multilateral initiatives, projects within the construct of the Basel Convention and other international fora, and several public-private partnerships, operating in cooperation with Basel Convention Parties. These initiatives are described briefly below.

a. Bilateral, regional and multilateral Initiatives

(i) Asia-Pacific e-waste partnership: The Government of Japan in collaboration with the Secretariat of the Basel Convention launched the Basel Convention Partnership on the Environmentally Sound Management of E-waste for Asia-Pacific Region in November 2011. This programme focuses on enhancement of the capacity of Parties to manage E-waste in an environmentally sound way. The Partnership's strategic objectives are the:

- assessment of the current situation on E-waste;
- prevention and minimization of E-waste;
- introduction of the environmentally sound management of E-waste; and
- promotion of information and training for all sectors.

(ii) MERCOSUR: The countries of the Southern Common Market (MERCOSUR) (Brazil, Argentina, Uruguay and Paraguay) defined WEEE as a "universal generation waste," under the Agreement, "Environmental Management of Special Wastes and the Principle of Extended Producer Responsibility," which was signed during the Fourth Meeting of Ministers of Environment of MERCOSUR on 29 March 2006 and awaits approval by the Common Market Council. The MERCOSUR countries agreed to "incorporate patterns of sustainable consumption and production in order to minimize the amount and hazardousness of waste generated".

***(iii) The North American Commission for Environmental Cooperation (CEC)*:** Through the CEC, Mexico and the United States are working to enhance the capacity of small and medium-sized enterprises that refurbish and recycle UEEE to implement environmentally sound management practices, estimate the amount of transboundary movements of used computers and monitors, and cooperate in enforcement against illegal trade in UEEE.

b. Initiatives under the auspices of the Basel Convention

(i) Basel Convention "Draft technical guidelines on transboundary movements of electronic and electrical waste (e-waste), in particular regarding the distinction between waste and non-waste (version 21 February 2011)[29]

The draft technical guidelines on transboundary movements of electronic and electrical waste (e-waste), in particular regarding the distinction between waste and non-waste (hereinafter draft E-Waste Guidelines), developed through the work of the Basel Convention Open-ended Working Group (OEWG) and drawing on outputs of PACE, MPPI and others, provide, for purposes relevant to this study, guidance on: the distinction between waste and non-waste when used equipment is moved across borders; the distinction between hazardous waste and non-hazardous waste; transboundary movements of used equipment and e-waste; and enforcement of the control provisions of the Convention.

The guidelines, which are generally consistent with criteria followed by Parties such as China, Japan, the EU, and Malaysia, as well as the HKSAR, consider UELG to be *non-waste* if:

- directly re-used for the purpose for which it was originally intended or presented for sale or exported for the purpose of being put back to direct re-use;
- fully functional;
- accompanied by appropriate documentation, including proof of functional capability and final destination;
- protected from damage during transportation; and
- not destined for any of the operations listed in Annex IV of the Convention.[30] In addition, items returned for repair under warranty would not be considered to be waste if they are protected damage during transportation, loading and unloading, and to be returned to the user and accompanied by a declaration from the exporter that none of the equipment is waste as defined by national law of the countries involved.[31]

On the other hand, used equipment would normally be considered *waste* if:

- it is missing essential parts;
- it fails relevant functionality tests;
- it shows physical damage that impairs its functionality or safety;
- its packaging is insufficiently protective;
- its appearance is particularly worn or damaged, thus reducing its marketability;
- the item has among its constituent part(s) hazardous components that are required to be discarded or are prohibited for use in such equipment under national legislation;
- the equipment is destined for disposal or recycling instead of re-use;
- there is no regular market for the equipment;
- it is destined for cannibalization (to gain spare parts); or

[29]UNEP/CHW.10/INF/5 (hereinafter, the "Draft E-Waste Guidelines"), accessible at http://archive.basel.int/meetings /cop/cop10/documents/i05e.pdf). The draft guidelines do not represent the official position of the Basel Parties, but in decision BC-10/5 adopted at COP 10 the Parties took note of information provided on progress of development of these technical guidelines. The guidelines are only in their second draft and may be revised, as many comments have not yet been considered or included.

[30]Draft E-waste Guidelines para. 27.

[31]*Id*, para. 27(b) with reference to paras. 26(c) and (d).

- the price paid for the item is significantly lower than would be expected from working equipment intended for re-use.

The draft E-Waste Guidelines also recommend procedures for the management of transboundary movement of equipment not deemed to be a waste (other than those returned under warranty). For equipment suitable for direct re-use without repair or refurbishment, the guidelines recommend: (1) evaluation and testing of functionality; (2) recording the results of such evaluation and testing; and (3) appropriate protection against damage. In the case of equipment requiring repair or refurbishment, the guidelines recommend a voluntary notification scheme.

(ii) Basel Convention Regional Centre for Training and Technology Transfer for the Asia and the Pacific region - project on "the import/export management of e-waste and used EEE"

The report on this project provides a detailed and useful review of approaches to controlling the import and export of used EEE and WEEE in 10 Asian countries, namely: Cambodia, China (including HKSAR), Indonesia, Japan, Malaysia, the Philippines, Republic of Korea, Singapore, Thailand and Viet Nam.

(iii) Basel and Stockholm Convention Regional Centre in Tehran (BCRC & SCRC- Tehran)

In response to requests from organizations and companies working on waste management for consultancy and training services, the Centre has organized workshops on the transboundary movement of waste, including used tyres, WEEE, PCBs and wastes contaminated with PCBs, and used lead acid batteries. The Centre has scheduled programmes for training and transfer of technologies on waste management within the southwest Asian region. The BCRC Tehran offers an executive training programme on ESM of wastes from the generation to disposal, including a first regional technical workshop in January 2012. BCRC Tehran favors a strong regulatory scheme to encourage and require ESM of waste, as well as take-back systems for recyclable waste such as e-waste and used tyres.

(iv) "E-waste Africa Project" coordinated by the Secretariat of the Basel Convention and implemented by the Basel Convention Coordinating Centre for Training and Technology Transfer for the African Region (BCCC-Nigeria), the Basel Convention Regional Centre for Training and Technology Transfer for French-speaking countries in Africa (BCRC-Senegal)

The goal of the E-waste Africa project was to enhance the capacity of West African and other African countries to tackle the growing problem of e-waste and thereby protect the health of citizens, particularly children, while providing economic opportunities. Specifically, the project improved the level of information available on flows of EEE and e-waste imported into West African countries; assessed the baseline situation in terms of amounts of EEE imports, EEE in use and e-waste in partner countries, as well as environmental impacts of the e-waste sector; produced studies on the social-economic aspects of the increasing volumes of used EEE and e-waste; and strengthened national capacities to monitor and control transboundary movements of e-waste and to prevent illegal traffic. At the Pan-African Forum on E-waste held on 14-16 March 2012 in Nairobi, Kenya, participating African States called for developing and adopting a separate legal instrument specifically supporting e-waste management at the national level and for harmonizing key elements in national legislation on a regional level including, *inter alia*, e-waste, producer, environmentally sound management and extended producer responsibility, which should be in line with definitions developed under the auspices of the Basel Convention, including the MPPI and PACE.

(v) Other BCRCs

Other BCRCs are involved in similar endeavors. For example, PC Rebuilders and Recyclers, LLC reports that it is working with the BCRC in El Salvador to create a micro-financed computer refurbishment program that will include and support formal material recovery.

c. Public/private partnership initiatives

(i) The Partnership for Action on Computing Equipment ("PACE")

In March 2011, PACE[32] approved a "Guidance Document on the Environmentally Sound Management of Used and End-of-Life Computing Equipment" (hereinafter, the "PACE ESM Guidance").[33] Citing the Basel Ministerial Declaration on Environmentally Sound Management[34], the document begins from the premise that "used computing equipment should be diverted from disposal practices, such as landfilling and incineration, by a robust collection program, to the more environmentally sound practices of re-use, refurbishment, material recovery and recycling."[35] The objective of the document is to provide guidance for the environmentally sound management of used and end-of-life computing equipment with an emphasis on re-use and recycling. The document aims to promote development of robust material recovery and recycling infrastructure, including:

- collection of used computing equipment
- evaluation
- testing for functionality
- refurbishment/re-use if appropriate
- preparing/dismantling of non-reusable computing equipment or parts
- separation into material streams
- final recovery of marketable raw materials, and
- disposal of non-recyclable fractions and processing residues.

The PACE ESM Guidance aims to help ensure that computing equipment and derived materials are managed in environmentally sound management facilities that are licensed and permitted to manage these materials. The document includes recommendations on: ESM criteria, transboundary movement[36], testing, refurbishment and repair, and material recovery and recycling. These recommendations embrace much of the draft E-Waste Guidelines and include *inter alia*:

- *country-specific recommendations* for the environmentally sound management of used computing equipment, including review of measures in place to implement obligations under the Basel Convention and other applicable instruments; taking measures to establish an appropriate infrastructure to ensure that end-of-life equipment is collected and recycled in environmentally sound facilities; and the

[32]PACE is a multi-stakeholder public-private partnershipthat provides a forum for personal computer manufacturers, recyclers, international organizations, associations, academia, environmental groups and governments to tackle environmentally sound refurbishment, repair, material recovery, recycling and disposal of used and end-of-life computing equipment.

[33] UNEP/CHW.10/20. Sections 1, 2, 4 and 5 of the PACE guidance document were adopted by COP Decision BC-10/20. Section 3 on transboundary movement was not adopted. The PACE working group has decided to wait for the final draft of the Basel Convention Technical Guidance on e-waste before finalizing section 3.

