



Incentive based collection of e-waste – Results from pilot implementation in Ghana

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Partners

Incentive based collection of e-waste:
Results from pilot implementation in
Ghana



german
cooperation

DEUTSCHE ZUSAMMENARBEIT

Implemented by:

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



The State Government of
North Rhine-Westphalia



KFW



**ENVIRONMENTAL
PROTECTION
AGENCY, GHANA**



Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Greater Accra
Scrap Dealer's
Association

chance for children
daily life | school | vocational training



MOUNTAIN
INSTITUTE

GWR
Ressourcen in guten Händen

DRZ
DEMONTAGE- UND
RECYCLING-ZENTRUM

sofies 10 YEARS
leading sustainability

**IMPACT
HUB** Accra

**lough
lives** FOR
AFRICA
restoring smiles
transforming lives

Green Advocacy Ghana
GreenAd

West Africa
**GEOHealth
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CITY WASTE RECYCLING

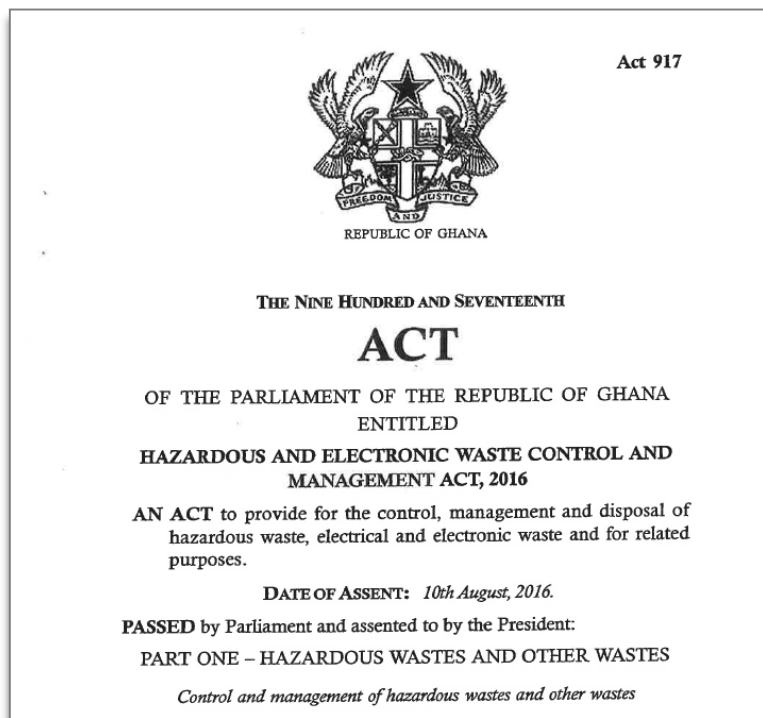
WROTA

Background & introduction

Incentive based collection of e-waste:
Results from pilot implementation in
Ghana

- One of the most pressing pollution issues in informal e-waste recycling.
- Aim: Earn money from the sale of copper & aluminium.
- Alternative treatment options more costly





- Establishment of a National E-waste Fund
- Filled by e-waste levies on imported equipment
- To be used for sound management of e-waste and to reduce negative impacts.
- Amongst others, also for “incentives for collection, transportation and disposal”

Main objectives of this project module:

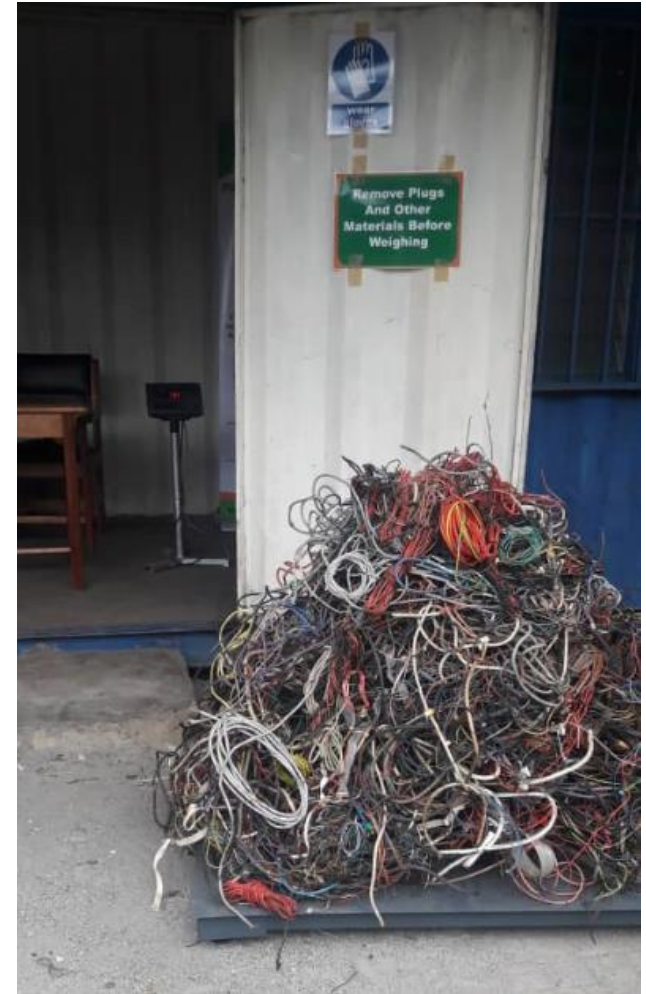
- To pilot incentive based collection of worst polluting e-waste types

