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):** Cosmo Seafoods Limited

**Year Established:** 2011

**No. of Employees:** 407

**Sector:** Integrated Waste Management

**Type of Business:** Fish Processing

**Location:** Fishing Harbor, Tema

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**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.

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**ISSUES ADDRESSED**

Cosmo Seafoods is a fish processing company that process tuna into canned tuna. The company has an installed capacity of 200MT per day and an operating capacity of 60MT/day. The company as part of its production generates about 250tons/month of fish heads as waste. This becomes difficult to dispose of due to the stench as well.

The company contacted the GNCPC on the issue of the fish heads. Thus GNCPC linked Cosmo Seafoods to Pioneer Food Cannery’s (PFC) Omega 3 production line. This provided Cosmo with a new income line since they were now selling the waste fish head to PFC rather than looking for ways to dispose it off.

PFC was very willing to buy the waste since the Omega 3 plant was operating below its capacity due to the lack of feedstock (fish heads).
Between 200-300 tons/month of fish heads are processed into omega 3 oil and thus diverted from landfill.

A 10% increase in production for PFC with increased profit from the sale of the Omega 3. Cosmo Seafoods now earns about GH₵ 200.00 per month from the sale of the fish head.

Cosmo Seafoods now employs extra factory hands to deal with the collection and separation of the fish heads from the fish waste. Also the nuisance of the stench emanating from the disposal of the fish heads is no longer an issue in the community.

The major challenge faced was the transportation of the waste since the companies were about 20km apart.

The company intends to scale up the implementation of the concept of industrial Symbiosis in the management of most of their solid waste. As such they are constantly in communication with the GNCPC to identify suitable end users for some of the solid waste they generate.
From up to down, image of tuna heads separated from the waste fish for onward transport to PFC

**CONTACTS**

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