[34] Adopted by decision V/1 of the fifth meeting of the Conference of the Parties in 1999.

[35]PACE ESM Guidance,para. 5.2.1.3.

[36] The recommendations on transboundary movement are not yet approved. See note 32, *supra*.

tailoring of Environmental Management Systems to small and medium enterprises, including the provision for information and know-how sharing;

- *facility-specific recommendations*, including the adoption of measures to meet ESM criteria for material recovery and recycling of end-of-life computing equipment and application of criteria (elaborated in the guidance) to determine and demonstrate functionality of used equipment; certification of facility conformance with an accredited comprehensive environmental management system and electronics recycling standard;
- a *voluntary notification procedure* or "decision tree procedure" to ensure that such movements are being monitored, and the importing country is given an opportunity to react to such movements;
- detailed recommendations for *testing, refurbishment and repair***;** and
- recommendations on the *marketing and redeployment* of refurbished/repaired computing equipment.

The Guidance's recommendations on refurbishment are based on the earlier PACE Project 1.1 Technical Guideline on Environmentally Sound Testing, Refurbishment and Repair of Used Computing Equipment.[37] Summarized broadly, the Project 1.1Guideline: (i) sets out a list of ESM criteria that are relevant to the refurbishment or repair of used computing equipment; (ii) provides guidance for refurbishment and repair facilities to meet the ESM criteria, including on: the sorting of refurbishable and non-refurbishable equipment; data security and destruction; disassembly; functionality testing; and labeling/documentation, packaging, storage and handling of refurbished and repaired equipment. The guideline also provides guidance for the marketing, donation and redeployment of refurbished and repaired computing equipment and components.

(ii) Mobile Phone Partnerships Initiative

The increasingly ubiquitous[38] mobile phone accounts for a small but significant portion of UELG. For the better part of a decade, the Basel Convention Mobile Phone Working Group ("MPWG"), established under the Mobile Phone Partnership Initiative (MPPI), worked to promote the environmentally sound management of end-of-life mobile phones. In its work program, the MPWG took into consideration a number of waste management principles including:

- prevention and minimization of waste in production by implementing no-waste or low-waste technologies;
- reduction of hazardous substances in processes and products;
- reduction of waste requiring final disposal through environmentally sound re-use, recovery and recycling; and
- environmentally sound final disposal of wastes that cannot be recovered or recycled.[39]

[37]PACE Project 1.1,"Guideline On Environmentally Sound Testing, Refurbishment & Repair Of Used Computing Equipment", (17 February, 2011). As noted on the Basel Convention website, this guideline "will be evaluated in a facility type of the environment and subsequently revised taking into consideration results of these evaluations." http://archive.basel.int/industry/compartnership/index.html. (Retrieved 19 May 2012.)

[38] Global mobile phone subscriptions are estimated at 5.9 billion, as of February 2012. http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats (Retrieved 16 April 2012.)

[39]MPPI, "Guidance document on the environmentally sound management of used and end-of-life mobile phones," UNEP/CHW/10/Inf27/rev.1, para. 31. The document was adopted with revisions by COP Decision BC 10/21, and is available on the Basel Convention website.

The Partnership completed its work with the publication of a guidance document on the environmentally sound management of used and end-of-life mobile phones with an emphasis on re-use and recycling. The document includes guidelines produced by four MPPI projects:

- *"Refurbishment and re-use of used mobile phones,"* intended to encourage companies that refurbish used mobile phones to implement environmentally sound practices and facilitate a process whereby products re-entering the market comply with applicable technical performance standards and regulatory requirements.
- *"Collection and transboundary movement of used mobile phones,"* providing advice on programmes, legislation and regulations for effective collection of used and end-of-life mobile phones;
- *"Recovery and recycling of end-of-life mobile phones,"* addressing environmentally sound processing of mobile phones for material recovery and recycling: and
- *"Awareness raising on design considerations and training,"* seeking to helpmanufacturers promote design improvements that would help ensure that end-of-life mobile phones are managed in an environmentally sound manner.[40]

Of most relevance to this study are the MPPI Guidance's sections on transboundary movement and refurbishment of mobile phones. The document's recommendations in this regard include:

- All used mobile phones that have been collected should be evaluated/tested and labeled to determine to what extent they are suitable for re-use with or without repair, refurbishment or upgrading prior to any transboundary movement.
- Used mobile phones that have been collected but have not been evaluated and/or tested and labeled as suitable for re-use are subject to Basel Convention procedures, unless it can be demonstrated they are not hazardous using Annex I and Annex III characteristics.
- End-of-life mobile phones destined for material recovery and recycling or final disposal are subject to Basel Convention controls if they contain Annex I constituents unless it can be demonstrated that the phone is not hazardous under Annex III. Even if neither the importing nor exporting country considers a shipment of mobile phones destined for repair or refurbishment to be waste, a voluntary notification (detailed in Appendix 4A of the Guidance or "decision tree" procedure) should apply to ensure that such movements are being monitored, and the importing country is given an opportunity to react.
- In situations where hazardous wastes are to be sent back to the original exporting country or to a third country, the contract between the exporter and importer specifies details of the return of the hazardous waste, return dates and financial responsibilities.
- Importing countries should take measures to establish an appropriate infrastructure to ensure that mobile phones which reach the end of their lives are collected and recycled in environmentally sound facilities, be those located within or outside the country.[41]

The MPPI Guidance considers the following shipments to be <u>*outside the scope*</u> of the Basel Convention:

[40] *Id.*, para. 5.

[41] *Id., para. 66.*

- collected mobile phones that have been tested and labeled as being suitable for re-use without further repair or refurbishment;
- shipments by individual customers of their own mobile phones for repair or refurbishment (e.g., under warranty) and intended to be returned to them; and
- defective batches of mobile phones sent back to the producer (e.g., under warranty).[42]

The MPPI Guidance's recommendations on refurbishment of mobile phones are too numerous to repeat here, but feature the following elements:

- sorting phones that can be re-used from those that are suitable only for material recovery;
- evaluating and assessing used mobile phones to determine to what extent they are suitable for re-use with or without repair or refurbishment;
- limiting sales to mobile phones that are tested for functionality, unless it is to a properly authorized recycling vendor or outsource repair center;
- storing and handling used mobile devices at refurbishment facilities in a manner that protects the mobile phones and reduces the potential for releases of toxic substances into the environment and for injuries to workers;
- using only benign cleaning solutions should be used to clean used mobile phones; otherwise, refurbishers should use cleaning solutions in an environmentally sound, efficient and safe manner; and
- managing end-of-life batteries and any associated circuit boards or electronic assemblies containing lead based solders in an ESM and in accordance with the Basel Convention when destined for transboundary movement.[43]

Additional recommendations are included on:

- the management of components removed from mobile phones during the refurbishment process;
- administrative measures and personnel training;
- inspections and monitoring; and
- regulatory, operational, and import-export requirements.[44]

As with the draft E-waste Guidelines and the PACE ESM Guidelines, the MPPI document includes a similar flow chart, or "decision tree," to help guide the determination of whether a used mobile phone is a hazardous waste subject to Basel Convention controls.

(iii) "Solving the e-waste Problem Initiative" (StEP)

An initiative of various UN organizations with participation of industry, governments, international organizations, NGOs and academia, SteP aims to initiate and facilitate approaches towards the sustainable handling of e-waste. SteP has established five Task Forces charged with the development of "feasible, just and environmentally safe solutions for the e-waste problem through analysis, planning and pilot-projects."[45] Among those task forces is the Task Force on Re-use, whose goal is to define globally consistent practices, principles, and standards for EEE products that are economically, socially, and

[42] *Id., para. 65.*
[43] *Id., para. 72.*
[44] *Id.*
[45] Information is from SteP's website, http://www.step-initiative.org/index.php/Home.html.

environmentally appropriate for: "a) Changing consumer behavior to get acceptance for re-use and early product take back (avoiding long storage at consumer site); b) Extending the usage of EEE products and components; and c) Reducing the flow of irresponsible re-use between donor and development countries ('shame-use')."[46]

d. Private sector

Elements of the private sector are major participants in PACE, MPPI and other public-private partnerships, and many private companies operate voluntary take-back and other programs associated with the re-use of UELG.

PC Rebuilders & Recyclers, LLC tests as per the PACE guidelines all equipment that is exported to assure it is refurbishable equipment. This company also has a certified third party witness the loading process so that there is no question about the veracity of the Bill of Lading (BOL).

It might be worth noting that certain large medical devices are exempted from the provisions of the EU Recast Directive. In its response to the 2012 Questionnaire, Philips Medical provided information on refurbishment of such devices. Phillips asserted that medical device refurbishment and repair is an effective means of reducing e-waste while ensuring greater global access to medical device technology. Phillips explained that its refurbishing program relies on transboundary movement of used professional equipment to its refurbishing locations. Medical devices can have a very long service life, far exceeding the warranty period. Highly specialized or intricate repairs may require that the device be returned to the manufacturer or a regional authorized service center in another country.

According to Philips Medical, it is critical to business to return systems to the manufacturer or authorized contractor for parts harvesting and repair, which are then used in service operations. To keep the service expenses for medical devices at affordable levels, the return of defective parts for repair is a necessity. The repair of service parts can only take place in central, specialized repair centres, requiring transboundary movements. Return of used parts also significantly expands the lifetime of installed medical devices in addition to the asset value of the equipment. Return of used equipment to the manufacturer or to a test house would be necessary after an "adverse event" in which a patient or user was harmed, in order to complete root cause analysis, meeting regulatory compliance or quality assurance monitoring of devices required by the EU Medical Device Directives.

