

# **UNITED NATIONS ENVIRONMENT PROGRAMME**

## **International Environmental Technology Centre<sup>1</sup>**

### **Addressing e-waste challenges and opportunities through public-private sector cooperation**

#### **Multi-Stakeholder Policy Dialogue Osaka, Japan, 18-20 July 2012**

Organized in cooperation with the Global Environment Centre Foundation (GEC)

#### **BACKGROUND**

The problems associated with end-of-life electric and electronic goods (EEE) and e-wastes (WEEE) have been broadly recognized in the past few years. The increasing penetration rate of electronic devices in all regions, together with their ever decreasing life span, has led to exponential growth of the amount of e-wastes generated globally, with the recycling rates still far below what would be desirable. In addition, end-of-life e-products and e-wastes are being shipped, mostly illegally, to countries that do not have the appropriate infrastructure to manage them. The materials are thus frequently dismantled in “backyard” operations under conditions hazardous to human health and the environment.

A number of recent policy processes have addressed the challenges associated with e-wastes and called for increased focus on finding appropriate solutions. The Governing Council / Global Ministerial Environment Forum of the United Nations Environment Programme (UNEP) adopted several decisions relevant to the management of e-wastes<sup>2</sup>, based on which UNEP’s International Environmental Technology Centre (UNEP/IETC) developed a number of tools and convened workshops and meetings over the past few years<sup>3</sup>. In 2010, UNEP/IETC spearheaded the launch of the Global Partnership on Waste Management, with one of its focal areas addressing e-wastes, under the leadership of the United Nations Industrial Development Organization (UNIDO). Significant work has also been undertaken in the framework of the Basel Convention, the sole global treaty on waste management. In response to the exponential increase in the generation of e-wastes, the Convention’s Conference of the Parties (COP) designated e-wastes as a priority waste stream in 2006<sup>4</sup>. In 2008, the Bali Declaration recognized the contribution of environmentally sound waste management to the protection of human health and livelihood<sup>5</sup>. Two successful private-public partnerships targeting e-wastes were launched under the Basel Convention, namely the Mobile Phone Partnerships Initiative (MPPI) in 2002 and the Partnership for Action on Computing Equipment (PACE) in 2008. Two regional capacity building programmes on e-waste management are being carried out in the framework of the Convention, one in Asia and one in Africa<sup>6</sup>.

Awareness of the opportunities that may arise from e-wastes that cannot be avoided is only now emerging. To illustrate, it has been estimated that one ton of obsolete mobile phones (without batteries) contains 3.5 kilograms of silver, 140 grams of palladium, 130 kilograms of copper, and 300-350 grams of gold; by contrast, one ton of ore contains 5 grams of gold<sup>7</sup>. Informal “backyard” recycling of electronic waste yields about 25 percent of the gold contained in the material, while recycling in a state-of-the-art facility can yield over 95 percent<sup>8</sup>. Against this background, it is clear that environmentally sound recycling to extract valuable secondary raw materials from electronic waste can provide significant economic opportunities, and at the same time create green jobs, if supported by an enabling policy framework.

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<sup>1</sup> IETC is a branch of UNEP’s Division of Technology, Industry and Economics.

<sup>2</sup> UNEP Governing Council decisions 25/8 of 2009 and 26/3 of 2011.

<sup>3</sup> IETC publications, materials and project reports can be downloaded at [http://www.unep.or.jp/ietc/spc/activities/GPWM/info\\_platform.asp](http://www.unep.or.jp/ietc/spc/activities/GPWM/info_platform.asp)

<sup>4</sup> Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic Waste, 2006

<sup>5</sup> Bali Declaration on Waste Management for Human Health and Livelihood, 2008.

<sup>6</sup> Information on work carried out under the Basel Convention is available at [www.basel.int](http://www.basel.int)

<sup>7</sup> Umicore Precious Metal Refining, Brussels RMI Workshop, September 2010; UNEP, Recycling – From E-Waste to Resources (Sustainable Innovation and Technology Transfer Industrial Sector Studies, 2009).

<sup>8</sup> Umicore Precious Metal Refining, Brussels RMI Workshop, September 2010

Recognition that the issue is no longer limited to transboundary movements of e-wastes from developed to developing countries is also emerging. A recent estimate indicates that by 2018, more obsolete personal computers (PCs) will be discarded in countries which are today considered developing countries than in the traditional industrialized countries, and by 2030 the number of obsolete PCs originating in developing regions will by far exceed those from developed regions<sup>9</sup>.