Starting point

- First in-field test of Piloting Payment System with a handover centre

Sub-objectives

- Gain practical experiences how the informal scrap market will react on such an incentive system.
- Test and evaluate various practical issues (stakeholder interaction, incentive levels, transaction modalities....).
- Document & share lessons-learned with policy-makers (MESTI, EPA, KfW...)



Concept overview

Incentive based collection of e-waste:
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Payment made for GHS 430.00 to [redacted]
[redacted] Current Balance: GHS 1070.01 . Available Balance: GHS 1070.01. Reference: GreenAd. Transaction ID: 4137031401. Fee charged: GHS0.00.
SMS 12:11



Develop & adjust methodology

GIZ - CWR - ELECTRIC CABLE ANALYSIS

DELIVERED		ANAL		
E-CABLE DATE	E-CABLE WEIGHT KG	COPPER Cu KG	ALUMINIUM Al KG	STEEL Fe KG
19.07.2018	62,5	19,2	0,8	0,5
	100	30,7	1,3	0,8



collectors



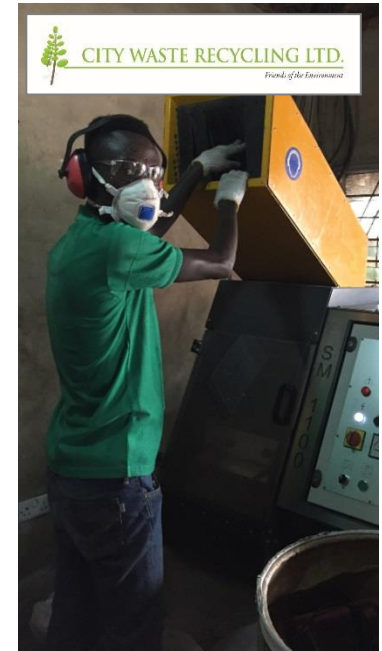
Receive compens.



Deliver cables



cables



Transaction process

Incentive based collection of e-waste:
Results from pilot implementation in
Ghana

1) Delivery



Transaction process

Incentive based collection of e-waste:
Results from pilot implementation in
Ghana

2) Quality control & grading



3) Weighing & photo documentation



4) Data recording & mobile money payment

New form v 5.0

PILOT INCENTIVE PAYMENT SYSTEM SUBMIT

1. Transaction Number*
1067

2. Date of Transaction*
4 Jul 2019

3. Geo location*
Lat 5.5540175
Lon -0.2254441
Height 63.20000076293945
Accuracy: unknown


New form v 5.0

PILOT INCENTIVE PAYMENT SYSTEM SUBMIT

9. Type of cable received*
 High grade copper cables 6.7GHS/lb
 Low grade copper cables (thin copper cores) 4.05GHS/lb
 Aluminum cables (aluminum core) 1.8 GHS/lb
 Steel cables & plugs: 0.5 GHS/lb

10. Weight of Cables received*
22.2

11. Picture of Cables received with weight shown on scale*



Transaction process

Incentive based collection of e-waste:
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5) Storage & transport to recycler



COMMODITIES PROCUREMENT LTD
P. O. Box KN 5380 Kaneshie Accra,
Tel: 0289533009

WEIGHT TICKET *meah*

Date: *15/4/2019*

Ticket No.

