E-waste: experience and findings from the Basel Convention

WSIS Forum 2012

E-waste: Challenges, Solutions and Benefits

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Electrical and Electronic Waste (e-waste) under the Basel Convention

• E-waste as hazardous (A1180) or non-hazardous (B1110)
• Nairobi Declaration on E-waste (2006)
• Technical guidelines on transboundary movements of e-waste (draft)
• Mobile Phone Partnership Initiative (MPPI)
• Partnership for Action on Computing Equipment (PACE)
• Capacity-building activities in Asia and Africa
• **Timeframe**
  November 2008 to June 2012

• **Overall coordination**
  Secretariat of the Basel Convention

• **Partners**
  BCCC-Nigeria, BCRC-Senegal, and BCRC-Egypt, IMPEL, EMPA and the Oko-Institut
Countries involved: Benin, Cote d’Ivoire, Egypt, Ghana, Liberia, Nigeria, and Tunisia
I. A study on flows of used EEE and e-waste imported into Benin, Côte d’Ivoire, Ghana, Liberia and Nigeria, from European countries

II. National assessments and national environmentally sound management plans

III. A socio-economic study on the e-waste sector in Nigeria and a feasibility study of international cooperation between African SMEs and European recycling companies

IV. Enforcement programme in Benin, Egypt, Ghana, Nigeria and Tunisia to prevent illegal transboundary movements of e-waste

Goal:
Enhance environmental governance for e-waste in selected African countries
Trends of EEE imports, use, and e-waste generation in West Africa

- Use of EEE in Africa is low but growing at a staggering pace

- West Africa serves as the major trading route of used EEE into Africa

- In 2009 up to 70% of all imports were used EEE and 30% of which were non-functional

- In 2010 between 50-85% of e-waste was domestically generated which needs to be managed
Quantitative data for EEE in Benin, Cote d’Ivoire, Ghana, Liberia and Nigeria related to imports, installed base and e-waste generated

<table>
<thead>
<tr>
<th>Country</th>
<th>Imports of EEE</th>
<th>EEE in use</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tonnes/year</td>
<td>thereof used EEE</td>
<td>tonnes</td>
<td>Kg/inhabitant</td>
<td>Tones/year</td>
</tr>
<tr>
<td>Benin</td>
<td>16,000</td>
<td>30%</td>
<td>55,000</td>
<td>6.32</td>
<td>9,700</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>25,000</td>
<td>48%</td>
<td>100,000</td>
<td>4.8</td>
<td>15,000</td>
</tr>
<tr>
<td>Ghana</td>
<td>215,000</td>
<td>70%</td>
<td>984,000</td>
<td>41</td>
<td>179,000</td>
</tr>
<tr>
<td>Liberia</td>
<td>3,500</td>
<td>10%</td>
<td>17,000</td>
<td>4.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1,200,000</td>
<td>35-70%</td>
<td>6,800,000</td>
<td>44</td>
<td>1,100,000</td>
</tr>
</tbody>
</table>
Impacts of recycling practices on human health, the environment and climate change

- Major environmental and human health impacts result from **dismantling, material recovery and final disposal**

- Impacts during **collection, refurbishment and repair** of EEE are less significant

- **Cable burning** is a major source of dioxin emissions

- Current recycling practices **focus on recovery** of steel, aluminum and copper and quite **inefficient** for other metals

- Primary production of metals has a significant impact on **climate change**
Socio-economic aspects of the e-waste sector in Ghana and Nigeria

- Well-organized repair and refurbishing sectors which operates partly under formal conditions

- Collection and recycling done mostly by informal sector

- Daily revenues in the informal collection and recycling: US$ 0.22-US$ 9.50 and in the refurbishment sector: US$ 2.20 and US$ 22

- Considerable potential for improvement in the field of ICT recycling
Flows of EEE and e-waste between Europe and West Africa and enforcement of Basel provisions

- **Pathways** of used EEE from the formal to the informal sector

- **Brokers and traders** are key players

- Ports of Amsterdam and Antwerp were used as examples of **gateways** for used EEE.

- Several challenges related to the **enforcement** of Basel provisions (e.g. clear distinction between used EEE and e-waste)

- **Coordination** at the national level

- **International cooperation** between regulatory and enforcement authorities
E-waste Africa Forum, Nairobi, Kenya

14-16 March 2012

• Organized by the Secretariat of the Basel Convention and UNEP, with support from the Government of Kenya, and private sector companies including Dell, HP, Nokia and Philips

• 180 participants from 35 countries

• Adopted Call for Action on E-waste in Africa
Thank you for your attention!

For more information
www.basel.int

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