

# The Complexity of the Electronic waste Problem

Basel Convention Regional Centre for Anglophone Africa  
Stockholm Convention Regional Centre for Anglophone Africa



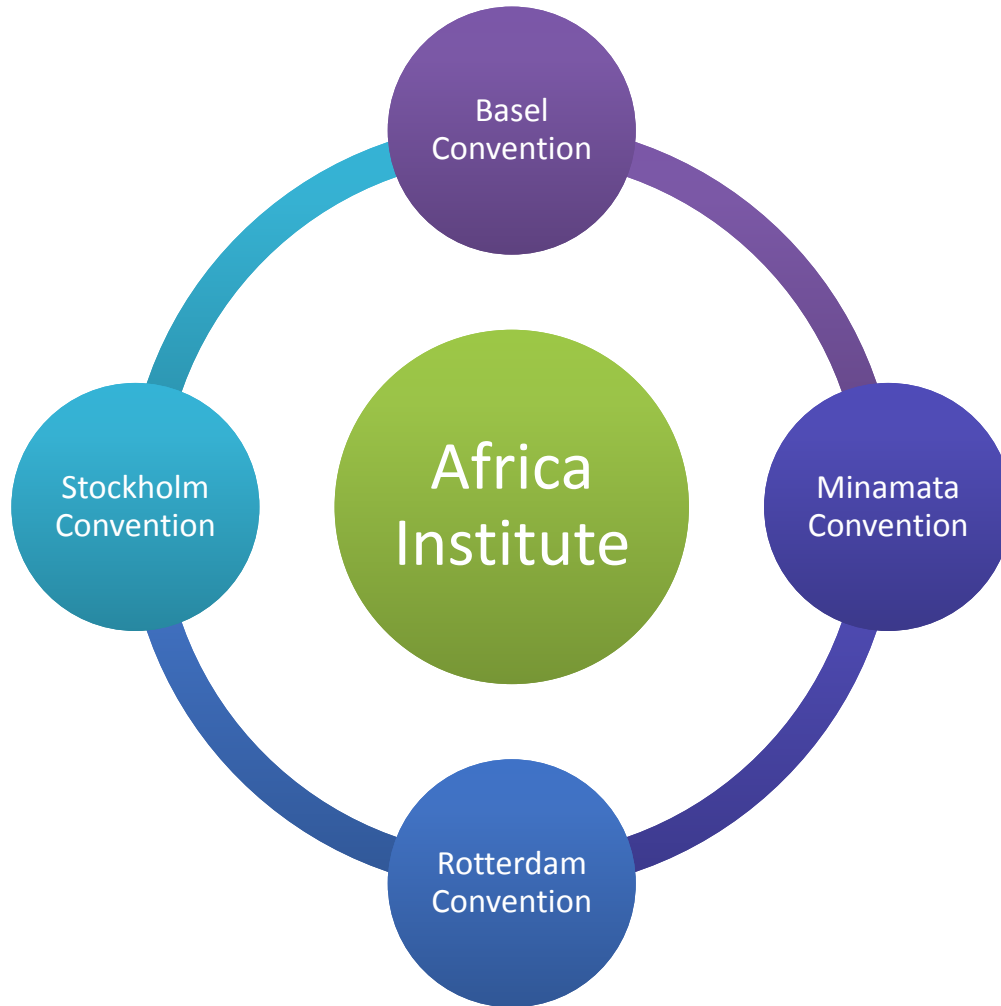
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Africa Institute

ITU Workshop on  
Environmentally Sound  
Management of E-waste  
Durban, South Africa, 9 July 2013

# The Basel Convention

- The Basel Convention is an international treaty
- It regulates transboundary movement of hazardous waste globally
- It has been ratified by 179 countries including most African countries, all European Countries but not by US
- It calls for national self-sufficiency in Hazardous Waste management
- It calls for minimizing the generation of hazardous waste
- It calls for minimizing all forms of transboundary movement of hazardous wastes
- It calls for ensuring environmentally sound management of the hazardous waste that has been produced
- It does not ban exports of hazardous waste

Africa Institute:  
Regional Centre for the Chemicals and HW Conventions



# Member countries



Angola



Gambia



Liberia



Namibia



Sierra Leone



Uganda



Botswana



Ghana



Malawi



Nigeria



South Africa



Zambia



Eritrea



Kenya



Mauritius



Rwanda



Swaziland



Zimbabwe



Ethiopia



Lesotho



Mozambique



Seychelles



Tanzania



# Countries that signed in Korea in 2004



Angola



Gambia



Liberia



Namibia



Sierra Leone



Uganda



Botswana



Ghana



Malawi



Nigeria



South Africa



Zambia



Eritrea



Kenya



Mauritius



Rwanda



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Tanzania

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# Countries that have ratified AI to-date



