

Informal e-waste recycling sector in Ghana: An in-depth socio-economic study

Going Green - CARE INNOVATIONS 2010

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- also named "*Institute for Applied Ecology*" -

The Öko-Institut is a leading European research and consultancy institution working for a sustainable future. It is a value driven non-profit-organisation and employs more than 120 staff at three locations: Freiburg, Darmstadt and Berlin.

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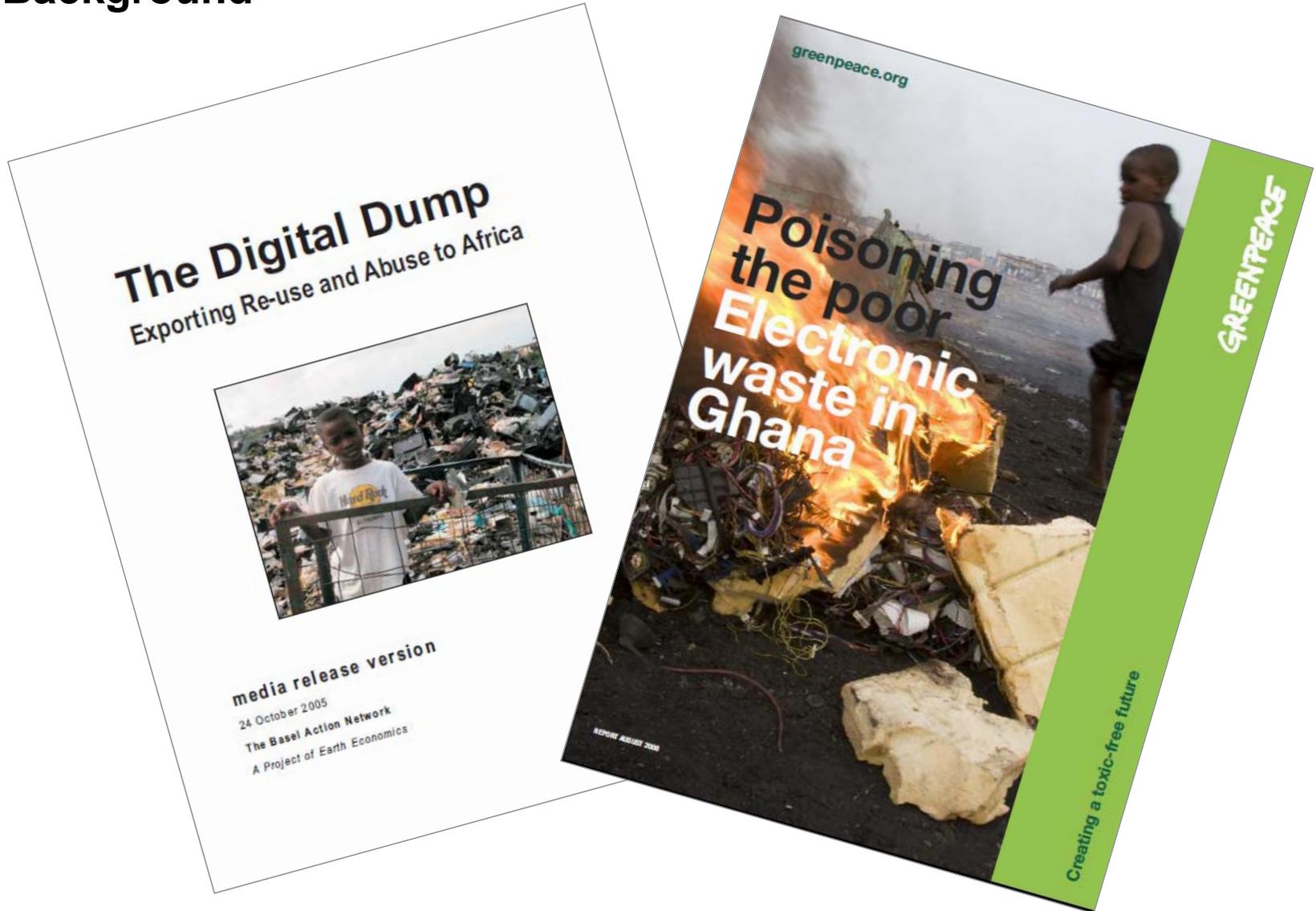
Activities in Ghana and West-Africa:

- UNEP E-waste Africa Project
(UNEP-SBC, BCCC, EMPA, Öko-Institut)
- Socio-economic assessment and feasibility study on sustainable e-waste management in Ghana
(VROM-Inspectorate, NVMP, EPA-Ghana, GreenAd, Öko-Institut)

➔ *In-depth socio-economic study on the sustainability impacts of the informal e-waste recycling sector in Ghana*

➔ *Feasibility study for developing local niche markets for environmentally sound management*

Background











Socioeconomic indicators

A: Impacts on employees

- A 1 Health & safety
- A 2 Freedom of association, right to collective bargaining / workers' participation
- A 3 Equality of opportunity and treatment / fair interaction
- A 4 Forced labour
- A 5 Child labour
- A 6 Remuneration
- A 7 Working hours
- A 8 Employment security
- A 9 Social security
- A10 Professional development
- A11 Job satisfaction

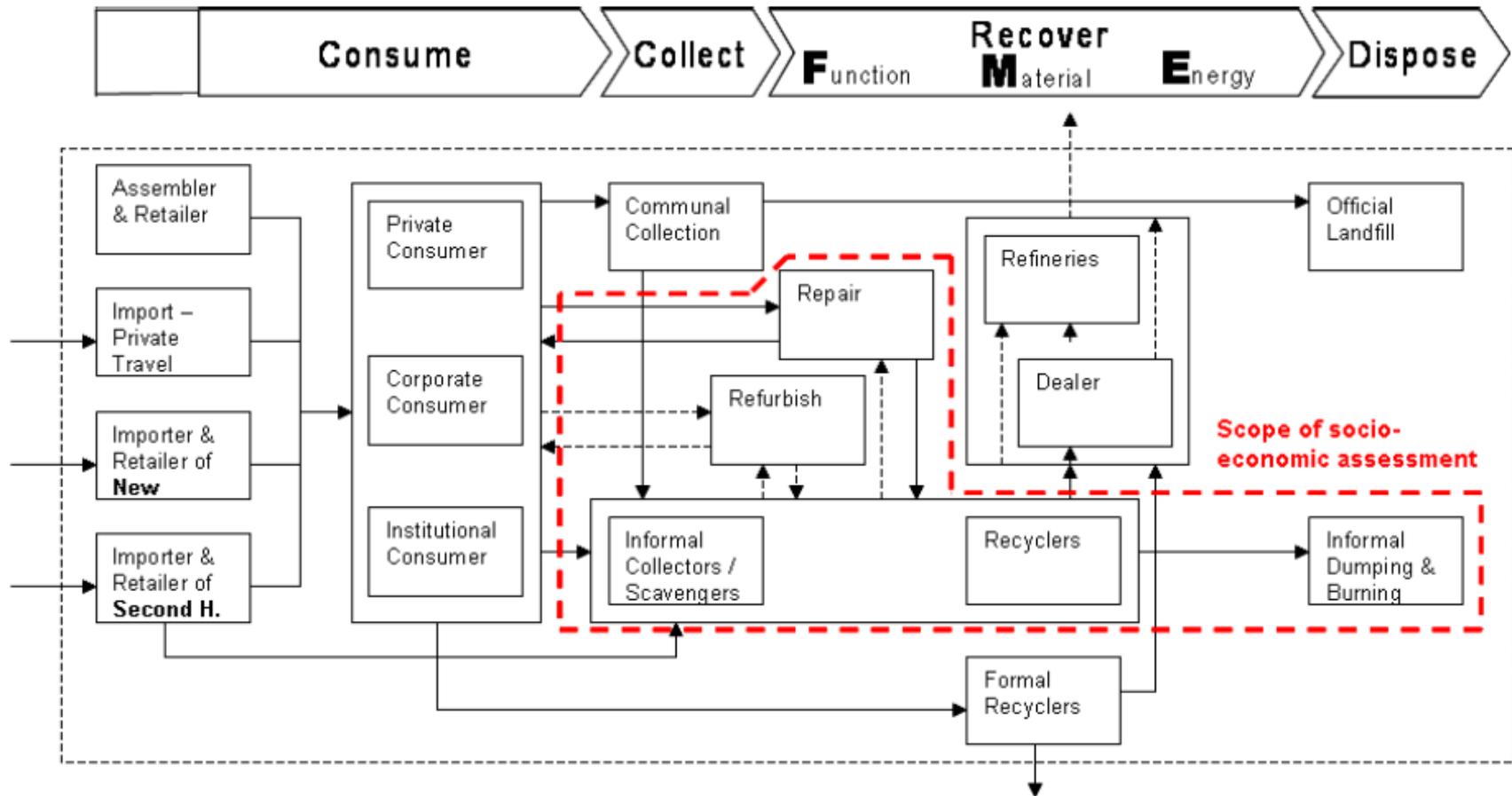
B: Impacts on the local community

- B 1 Health & safety
- B 2 Human rights
- B 3 Indigenous rights
- B 4 Community engagement
- B 5 Social & economic opportunities

C: Impacts on society

- C 1 Unjustifiable risks
- C 2 Employment creation
- C 3 Contribution to national economy
- C 4 Contribution to national budget
- C 5 Corruption
- C 6 Impact on conflicts, including interference with sensitive political issues

Mass Flow Chart



Results of the socio-economic study



Health & safety



Freedom of association & right to collective bargaining

Largely informal sector, however presence of scrap dealers association, refurbishers association, repairers association etc.

Employment & social security

Absent, no written agreements → high employment turnover; however, some family-based arrangements do exist

Equality of opportunity & treatment

Almost exclusively men's business; young males preferred, av. age early 20s

Child labour & forced labour

Child labour mostly in incineration activities, but also in dismantling

Young boys of about 5 yrs. involved; mostly between 11 to 14 years



Remuneration

	Refurbishers	Collectors	Recyclers
Remuneration per day (in US\$)	(3.3) 6.3–8.3	(2.0) 2.3–4.6	(2.0) 5.8–9.5
Remuneration per month (in US\$)	(100) 190–250	(60) 70–140	(60) 175–285

* Figures in brackets indicate the information from Anane 2010

Economic indicators - Ghana

- GDP US\$ 713 in 2008
- 30% of total population in Ghana lived with less than US\$ 1.25/ day
