SWITCH AFRICA GREEN CASE STUDY

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):** Promasidor Ghana Limited

**Year Established:** 1999

**No. of Employees:** 395

**Sector:** Integrated Waste Management

**Type of Business:** Manufacturing of milk powders and seasoning powders.

**Location:** North Industrial Area, 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

Promasidor Ghana Limited is a manufacturer of a wide range of milk powders and seasoning powders. This case study is centered on their packaging waste, specifically the 3-ply Plastic foil (bi-axially oriented polypropylene) used in packaging the milk powder and seasoning powder sachets. Due to the high standards of production required especially in the food and beverage industry, some packaging materials produced are deemed unfit for customer consumption. These mostly include the ones that have some form of defect; either incorrect spelling, wrong sizing or low durability.

The company was successfully linked with another MSME on the project, Nelplast Ghana Limited, a plastic recycling facility, whose raw materials include all types of common plastics except Poly Vinyl Chloride(PVC). It was agreed between the two parties that, the plastic packaging waste be sent to the latter’s facility, for it to be used in the production of pavement blocks.
As a result of this synergy, 2MT/ANNUM of packaging waste was diverted from the landfill and GHG savings of 12000kg CO$_2$e. Promasidor Ghana Limited was able to save approximately GH₵ 2500 which would have been spent on disposal of said resource.

It reduces the amount of money spent by the local district assemblies on the landfill sites.

**PROJECT IMPACT**

**CHALLENGES IN IMPLEMENTATION**

- The initial challenge the team encountered was finding an appropriate end user of the waste.
- The absence of/insufficient data on the various waste streams
- Lack of technical specification of the wastes generated.

**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 Promasidor and Nelplast to keep the business relationships formed in place to ensure sustainability and continuity, even beyond the duration of the project.
From left to right, the images of the BOPP plastics used to manufacture floor tiles and bricks.

CONTACTS

Philemon Mussey
Promasidor Gh. Ltd
+233204345514
Philemon.mussey@promasidor.com
SUPPORTING PARTNERS

IMPLEMENTING ORGANIZATIONS

www.ncpcgh.org
info@ncpcgh.org

GHANA NATIONAL CLEANER PRODUCTION CENTRE