Angola



Gambia



Liberia



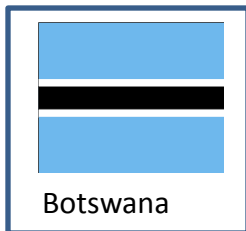
Namibia



Sierra Leone



Uganda



Botswana



Ghana



Malawi



Nigeria



South Africa



Zambia



Eritrea



Kenya



Mauritius



Rwanda



Swaziland



Zimbabwe



Ethiopia



Lesotho



Mozambique



Seychelles



Tanzania



# Countries that have signed plus those that ratified



Angola



Gambia



Liberia



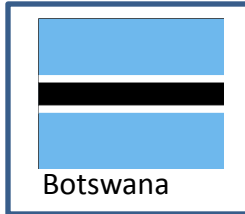
Namibia



Sierra Leone



Uganda



Botswana



Ghana



Malawi



Nigeria



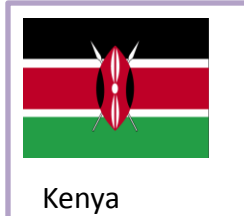
South Africa



Zambia



Eritrea



Kenya



Mauritius



Rwanda



Swaziland



Zimbabwe



Ethiopia



Lesotho



Mozambique



Seychelles



Tanzania

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# E waste and the Basel convention

- The Basel convention regards Electronic waste as hazardous waste
- This is because Electronic waste contains hazardous materials
  - Toxic metals
    - Lead, Cadmium, Mercury, Beryllium, Selenium, Lithium, Antimony, Arsenic
  - Brominated Flame Retardants
    - TBBA: tetrabromo – bisphenol – A
    - PBDE: polybrominated diphenyl
  - Halogenated Hydrocarbons
    - PVC: polyvinyl chloride
    - CFCs: Chloroflourocarbons
  - Rare Earth Elements
    - Yttium, Europium, Americium

It has been revealed through research that these compounds are highly toxic, persistent and some are endocrine-disrupting, they bio-accumulate and have potential for long-range transport



# The World is experiencing a massive revolution



- And it is good thing but we need to take responsibility.
- We need to realise that it is the weakest in our society who bear the brunt of the costs: They pay with their lives!!!!

**Lagos, Nigeria**



**Accra, Ghana**



# INTERNET USAGE STATISTICS

## The Internet Big Picture

### World Internet Users and Population Stats

#### WORLD INTERNET USAGE AND POPULATION STATISTICS

##### March 31, 2011

World Regions	Population (2011 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000- 2011	Users % of Table
<a href="#">Africa</a>	1,037,524,058	4,514,400	118,609,620	11.4 %	2,527.4 %	5.7 %
<a href="#">Asia</a>	3,879,740,877	114,304,000	922,329,554	23.8 %	706.9 %	44.0 %
<a href="#">Europe</a>	816,426,346	105,096,093	476,213,935	58.3 %	353.1 %	22.7 %
<a href="#">Middle East</a>	216,258,843	3,284,800	68,553,666	31.7 %	1,987.0 %	3.3 %
<a href="#">North America</a>	347,394,870	108,096,800	272,066,000	78.3 %	151.7 %	13.0 %
<a href="#">Latin America / Carib.</a>	597,283,165	18,068,919	215,939,400	36.2 %	1,037.4 %	10.3 %
<a href="#">Oceania / Australia</a>	35,426,995	7,620,480	21,293,830	60.1 %	179.4 %	1.0 %
<b>WORLD TOTAL</b>	<b>6,930,055,154</b>	<b>360,985,492</b>	<b>2,095,006,005</b>	<b>30.2 %</b>	<b>480.4 %</b>	<b>100.0 %</b>

Africa represents a huge growth potential and going with that is the challenge of managing the waste that arises

- The Basel Convention is meant to prevent dumping of hazardous waste from one country to another resulting in harm to human health and the environment
- What one of the NGOs involved in advocacy against E waste dumping calls the “dirty little secret of the high tech industry”
- Nobody should be exposed to this situation, and certainly no children should be
- As we have heard throughout this Indaba Electronics are part and parcel of our lives and will be here with us in the future



# Waste export

- The question is “why is waste exported, let alone hazardous waste?”
- The answer lies in what economists call “**cost externalization**”
- This means that businesses distort economics by avoiding paying the full cost
- They ship part of the cost to others, in this case cost of waste treatment
- Once shipped out, it then becomes a case of **out of sight, out of mind!**. To them the problem is solved. Whatever remains belongs to those who received the waste.

