



From e-waste to e-resource: Poverty and resourcefulness in Agbogbloshie, Ghana

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Where do your old electronics go?



Environmental injustice?

Export of e-waste



Basel Convention:
No exports from OCDE countries to non-OCDE countries.



WEEE Directive:
Illegal to export WEEE.

E-waste environmental injustice (old version)



Waste illegally exported from rich to **poor countries** **damaging** their health.

Solution?
Ban e-waste
traffice

E-waste environmental injustice

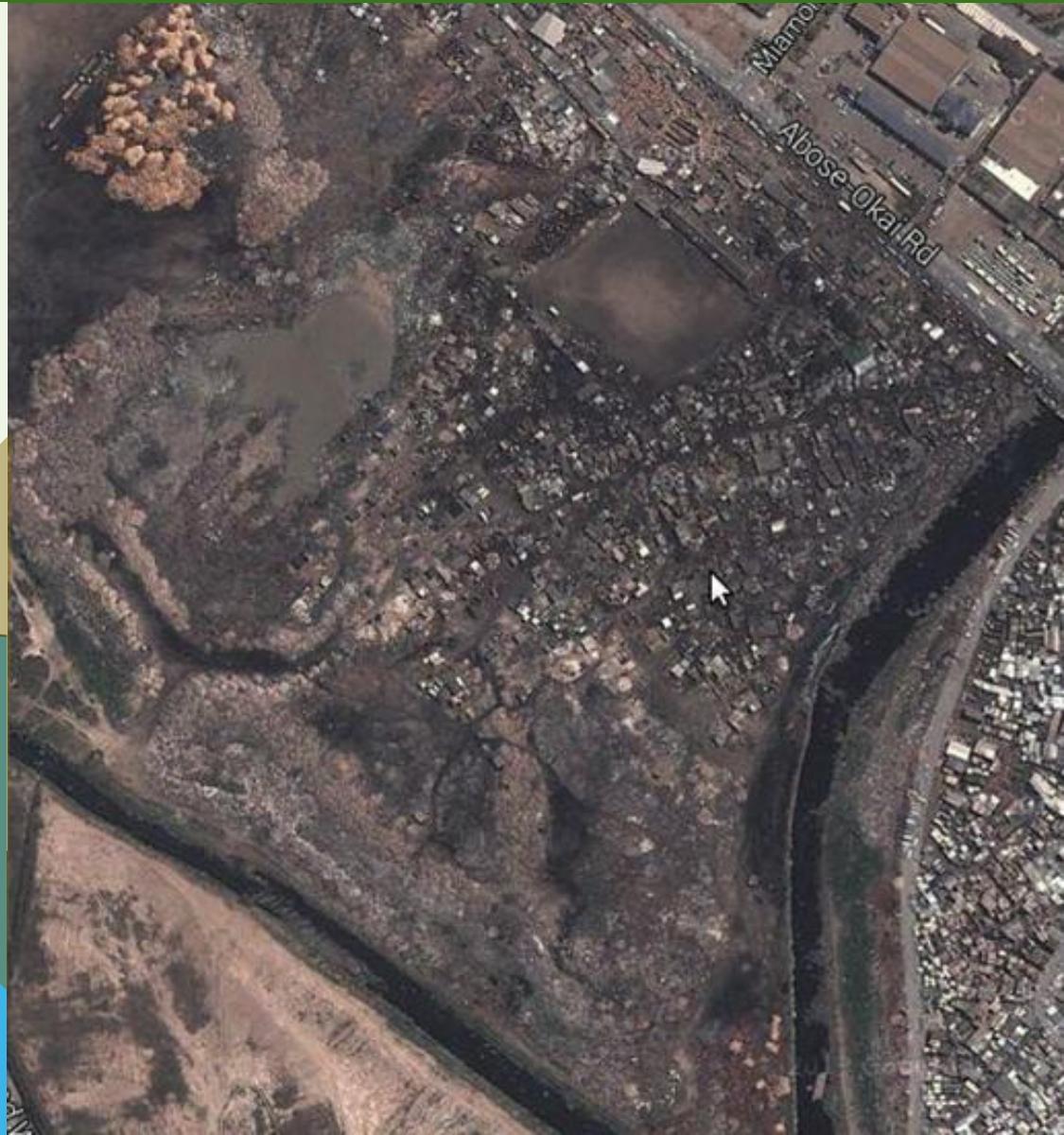
(new version)

