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
Atlantic Recycling International Systems (ARIS) is a privately (100%) owned Ghanaian Limited Liability Company duly registered under company act of Ghana and the Environmental Protection Agency. ARIS area of business is to collect, repair/refurbish and recycle Information Communication Technology (ICT) products and small electronic device/gadgets such as mobile phones, transmitters, computers, tablets and laptops. ARIS is also engaged in B2B collection, repair, refurbishment and marketing of E-waste from businesses, household and landfills and illegal dumpsites. ARIS Atlantic Recycling main goal is to recycle products and small electronic device such as phones, tablets etc.

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
✓ 60% reduction in open burning of e-waste resulting in less air, soil and water pollution
✓ Diversion of waste from landfill due to non-disposal of plastic components as a result of recycling and reuse

ISSUES ADDRESSED

Under the SAG GEMOD project, ARIS set-up a centre to train artisans on;
✓ Manual dismantling and retrieval of e-waste components
✓ Build capacity in Environmentally Sound Management (collection, transportation, component identification, economic evaluation of whole e-waste and components) of E-waste
✓ E-waste Plastic characterization
✓ E-waste business models
PROJECT IMPACT

_Economic Impact_
1. Recovered functioning components/parts
2. 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 un-oxidized copper wire.
3. Upcycling e-waste component products (spoons, ladles, cooking pots from Al and rings, ear rings, bangles from Cu) from recovered e-waste are selling as high as products from virgin materials.
4. The ARIS centre now train artisans in sustainable e-waste dismantling and training for a fee.
5. The ARIS center now operates as a collection centre for whole and components/parts for electronic wastes generating revenue.

_Social Impact_
1. Improved working conditions for workers due to the elimination of risk in the work and workplace.
2. ARIS is operating a social incentive scheme for handing in an old and/or non-functional equipment for a discounted new equipment.
3. Improved incomes.
4. Improved company image.
5. Access to niche market due to sustainable consumption and production practices.
6. Capacity building and skill acquisition for workers.
7. Improved visibility for public recognition and appraisal.

About 50% reduction in purchasing cost of new component

Additional income from e-waste plastics (US$362/MT)

QUOTES

“Atlantic International Recycling Systems is now a training and buy-back center for sustainable e-waste management.”
ADDITONAL INFORMATION
NA

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