Acknowledgement of these developments has recently led international policy to support a life-cycle approach to e-products and e-wastes. In October 2011, the COP to the Basel Convention acknowledged the value of certain types of wastes as a resource and supported realization of the economic potential of environmentally sound recycling and resource recovery. While facilitating the entry into force of the Ban Amendment to the Convention for those countries wishing to adhere to it, the COP also mandated the development of a regime for countries that wish to trade in waste under conditions that promote social well-being and livelihood, and protection of the environment<sup>10</sup>. The technical expert group established to develop such a regime held its first meeting in April 2012. The International Telecommunications Union (ITU) and the Secretariat of the Basel, Rotterdam and Stockholm Conventions concluded a formal agreement to cooperate in promoting a life-cycle approach of e-wastes in March 2012.

The 1st Pan-African Platform on E-Waste in March 2012 considered findings from the Basel Convention's e-waste Africa Programme, which include indications that up to 85% of e-wastes in five West African countries are domestically generated<sup>11</sup>. The Forum adopted a Call for Action, stating that "e-wastes that cannot be avoided should be considered as a resource. Managing e-wastes in an environmentally sound manner would create green jobs and business opportunities while alleviating poverty".

Overall, the concept of a Green Economy is receiving increased international attention, including as one of the key themes of the Rio+20 Conference in June 2012. Environmentally sound recycling of e-wastes could well become a pilot area for demonstrating greening of the economy in a cost-effective manner.

### **CONCEPT, MODALITIES AND EXPECTED OUTCOME**

Government regulators have a responsibility to protect citizens from the potential risks to human health and the environment posed by this rapidly growing waste stream and to promote the efficient use of resources through the recovery of valuable materials from discarded electrical and electronic equipment. The effectiveness of Government policies will be greatly enhanced by cooperation with the private sector, including in particular manufacturers and waste management service providers. The private sector has the necessary investment capacity and technical know-how to handle the waste in an environmentally sound manner, and the incentive to do so as a matter of both commercial interest and corporate social responsibility. As it is the private sector that will need to apply any legal and policy frameworks, it is important that Governments take on board the needs and expertise of the relevant industries. The present policy dialogue between Governments and the private sector, with inputs from Intergovernmental Organizations, academia and public interest groups, is designed to:

- 1) Review current public-private sector cooperation on end-of-life e-products and e-waste in countries participating in the workshop;
- 2) To identify best practices and barriers to be overcome in order to enhance public-private sector cooperation to achieve optimal management of end-of-life e-products and e-waste in the future.

Based on the dialogue, the meeting is expected to develop a Call for Action, which will set out recommendations on possible steps for establishing public-private cooperation on the management of end-of-life e-goods and e-wastes, and on measures required to make such cooperation efficient and effective. To this end, a small informal drafting group will be set up in advance of the Dialogue under the leadership of IETC to prepare an initial draft Call for Action. The draft will then be shared with key participants through exchange of e-mails, and possibly a conference call, in order to obtain broad input and support.

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<sup>9</sup> Jinglei Yu et al., Forecasting Global Generation of Obsolete Computers, Environmental Science Technology, February 2010.

<sup>10</sup> 10<sup>th</sup> Meeting of the Conference of the Parties to the Basel Convention, 2011: Decision 10/2 (Strategic Framework for the implementation of the Basel Convention); Decision 10/3 (Indonesian-Swiss Country-Led Initiative); Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes

<sup>11</sup> Report "Where are WEee in Africa? Secretariat of the Basel Convention, December 2011

## PROGRAMME at a glance

(Please notice that the names of the speakers for each session will be included in future versions of the agenda, once all the speakers have been confirmed)

Wednesday, 18 July 2012	
<b>Setting the scene: what the public and private sectors need from each other</b>	
08:30 – 09:00	Registration
09:00 – 09:30	<b>Opening remarks</b>
09:30 – 10:10	<b>Keynote addresses</b>
10:10 – 10:20	<b>Introduction to the policy dialogue</b>
10:20 – 11:00	Group photograph & coffee break
11:00 – 11:30	<b>Presentations - Challenges and opportunities associated with e-waste and the advantages of public-private sector cooperation</b>
11:30 – 13:00	<b>Panel discussion - What do Governments expect from e-waste manufacturers and recyclers?</b>  The cooperation of private sector entities, including manufacturers and recyclers, is essential if Governments are to stay on top of the management challenge posed by rapidly increasing quantities of e-waste and promote a greening of the economy in this area. The challenge is particularly acute for Governments in developing and transition economy countries, which are less well equipped with the policy tools and resources and may be less accustomed to public-private partnerships. What do Governments see as the responsibilities of the private sector for e-waste management and how do they propose to facilitate private sector engagement?
13:00 – 14:00	Lunch
14:00 – 15:30	<b>Panel discussion - What do electronics manufacturers need from Governments?</b>  The ability of electronics manufacturers to fulfil their product stewardship responsibilities, for example through take-back schemes, will depend not only on industry's own commitment to corporate social responsibility but the cooperation of Governments in creating an enabling policy environment through appropriate regulations and economic instruments. This session will highlight best Government policy and regulatory approaches from the viewpoint of manufacturers and identify the principal perceived barriers.
15:30 – 16:00	Coffee break