[46] http://www.step-initiative.org/index.php/Reuse.html. (Retrieved 11 May 2012.)

PART IV: RELATIONSHIP BETWEEN TRADE AND THE ENVIRONMENT AS IT RELATES TO TRANSBOUNDARY MOVEMENT OF USED AND END-OF LIFE-GOODS

The Basel Convention regulates transboundary movements of hazardous wastes. As transboundary movement is also the *sine qua non* of international trade, questions have been raised about the relationship between the Basel Convention and international trade agreements.[47] In particular, control measures that target commerce in UELG might be of potential concern from a trade perspective.

Space does not permit an extensive exposition on this subject, which has been the topic of many papers published by the OECD, World Trade Organisation ("WTO") and other international organizations, as well as numerous governments, NGOs and scholars. However, several key points may be worthy of consideration, at least from a legal perspective:

- No measure necessary to comply with a widely-supported obligation in a multilateral environmental agreement has ever been challenged before the WTO (or any other trade organization).
- The GATT and many other trade agreements contain an exception whereby any contracting party may adopt or enforce measures "necessary to protect human, animal or plant life or health", subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade[48].
- In the only WTO dispute involving UELG (specifically "retreaded tyres"), the WTO Appellate Body ruled that a prohibition on the importation of used tyres could be considered "necessary to protect human, animal or plant life or health"[49].
- Given that the Basel Convention, like the GATT, is also a reflection of the views of the international community, and in light of the outcome of several WTO dispute settlement proceedings, it is not clear that a trade dispute panel would presume to characterize a measure required by a widely accepted international agreement such as the Basel Convention as "unnecessary," or as "a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail," within the meaning of GATT Article XX(b), especially if both parties to the dispute were also Parties to the Basel Convention.[50]

That said, most Parties to the Basel Convention are also members of the WTO or party to bilateral or regional agreements that impose disciplines on the regulation of trade,

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[47] See, e.g., Appasamy, Paul, Madras School of Economics, Chennai, "International Conventions On Hazardous Chemicals," http://www.mse.ac.in/trade/pdf/Compendium%20Part%20B/5.%20PPA-chem-conven%282.4.07%29.pdf (Retrieved 15 March 2012.)

[48] GATT Art. XX(b). While Art. XX(b) does not explicitly mention the environment, it has been so-interpreted. See, e.g., North American Free Trade Agreement (NAFTA), 32 I.L.M. 289, 605(1993), Art. 2101 ("The Parties understand that the measures referred to in GATT Article XX(b) include environmental measures necessary to protect human, animal or plant life or health, ..."); Canada-Colombia Free Trade Agreement (2002), Article 2201(1), available at http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/colombia-colombie/can-colombia-toc-tdm-can-colombie.aspx?view=d. (Retrieved 19 May 2012.)

[49] Report of the Appellate Body, BRAZIL – MEASURES AFFECTING IMPORTS OF RETREADED TYRES AB-2007-4, para. 212. The Appellate Body also ruled, however, that the import ban was "applied in a manner that constitutes arbitrary or unjustifiable discrimination," and was therefore not eligible for the GATT Article XX(b) exemption. *Id.,* para. 233.

[50] See, OECD Joint Committee on Trade and Environment, "Trade Measures In Multilateral Environmental Agreements: Synthesis Report Of Three Case Studies [including the Basel Convention]," COM/ENV/TD(98)127/FINAL (15 Feb. 1999).

and presumably support international trade law's policy of discouraging unnecessary trade barriers. From a legal perspective, well-targeted restrictions on the import of UELG might not be deemed to discrimination against a "like product" (e.g., a new good from another country that serves the same function)[51] in violation of "most favored nation" clauses in the GATT and other trade agreements. However, from a policy perspective, constraints on the transboundary movement of UELG, such as refusal to export to a non-Basel Party, or a ban on the import of goods suitable for immediate re-use, might be viewed as overly restrictive and inconsistent with global consensus on trade liberalization.[52] In addition, unless supported by sound reasoning, application of measures to the transboundary movement of UELG in a manner that discriminates between countries might be viewed as "arbitrary and unjustifiable discrimination," which would defeat invocation of the GATT's environmental exception.[53] In considering the proper approach to transboundary movement of UELG, Parties may wish to take into account a number of considerations suggested by the OECD more than a decade ago:

- The use of trade measures should be carefully designed and targeted to the environmental objective;
- Potential difficulties such as illegal trade and inadequate technical and institutional capacity in some countries should be taken into account from the beginning; and
- Trade measures which treat classes of countries in different ways should clearly be based on environment-related criteria.[54]

PART V: OPTIONS FOR DEALING WITH THE PROBLEM POSED BY USED AND END-OF-LIFE GOODS

Among the "Guiding principles" of the "Strategic framework for the implementation of the Basel Convention for 2012–2021"[55] is the recognition of a "waste management hierarchy (prevention, minimization, re-use, recycling, other recovery including energy recovery, and final disposal)" that "encourage[s] treatment options that deliver the best overall environmental outcome, taking into account life-cycle thinking." The Strategic framework encourages the use of waste management policy tools, including "recognition of wastes as a resource, where appropriate." In addition, Objective 2.5 of the Strategic framework is: "To enhance and promote the sustainable use of resources by improving the management of hazardous and other wastes and to encourage the recognition of wastes as a resource, where appropriate."

Consistent with the Strategic framework, the options presented below, with the exception of Option 1, are suggested as potential means of dealing with UELG in ways that would recognize the value of re-use, while ensuring that the transboundary movement of goods destined for re-use (and perhaps certain recycling or recovery operations) is consistent

[51] Article 1.1 of GATT 1947 provides, in part: "any advantage, favor, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties."

[52] Moreover, compliance with environmentally protective criteria in connection with the transboundary movement of UELG confers both trade and environmental benefits: Compliance with legal requirements and ESM facilitates legal shipments, and prevents illegal traffic and associated penalties and problems. Enhanced communication throughout the supply chain and among governments, also facilitates a more efficient and profitable flow of materials.

[53] See discussion of Brazil Tyres, *supra*. It possible, however, that the analysis of "arbitrary or unjustifiable discrimination" would be different if (unlike the case in Brazil Tyres), the measure at issue was mandated by a widely supported international instrument such as the Basel Convention.

[54] OECD, Trade Measures in the Basel Convention and the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1998), http://www.oecd.org/dataoecd/5/55/36789048.pdf. (Retrieved 11 Apr. 2012.))

[55] Adopted by the Conference of Parties in Decision 10-2.

with the Convention's provisions on environmentally sound management. The following options draw heavily on communications from Parties and the other initiatives described above. In keeping with the general direction of national regulation and practice, the options draw a distinction between re-use (including re-use following refurbishment or repair and return of defective goods to the manufacturer, as under warranty) and recycling or recovery operations, especially as many of the latter are clearly "disposal operations" identified in Annex IVB to the Convention. It is important to recall that under the first two options, the definition of waste would presumably continue to include materials that the importing or exporting Party requires to be disposed of, and each Party retains the right to classify additional materials as hazardous waste, pursuant to Article 1.1(b) of the Convention. These options are in addition to voluntary approaches based on the supposition that the material involved is not a waste.[56]

In considering these options, it should be noted that used goods and end-of-life goods could be treated differently. By definition, "end-of-life" goods are not exported with the intent of meaningful re-use, at least not for the purpose for which they were originally intended.[57] Thus, end-of-life goods would not seem suitable for re-use, and would not be addressed by Option 2, although they would presumably be covered under Options 1 and 3, and could be included in Option 4.

Option 1. Treat UELG as waste, subject to the Basel Convention if hazardous

It should first be recalled that each Party has the right to determine that a material is a hazardous waste, so UELG already cannot be shipped to or from countries that have made that determination, except in accordance with the Basel Convention requirements, including prior notice and consent.[58] Should the Parties so decide, the Basel Convention requirements would apply (or be interpreted to apply, in the case of guidance), to all transboundary movement of UELG among Parties, and if the Ban Amendment enters into force, such shipments could not be made from Parties included in Annex VII (that have ratified the amendment) to Parties not included in Annex VII.

This approach, though not favored by a majority of Parties and stakeholders, could most easily be adopted through guidance, although if a binding measure were desired, it might be appropriate to add a category to Annex IVB regarding re-use. This approach, if implemented, could reduce the problems faced by developing countries in managing UELG, but it could also deprive those countries and their citizens of equipment needed for sustainable development, and could exacerbate resource demands associated with the purchase of new equipment.

A variant of this Option would be to clarify under the Convention, for instance through the adoption of a decision, that the status of UELG will be defined in accordance with national laws. This would allow Parties who wish to receive imports on UELG to do so, while perhaps encouraging others to define UELG as hazardous wastes under their national legal framework and to adopt associated import restrictions/prohibitions.

[56] Section IV B of the Draft E-waste Guidelines includes a detailed voluntary notification procedure for the transboundary movement of materials not considered to be hazardous waste.

[57] For example, the PACE ESM Guidance defines "end-of-life computing equipment: as "equipment that is no longer suitable for use, and which is intended for dismantling and recovery of spare parts or is destined for material recovery and recycling or final disposal. It also includes off-specification or new computing equipment which has been sent for material recovery and recycling, or final disposal." The glossary of the MPPI Guidance defines "end-of-life" mobile phones in identical terms.

[58] Under Article 4.1 of the Convention, hazardous waste may not be exported to Parties who have prohibited it.

