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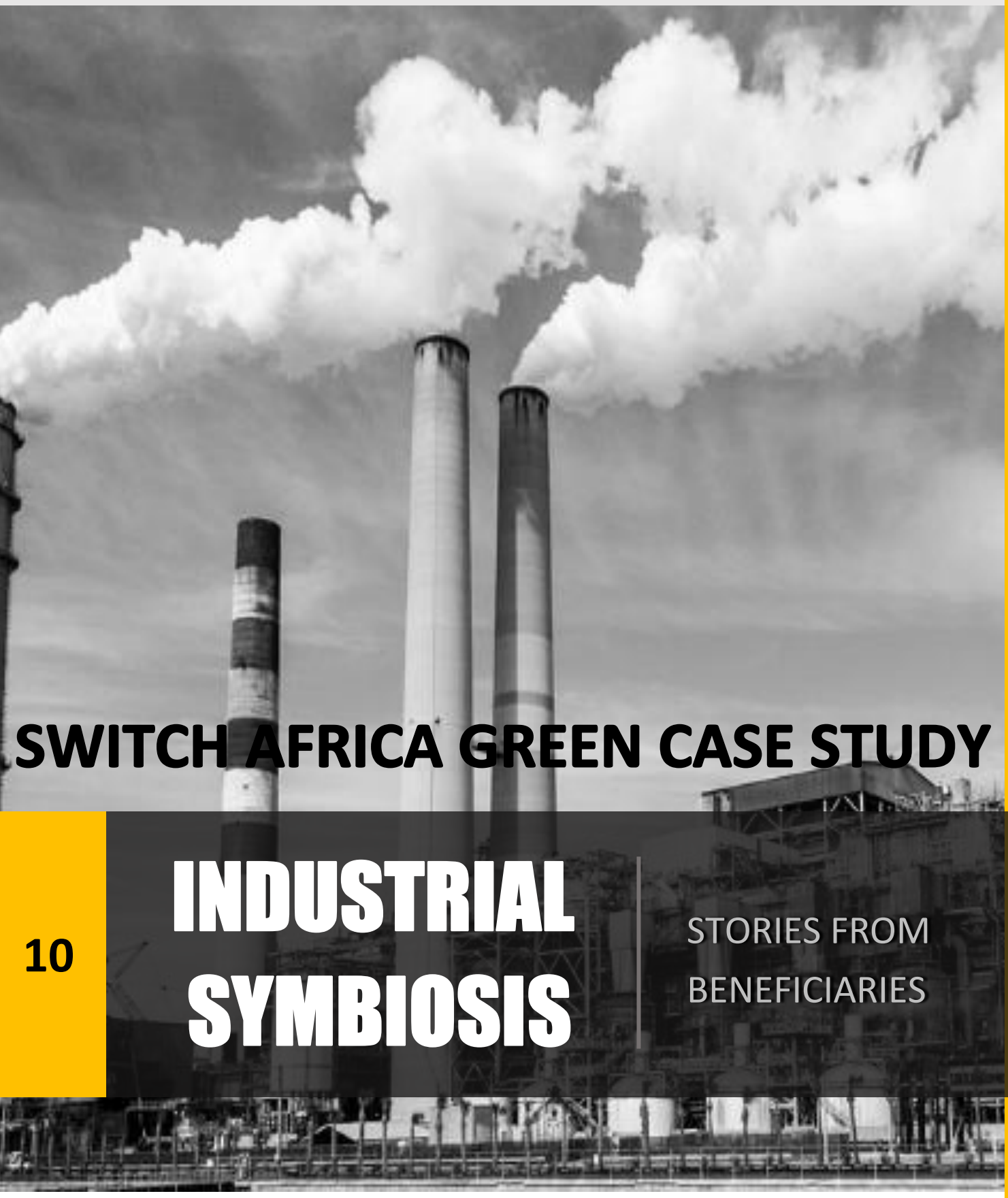

SWITCH AFRICA GREEN CASE STUDY

10

INDUSTRIAL SYMBIOSIS

STORIES FROM BENEFICIARIES

BIO-DATA

Project Title:	Enhancing resource productivity and environmental performance of MSMEs through the concept of industrial symbiosis
Grantee:	Ghana National Cleaner Production Centre
Partner:	Africa Roundtable on Sustainable Consumption and Production
Enterprise (MSME):	Voltic Ghana Limited
Year Established:	1995
No. of Employees:	350
Sector:	Integrated Waste Management
Type of Business:	Water Producing Company
Location:	Medie, Accra, Ghana.

PROJECT BACKGROUND

The Industrial Symbiosis Project introduced to MSMEs the concept of useful uses for waste generated either in-plant or by another company. This was to aid in the effective management of waste by moving waste generated up the waste hierarchy.

Through the project the MSMEs were trained in the following:

- Concept of industrial Symbiosis and Benefits to the MSME
- Process Mapping to identify resource inputs, product output and waste streams either for a specific product line or the entire facility.
- Data Collection/Gathering for resources/wastes.
- Prioritizing waste stream for Industrial Symbiosis
- Waste segregation.

ISSUES ADDRESSED

Voltic Ghana limited is one of the leading producers of bottled mineral water in Ghana. Despite running an efficient system, the company sometimes incur some waste PET bottles. This waste comprises mainly of waste PET preforms, empty water bottles used on the site as well as PET bottles that do meet the standards required due to deformity or some other reason. Also produced in significant quantities is paper waste. This mainly comprises of paper cartons used in packaging of the products. Some paper cartons produced do not meet the standards required hence they become unfit for customer consumption. These contributed significantly to the company's waste disposal costs.

Through the Industrial Symbiosis project, Voltic was able to form a synergy with Hseih Plastics and Paper Recycling Company, who like their name suggests, require PET bottles and paper cartons as raw materials in their processes. This collaboration provides cheap and a dependable source of raw material for the recycling company as well as a reduction in disposal costs for the former.

PROJECT IMPACT

As a result of this synergy

1MT/MONTH

of waste paper was diverted from the landfill and GHG savings of

1800kg

CO_2e per day as well as

1.5MT/MONTH

of waste PET bottles was diverted from the landfill and GHG savings of

9000kg

CO_2e per day.

Approximately

GH₵ 1100

per day earned from the sale of the waste paper and PET bottles and reduction in disposal costs by roughly

GH₵ 3000

per month.

Diversion from the landfill consequently leads to a reduction in the resources used by the District Assemblies in tackling waste management.

CHALLENGES IN IMPLEMENTATION

- The initial challenge the team encountered was finding an appropriate end user of the waste.

LESSONS LEARNT/FUTURE PLANS

Due to the positive reception received from the MSMEs concerning the whole concept of Industrial symbiosis with its accompanying benefits, there is a commitment on the part of the MSMEs and grantees to keep the business relationships formed in place to ensure sustainability and continuity, even beyond the duration of the project.

From top to bottom, images of crushed PET bottles and baled paper cartons

CONTACTS

Eric Eshun
Voltic GH Ltd.
+233200000135
eric.eshun@gh.sabmiller.com

SUPPORTING PARTNERS

IMPLEMENTING ORGANIZATIONS

www.ncpcgh.org
info@ncpcgh.org

GHANA NATIONAL CLEANER PRODUCTION CENTRE