E-waste Statistics, Global trends and societal impact

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What is e-waste?

Toxic
- Lead, Arsenic, mercury, etc

- Temp. Exchange
- Screens
- Lamps
- Large Equipment
- Small Equipment
- Small IT

E-waste statistics – UNECE 2016
Why is it important? Large dump sites exist

Informal recycling techniques exist
E-waste, SDGs and ITU Connect2020

- Sustainable Development Goal 12
- Ensure Sustainable Production and Consumption Patterns
- ITU: Connect2020 sets challenges and targets for ICT-sector
- Sustainability ICT
- One target on e-waste management
- E-waste statistics and methodologies of UNU are basis for monitoring

http://unu.edu/projects/e-waste-quantification.html#outputs

E-waste Volumes grow rapidly

- 2010: 33.8 Mt
- 2014: 41.8 Mt
- 2018: 50 Mt
E-waste generation in 2014

- Europe: 15.6 kg/inh
- Asia: 3.7 kg/inh
- Africa: 1.7 kg/inh
- Oceania: 15.2 kg/inh
- Americas: 12.2 kg/inh

Collection Rates of e-waste

- Literature + pilot data collections with UNECE and OECD. EU is harmonized, but other countries are not yet (scope differs)
Challenges vs. opportunities in emerging economies for e-waste

**Challenge**
- Lack of investment and technology
- Lack of formal collection system
- Lack of financing schemes
- Lack of national e-waste legislations
- Presence of the informal sector
- Growing e-waste streams (domestic and import)

**Opportunity**
- (Relative) low labor cost
- Available technological know-how and management experience
- Create jobs + create revenue

Role of Government
- Ministry of Environment
  - Formulate law
  - Monitoring of e-waste volumes
  - Define Collection targets
  - Define minimum recycling standards of collected e-waste
- Environmental inspection
  - Enforce
  - Basel Convention
    - Inspection of shipments (illegal imports from OECD countries)
    - Inspect on inferior recycling standards
Financing of recycling with private sector involvement

- Extended producer responsibility
  - Importer or producer is responsible for proper recycling of e-waste
  - Set up collection of e-waste
  - Set recycling standards
  - Can be financed via visible fee upon sale reflecting recycling costs
    - Fridge: 8 euro, TV 2 euro, etc.
    - E-waste recycling (except for lamps) is profitable in EU

Data monitoring

- Extend traditional waste Statistics
- For instance:
  - Sales (Apparent consumption approach): Domestic Production + Import – Export
  - Indicator: e-waste generated + recycling
EECCA countries

1.9 Mt of e-waste in total region in 2014
Annual growth rate: 5%
Gold: Worth 560 million Euro annually
Other valuables: ± 1800 million euro annually


E-waste questionnaire outcomes

- Half of countries responded
- But, little coverage in terms of data...
- Large scope differences
- Sometimes only data for fluorescent lamps, other times including IT-equipment
- Most products → Unknown for most EECCA countries...
Discussion

- How important is the production of e-waste statistics in your country?
- What is the role of the National Statistical Offices?
- What is most needed to improve data on e-waste?
  - Awareness?
  - Workshops?
  - Legislation?
  - Financial support?
- What do you expect what happens to e-waste in your country?
  - Dumped or land fill?
  - Informal recycling?
  - Recycling?