Potential resources
not viable for
recycling in the rich
countries
generating
a **local economy**
with environmental
and health problems.

NEW Solution:
The right tools



AGBOGBLOSHIE - Accra, Ghana



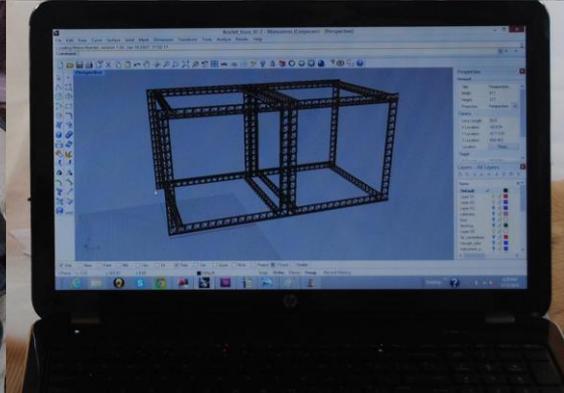
A scrap dealer's job

Photos: AMP



Makerspaces: communal workshops

Photos: AMP & Recyhub



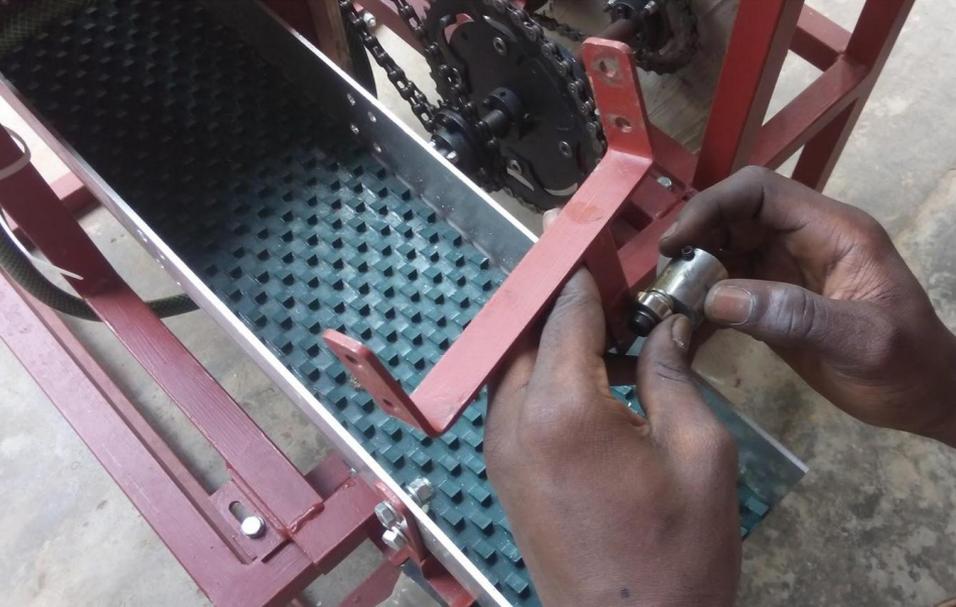
E-source: a pedal-powered cable shredder

by Hal Watts & Matt Batchelor.



