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SWITCH AFRICA GREEN

CASE STUDY # 4

STORIES FROM BENEFICIARIES

AFTER THE GEMOD PROJECT

BIO-DATA

Project Title:	Ghana E-waste Model
Grantee:	Environmental protection Agency
Enterprise (MSME):	Mystery Technologies
Year Established:	2014
No. of Employees:	4
Sector:	Integrated waste management
Type of Business:	Electronic equipment refurbishing, repair and construction
Location:	Plot 264 Sun City. Agbogba, Nii Totor Road, Adenta, Accra.

PROJECT

BACKGROUND

The overall objective of the GEMOD model is to develop a sustainable National e-waste management system which makes e-waste and/or components re-usable to minimize environmental pollution. GEMOD was to establish a structured approach to e-waste management via education/awareness creation on collection, refurbishment/dismantling, sorting of recovered components for recycling/upcycling, safe disposal of hazardous components and export of

recyclables (and hazardous components) in order to provide a solution to the negative tag of unsustainable e-waste management in Ghana.

COMPANY PROFILE

Mystery Technology is an electronic repair/refurbishing workshop and a member of Ghana Electronics Servicing and Technicians Association (GESTA), the umbrella body for repairers. They specialize in restoring functioning faulty equipment and repair damaged equipment. The equipment they specialize in include TVs (CRT, LCD, LED) musical equipment, sound boxes, sound mixers/consolas, construction of amplifiers.

ISSUES ADDRESSED

- ✓ Capacity Building in Environmentally Sound Management (collection, transportation, dismantling, component identification, sorting, economic evaluation and storage) of E-waste
- ✓ E-waste Plastic Identification
- ✓ Waste Management
- ✓ Upscaling of e-waste business

PROJECT IMPACT

Environmental Impact

- ✓ *The extension of product life cycle through refurbishment resulting waste minimization.*
- ✓ *Cannibalization of e-waste to recover functioning components for use in repair works*
- ✓ *Recovery of components from damaged appliances as secondary raw material for export/recycling/upcycling*
- ✓ *Diversion of waste from landfill due to non-disposal of plastic components as a result of recycling and reuse*
- ✓ *Decreased pollution from burning and indiscriminate disposal of e-waste*

About **75%** reduction in purchasing cost of new components corresponding in 75% increased profit

Additional income from e-waste plastics (**US\$362/MT**) and recovered functioning components/parts

Economic Impact

- ✓ *Improved quality of recovered components due to elimination of contamination from dismantling culminates into better retail prices e.g oxidized copper wire sells less than half of stripped unoxidized copper wire.*
- ✓ *Operation as a collection centre for whole and components/parts for electronic wastes generating revenue.*
- ✓ *Decreased dismantling time and freed up work space*

Social Impact

- ✓ *Improved working conditions for workers due to the elimination of risk in the workplace and the use appropriate PPEs*
- ✓ *Improved incomes*
- ✓ *Improved company image*
- ✓ *Access to niche market due to sustainable consumption and production practices*
- ✓ *Capacity building and skill acquisition for workers*
- ✓ *Improved visibility for public recognition and appraisal*
- ✓ *GESTA provides mentorship (apprenticeship) for students of the various vocational and technical institutions in Ghana and use the NVTI certified GEMOD training manual to teach the students on environmentally sound management of e-waste.*

Reduced operational cost by **57%** from the use of recovered capacitors, transistors and integrated circuits for repairing TVs and molding new boards for amplifiers

QUOTES

"The capacity building has helped us know that what use to be waste is actually a resource, my production capacity has increased, quality of jobs received have improved and the value of service rendered has appreciated."

PHOTOS



ADDITIONAL INFORMATION

NA

CONTACTS

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