Option 2. Define used goods[59] destined for re-use, or some subset thereof, as non-waste, subject to specified conditions

As discussed in the accompanying draft report on the implementation of the Basel Convention as it relates to the interpretation of certain terminology, the Basel Convention definition of "waste" (or its predicate, "disposal") could be clarified – or amended -- to exclude used goods destined for re-use , or some subset thereof. This could be limited or expanded as follows:

- used goods destined for direct re-use only;
- used goods destined for warranty repair and return to the consumer;
- particular types of used goods, such as large medical equipment;
- used goods donated by charitable organizations[60].

Under this approach, the Convention would not apply to transboundary movement of excluded used goods. That might raise questions as to whether conditions could be attached to such movement, but it might be possible to articulate the exclusion so as to apply only to used goods that meet specified criteria,[61] both with regard to essential characteristics and to the operations to which they will be subject.[62] In addition, the exclusion could be conditioned on appropriate assurances on the part of the exporter to "take-back" the goods if they are not in fact re-used, or perhaps if the goods include hazardous components that must be removed during refurbishment of repair operations.

Before establishing criteria, several threshold issues would need to be resolved. First, what type of future use would serve to exclude the material from status as a waste? Most Parties and stakeholders appear to support the notion that materials exported for re-use upon arrival in the importing country, without the need for refurbishment, repair or other servicing should qualify. Industry strongly maintains that goods returned to the manufacturer for repair under warranty are not wastes. More controversial is whether goods that are in need of repair prior to re-use should qualify, and if so, what extent of repairs would be acceptable.

These categorical decisions could be informed by the criteria to which each category would be subject. Appendix 3, drawing on criteria developed by Parties or included in guidance/guidelines issued by PACE, MPPI, and the Basel Convention, indicates what some of those criteria might be.

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[59] As noted above, this Option would not apply to "end-of-life" goods.

[60] From a technical standpoint, the potential health and environmental problems associated with charitable donations of used goods are much the same as for sale of used goods, although it might stand to reason that charitable donations might be, on average, of lower quality than goods for sale. On the other hand, some Parties may wish to encourage charitable donations, or certain categories of such donations. What might be needed is not so much a definition of "charitable donation," but criteria for what used goods would not be considered to be wastes when they are donated. Such criteria could relate to the charitable organization involved, as well as the characteristics of the goods. End-of-life goods presumably would not be eligible for exclusion in this regard.

[61] It seems unlikely that true "end-of-life" goods could meet these criteria, particularly those pertaining to the age of the product. It is arguable that end-of-life goods, by definition, are not susceptible to meaningful re-use, at least not for the purpose for which they were originally intended. For example, PACE defines "end-of-life computing equipment: as "equipment that is no longer suitable for use, and which is intended for dismantling and recovery of spare parts or is destined for material recovery and recycling or final disposal. It also includes off-specification or new computing equipment which has been sent for material recovery and recycling, or final disposal." The MPPI glossary defines "end-of-life" mobile phones in identical terms.

[62] The United States Environmental Protection Agency (EPA) has followed a similar approach, whereby the status of used cathode ray tubes (CRTs) as hazardous waste depends upon the management practices to which they are subject. By regulation, used CRTs, which otherwise would be hazardous waste, are not regulated as such if handled domestically and if specified domestic management practices are followed. Moreover, exportersof CRTs for recycling must notify EPA and receive written consent from the receiving county. See 71 *Federal Register* 42928 (28 July 2006) and EPA Fact Sheet, http://www.epa.gov/wastes/hazard/recycling/electron/crt-fs06.pdf. (Retrieved 15 May 2012.)

Option 2 could be implemented through guidance, COP decision, amendment to the Convention, or amendment to Annex IV B or Annex IX. If a binding approach is desired, amendment of Annex IV B might be the most efficient. Assuming agreement that the term "waste" does not capture materials destined for re-use without the need for repair or refurbishment, the caption of Annex IVB could be modified to omit mention of goods destined for direct re-use. Or, if the caption is to be maintained, (perhaps without the modifier "direct"), a new "operation" could be added to the "R" list – e.g., any operation for used goods that does not meet specified criteria. One drawback to this approach is that it will probably be desirable to include criteria pertaining to the nature of the used goods themselves, not just the operation to which it will be subject.

If the criteria for exclusion are to include a take-back obligation, it might be argued that an amendment is required, as the Convention's take-back provisions apply only to illegal traffic (article 9.2) and to transboundary movement of hazardous waste or other waste that cannot be completed within the terms of the contract (Article 8). However, it might be agreed that a good cannot be considered to be intended for re-use unless all relevant criteria are met (e.g., no removal of hazardous components during repair or refurbishment operations), unless the exporter is willing to make a take-back commitment. Alternatively, it might be considered that if the good is not going to be re-used, and if it is hazardous with reference to Annexes I and III, then the export can be characterized as "illegal traffic," triggering the take-back obligation in article 9.2.[63]

Option 3. Exclude UELG destined for recycling, or other recovery operations from the definition waste, subject to specified conditions

By definition, an end-of-life good is not destined to be re-used for its original purpose. But, such goods may still have value for other purposes: for example, as feedstocks for industrial processes, recycling operations (involving a transformation of the item and incorporation into a new product), or as a source of valuable resources. Many such operations are specifically included in Annex IVB, so this Option could require a modification to that Annex. As is the case for Option 2, criteria for the recycling/recovery operation could be specified, so that only materials destined for operations meeting those criteria would be excluded from regulation as wastes (for instance operations that do not expose human health and the environment to the hazards of the UELG). If this option is selected, the Parties may wish to consider developing technical guidelines to elaborate the specified criteria.

Option 4. New provision not dependent on waste status

One Party [Colombia] noted that the Basel Convention is difficult to apply because many countries do not consider WEEE to be hazardous waste or do not control its movement. The view that exports and imports of UELG destined for re-use (especially direct re-use) should be controlled as hazardous waste is not widely shared. However, a case can be made that the regulation of this massive flow of goods is not best served by a binary system in which some materials are considered "hazardous waste," based on the operations they will undergo, and thus are subject to the full panoply of Basel controls (including the Ban Amendment once it enters into force), while other materials (again taking into account the subsequent operations for which they are destined) are not considered hazardous waste and are thus wholly outside the Convention's scope. This rigid dichotomy, coupled with

[63] This raises the issue of whether transboundary movement of a "waste" occurs if the material is disposed of upon arrival in the importing country, even if the exporter does not intend such disposal. See discussion in accompanying report on pages 12-13.

divergent views on when a material is considered a waste, leads to the possibility that if viewed as a hazardous waste, opportunities for legitimate re-use of products, as well as recycling, and recovery of end-of-life goods and other materials might be unnecessarily restricted or eliminated; or, conversely, that if such goods and materials are viewed as non-wastes, recycling/re-use of some hazardous materials will take place outside the scope of the Convention, in a manner that could pose risks to human health and the environment.

This binary model could be replaced by a regime that takes a more holistic view of the goods, materials, and practices involved, a regime that is tailored to specific operations such as re-use, recycling, and recovery. A variety of legal mechanisms are possible to implement such a regime, including an amendment, new Annex, or Protocol to the Basel Convention. Given that UELG are, at least in some circumstances, not necessarily regarded as waste, and that re-use and certain recycling/recovery activities arguably do not fit easily into the Basel paradigm, this could be an area that could benefit from the synergistic opportunities presented by the closer links that have been forged among the Stockholm, Rotterdam, and Basel Conventions, and perhaps a joint Protocol or similar instrument under the auspices of the three conventions could be considered.

APPENDIX 1

BASEL CONVENTION

Questionnaire on options for dealing with the problem posed by used and end-of-life goods, including take-back obligations and the concept of "charitable donations"

Introduction

The Conference of the Parties to the Basel Convention, at its tenth meeting, adopted decision BC-10/3 on the Indonesian-Swiss Country-led Initiative to improve the effectiveness of the Basel Convention.

Section C of this decision requests the Secretariat, assisted by legal and technical experts as appropriate and taking into account other initiatives such as the "Partnership for Action on Computing Equipment" (PACE), to prepare a study to identify options for dealing with the problem posed by used and end-of-life goods, which could include take-back obligations and clarification of the concept of "charitable donations".

The present questionnaire aims to collect the views of such legal and technical experts within stakeholders, to provide information towards the preparation of the above-mentioned study. A separate questionnaire has been developed and circulated to collect the views of experts within Parties and signatories in this regard.

The Secretariat would be most grateful to you for completing and returning this questionnaire to: Ms. Yvonne Ewang-Sanvincenti (yvonne.ewang@unep.org) no later than **15 March 2012**.

We thank you in advance for your kind cooperation.

The Secretariat of the Basel Convention

Please fill in the following information:

Stakeholder:

Date when form completed(D/M/Y): -- / -- / ----

Name of the person who completed the questionnaire:

Title:

Address:

Telephone no: **Fax no:**

E-mail:

For further information and clarification, please contact:

yvonne.ewang@unep.org

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Switzerland

Tel: +41 22 917-8218

Fax: +41 22 797-3454

Options for dealing with the problem posed by used and end-of-life goods

1. Has your organization been faced with, identified or helped to identify problems posed by used and end-of-life goods, particularly transboundary movements of such goods?

☐ No ☐ Yes If yes, please specify the problem(s):

……..……..……..……..……..……
……..……..……..……..……..……
……..……..……..……..……..……
..……

2. Please provide details of any measures, initiatives or other options that have been developed/implemented by your organization to address this problem, including take-back obligations:

……..……..……..……..……..……
……..……..……..……..……..……
……..……..……..……..……..……
..……

3. Has your organization defined, interpreted, or contributed to the development of a definition or interpretation of "charitable donations"?