The economic case for E-source

Photos: Recyhub



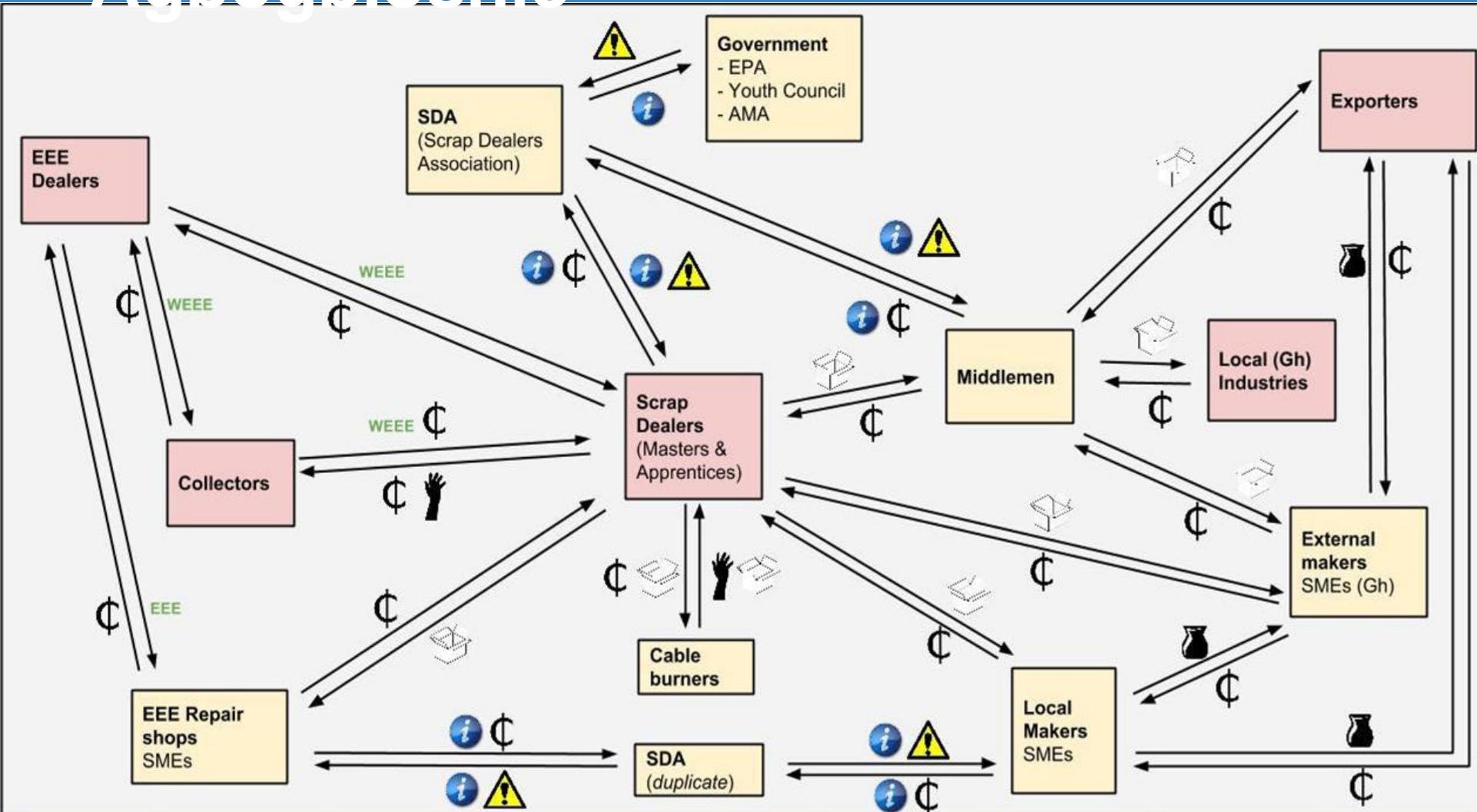
“Agbogbloshie: a good place for business”



Photo: Recyhub



The economic system in Agbogbloshie



Legend	Cash	Regulation	(W)EEE	Parts	Information	Service/Rental	Goods	Critical
	₵	⚠️	(W)EEE	📦	ℹ️	👉	🏺	

