

The Challenge of E-Wastes: Hazard and Commodity

Keynote Address

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Contents of Presentation

- **Why e-waste is an issue**
- **E-waste Management Status in Developing Countries**
- **The response of the Basel Convention:**
 - **The Nairobi Declaration on E-waste**
 - **Basel Convention Partnerships on e-waste (MPPI and PACE)**
 - **Basel Convention regional programmes**
 - **Elaboration of Technical Guidelines**
- **Key challenges: what will make our efforts successful and sustainable?**



Why e-waste is an issue

- Ever-increasing generation of end-of-life equipment
- Environmental and health effects of unsound management
- Exports to developing countries at facilities not ESM
- E-waste contains useful and potentially valuable materials



E-waste Management Status in Developing Countries

Environmentally unsound management

Lack of legal framework; or
In preparation/only pilot programmes

Not considered as waste, but resource → informal sector

Good collection of reusable e-waste
Good reuse of obsolete e-product
Good repair, refurbishment network

“Non-reusable/recyclable”

Disposed with other wastes
Open burning, open dumping, illegal dumping



**Separation of PCs and other
E-waste on the road**

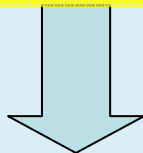
Photo: Terazono (2006)



**Usual scenery of **print circuit
board heating** for removing
IC-chips and Pb at Guiyu**



Removing valuable parts and metals



Effluents after Cu recovery



Storage at river side



Crushing and
Cu recovery



Open dumping of
pulverized residues



Open dumping of E-waste recycling residues and residential waste along the river at Guiyu

(Source: Terazono, 2006)



Illegal export of used computer monitors (35.89 tons) from Japan to Thailand (Sep. - Dec. 2002)



**Illegal export of used monitors (19, 15.6, 16.75 tons)
from Thailand to China (Feb., Apr., May 2004 - present)**



Illegal import of used boards of pinball game (46.2 tons) from Japan to Thailand (Jan. 2004 - 2005)



**Illegal export of E-wastes (18.18 tons)
from Thailand Thailand to Hong Kong (Dec. 2005 - present)**



Basel Convention response: The Nairobi Declaration on ESM of E-Waste

- The Basel Convention has addressed the issue of e-waste since 2002 – now a “flagship” programme under the Convention
- COP8 in Nairobi (2006) focused on the theme of “Creating innovative solutions through the Basel Convention for the ESM of electronic waste”
- The Nairobi Declaration on ESM of E-waste and Decision VIII/2 were adopted (see Annex VI of COP8 report at <http://www.basel.int/meetings/cop/cop8/docs/16eREISSUED.doc>)
- Ministers recognized the Basel Convention as the main legal instrument for guiding ESM of hazardous e-waste

Basel Convention response: The Nairobi Declaration on ESM of E-Waste

- **The Nairobi Declaration provided a mandate and roadmap for future strategic action on e-wastes in the framework of the Basel Convention**
- **Reaffirming the commitment: COP9 in Bali (June 2008) adopted a work plan for 2009-2011 - continuation of work already ongoing and new activities:**
 - **Private-public partnerships**
 - **Development of Technical Guidelines on transboundary movement of e-waste**
 - **Implementation programmes for ESM of e-wastes in Asia, Africa, and South America**



Mobile Phone Partnership Initiative (MPPI)

Adopted: COP6 in 2002

Participants: Countries, industries and NGOs

Achievements: 5 technical guidelines developed -see
<http://www.basel.int/industry/mppi/documents.html>

Pending issues:

- **Pilot projects on mobile phone recycling and awareness-raising**
- **Finalization and adoption of technical guidelines on the transboundary movements of mobile phones (provisionally adopted by COP9)**



Partnership for Action on Computing Equipment (PACE)

Adopted: COP9 in Bali

Participants: Countries, industries and NGOs,
Basel Convention Regional Centres (China, Egypt, Nigeria, Slovakia,
Tehran)

Scope: PCs, displays, printers and associated peripherals

Agreed activities:

- #To develop tools (such as guidelines) and activities on ESM refurbishment and repair, including criteria for testing, certification and labelling**
- #To develop tools (such as guidelines) and activities on environmentally sound recycling and material recovery, including facility certification**
- #To develop and promote pilot schemes for ESM of used and end-of-life computing equipment towards the attainment of the Millennium Development Goals**
- #To develop awareness-raising and training programme activities**

Partnership for Action on Computing Equipment (PACE)

- Operated as Interim Group and Friends of PACE Working Group
- Officially operational since 14 Jan 2009 with the First PACE Working Group teleconference
- Discussed Programme of Work 2009/2010 (Road Map)
- Physical meeting in mid-2009
- More involvement of developing countries and CEITs very important
- Comments on TOR, more nominations for membership required

Regional programmes and partnerships

- **Asia-Pacific Region:** launched 2005 with funding from Japan; implemented with BCRC S-E Asia. Wide range of practical activities
- **African Region:** initiated 2009 with funding from European Union; implemented with BCRC Senegal and Nigeria
- **South American Region:** pilot project on Inventory of e-waste completed 2006; implemented with BCRC Argentina

Technical Guidelines on ESM of e-wastes

- Development of technical guidelines on specific aspects of management of e-wastes is a core part of the regional and partnership work under the Basel Convention:
 - E-waste programmes for Asia, Africa and South America
 - Partnerships: Mobile Phones (MPPI) and obsolete computer equipment (PACE)
 - Work on Technical Guidelines on transboundary movement being initiated under COP 9 mandate
- This work benefits from expertise of national specialists as well as BCRCs and Secretariat

Key Challenges: what will make our efforts successful and sustainable?

- The issue of e-wastes illustrates most clearly that we need a new way of perceiving, and dealing with waste material.
- The divide between “waste” and “commodity” is becoming blurred – need to revisit this?
- Waste can become a commodity through the extraction of valuable secondary raw materials, which should provide an incentive for its ESM.
- Can lead to a win-win situation whereby the hazard potential is reduced and secondary resources are entering the market.
- Cooperation between governments and the private sector is indispensable → partnership programme; significant interest and support from electronics industry.
- **Wise use of resources – cooperation and avoidance of duplication! Role of BCRCs at regional level**

FOR FURTHER INFORMATION

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