☐ No ☐ Yes

If yes, please specify and provide any related texts (in English) and clarify how such definition or interpretation is used/implemented:

……..……..……..……..……..……
……..……..……..……..……..……

……..……..……..……..……..……
..……

4. Have any of the measures developed/implemented by your organization to address these problems been linked with the implementation of obligations under the Basel Convention?
☐ No ☐ Yes If yes, please provide details:
……..……..……..……..……..……
……..……..……..……..……..……
…..…
……..……..……..……..……..……
…..

5. Does your organization participate in or contribute to any bilateral, regional, multilateral efforts, initiatives or agreements to harmonise approach(es) for dealing with problems faced from used and end-of-life goods? ☐ No ☐ Yes
If yes, please provide details, in particular as may relate to take-back obligations and/or "charitable donations"?
……..……..……..……..……..……
……..……..……..……..……..……
…..……..……..……..……..……..
……

III. Other Relevant Information

6. Is there any other information you would like to provide concerning the options for dealing with the problem posed by used and end-of-life goods or concerning clarification of the concept of "charitable donations" that could be of relevance to the preparation of the study?

……..……..……..……..……..……
……..……..……..……..……..……
……..……..……..……..……..……
..……

Thank you for completing the questionnaire!

APPENDIX 2

Summary of data[1]

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
Andorra*	Due to the size and the resources of the Principality of Andorra, the authorities will not be able to possess, according to reasonable criteria, the means to treat and recover all the hazardous wastes and other wastes the country generates. Therefore, and basing its exports on the principles of the Basel Convention (proximity, ecological sound management, reduction), Andorra will probably not restrict the export of wastes that it cannot treat or recover itself.		Article 3 of the Agreement between Andorra and Spain (17-10-06) concerning the transboundary movements of wastes defines which wastes are subject to the agreement. These wastes are: Wastes included in Annex II of the European Council Regulation 259/93/CEE, of 01/02/1993 amended by the Decision of the European Commission 99/816/CE, dated 24/11/1999; Wastes included in Annex III of the European Council Regulation 259/93/CEE, of 01/02/1993 amended by the Decision of the European	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
			99/816/CE, dated 24/11/1999. Article 4 states that, on the Spanish side, all imports of waste will be realized in complete conformity with the European Union rules defined in the Regulation 259/93/CEE.	
Argentina	Lately, there have been problems associated with imported materials such as sludge treatment plant, used tires, used electrical and electronic equipment, etc.Argentina has encountered a problem differentiating between something used and waste. .	Accordingly, the national environmental agency has developed strategies to determine when something is a waste or not. In the case of electrical and electronic equipment, the government is studying the issue and will probably set a regulation that defines EEE, used EEE, and waste EEE. While the issue is complex, the rule would give some flexibility to the management sector whose activities include used EEE and their collection, transport and storage, prior to a recovery, treatment and subsequent disposal where will be waste.The national environmental agency has	As regards EEE, in the framework of the "Program of Support for Deepening Economic Integration Process and Sustainable Development of MERCOSUR (MERCOSUR ECONORMAS)", developed by Resolution Group Common Market-GMC 41/2009, an activity carried out within the Regional Indicative Programme (RIP) 2007-2013 for cooperation of the	(See previous entry. Specific mechanism not identified.)

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		ruled in particular cases that the assets used are waste, hazardous when they possess hazardous characteristics, except for certain materials which can be ascertained that were remanufactured for use for the same purpose for which they were designed or produced and having the same characteristics of use when they were produced. When classifying goods that have been used (electrical and electronic equipment-EEE) and disposed of, which have hazardous characteristics and intended to beimported for sale or use in the country and the national environmental agency hasclassified as hazardous waste. Argentina requires special consideration for the following waste(s) when subjected to transboundary movement: Those products that are made by recycling of wastes or which use recycled wastes as raw materials (e.g. carpets	European Union and MERCOSUR (Argentina, Brazil, Paraguay and Uruguay), Argentina has selected the Electrical Products Industry-Electrical and Electronic Used Products and Wastes Recyclers to work in the area of Good Practice for Sustainable Consumption and Production, thinking specially in the informal sector. Besides, the countries of the MERCOSUR defined EEE waste (WEEE) as an universal generation waste, under the Agreement "Environmental Management of Special Wastes and the Principle Extended Producer Responsibility",	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		made by recycled rubber), require special consideration. (2009 Compendium)	which was signed during the "Fourth Meeting of Ministers of Environment of MERCOSUR" on March 29, 2006 and awaits approval by the Common Market Council (CMC). The MERCOSUR countries agreed to "incorporate patterns of sustainable consumption and production in order to minimize the amount and hazardousness of waste generated". The universal waste regulated are included in Annex I of the Agreement mentioned, and highlight: batteries, electrical appliances electronics; lamps (mercury lamps and fluorescent tubes), used tires, cell phone, among others.	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
			The objective of the Agreement is to adopt policies and strategies to ensure proper management of waste in order to protect the health of the population and the environment.	
Armenia				
Bhutan	We do not have required infrastructure and facilities for recovery. This is coupled with lack of technology and capacity in managing the hazardous wastes			
Brazil	There have been several cases of illegal transboundary movements of lead-acid automotive used batteries in Brazil.	The Brazilian Biosafety Law, Law number 11,105/2005, provides penalties for illegal transboundary movements which are enforced by competent national authorities. Violators are subjected to penalties and administrative sanctions established in the legislation.The importation of used machinery, equipment, and cargo containers will only be granted if it is proven that the products are not produced		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		in Brazil and cannot be substituted by a similar product currently produced in Brazil. Notable exceptions to this requirement are: factory's production lines related to specific projects; and parts as well as equipment used for maintenance and repair of telecommunication and informatics goods; Non-automatic license required for imports of all used goods, with the exception of packaging material used in temporary importation or re-importation; Granting of non-automatic licenses prohibited, except for imports by the State or educational and scientific institutionsNational Law nº 12.305 from 02/08/2010 – National Policy on Solid Waste – Article49. Prohibits the importation of hazardous solid waste and solid wastes that present significant risk to the environment, the public health and the animal and plant		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		health, even for treatment, reform, reuse, reuse or recovery. National Environmental Council (CONAMA) Resolutions Nr. 23 (December, 1996) and Nr. 235 (January 7, 1998). The legislation defines which wastes are forbidden from being imported and which are just controlled by IBAMA.		
Bosnia	No capacity within the country for recycling, recovery or reuse of hazardous waste 2(f)			
Canada		Updating national waste law to include non-hazardous wastes and to clarify requirements for certain used electronics based on transboundary movement guidance from MPPI and PACE (ongoing). Contributing to the development of a federal e-waste strategy, which establishes ESM requirements for service providers that manage federal surplus electrical and electronic equipment. Supporting	Work under the Basel Convention, specifically related to the activities of the former MPPI, current PACE, and this inter-sessional working group on e-waste. Work under NAFTA CEC to gather information, promote ESM, and share intelligence on enforcement issues pertaining to the	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		Canadian industry-driven ESM standards for recycling and refurbishing used and waste electronics. Enforcement activity related to preventing illegal transboundary movement of hazardous wastes, including e-waste.	management of e-waste and other hazardous wastes	
Cambodia		The importation of the household waste and hazardous waste from abroad to the Kingdom ofCambodia shall be strictly prohibited.[2] .	Work under the Basel Convention, specifically related to the activities of the former MPPI, current PACE, and this inter-sessional working group on e-waste. Work under NAFTA CEC to gather information, promote ESM, and share intelligence on enforcement issues pertaining to the management of e-waste and other hazardous wastes	
Chad	In the case of management of PCBs and PCB transformers, we are supported by the GEF and the Centre of Dakar of the Basel	Remedies under consideration.		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
	Convention for the francophone countries of Africa. Chad has no legislation governing the collection and transport for hazardous waste (PCBs).			
CAR	Insalubrité, incapacités (financière, matérielle et institutionnelle de gestion de ces différents produits en fin de vie), pollution (du sol, de l'eau, de l'air….).	Le Code d'hygiène et le Code de l'Environnement et leurs Décrets d'application ont de difficultés d'application à cause de personnel qualifié insuffisant, néanmoins certaines terminologies évoquées dans le présent questionnaire n'ont pas été pris en compte.		
China[3]		The export of hazardous waste for recovery must comply with the notice and consent requirements of the Basel Convention (No. 47 ORDER of SEPA). Furthermore, each shipment of hazardous waste should be accompanied by a movement document from the point at which the movement begins to the point of recovery. Import of solid waste which cannot be used as a raw material or in an ESM is prohibited.[4]In China, all	None	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		imported UEEE requires 3C certification (which indicates that iscomparable to brand new EEE). In addition the UEEE which are of higher value andenvironmental risk requires pre-inspection before shipping. Criteria for pre-inspection include the following: (i) Examine whether the goods are approved by the Chinese government; (ii) Examine whether the number, specification, and quality of condition are the same as those listed in contract; (iii) Assessment of security, sanitation and environment requirements. All UEEE require inspection after arriving at the port of China. Criteria for inspection after arriving China include the following: (i) Opening-box inspection: Examine name, brand, specification, number, quality and packaging conditions; (ii) Security inspection:		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		Comply with compulsion standard related to EEE; (iii) Environmental inspection: Comply with compulsion requirement related to environmental protection		
Colombia (entry is based on an informal translation from the Spanish communication.)	Customs authorities have identified imports of used electrical and electronic equipment (e.g. cell) where the object of import was not clear, and was not easy to establish the useful life of the product. Nor was it clear whether devices that no longer have functionality (waste) are imported along with used equipment. Problems are expected with the control of the import of goods used or retrofitted from 2012, with the entry into force of the new free trade agreements.Also exported are parts or pieces recovered from electrical and electronic equipment (e.g., printed circuit boards) and different types of scrap metal, without knowing the fate of the same. These parts or equipment are not classified as "waste" in the customs tariff; much less as hazardous waste.	- Colombian regulations provide specific rules for liquid discharges and atmospheric emissions. Associated actions to discard, refuse or deliver what is considered a waste must be controlled at all stages, even when delivered to a third party for a process or subsequent treatment. -- Recommends Establish clear policies against the importation of EEE for the reuse or refurbishment. If allowed, importers must comply with all the obligations applicable to producers arising from this condition with respect to the EEE that entered the country. -- However it has issued rules relating to control	Colombia participated during the year 2011 with other countries in the region, in the elaboration of the so-called non-binding document "guidelines for the management of waste from electrical and electronic equipment (WEEE) in Latin America: results of a regional public-private working group". The guidelines were developed within the framework of the RELAC platform with the support of the International Development Research Center,	With respect to WEEE generated internally, the Ministry of Environment has issued a series of standards related to used computers, light bulbs and batteries, under the principle of Extended Producer Responsibility, imposing on producers (manufacturers and importers) obligations to establish return and recovery systems . Latin Am Guidance: Facing the Extended Producer Responsibility: It is recommended that the governments of the region incorporated into national policy frameworks the principle of the SPR, to be applied in the management of WEEE generated within

