



SWITCH Africa Green  
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# SWITCH AFRICA GREEN

## CASE STUDY # 3

STORIES FROM BENEFICIARIES

PROMOTION OF BIOGAS  
TECHNOLOGIES

## BIO-DATA

<b>Project Title:</b>	Promotion of Biogas Technologies.
<b>Grantee:</b>	Ghana National Cleaner Production Centre.
<b>Partner:</b>	None
<b>Enterprise (MSME):</b>	Duraplast Ghana Ltd
<b>Year Established:</b>	
<b>No. of Employees:</b>	232
<b>Sector:</b>	Renewable Energy
<b>Type of Business:</b>	Manufacturers of polyethylene pipes, rotational and blow molded plastic containers.
<b>Location:</b>	Accra

## PROJECT BACKGROUND

The Ghana National Cleaner Production Centre received funding to implement the project Promotion of Biogas Technologies under the SWITCH Africa Green programme. The project was aimed at building capacity for artisans and technical staff of Municipal, Metropolitan and District Assemblies (MMDAs). The project was also to help the MMDAs and small and medium scale enterprises address the problem of liquid waste management. The Centre worked together with Duraplast Ghana Ltd to redesign the septic tanks made of plastic into a biogas digester.

This was tested in a residential facility in Koforidua owned by Lambert Faabeluon, Director of the Centre.

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## ISSUES ADDRESSED

- The purpose of the project working in collaboration with the technical team of Duraplast Ghana Ltd was to redesign the septic tank and convert into a biogas digester for large scale production for the Ghanaian and West African market.
- The digester which was tested is about 2 m<sup>3</sup> in size. The technical measurements for the changes to be carried out will be discussed with the Duraplast Ltd team.

# PROJECT IMPACT

## Environmental Impact

- The biogas digester will address the challenge of sanitation which is always a challenge for especially residential facilities.
- This will promote clean environment and prevent nuisance from bad odour which will be generated.

## Economic Impact

- The company has a large market to supply as government has approved the building codes which will require that any property developer is required to construct a biogas plant as part of the building permit acquisition.
- This will increase demand for the plastic biogas digester and will help reduce cost of building a biogas digester.
- More jobs will be created and extra income will be developed

## Social Impact

- Several jobs will be created as a result of the construction/installation of the plastic digester.
- Specialist artisans will be trained to carry out the installations.

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## CHALLENGES IN IMPLEMENTING THE PROJECT

The challenges are as a result of addressing and changing the design. This has been addressed the results will be discussed with Duraplast Ghana Ltd.

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## FUTURE PLANS/LESSONS LEARNT

The company intends to rollout the production of the new plastic biogas digesters soon. This will be done in phases. Since the company produces different sizes of the septic tank, the company will similarly rollout the different sizes of the digester.

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## QUOTES

Dr. Bernard Boateng-Duah, CEO, International Maritime Hospital, GHAPOHA, Tema

“The hospital has a 3x300m<sup>3</sup> (900m<sup>3</sup>) biogas plant planned, designed and constructed by the BTAL. This project has come as a big relief to the activities of the hospital. Since it is not taking care of our sewage but also bio-medical waste and that we also have energy from it to supplement the hospital’s energy demand for cooking, refrigeration, lighting and laboratory gas demands. We hope it can be extended to other major hospitals not only in Ghana but throughout the African Continent.”

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## PHOTOS



## ADDITIONAL INFORMATION

[www.duraplastghana.com](http://www.duraplastghana.com)

## CONTACTS

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## SUPPORTING PARTNERS



## IMPLEMENTING ORGANIZATIONS

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