





# SWITCH AFRICA GREEN CASE STUDY #1

STORIES FROM BENEFICIARIES

# PROMOTION OF BIOGAS TECHNOLOGIES



# **BIO-DATA**

Project Title: Promotion of Biogas

**Technologies** 

Grantee: Ghana National Cleaner

**Production Centre** 

Partner: None

Enterprise (MSME): Charmass Biogas Engineering

Year Established: 2014

No. of Employees: 5

Sector: Renewable energy and waste

management

Type of Business: Construction

Location: Dawhenya, near Tema

# **PROJECT BACKGROUND**

Charmass Biogas Engineering has been constructing biogas plants for clients in the last four (4) years.

The company constructs the fixed dome biogas digester and most of the clients have expressed satisfaction in its work.

The company has 5 permanent staff and sometimes sub-contracts some of the work to other key technical persons who are engaged by the company.

Mr. Ambrose Tsekpo who works for the company is a Technical Director of the company and was trained by the Ghana National Cleaner Production Centre who implemented the Promotion of the Biogas Technologies Project under the SWITCH Africa Green Programme.

#### **ISSUES ADDRESSED**

Most new homes under construction or have just completed construction are the ones who request for biogas plants to be constructed. They are referred to me through others who know the work I do.

The construction of biogas plant is to address the problem of sanitation and faecal waste treatment. It is also to make use of the by-products generated after faecal waste treatment which includes the use of treated effluent water for gardening and sludge for farming or gardening to enrich the soil.

### **PROJECT IMPACT**

#### **Environmental Impact**

- A total of 8 biogas plants have been constructed for beneficiary homes after Mr. Ambrose was trained under the Promotion of Biogas Technologies project on the SWITCH Africa Green Project.
- This has resulted in improved sanitation for the beneficiary homes. It has also reduced the stress in dislodging of the septic tank which they used previously.

#### **Economic Impact**

- This has given me a new and alternative revenue stream.
- Mr. Ambrose has seen increment in his income generation.
- On the average Mr. Ambrose makes an amount of one thousand Ghana cedis extra for constructing one digester or biogas plant.

#### **Social Impact**

- This has led to improvement in sanitation for beneficiaries of the biogas plants and reduced the stress of calling truck tankers to dislodge.
- There is job creation for the masons who see construction of biogas as an alternative means of livelihood.
- Mr. Ambrose is helping other artisans by training them or giving them jobs for carpenters, plumbers and steel benders.
- Through the project, Mr. Ambrose had the opportunity to participate in the SWITCH Africa Green Networking Forum where he made a few contacts for biogas construction and share his experience in the field.
- He also participated in the exhibition during the networking forum in Burkina Faso in October 2018.

# CHALLENGES IN IMPLEMENTING THE PROJECT

There are challenges with some of the sites during construction as it depended on the nature of the soil.

# **FUTURE PLANS/LESSONS LEARNT**

There are future plans to construct more biogas plants and improve upon marketing of the biogas plant.

Mr. Ambrose has plans to acquire more skills in alternative faecal waste treatment and acquire skills in other types of biogas construction.

The marketing of biogas plant will also be a major priority for the company which intends to widen its customer base.

# **QUOTES**

"Since I started training and constructing biogas plant, I have been able to acquire knowledge and skills in biogas construction. It has given me another stream of income and improved my financial standing. Thank you SWITCH Africa Green for the opportunity."

# **PHOTOS**





CONTACTS

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# **SUPPORTING PARTNERS**



# **IMPLEMENTING ORGANIZATIONS**

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