16:00 – 17:30	<p><b>Panel discussion - What do recyclers need from Governments?</b></p> <p>A fully functioning system for e-waste resource recovery and disposal depends on the active participation of private sector companies with the required technologies and investment capacity. Their participation will in turn depend on an enabling Government policy environment that makes it worthwhile for them to invest, for example due to user-friendly certification procedures, tax incentives, assurances of supply, minimization of barriers to trade and other such measures. This session will highlight best Government and regulatory approaches from the viewpoint of recyclers and identify the principal perceived barriers.</p>
17:30 – 19:30	Reception
<b>Thursday, 19 July 2012</b>	
09:00 – 10:30	<p><b>Panel discussion - International organizations' facilitation of public-private sector cooperation</b></p> <p>The efforts of Governments and industry to foster productive public-private partnerships in individual countries can be supported by international organizations. These organizations can provide forums for discussion of best Government policy practices, assessment of waste stream trends and technology solutions, development of harmonized technical standards, and promotion of industry commitments to global product stewardship. The international organizations, along with bilateral development cooperation agencies, may also deliver capacity-building to improve the sound management of e-waste in developing and transition economy countries. To what extent is public-private sector cooperation being emphasized by international organizations as a key tool for addressing the e-waste challenge? What do the organizations see as the most successful practices in that regard? How can Governments and the private sector support their efforts?</p>
10:30 – 11:00	Coffee break
11:00 – 12:30	<p><b>Panel discussion - The perspective of academic institutions and non-governmental organizations</b></p> <p>Academia and public interest non-governmental organizations (NGOs) can offer a unique perspective of the roles of Governments and the private sector for the management of e-waste and resource recovery, as they are closely following the relevant activities while not having direct responsibilities. How do they see the current state of e-waste management, particularly in relation to Government and private sector performance in developing and transition economy countries? What is going right and what can be improved? How can it be improved?</p>
12:30 – 13:30	Lunch
<b>Mapping the way forward: priority issues and solutions</b>	
13:30 – 13:35	<b>Introduction to the breakout groups</b>

13:35 – 15:30	<p><b>Breakout group A: Government policies</b>  <b>Facilitator:</b>  Drawing on the previous panel discussions, this group will be charged with developing an outline of the principal Government policy approaches, including regulatory measures and economic instruments, needed to facilitate public-private sector cooperation on e-waste management.</p>	<p><b>Breakout group B: private sector contributions</b>  <b>Facilitator:</b>  Drawing on the previous panel discussion, this group will be charged with developing an outline of the principal private sector pre-requisites for cooperation with Governments in e-waste management, including legal, taxation, supply and trade issues, from the perspectives of both manufacturers and recyclers.</p>	<p><b>Breakout group C: international facilitation</b>  <b>Facilitator:</b>  Drawing on the previous panel discussion, this group will be charged with a summarizing priority needs for international action to facilitate the adoption of such approaches, including, for example, development of additional guidelines, capacity-building programmes, technology advisory services and additional international standards.</p>
15:30 – 16:00	Coffee break		
16:00 – 16:30	<b>Video screening</b>		
16:30 – 17:30	<b>Reports from the breakout groups</b>		
17:30 – 18:30	<b>Meeting of the drafting group to finalize the draft Call for Action</b>		
<b>Friday, 20 July 2012</b>			
08:30 – 09:30	<b>Presentation and adoption of the Call for Action</b>		
09:30 – 09:45	<b>Closing remarks</b>		
10:00	<p><b>Departure for field visits</b></p> <ul style="list-style-type: none"> <li>• Panasonic collection center of end of life cycle (EOL) products, Rokko Island</li> <li>• Panasonic Eco Technology Center, Kato City</li> </ul>		