The scrap dealers' business model

<p>Key Partners</p> <p>Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <ul style="list-style-type: none"> - Internal partners: other scrap dealers with whom they trade (buy, reprocess, sell) - SDA. It's representative towards Governments, NGOs, visits. - National Youth Authority. Leases the scrap yard land to the SDA. 	<p>Key Activities</p> <p>What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?</p> <ul style="list-style-type: none"> - Dismantling - Disassembling - Buying WEEE and other components - Selling metals and other materials - Making their own tools - Storing 	<p>Value Propositions</p> <p>What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <ul style="list-style-type: none"> - Provide raw materials separated. At a standard price or below the formal market price. - Provide the volume of material needed by the customer. - High availability, Fast reaction, 	<p>Customer Relationships</p> <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p> <ul style="list-style-type: none"> - Customers usually visit the dealers in person in Agbogbloshie. - Relationships are managed by the master of the shop. - Telephone calls are used for asking for quotations, to negotiate, and to agree. 	<p>Customer Segments</p> <p>For whom are we creating value? Who are our most important customers?</p> <p>For Scrap Dealers</p> <ul style="list-style-type: none"> - Middlemen. Usually scrap dealers will sell to middlemen, who accumulate material to sell it afterwards at higher prices. - SME. Small and Medium Enterprises in Accra, including local makers and repairers. Including other scrap dealers.
<p>Suppliers:</p> <ul style="list-style-type: none"> - Collectors - EEE dealers (import material and sell it to dealers) - Industries (provide metals for scrapping) - Commercial companies (which get rid of old materials) - Institutions (likewise) 	<p>Key Resources</p> <p>What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <ul style="list-style-type: none"> - Use of land (free for the individual dealer) - Human resources (some hire other people to help) - Basic tools (hammer, chisel) - Savings - Storage facilities (chest freezers) 	<p>Channels</p> <p>Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</p> <ul style="list-style-type: none"> - Direct and personal connection between the dealer and the customer (including telephone calls) - Material is stored with the dealer in Agbogbloshie and picked up by the customer. 	<p>For Middlemen</p> <ul style="list-style-type: none"> - Industries. Located at Accra or Tema, they are ready to use the material in their processes. - Exporting companies. Owned by Chinese merchants. They will export the materials they buy outside of Accra. 	
<p>Cost Structure</p> <p>What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?</p>	<ul style="list-style-type: none"> - Buying scrap from intermediaries - Human resources (salaries to the people they engage) - Basic tools (chest freezer, hammers, chisels) - Cost of making their own tools. - Fees to the Scrap Dealer's Association (tolls or others) 	<p>Revenue Streams</p> <p>For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p>	<ul style="list-style-type: none"> - Cash from middlemen in exchange of materials. Usually exchanged immediately. - Payments to industries have some delays. 	

The scrap dealers' business model

Value Proposition

- Provide raw materials separated. At a standard price or below the formal market price.
- Provide the volume of material needed by the customer.
- High availability. Fast reaction.

Cost Structure

- Buying scrap from intermediaries
- Human resources (salaries)
- Basic tools (chest freezer, hammers, chisels)
- Cost of making their own tools.
- Fees to the Scrap Dealer's Association

Revenue Streams

- Cash from middlemen in exchange of materials. Usually exchanged immediately.
- Payments to industries have some delays.