- 54% with less than US\$ 2/ day
- 29% below national poverty line

Remuneration – WEEE China

- Average daily salary → US\$ 3.63 (Öko-Institut 2007)

- Income has to be shared with family members
- Income data related directly to productive economic activity
- It is difficult to sustain a family solely with informal WEEE business
- However, WEEE-workers have access to rapid cash flow, an aspect which is absent in agricultural-led households in North Ghana

Working hours

	Refurbishers	Collectors	Recyclers
Working hours per day	8–10	10–12	10–12
Working hours per month	210–260	300–360	300–360

International conventions

- Not in excess of 48 hours per week
- At least 1 day off per week
- Voluntary overtime: Max. 12 hours per week

Job satisfaction

- Very subjective, but...
- Apart from meeting basic needs, regular remittances to families & relatives
- Set up own business only after few years of work
- Cash flow, as opposed to traditional modes of livelihoods, such as agriculture

Employment creation

	Refurbishers	Collectors	Recyclers	Total
Employed in Accra	10,000–15,000	4,500–6,000		14,500–21,000
Employed in Ghana	14,000–24,000	6,300–9,600		20,300–33,600

⇒ 0.2% to 0.3% of the total labour force in Ghana

⇒ 0.5% to 0.8% of the total population in Ghana

Contribution to national economy

	Refurbishers	Collectors	Recyclers	Total
Remuneration per month (in US\$)	190–250	70–140	175–285	435–675
Remuneration per year (in US\$)	2,280–3,000	840–1,680	2,100–3,420	5,220–8,100
Number of people employed in refurbishing and e-waste recycling sector in Ghana	14,000–24,000	6,300–9,600		20,300–33,600
Contribution to national economy per year (in US\$)	Remuneration per year (in US\$) multiplied by the number of people employed in refurbishing and e-waste recycling sector in Ghana			105,966,000–268,128,000

⇒ 0.6% to 1.6% of the GDP in 2007





Future e-waste management systems in Ghana need to comply with the following principles:

- ➔ Significantly reduce environmental impacts
- ➔ Significantly reduce health risks for workers and neighbouring communities
- ➔ Preserve the jobs of collectors and recyclers already engaged in this sector
- ➔ Enable the implementation of social and environmental standards

Thank you for your attention!

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