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		transboundary movements of WEEE (hazardous and nonhazardous) or used equipment. The only tool you have is now the Basel Convention but it is difficult to apply because many countries do not consider WEEE to be hazardous waste or do not control its movement. It is considered that transboundary movements of electrical and electronic equipment used or second hand and WEEE should be subject to the control procedures of the Basel Convention, regardless of whether the countries classified as hazardous or not and are intended for recycling or recovery operations. Latin Am Guidance: WEEE require a specific management of urban solid waste (RSU) and hazardous waste, to be identified as a waste of special handling, because of their potential for development and recovery, to	IDRC. WEEE require specific handling differentiated Solid Waste (MSW) and hazardous waste, the waste identified as special management because of its potential use and recovery of toxic compounds contain at a minimum rate, and its accelerated growth determined by the rapid replacement technology. The concept of WEEE is based on the idea of abandonment or disposal by its holder. It is established that the characteristics that make that an EEE is regarded as WEEE, in order of priority, are as follows: when you can not be used for the purpose it	its territory.

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		contain toxic compounds in a minimum proportion, and by its rapid growth determined by the rapid technological replacement. Suggests implementation of a system of management of WEEE, especially the following: product life cycle (from design through his recovery and disposal); stages of WEEE management (collection, transport , storage, disassembly, refurbishment, recycling and disposal), design and implementation and in some cases, administration and monitoring of the system, administrative tools, economic and informative. Establish clear policies against the import of EEE for reuse or refurbishment. If such imports are allowed, importers will be considered as producers and must comply with all obligations concerning the entry of EEE into the country.	was created, for replacement technological obsolescence or, when the holder makes the decision discarding it or leave it. Is set to consider WEEE as waste, not merely that the management post-consumer oriented treatment promotes their ability to benefit and recovery as raw materials or production inputs. Facing the Extended Producer Responsibility: It is recommended that the governments of the region incorporated into national policy frameworks the principle of the SPR, to be applied in the management of WEEE generated within its territory.	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		It is recommended to maintain the definition of "hazardous waste" based on hazard characteristics that are inherent to the residue. Likewise, it is suggested to submit to the control system of notification of the Basel Convention means equipment used or second hand and WEEE.	It is suggested that the implementation of a system of management of WEEE are considered, especially the following: product life cycle (from design through his recovery and disposal); stages of WEEE management (collection, transport , storage, disassembly, refurbishment, recycling and disposal), design and implementation and in some cases, administration and monitoring of the system, administrative tools, economic and informative.	
Costa Rica			Central American Agreement on the Transboundary Movement of Hazardous wastes	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
EU	In the case of waste shipments, enforcement and control authorities often face problems to distinguish between waste (end-of-life goods) and non-waste (e.g. used goods), for example regarding electrical and electronic waste and under the cloak of being charity donations.Enforcement and control authorities should have easy and fast-to -use criteria or means to differentiate between waste and non-waste.	Enforcement and control authorities should have easy and fast-to -use criteria or means to differentiate between waste and non-waste. EU directives now require Member States to introduce legislation on waste collection, reuse, recycling and disposal of these waste streams. Several EU countries are already managing to recycle over 50% of packaging waste. http://ec.europa.eu/environment/waste/index.htm (accessed 6 Apr. 2012) Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 SUMMARY --establishes a legal framework for the treatment of waste Waste hierarchy in order of priority: - prevention *; - preparing for reuse; - recycling *; - other recovery *, notably - energy recovery;	The EU and its Member States support the efforts of IMPEL-TFS aiming to promote the exchange of knowledge, best practices and experience with the enforcement of Regulation (EC) No 1013/2006 on shipments of waste. We also take part in the work of the OECD. Experiences gained by the inspection campaigns organized by the EUROPOL (Project AUGIAS) and the World Customs Organization (Operation DEMETER) are also beneficial. On the level of the Basel Convention, the EU and its Member States support the development of	The Basel Convention and implementing EU legislation (Regulation (EC) no 1013/2006) explicitly provide that take-back obligations apply specifically to waste. 2008/98:Art. 8 – EPR 1. In order to strengthen the re-use and the prevention, recycling and other recovery of waste, Member States may take legislative or non-legislative measures to ensure that any natural or legal person who professionally develops, manufactures, processes, treats, sells or imports products (producer of the product) has extended producer responsibility.

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		- disposal. -- repeals directives 75/439/EEC, 91/689/EEC and 2006/12/EC. Recovery: any operation the principal result of which is waste serving a useful purpose. Recycling: any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. The Waste Shipment Correspondents of the EU Member States have agreed on a number of non-legally binding guidelines addressing these issues by clarifying the distinction between waste and non-waste for the specific waste streams of WEEE and waste vehicles (ELVs).[5] Elements of the Correspondents' guidelines on WEEE will become legally binding as part of EU legislation in the recast of the new WEEE Directive, whereby the burden of proof on functionality of used equipment is incumbent upon	technical guidelines on transboundary movements of e-waste, in particular regarding the distinction between waste and non-waste. On export of items being part of charitable donations there is no specific EU initiatives or legislation.	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		exporters of waste.		
		Le Code d'hygiène et le Code de l'Environnement et leurs Décrets d'application ont de difficultés d'application à cause de personnel qualifié insuffisant, néanmoins certaines terminologies évoquées dans le présent questionnaire n'ont pas été pris en compte		
HKSAR		Hong Kong has developed a list of criteria to distinguish waste EEE from second-hand EEE. These criteria are summarized in Annex I to the accompanying Report.In addition to the Basel Convention requirements, the export of any waste for apurpose other than re-use, recovery, reprocessing or recycling (e.g. for final disposalincluding landfilling and incineration) of the waste is subject to control by the sameprocedure as that of the control of export of hazardous waste. (SBC Compilation (2009) 3(c),(f) Under the WDO,		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		contaminated wastes are also controlled as hazardous wastes. For the purpose of control on importand export of wastes, a waste is "contaminated" if it is contaminated by a substance to an extent which significantly increases the risk of human health, property or the environment associated with thewaste; or - Prevents the reprocessing, recycling, recovery or re-use of the waste in an ESM.[6]		
Indonesia		The non-new capital goods listed in its annex are prohibited for import in Indonesia,including refrigerators, washing machines, TV, phones, air conditioners, printed circuit, valve and thermion tube, cold cathode or photo cathode tube, etc.[7] Importation ofused EEE and e-waste for direct (individual) consumption by consumer is prohibited.[8]		
Japan	Some wastes disguised as the second-hands item have been illegally exported in the past and intercepted by the destined	Japan started to use domestic HS codes to differentiate UEEE from brand-new EEE. In addition, Japan developed	As reference, Japan has various kinds of international cooperation with	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
	country. One of the reasons was the difference on the definition and regulation on the second-hands goods.	the identification standards for export of second-hand CRT TVs (2009).	other countries. One of the international cooperations is technical cooperation projects, including human resource development, provisions of machineries, equipments and materials for the development of recipient countries under the framework of economic cooperation.	
Lithuania	The most common problem in this regard is transboundary shipment of end-of-life vehicles. There have been many cases when it is not clear whether certain vehicles should be treated as used vehicles or end-of-life vehicles and such lack of clarity causes problems with the procedure of transboundary waste shipment.	An act of law is currently being prepared in accordance with the guidelines of EU correspondents on distinction between waste vehicles and used vehicles.		
Malaysia	Illegal import and export of end of life CRTs and Computer Monitors	In Malaysia,. The criteria for UEEE are as follows: - the date of manufacture should not be more than 3		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		years (for the purpose ofimportation); - still functioning and have certificate of inspection from competent authority ortesting body and destined for direct re-use, and not for recycling or recovery orfinal disposal; - no physical damage that impairs its function		
Mexico*		Mexico restricts the import of hazardous wastes and other wastes for recovery. Import of hazardous waste will be only allowed with the purpose of reusing or recycle hazardous wastes, and in no case may import be authorized of hazardous wastes that are or areconstituted by persistent organic compounds.[9]The Secretariat will be able to impose limitations to the import of remainders when disincentive or constitutes an obstacle for the reusability or recycling of theremainders generated in national territory." Also, in accordance with Article 50 of the LGPGIR		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		determines that the followingactivities of hazardous wastes handling requires authorization of the Secretariat: I.The benefit of services of handling of hazardous wastes, II.The use of hazardous wastes in productive processes, in accordance with thearranged thing in Article 63 of the Law, III…. . IV.The accomplishment of anyone of the activities related to the handling of originating hazardous wastes of third part.		
Morocco	Divergence between the national classification of certain wastes with certain importing countries (in Europe). Certain end-of-life products are considered as dangerous wastes and are therefore subject tona notification, while the country of import considers it a raw material.		None	
Montenegro		Follows instructions from BC and EU Regulation as well as national conditions. MNE restricted import of used goods only for direct re use		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		while import of end-of-life goods is practice impossible because in MNE there are no recycling facilities		
Nicaragua	No data are available, but too much equipment, products and materials is being imported. Companies or importers tend to disappear and, and the materials are illegally disposed of in landfills.	Regulations being contemplated for several sectors. Nicaragua believes that all countries' Environmental Authorities must ensure prior consultation with their counterparts before authorizing theexport of a second-hand good, whether hazardous or non-hazardous, given the ability of handling, use, response and responsibility to return them to their origin.	Central American Regional Agreement to Ban Import of Hazardous Waste, signed by the Presidents of Central America in 1992.	
Norway		Norway considers used equipment destined for repair or refurbishment, except for the situation in paragraph 27 letter b, to be waste and hence procedures for transboundary movement of waste shall apply.		
Phillipines		Philippines "Interim guidelines for the importation of recyclable materials containing hazardous		See "measures"