Savings at the bottom of the pyramid



Photos: Recyhub

ACCOUNT NUMBER OFFICE

No.	Date	Particulars	Loan Amount	Withdrawal		Deposits		Balance		Cashier's Signature
				GH¢	Ghp	GH¢	Ghp	GH¢	Ghp	
1	19/01/14	Cash				5		5		
2	20/01/14	Cash				5		10		
3	21/01/14	Cash				5		15		
4	22/01/14	Cash				5		20		
5	23/01/14	Cash				5		25		
6	24/01/14	Cash				5		30		
7	25/01/14	Cash				5		35		
8	26/01/14	Cash				5		40		
9	27/01/14	Cash				5		45		
10	28/01/14	Cash				5		50		
11	29/01/14	Cash				5		55		
12	30/01/14	Cash				5		60		
13	31/01/14	Cash				5		65		
14	01/02/14	Cash				5		70		
15	02/02/14	Cash				5		75		
16	03/02/14	Cash				5		80		
17	04/02/14	Cash				5		85		
18	05/02/14	Cash				5		90		
19	06/02/14	Cash				5		95		
20	07/02/14	Cash				5		100		

Daily susu



Everyone I asked

Many banks

Some have fled

(3,3% interest rate)

Resistance to borrow

Photos: Recyhub



Credit
S



“I don’t need extra money”

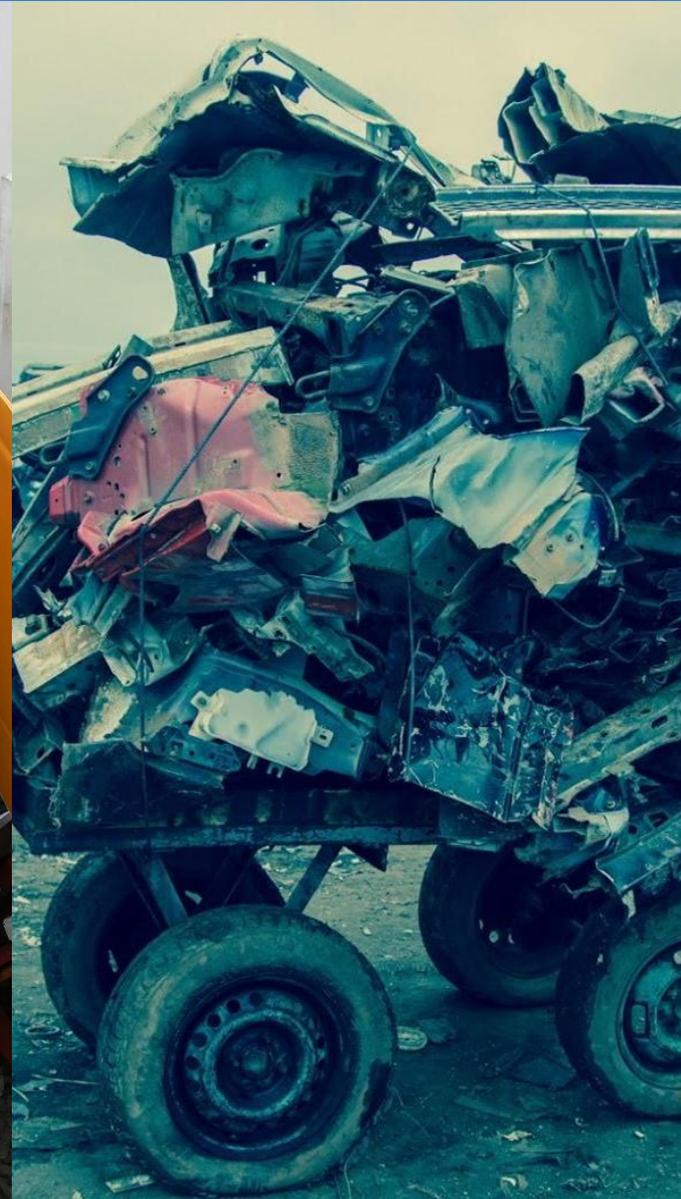
“I’m not eligible”

“The bank will come after me if I don’t repay on time”

(48% yearly interest rate)

Potential need for credit

Photos: Recyhub & Heather Agyepong



Can microcredit help them improve their businesses?

How can MFI serve this market?

How to introduce credit?

How to increase savings?

PROJECTS

COMPANY

MICROCREDIT



Thank you!

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