Sustainable Recycling Industries
Advance raw materials stewardship in developing countries

Environmentally sound management of e-waste: emerging issues, challenges and opportunities
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SECO promotes trade that is socially responsible, environmentally friendly, inclusive and thereby sustainable with the following Business lines:

- **Framework conditions for sustainable trade**
- **International competitiveness of producers and SME**
- **Market access for sustainably produced goods and services**
The uncontrolled conditions in the informal sector result in various threads:

- **Environ. pollution**: Open cable burning is a major source for dioxines.
- **Health hazards**: Informal gold leachers inhale toxic fumes.
- **Cross contamination**: The lead content in recycled plastics often lies above legal levels.
Developing countries are endowed with a variety of resources in large amounts.

- **renewable**
  ![Image of coffee beans](image1.png)

- **non-renewable**
  ![Image of mining](image2.png)

- **secondary**
  ![Image of electronic waste](image3.png)

**Quality and sustainability standards?**

- [Fair Trade](image4.png)
- [FSC](image5.png)
- [Gold](image6.png)
- [?](image7.png)
(Secondary) resources recovery is mainly done in the informal sector.

~25’000 people work in the informal plastic recycling sector in New Delhi, India.

~10’000 workers engage in the informal e-waste recycling sector in Accra, Ghana.
Swiss e-Waste programme in cooperation with Empa (2003 – 2013)

Colombia
- E-waste assessment and studies
- Legal framework for e-waste
- Collective take-back scheme
- Public-private roundtable
- Technical research

China
- E-waste assessment and studies
- Legal framework for e-waste
- Technical Standards
- Bo2W Project

India
- E-waste assessment and studies
- Clean e-waste channel for «Cyber City» Bangalore
- e-Waste Agency (EWA)
- Alternative business models for the informal sector

Peru
- E-waste assessment and studies
- Legal framework for e-waste
- Capacity building for recyclers
- Private and public take-back campaigns
- Public-private roundtable

South Africa
- E-waste assessment and studies
- Collective take back scheme (eWASA)
- Green e-waste channels
- Recycling pilot plant
- Technical standards and audit schemes
Follow-up programme:

- Background
- Objectives
- Content
Development objectives are:

“The sustainable integration and participation of small and medium enterprises from developing and transition countries in the global recycling of secondary non renewable resources”.
For the three areas the programme aims to achieve the following results:

- **Secondary raw materials stewardship:** Policies and standards for the sustainable management of secondary resources are internationally promoted, recognized and implemented in SECO partner countries.

- **Recycling Initiatives:** Local capacities for sustainable recycling industries are created, aiming at competitive secondary resource recovery through environmentally and socially sound processes.

- **Life Cycle Inventories:** Basic information required to declare and compare the environmental and social life cycle performance for industrial activities along the (reverse) supply chains in developing and transition countries is available and used for enhancing sustainable trade schemes.
The new programme Sustainable Recycling Industries (2013-17) engages in three areas:

**Secondary raw materials stewardship**

*Aim:* Policies and standards for the sustainable management of secondary resources are internationally promoted, recognized and implemented in SECO partner countries.

**Recycling Initiatives**

*Aim:* Local capacities for sustainable recycling industries are created, aiming at competitive secondary resource recovery through environmentally & socially sound processes.

**Life Cycle Inventories**

*Aim:* Basic information required to declare + compare the environmental and social life cycle performance for industrial activities along the (reverse) supply chains.
Geographical spread of the Sustainable Recycling Industries programme

<table>
<thead>
<tr>
<th>Recycling Initiatives</th>
<th>Secondary raw materials stewardship (global)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Hazardous substances in (WEEE) plastics</td>
</tr>
<tr>
<td>South Africa</td>
<td>Recycling of cooling and freezing appliances</td>
</tr>
<tr>
<td>Colombia, Peru, Ghana, Egypt</td>
<td>Sustainable management of e-waste</td>
</tr>
</tbody>
</table>

- **India**: Hazardous substances in (WEEE) plastics
- **South Africa**: Recycling of cooling and freezing appliances
- **Colombia, Peru, Ghana, Egypt**: Sustainable management of e-waste

**Life Cycle Inventories** (Brazil, Egypt, India, South Africa)

**Financing Mechanisms** => long term feasibility

**Conformity Assessment** => level playing fields

**Technology Partnerships** => appropriate technologies
The Programme organization includes experts in the field and builds strong local partnerships.
Thank you!

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Backup Slides
Colombia was partnering with the SECO/Empa “Swiss e-Waste Programme” since 2009

- An e-waste law based on Extended Producer Responsibility (EPR) is to be approved anytime soon.
- Planned activities include:
  - **Policy Implementation**: aims at supporting the ongoing activities in policy development.
  - **Conformity Assessment**: aims at introducing recycling standards, identifying and training a conformity assessment body and establishing a monitoring system in Colombia.
  - **Management Systems**: aims at supporting and implementing producer platforms for the take-back and recycling of e-waste.
Peru was partnering with the SECO/Empa “Swiss e-Waste Programme” since 2009

- Published the Reglamento RAEE, an e-waste bill which addresses all e-waste categories and is based on Extended Producer Responsibility

- Planned activities include:
  - **Policy Implementation**: aims at supporting the ongoing implementation process of the e-waste bill.
  - **Conformity Assessment**: aims at introducing recycling standards, identifying and training a conformity assessment body and establishing a monitoring system in Colombia.
  - **Management Systems**: aims at supporting and implementing producer platforms for the take-back and recycling of e-waste.
Ghana is one of the main hub in Africa for second-hand EEE and illegal e-waste imports

- Under the Basel Convention “Where are WEEE in Africa” project, the government developed a national e-waste strategy.

- Planned activities include:
  - **Conformity Assessment**: aims at introducing recycling standards and initiates the conformity assessment system.
  - **Technology Partnerships**: aims at implementing business development models to transfer harmful recycling processes into sound processes in cooperation with the informal sector.
  - **Business Opportunities**: aims at developing incentive mechanisms under the principle of Extended Producer Responsibility (EPR).
Egypt addresses the e-waste challenges through a multi-stakeholder process under the government led «Green ICT initiative»

- Local partners (CEDARE) with support of Empa and under consultation of the stakeholders related to the Egypt Green ICT Initiative, executed a “Needs assessment of the e-Waste Sector in Egypt”

- Planned activities include:
  - **Conformity Assessment**: aims at introducing recycling standards and initiates the conformity assessment system.
  - **Technology Partnerships**: aims at implementing a 'youth incubator programme' for e-waste recycling in the informal sector, providing financial, administrative, legal, and technical support.
  - **Business Opportunities**: aims at developing incentive mechanisms under the principle of Extended Producer Responsibility (EPR).
South Africa has been partnering with the SECO/Empa “Swiss e-Waste Programme” from 2003 until 2009

- In a local stakeholder consultation “Fair recycling” in cooperation with Swiss Contact and Empa assessed the local demand for a recycling initiative for CFC-containing cooling appliances.

- Planned activities include:
  - Assess the feasibility of e-waste management operations – in particular recycling of CFC-containing cooling appliances.
  - This includes preparing a business case for possible investors and the base documents for a possible carbon credit project.