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		substances" allow the import of electronicassemblies and scrap on the condition that residuals from recycling of materials whichcontain hazardous substances without any acceptable method of disposal in the Philippines must be shipped back.[10]		
Serbia		Principle of waste management hierarchy Waste management hierarchy means the hierarchy of waste management priorities: - waste prevention, the reduction of resource consumption and the reduction of quantities and/or hazardous characteristics of the waste created; - reuse of the same product for the original or other purpose; - recycling, that is treatment of waste for the purpose of obtaining raw materials for the production of the original or other product; - Recovery, that is the use of waste value (composting,		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		incineration with energy recovery, etc.); - Disposal of waste through depositing or incineration without energy recovery, if there is no other appropriate solution. [2009]		
Singapore		Import/export of UEEE are allowed if there are documentsto support appliances are in working condition and suitable for reuse. Export of UEEE that are not suitable for re-use are prohibited. Import of UEEE for the purpose ofdismantling and re-export of the dismantled components are prohibited.[11]		
South Africa[12]		South Africa would only import hazardous waste for recovery if the importing company could provide proof that they had a technology which would recover the waste in an ESM which is protective of human health and that the technology meets the permit/licensing requirements of the country. (3(f))Should a South African company wish to export waste		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		to another country for recovery, the exporting company would need to explain why the waste cannot be recovered in South Africa. In addition the Department would require a copy of the environmental permits required for the technology being used to recover the waste in the country of import as well as a copy of the recovery companies ISO 14001 which would demonstrate that they are able to manage the waste in an ESM.		
Thailand		Import of UEEE in Thailand is allowed only for activities of reuse,repair/ refurnish as its original purposes,disassembly and recycle/ recovery withdifferent conditions from Parties. Items of UEEE require import permits from Ministry of Industry.[13]		
Togo			Notifications et consentement sur certains déchets (huiles usées 1717 m3 and batteries usees 34,480 tonnes)	

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
			et sur les opérations de recyclage. (w/Ghana)	
Venezuala[14]		Insofar as materials with hazardous characteristics that, after serving a specificpurpose, still have useful physical and chemical characteristics and can therefore berecovered, reused, recycled, regenerated or otherwise used to good effect for that same or another purpose, they are considered by Venezuela's domestic legislation (Decree 2635, article 3), as recoverable hazardous material and are exempt from theConstitutional ban on imports if and only if the country has environmentally safe technology available to recover it. 3(f)		
Vietnam[15]		In January 2006, Vietnam promulgated Implementation Rules for the Law onTrade (No.12/2006/ND CP) and ban import of waste materials, toxic chemicalsubstances and		

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		second-hand commodities, including electronic, cooling and homeappliances [15]. In 2006, the Vietnamese Ministry of Post andTelecommunications issued a decree, banning the import of seven categories of second-hand hand electronic and communications products, including computers, CD duplicators andcopiers, data processors, calculators, ticket issuing equipments, automatic data processing devices and other intelligence devices, transmitting devices for wirelesstelephones, telegrams and audiovisuals, cameras and voice recorders. The decree alsoprohibits the import of spare and component parts for the aforesaid products.		
Yemen	In 2010 is set to expired goods were returned to the Country of Origin.			Pesticides were exported expired during the years 1996, 2002, 2004 to dispose of expired pesticides, with the use of procedures of the Basel Convention on transboundary movement,

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
				have been exported expired pesticides to Britain for disposal.
Zambia	"Imports of second hand goods into the country that seem not to be functional or of poor quality."	"We are in the process of enacting the extended producer responsibility regulations"	African Institute framework".	
United States	While accurate data on the amount of e-waste exported from the United States are not available, the U.S. government is concerned that these exports may be mismanaged abroad, causing serious public health and environmental hazards and representing a lost opportunity to recover valuable resources.	The National Strategy for Electronics Stewardship report details the federal government's plan to enhance the management of electronics throughout the product lifecycle — from the design to the eventual recycling or disposal.The Task Force recognized that global markets play an important role in reuse, remanufacturing, and recycling of UEEE, creating environmental, economic, and social benefits, including bridging the digital divide by providing access to information technology products to people who would otherwise be unable to afford them. The proximity to markets where electronics are manufactured and where raw	Not any specific but we are members of the OEWG, PACE, working in the North American region through the Commission for Environmental Cooperation (CEC) to enhance the capacity of SMEs that refurbish and recycle UEEE to implement environmentally sound management practices, estimate the amount of transboundary movements of used computers and monitors within and from North America, and undertake	.At the State level, a number of U.S. States have adopted legislation that requires electronics take-back. Furthermore, the U.S. government is working with a diverse group of stakeholders, including state governments, industry and the public, to develop solutions to the problem of used electronics. In addition, NGOs are also very much involved in promoting environmentally sound management of electronics, including raising awareness of the harm caused by unsafe management and providing technical assistance. Many manufacturers of electronics as well as

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		materials are available affects where recycling and other processing of UEEE takes place, as do available technologies, environmental standards, and labor rates. For example, there is high demand in Asia for used electronic components for remanufacturing electronics. The Task Force, however, had serious concerns about unsafe handling of UEEE, especially discarded electronics or e-waste, in some countries that result in harm to human health and the environment. The Task Force set forth recommendations, now being implemented, to reduce harm from U.S. exports of e-waste and improve safe handling of used electronics domestically and internationally. On the Federal level, we have adopted a regulation that governs the transboundary movement of used and end-of-life cathode ray tubes	enforcement cooperation regarding illegal trade in used electronics.	electronics retail chains have joined the charge to find innovative ways of ensuring the safe management of discarded electronics. The manufacturers often have programs where consumers can ship back discarded electronics. Some retail stores offer consumer electronics recycling programs their stores, as well as locations to drop off old cell phones, rechargeable batteries, and ink-jet cartridges. Many U.S. companies have also instituted take-back programs.
United	While accurate data on the amount	The National Strategy for	Not any specific but	.At the State level, a

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
States	of e-waste exported from the United States are not available, the U.S. government is concerned that these exports may be mismanaged abroad, causing serious public health and environmental hazards and representing a lost opportunity to recover valuable resources.	Electronics Stewardship report details the federal government's plan to enhance the management of electronics throughout the product lifecycle — from the design to the eventual recycling or disposal.The Task Force recognized that global markets play an important role in reuse, remanufacturing, and recycling of UEEE, creating environmental, economic, and social benefits, including bridging the digital divide by providing access to information technology products to people who would otherwise be unable to afford them. The proximity to markets where electronics are manufactured and where raw materials are available affects where recycling and other processing of UEEE takes place, as do available technologies, environmental standards, and labor rates. For example, there is high demand in Asia for used electronic components for remanufacturing electronics.	we are members of the OEWG, PACE, working in the North American region through the Commission for Environmental Cooperation (CEC) to enhance the capacity of SMEs that refurbish and recycle UEEE to implement environmentally sound management practices, estimate the amount of transboundary movements of used computers and monitors within and from North America, and undertake enforcement cooperation regarding illegal trade in used electronics.	number of U.S. States have adopted legislation that requires electronics take-back. Furthermore, the U.S. government is working with a diverse group of stakeholders, including state governments, industry and the public, to develop solutions to the problem of used electronics. In addition, NGOs are also very much involved in promoting environmentally sound management of electronics, including raising awareness of the harm caused by unsafe management and providing technical assistance. Many manufacturers of electronics as well as electronics retail chains have joined the charge to find innovative ways of ensuring the safe management of discarded electronics. The manufacturers often have programs where consumers can ship back discarded electronics. Some retail