# Some of the factors responsible for cost externalization in developing countries



# Waste externalization...

- However sad this is the reality that developing countries are facing
- Under these conditions, the global efforts to protect them are even more important
- Fortunately many developing countries including in Africa are Parties to the Basel convention
- The Convention imposes a duty of care on parties involved in hazardous waste transboundary movement by ruling that such movement can only occur if:

# Export/import/transit controls under the Basel Convention

- A Prior Informed Consent (PIC): A procedure with strict requirements for transboundary movements (TBM) of hazardous and other wastes (notification and movement documents).
- A Right for each Party to prohibit import/export/transit of all or specific wastes



# Export/import/transit controls under the Basel Convention

- ❑ TBM not following the appropriate notification and consent procedures or resulting in deliberate dumping of wastes constitutes illegal traffic, which is to be considered criminal under national legislation
- ❑ Basel specifies consequences of illegal traffic, eg. obligation for exporter to take back illegal shipment
- ❑ Transboundary movements between Parties and non-Parties, including transit, is generally not permitted

Further more the Basel convention requires each party to:

- **To minimize** waste generation and transboundary movements of hazardous and other wastes.
- **To ensure** availability of disposal facilities for ESM located, to the extend possible, within its own territory.
- **To strictly control** transboundary movements and disposal operations (including storage, treatment, reuse, recycling, recovery and final disposal).

# The Ban Amendment

- In October 2011, there was a major breakthrough at Basel COP10 that may fast track the coming into force of the Ban Amendment
- This Amendment of the convention prohibits the export of hazardous waste (for recycling or disposal) from the OECD, EU, Liechtenstein (Annex VII) to all other countries especially developing countries
- It is not yet in force because it does not as yet have enough ratifications
- Many developing countries including African countries have still not yet ratified it
- The break-through that was arrived at in Cartagena was that only 2/3 of the Parties that were Parties at COP3 in 1995 are essential to bring the Amendment into force
- This reduces the burden of requirement on the convention for this Amendment to come into force
- Developing countries stand to gain more from the Amendment coming into force

# Basel Convention guidelines: MPPI

- Guidelines for mobile phones produced under Mobile Phones Partnership Initiative (MPPI)
  - Guidelines on collection of used mobile phones
  - Guidelines on material recovery and recycling of end-of-life mobile phones
  - Guidelines on refurbishment of used mobile phones

# Basel Convention guidelines: PACE

- Guidelines for computing equipment produced under Partnership Action on Computing Equipment (PACE)
  - Guidelines on environmentally sound testing, refurbishment and repair of used computing equipment
  - Guidelines on environmentally sound material recovery/recycling of end of life computing equipment
  - Guidelines on transboundary movement of E waste  
(Consensus not reached at COP 11 in 2013 on definition of waste and non waste. Paragraph 26b)

*The Africa Institute brings the region to tackle  
these issues together!*

*No single country can manage on its own!*

# Training Workshops



Tanzania



Mauritius



Lesotho



Botswana



Namibia



South Africa

# Study Tours



Holfontein



ULAB - Benoni



Holfontein



Environmental Inspectors



Oil recycling



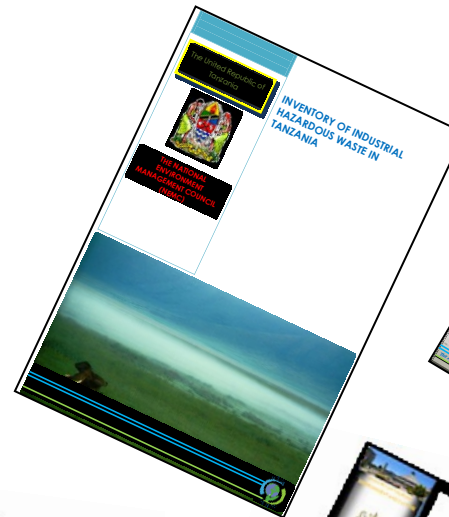
E Waste



# Assessment studies

- Assessment studies in member countries

- Botswana
- Namibia
- Lesotho
- South Africa
- Nigeria
- Tanzania
- Mauritius



# Other initiatives by the AI

- The Africa Institute has just finalized a research study in estimating e-waste generation
  - The study covered South Africa, Lesotho and Namibia
- We are further exploring recycling and disposal options
  - Engaging OEMS towards a equitable program
- Hosting of a regional capacity building workshop on available ESM technologies and thus minimize duplication of effort.
- Regional stakeholder workshop on e-waste extended producer responsibility.
- Undertake public awareness campaigns and development of resource materials
- Establish regional e-waste minimal technical standards or guidelines for e-waste management

# Summary



Thank you