

5 PROJECTS AT A GLANCE

Project Sheet for SWITCH Africa Green Programme

GHANA



WHERE WE ARE IN AFRICA

The overall objective of SWITCH Africa Green is to support 6 countries in Africa to achieve sustainable development by engaging in transition towards an inclusive green economy.

COUNTRY PROJECTS

- UGANDA**
- Upscaling Generation, Commercialization and Utilization of Biomass Waste-based Green Energy Sources in Uganda
 - Demand-side Management of Water Use in Micro, Small, Medium-sized Enterprises in Uganda Through Promotion of Water Use Efficiency Techniques and Practices
 - Demand-side Management of Energy Use in Micro, Small and Medium Enterprises (MSMEs) in Uganda Through Promotion of Energy Efficiency Techniques and Practices
 - Eco-agriculture-sesame Livelihoods and Organic-green Business Opportunities for Young Rural People
 - Promoting Inclusive Green Business Practices in the Tourism Sector
 - Promoting Sustainable Product Innovation and Energy Efficient Practices Among Small Scale Industries in Uganda

- KENYA**
- Greening SMEs Leather Clusters and Leather Tanning Industry
 - Enhancing Sustainable Tourism Innovation for Community Empowerment in Kenya
 - Up-Scaling Sustainable Commercial Production Of Medicinal Plants by Community-Based Conservation Groups at Kakamega Forest in Kenya
 - Capacity Enhancement for Green Business Development and Eco-Entrepreneurship in Agricultural Sector

- MAURITIUS**
- Greening the Mauritian Tourism Industry
 - A Model for Sustainable Production and Consumption Practices and Eco-entrepreneurship Development
 - Increase Capacity Building of The Fisher's Community of Rodrigues Through Training for The Bio Cultivation of the Combaia Lime Plants and Its Chili Paste
 - Promoting Sustainable Local Agriculture Through Green Retail and Green Hospitality (Sus-Agr)
 - National Energy Efficiency Program - PNEE
 - Developing Capacity Amongst Rodriguans to Adopt Green Businesses Through Training To Key Stakeholders and the Development of a Green Business Guidebook

- SOUTH AFRICA**
- Awareness Creation and Capacity Building on Eco Labeling for the Agricultural Sector
 - Meat Naturally Initiative: Embedding Sustainability in South Africa's Emerging Red Meat Sector
 - Collaborating to Facilitate Investments And Shifts To A Green Economy that Can Improve Social Wellbeing and the Provision of Ecosystems Services in the Port Elizabeth Western Catchment Areas
 - Sustainable Production And Commercialization Strategies in The Agrifood Sector In South Africa
 - Management of Sustainable Energy Production from Integrated Waste Management and Agricultural Processing Systems
 - Promoting SCP in South African Agricultural Value Chains

- GHANA**
- Hanisa E-Waste Model (Hemod)
 - Implementing Industrial Symbiosis and Environmental Management Systems for SMEs in Three Regions in Ghana
 - Promotion of Biogas Technologies
 - One-Stop Business And Policy Centre For The Establishment of Eco Innovative MSMEs and Supporting Policies in the E-Waste and End-Of-Life
 - Improved Institutional Biomass Cook Stoves and Ovens for Small and Medium Scale Agro-Processing Industries in Ghana (Renewable Energy Project)

- BURKINA FASO**
- Croupe De Recherche Et D'analyse Appliquées Pour Le Développement
 - Valorisation Des Déchets De La Filière Anacarde Comme Une Source D'énergie Renouvelable Pour Les Pmes Au Burkina Faso (Cashew As A Source Of Renewable Energy For Smes in Burkina Faso)
 - Enabling Burkinate Smes To Start Solar Energy Production
 - Transformation Des Déchets Menagers En Fertiliz Agricole (Transformation of Household Wastes into Fertilizer)

MULTI COUNTRY

- Enhancing Resource Productivity And Environmental Performance Of MSmes In 6 African Countries Through The Concept Of Industrial Symbiosis (Is)
- Empowering Business Development Agencies & Nsas To Advocate Sustainable Consumption & Production Practices And Support Eco-Entrepreneurs in Their Development & Transition Towards Green Inclusive Businesses
- Promoting Eco-entrepreneurship In Africa

PRIORITY SECTORS

- MANUFACTURING**
- INTEGRATED WASTE MANAGEMENT**
- TOURISM**
- AGRICULTURE**

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HANISA E-WASTE MODEL (HEMOD)

BACKGROUND

Ghana generates over 150,000 tonnes of Waste Electrical and Electronic Waste Equipment (WEEE) annually. This importation of end - of -life electrical and electronic equipment into the country.