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		The Task Force, however, had serious concerns about unsafe handling of UEEE, especially discarded electronics or e-waste, in some countries that result in harm to human health and the environment. The Task Force set forth recommendations, now being implemented, to reduce harm from U.S. exports of e-waste and improve safe handling of used electronics domestically and internationally. On the Federal level, we have adopted a regulation that governs the transboundary movement of used and end-of-life cathode ray tubes		stores offer consumer electronics recycling programs their stores, as well as locations to drop off old cell phones, rechargeable batteries, and ink-jet cartridges. Many U.S. companies have also instituted take-back programs.
PC Rebuilders and Recyclers	Differentiation between used goods that are refurbishable in the receiving country verses equipment that is just being sent for material recovery. I suspect that is a fine line.	We test as per the PACE guidelines all equipment that is exported to assure it is refurbishable equipment. We also have a certified third party witness the loading process so that there is no question about the veracity of the Bill of Lading (BOL).		We are working with the BCRC in El Salvador to create a micro financed computer refurbishment program that will include and support formal material recovery. Take-back obligations are impractical and have a higher negative environmental impact. The greater negative impact is

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
				due to the large take back system that would be required to create. In addition any take back program would have to be operational for a very long time.
IPMI	Reuse, repair, refurbishment and upgrading of used mobile phones are not operations specified in Annex IVA or IVB. Ltr of 25 Feb 2008, commenting on MPPI Chairman's paper Project 2.1			
ITI		On behalf of our member companies, ITI has worked to develop practical approaches to the collection and ESM of UELG in a variety of venues, including PACE, the Basel COP, the multi-stakeholder group convened by the U.S. Environmental Protection Agency to develop the Responsible Recycling (R2) Guidelines. Where appropriate, ITI advocates legislation in the U.S. and elsewhere aimed at promoting practical improvements to the collection and management of e-waste, including additional restrictions on the export of e-		Member companies have long standing voluntary take-back programs that encourage the return of used equipment to manufacturers for proper disposition.

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
		wastes that qualify as hazardous from developed to developing (non-OECD) countries. Various ITI member companies have supported other international initiatives aimed at improving the collection and environmentally sound management of e-waste, such as the recent Regional Forum on E-waste in Africa, work under the Mobile Phone Partnership Initiative (MPPI) and StEP.		
Philips	Transboundary shipments of used products regularly meet with administrative/bureaucratic hurdles which impede our desire to create closed loop material streams such as the recovery of rare earth from fluorescent lamps, refurbishment of medical equipment, and parts harvesting of professional products.	Philips Healthcare has B2B product take back programs where legislated. Our focus is on refurbishing used product whenever possible and harvesting parts to promote recycling and extend the product lifetime of the installed products. If refurbishing or part harvesting is not feasible, used products are properly recycling. The Philips EcoDesign program promotes improved design for recycling.	Philips participates in lobbying proposed legislation regarding take back obligations directly and through industrial groups. Philips also participates in standards development such as IEC that relate to aspects of the take back obligation such as standardizing product information	Used medical devices are refurbished by Philips using the highest possible international standards and sold under full warranty equal to new. Philips refurbishing program provides reliable and cost effective refurbished medical devices, allowing more patient access to up-to-date technology. This program relies on transboundary movement of used professional equipment to Philips'

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
			made available to recyclers.	refurbishing locations. Defining used professional electronic equipment destined for refurbishing or repairs as "e-waste" will stop legitimate transboundary movement of this equipment, prematurely diverting valuable equipment to waste recycling channels. Medical devices can have a very long service life, to well in excess of ten years and, therefore, far exceeding the warranty period. Highly specialized or intricate repairs may require that the device be returned to the manufacturer or a regional authorized service center in another country. Also, it is critical to business to return systems to the manufacturer or authorized contractor for parts harvesting and repair, which are then used in service operations. To keep the service expenses for medical devices to affordable levels, the return

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
				of defective parts for repair is a necessity. The repair of service parts can only take place in central, specialized repair centers, requiring transboundary movements. Used parts must move cross boarder for repair or reuse. Additionally, we strive to reuse parts and components to implement our cradle-to-cradle ambitions, thereby increasing global collection of used parts and components and managing them at the highest residual value in centralized repair and remanufacturing centers. Return of used parts also significantly expands the lifetime of installed medical devices in addition to the asset value of the equipment. Medical device refurbishment and repair is an effective means of reducing e-waste while ensuring greater global access to medical device technology. Return of used equipment to the manufacturer or to a

	Identification of Problem Posed By Used and End-of-life Goods	Measures to Address the Problem	Bilateral, etc. initiatives	Take-back
				test house would be necessary after an “adverse event” in which a patient or user was harmed to complete root cause analysis, meeting regulatory compliance or quality assurance monitoring of devices required by the EU Medical Device Directives. At the moment, the Basel convention seems to be drafted from the assumption that any transboundary shipment of waste is intended to avoid/reduce environmental responsibilities while our intention is the opposite.

[1] Unless otherwise indicated, source material for this Matrix consists of the responses to the 2012 Questionnaire. A single asterisk (*) denotes information obtained from the SBC compilation of responses to the 2009 Questionnaire (hereinafter, "2009 Compilation"), http://www.basel.int/Countries/NationalReporting/StatusCompilations/CompilationPartI2009/tabid/2561/Default.aspx. A double asterisk (**) denotes information obtained from the SBC compilation of responses to the 2008 Questionnaire (hereinafter, "2008 Compilation"), http://www.basel.int/Countries/NationalReporting/StatusCompilations/CompilationPartI2008/tabid/2561/Default.aspx. Responses have been edited for brevity, and informally translated into English, where necessary. The Matrix does not include responses on clarification of the concept of charitable contributions, as only [two] were received: The Central African Republic stated: "Les dons charitables consistent à assister gratuitement les personnes ou groupe de personnes vulnérables." Nicaragua reported that it has established regulations and conditions on the donation of medicines. In addition, Phillips Health Care advised that "charitable donations are well defined at Philips and must be processed via an internal legal process. Typically, new not used equipment is considered for charitable donation."

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[14]

[15] BCCCAP Project Report

APPENDIX 3

Potential criteria for exclusion from regulation as a hazardous waste

1. Recognize exclusion for warranty repair work.
    - Protective packaging for shipping and handling, consistent with that provided for new products
    - Documentation of warranty contract and intent to return to customer
    - Limitation on warranty period
    - ESM certification of warranty repair facility
    - Provision for take-back of any hazardous components removed from item

2. Recognize exclusion for direct re-use
    - Protective packaging[64] for shipping and handling
    - Legible labeling and signage
    - Full functionality[65] (perhaps comparable to new) and conformance with applicable technical, performance and safety specifications
    - Documentation of:
        - functionality (perhaps comparable to new)
        - applicable technical, performance and safety specifications
        - age, quality, and condition of good
            - maximum age specifications (e.g., 3-5 years for used computing equipment)
            - limitations on wear, damage, defects
        - marketability
        - intended destination or distribution chain
        - legal status in countries of export, import and transit
    - Use only for original purpose
    - Could allow minor repairs/refurbishment
    - Prohibition counterfeit products
    - Could prohibit specified items
    - Assurance of take-back for items not directly reused

3. Recognize exclusion for re-use (subject to repair/refurbishment)
    - Protective packaging for shipping and handling
    - Legible labeling and signage
    - Full functionality (perhaps comparable to new) and conformance with applicable technical, performance and safety specifications
    - Documentation of:
        - functionality (taking into account intended repair/refurbishment operation)
        - applicable technical, performance and safety specifications
        - age, quality, and condition of good
        - maximum age specifications (e.g., 3-5 years for used computing equipment)
        - minimum remaining useful life
        - limitations on wear, damage, defects
        - marketability
        - intended destination or distribution chain

[64] See PACE ESM Guidance, Appendix III for more detail.

[65] See, e.g.European Union, Malaysia, PACE ESM Guidelines, Appendix V (functionality tests for computing equipment).

    - contracts for repair/refurbishment and intended distribution chain
    - description of intended repairs/refurbishment
    - legal status in countries of export, import and transit
- Use only for original purpose (?)
- Limitation on extent or nature of repairs/refurbishment; e.g., could prohibit major reassembly, etc.
- Environmental considerations
    - environmental assessment of repair/refurbishment operation
    - comparison of environmental impact to use of primary products
    - ESM certification of repair/refurbishment facility
- Could prohibit specified items, categories, or operations
- Provision for take-back of hazardous components and items not reused
- Prohibit counterfeit products

4. Recognize exclusion for certain recycling/recovery operations

Recognize exclusion for re-use (subject to repair/refurbishment)

- Packaging to prevent release of hazardous materials to the environment
- Documentation of:
    - suitability for intended purpose and recycling/recovery operation
    - legal status in countries of export, import and transit
    - contracts for recycling/recovery operations
    - legal status in countries of export, import and transit
    - commercial demand for material (material must have positive value)
- Could limit to "closed loop" processing within a single industrial organization
- Environmental considerations
    - environmental assessment of recycling/recovery operation and of any waste generated thereby
    - ESM certification of repair/refurbishment facility
    - comparison of environmental impact to use of raw materials

APPENDIX 4

References

Unless otherwise indicated, entries refer to both the draft terminology report and the study on UELG. References from the terminology report only denoted by asterisk (*); references from UELG study only are denoted by a double asterisk (**).

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4. Chad
5. Colombia
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7. Ivory Coast
8. Japan
9. Lithuania
10. Malaysia
11. Montenegro
12. Morocco
13. Nicaragua
14. Paraguay
15. St. Lucia
16. Yemen
17. Zambia

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C. Information Communicated by Stakeholders in Response to 2012 Questionnaire

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3. Phillips Medical**
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