



Schweizerische Eidgenossenschaft
Confédération suisse
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Federal Department of Economic Affairs FDEA
State Secretariat for Economic Affairs SECO



Materials Science & Technology

Launch of the new SECO – Empa programme Sustainable Recycling Industries (SRI)

Advance raw materials stewardship in developing countries

(successor of the "Swiss e-Waste Programm" 2003-2013)

ETH Zurich, Switzerland, 13 February 2013



Abundant Resources in Developing Countries

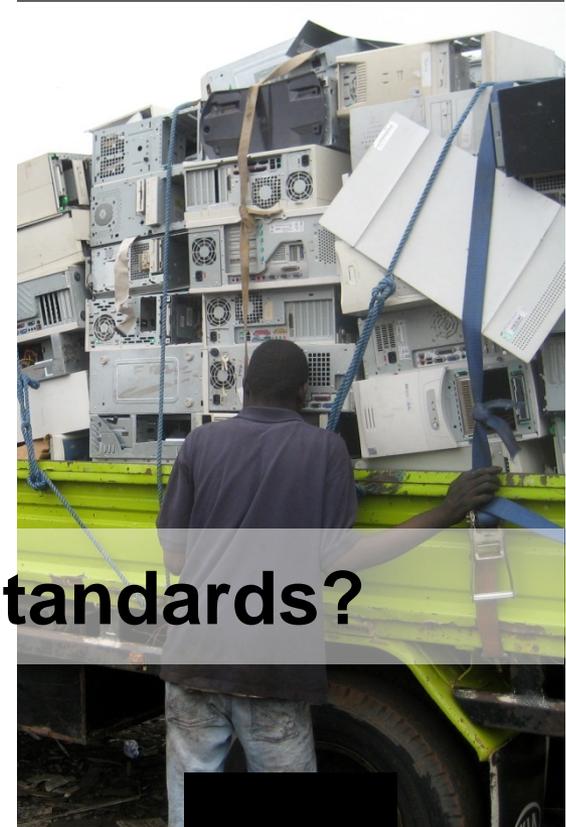
renewable



non-renewable



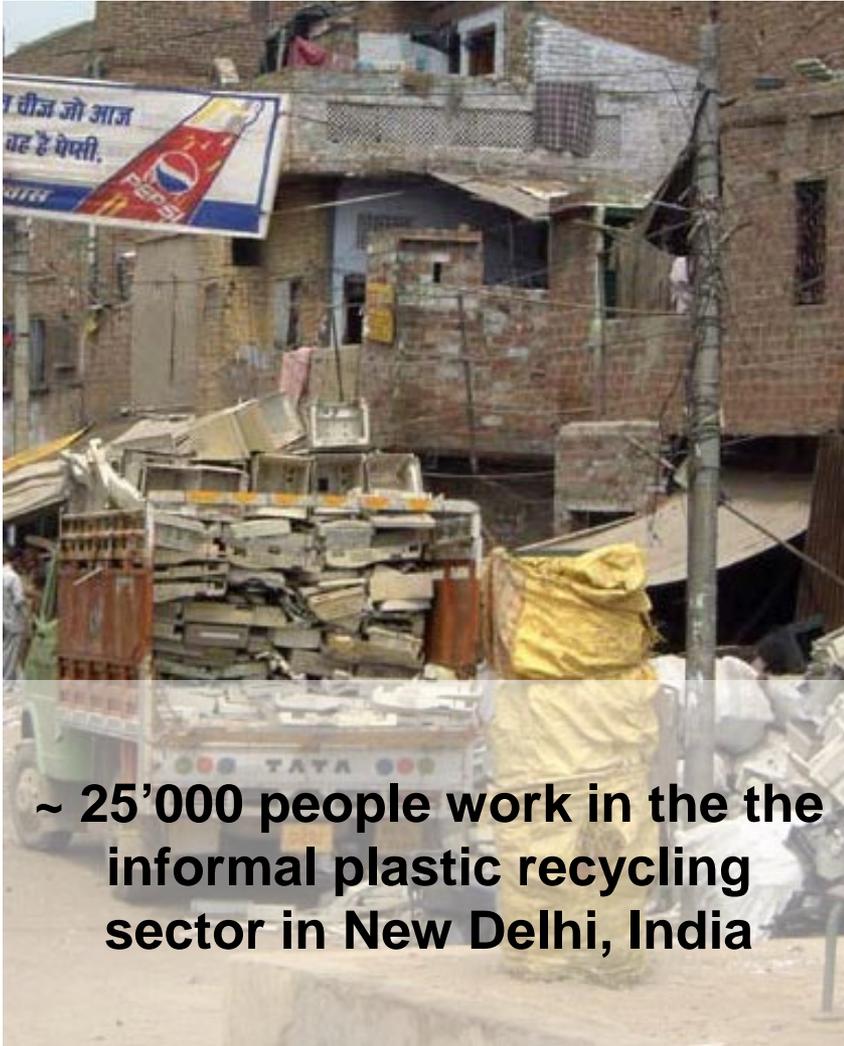
secondary



Quality and sustainability standards?



Recovery of secondary raw materials is mainly done in the 'informal sector'



The prevalent practices in the informal sector bear high risks

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**

The new SRI programme engages in three projects in various countries

Secondary raw materials stewardship (global)

Recycling Initiatives



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)



- The prefix Sri translates as "one who takes delight in". In modern India, the auspicious prefix *Sri* is used for the English *Mr.* and *Mrs.*
- Sri = **Lakshmi**, goddess of wealth, prosperity (both material and spiritual), fortune, and the embodiment of beauty.
- She is seen in two forms: **Bhudevi** is the material world or energy, called the aparam Prakriti, in which she is called Mother Earth. **Sridevi** is the spiritual world or energy, called the Prakriti.
- **Prakriti** means "nature" - it is the "primal motive force", the ultimate cause of all material existence. It is composed of the three **gunas** which drive the evolution of the universe, known as **sattva** (creation), **rajas** (preservation) and **tamas** (destruction)