The safe handling and disposal of these volumes of WEEE currently presents a challenge; to the policy makers and the MMDAs . Attempts by Scrap metal scavengers to retrieve precious metal components from WEEE is presenting enormous environmental challenges in Ghana, especially Accra - due to pollution from burning , especially of copper cables, and the resultant exposure of the scavengers to hazardous WEEE components such as Lead, Mercury,Phosphorus etc. A central point for the crude dismantling of WEEE in Accra, Agbogbloshie, remains one of the most toxic places on earth according to the World Health Organization [WHO] and a green peace research finding

ENVIRONMENTAL PROTECTION AGENCY (EPA)

LOCATION:

Greater Accra Region - Agbogbloshie, Oyibi and Other Suburbs of Accra

Budget



\$250,000.00

Timeline



24 Months

OBJECTIVES

The overall objective is to develop a sustainable e-waste management system which makes e-waste re-usable and recycling. The project aims to establish a structured approach to e-waste Education/ Publicity, collection, dismantling and sorting, safe disposal of hazardous components and export of recyclables. In doing this, HEMOD will provide an avenue for various institutions, businesses; individuals etc. to dispose of their mounting stocks of WEEE in an environmentally sustainable manner.

ACTIONS

- » Create a formal E-waste collection network comprising consumers (private, corporate and institutions) as well as informal e-waste collectors.
- » Facilitate the private sector to build recycling plants and refurbishment centres across the country to sort, dismantle and recover ewaste into its various components in an environmentally sustainable manner .
- » Study and discover prospective markets - both locally and abroad for sale of retrieved e-waste components
- » Facilitate proper disposal of toxic e-waste components such as Mercury, Lead, cadmium etc . in a safe and environmentally friendly manner.
- » Facilitate job creation, consumer information exchange, skill transfer , capacity building and encourage small/medium enterprise business opportunities .
- » Provide opportunities for local youth in e-waste scavenging to obtain training in safe handling of e-waste and supply opportunities to earn a living.

IMPLEMENTING INDUSTRIAL SYMBIOSIS AND ENVIRONMENTAL MANAGEMENT SYSTEMS FOR SMES IN THREE REGIONS IN GHANA

BACKGROUND

Ghana lacks a platform where ideas and knowledge about resource efficiency can be shared. Research indicate that lack of expertise and weak environmental policies and the ability to enforce them plays a key role in sustainability issues in Ghana. Industrial symbiosis involves a collective approach to competitive advantage through the physical exchange of materials, energy, water and/or by-products, or the shared use of assets, logistics and expertise. The National Industrial Symbiosis Programme of the UK [NISP] is a specialised business-support network organisation delivering resource-efficiency and waste-minimisation through identifying and realising synergy business opportunities. The model has been replicated in other countries, including Mexico, Brazil, Hungary, Romania, South Africa and China with huge success. Ghana is still struggling to develop effective programmes to properly optimise the benefits of resource efficiency and waste generated by SMEs. The NISP UK approach clearly supports the objectives of the Ghana Government policies especially in waste management, promotion of eco-innovation and sustainable consumption and production.

OBJECTIVES

The project seeks to promote sustainability among companies in three regions of Ghana by encouraging the reuse of other companies' by-products by means of facilitating industrial symbiosis. The project will promote the use of integrated waste management techniques in participating companies' processes. The project will also demonstrate a large-scale industrial symbiosis network in Ghana, as a basis for replication to other areas in Ghana or to a full-scale national program.

ACTIONS

- » Empower local SMEs to develop their capacity and knowledge regarding efficient operation leading to cost reduction, pollution prevention and waste reduction opportunities.
- » Mobilising of an innovative and pioneering circular economy in the target region.
- » Improve local knowledge and expertise in industrial symbiosis and integrated waste management techniques.
- » Complementing the Ghanaian government efforts to promote circular economy and sustainable consumption and production among companies.
- » Creating awareness and political support for the Chamber of Commerce to promote ecoinnovation and sustainable consumption and production.

KUMASI REGION, CHAMBER OF COMMERCE AND INDUSTRY, GHANA

PARTNER:

International Symbiosis Limited [ISL]

LOCATION:

Ghana - Ghana focusing on three Regions – Ashanti, Greater Accra and Western Region

Budget



\$234,000.00

Timeline



36 Months

BACKGROUND

95% of residents in Ghana depend on on-site stand-alone treatment systems to meet their sanitation needs of which the people of action areas indicated are no exception. The contents of these sanitation facilities whether domestic, industrial or the hospitality sector, are rich in methane gas but have to be dislodged and disposed of indiscriminately into the open environment with its attendant public health implications. The government encouraged households to build their own toilet facility through counterpart funding (50%) in the Urban Environmental Sanitation Project (UESP) and the enactment of laws and policies. The project also provided school and community toilets and seepage treatment facilities. Other donors such as AfDB have also provided funding for some public toilet facilities. All these efforts were however not managed properly leading to the insanitary situation requiring interventions to convert to biogas.