1ST WEIGHT *6320kg*

2ND WEIGHT *3180kg*

NET WEIGHT *3140kg*

Name & Signature of Customer: *Kofi*

Telephone no of Customer: *0884415*

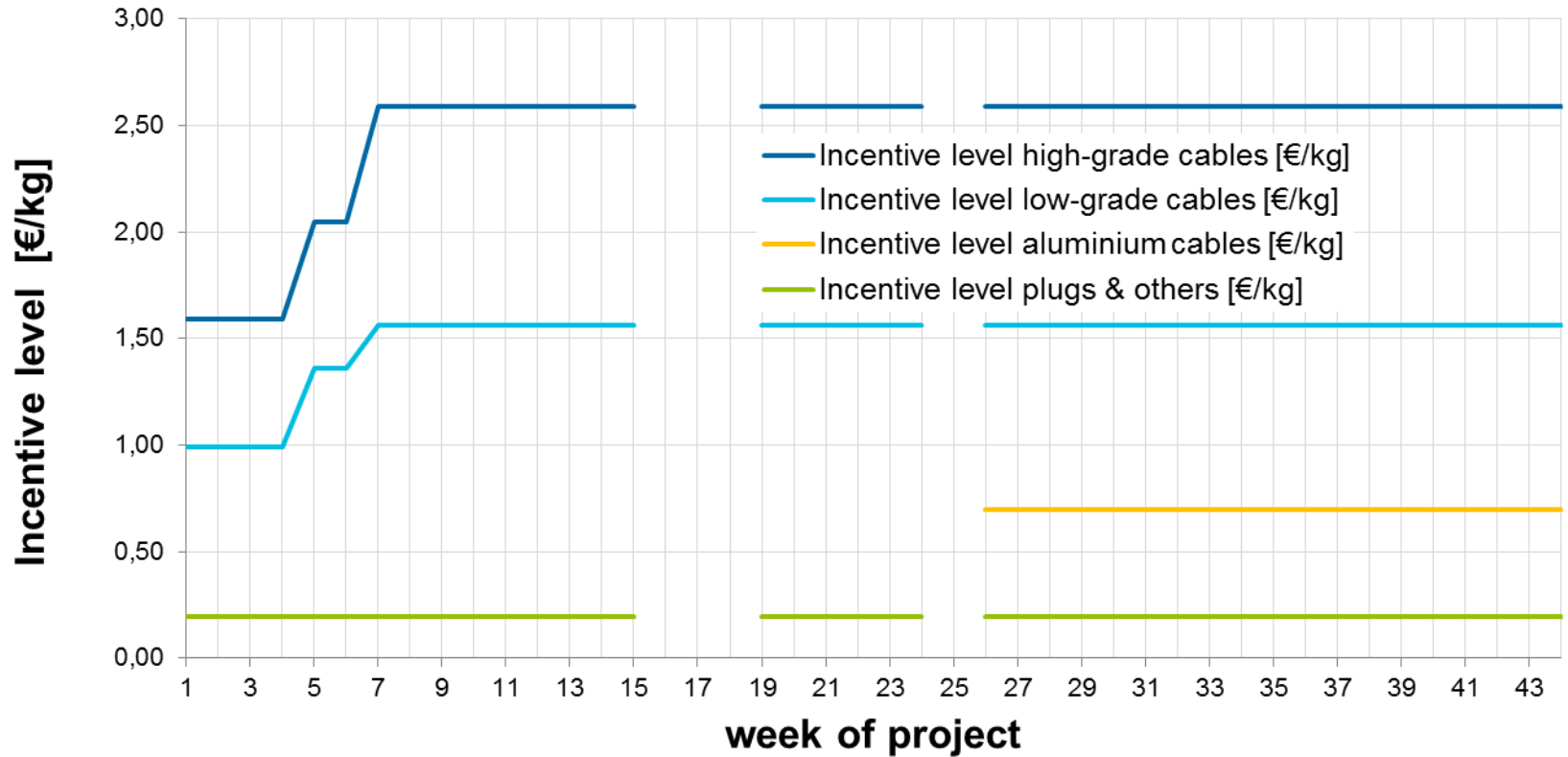
Vehicle Number: *meah*

Product: *ewaste*

Weighmans Name & Signature: *meah*

Incentive level

Incentive based collection of e-waste:
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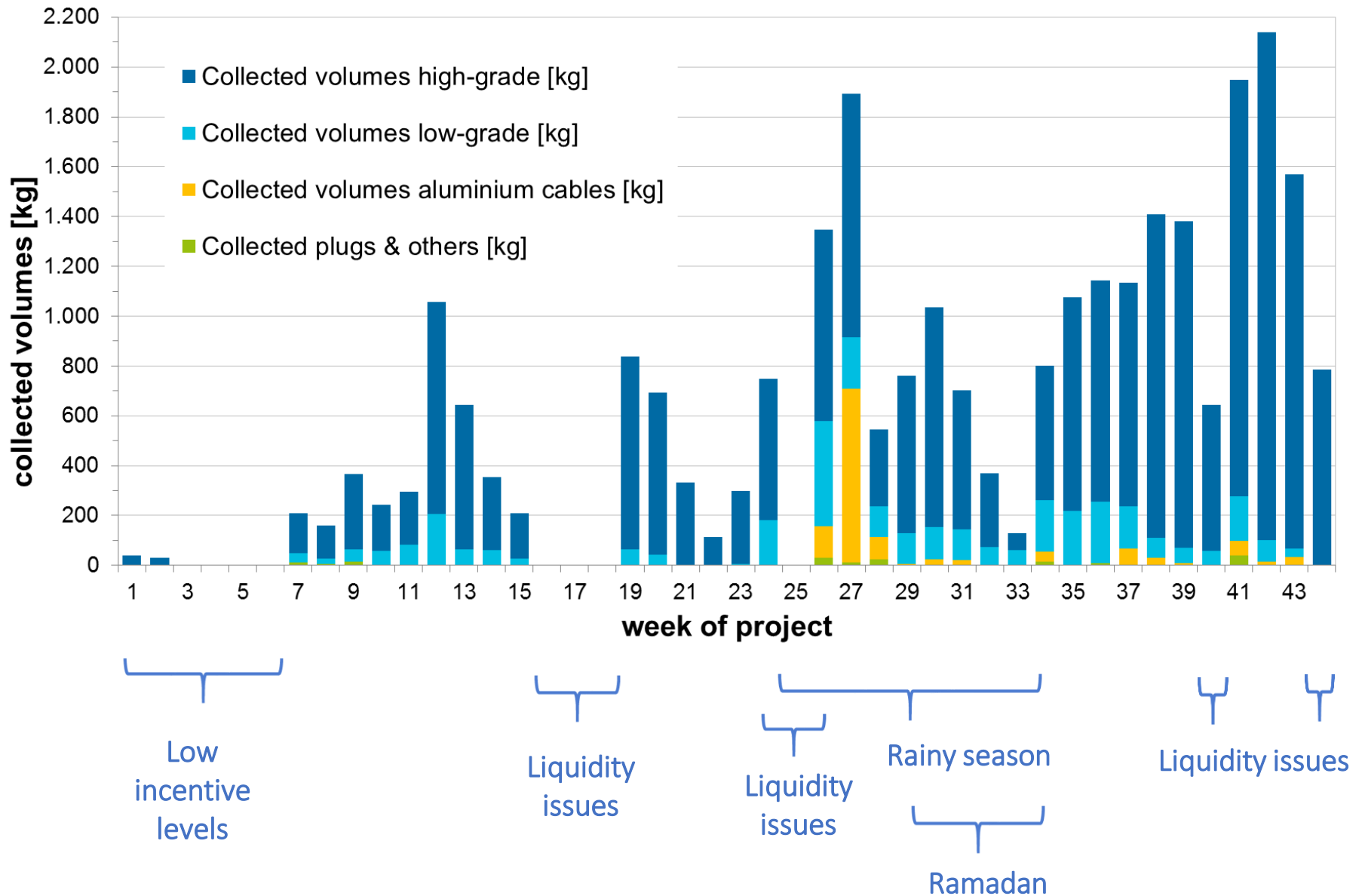


system down due to liquidity issues

system down for restructuring cable
grading & processes

Market response

Incentive based collection of e-waste:
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- 10 months of operation (22.10.18 – 20.08.19)
- 27.3 t of cables collected & channeled to sound recycling
- 1389 individual transactions
- Significant emission reduction
- Established alternative to burning that does not discriminate small scale collectors and recyclers

- Incentive based collection is a meaningful way to link informal collectors to sound recycling and to avoid polluting practices carried-out under informal conditions.
- Beneficiaries are:
 - Collectors → higher prices for some e-waste types
 - Formal recyclers → stable access to e-waste
 - Society → Reduced pollution

- Suitable for waste types that:
 - are associated with high environmental impacts if not managed properly
 - can easily distinguished from other waste types
 - where standards, auditing & sanctions are prone to failure (informal sector settings)
- Ongoing financing needed → e.g. EPR-based financing
- Very good monitoring of costs and results possible (collected volumes & emission reductions)

Thank you for your attention!



CITY WASTE RECYCLING



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