GHANA NATIONAL CLEANER PRODUCTION CENTRE (GNPCPC)

LOCATION:

Ghana - Greater Accra Region, Ashaiman

Budget



\$249,999.00

Timeline



24 Months

OBJECTIVES

This proposed project will provide an opportunity to develop capacity within the District Assembly for the use of biogas technology to manage Faecal Sludge while creating the opportunity for income generation. In addition, the project provides model opportunity to eliminate physical handling of faecal sludge and consequently provide for environmentally sound faecal sludge management for other the Metropolitan, Municipal and District Assemblies [MMDAs].

ACTIONS

- » Workforce empowerment in the biogas technology solutions for faecal waste management at the Greater Accra Metropolitan Area [GAMA].
- » Skills development in marketing and commercialising biogas technologies to potential end users or beneficiaries in the GAMA area.
- » Target MMDAs, estate developers, hoteliers, educational institutions and public toilet operators in promotion and adoption of biogas technologies.
- » Biogas generation for domestic and commercial use by beneficiaries who have adopted the technology.

ONE-STOP BUSINESS AND POLICY CENTRE FOR THE ESTABLISHMENT OF ECO-INNOVATIVE MSMEs AND SUPPORTING POLICIES IN THE E-WASTE AND END-OF-LIFE VEHICLE SECTOR (ECOBPC)

BACKGROUND

In Ghana, less than 40 % of urban residents are served with solid waste collection services. While about 13,000 tons of waste is produced daily, only 10 % is properly disposed of. This increases the pressure on the few existing landfills. The growing population and changing lifestyles in particular increase the amounts of e-waste and End of Live Vehicles [ELV], as well as imports of e-waste and of ELV. Around 49,000 kilo tonnes of e-waste arises in Ghana every year. While reuse and refurbishment of used Electrical and Electronic Equipment [EEE] and vehicles and components thereof are at a high level, unsound treatment and disposal of e-waste and ELV cause enormous environmental and health damages. This waste can be turned into business opportunities for eco-entrepreneurship.

OBJECTIVES

To facilitate a green economy for the end-of-life electronics value chain by creating income generating opportunities and reducing environmental degradation through improved resource recovery and waste prevention and management in the Greater Accra region [Accra and Tema] Ashanti Region [Kumasi]. Specifically the project aims to promote sustainable patterns of consumption and production through a resource efficient e-waste management.

ACTIONS

- » Conducting a needs assessment report, established network, Eco BPC established training and standardisation & auditing material in place.
- » Training of MSMEs and policy makers on eco entrepreneurship and developing a training toolkit
- » Undertaking an impact assessment report, as well as reporting on best practices and replicability strategies
- » Developing a stakeholders network for continuous exchange between the respective stakeholders

UNIVERSITY OF CAPE COAST

PARTNER:

The University of Northampton

LOCATION:

Ghana- Greater Accra, [Accra and Tema] and Ashanti, [Kumasi] regions

Budget



\$237,412.86

Timeline



36 Months

IMPROVED INSTITUTIONAL BIOMASS COOK STOVES AND OVENS FOR SMALL AND MEDIUM SCALE AGRO-PROCESSING INDUSTRIES IN GHANA (RENEWABLE ENERGY PROJECT)

BACKGROUND

Currently, Ghana have a large variety of traditional agriculture produce which are major contribution to food security and livelihood in rural areas, including Shea nuts, palm kernel, peanuts seeds and cassava are processed using thermal energy before these are consumed or traded. Traditionally, the vast majority of thermal agro-processing is done with firewood and quite recently an increase in the price of LPG has influenced this choice. Processing is mainly done in small-scale industries using insufficient traditional three-stove (tripod). This result in high production cost, unhealthy working environments and negative impacts on the environment, mainly in terms of deforestation. Gari Production, fish smoking and Pito Brewing are female dominated trade in Ghana.

ASSOCIATION OF GHANA INDUSTRIES (AGI)

PARTNER:

Ghana National Cleaner Production Centre (GNCPC); Solarland Company Limited; Energy Foundation

LOCATION:

Gari processors, Pito Brewers and Fish Smokers Processing Areas in Ghana

Budget



\$250,000.00

Timeline



24 Months

OBJECTIVES

The main objective of this project is to promote the production and marketing of improved institutional Biomass Cook stoves for Gari production, Pito brewing, Shea butter processing and Fish Smoking using biomass in Ghana.

ACTIONS

- » To introduce and roll out the biomass technology; improved cook stoves will be installed for selected Gari and Pito processing groups with high level of subsidy.
- » Give support to more women who are in these selected areas and are in the processing business.
- » Four (4) types of Improved Institutional Cook stove namely BP, Chrissah, Sonclair and Sola Stove will be introduce to the target groups price ranging from USD\$400.00 to USD\$650.00 respectively.
- » The component will support 60 Improved Institutional Cook stoves for Gari and Pito brewing with a high level of subsidy (75%) to support the market entry and demonstration of the stoves in the selected regions.
- » Promote and encourage use of renewable energy and energy efficiency management and the Processors



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