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SWITCH AFRICA GREEN CASE STUDY

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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

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

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 become 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).

PROJECT IMPACT

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.

CHALLENGES IN IMPLEMENTATION

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

LESSONS LEARNT/FUTURE PLANS

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

Isaac Kwadwo Boakwah
Cosmo Seafoods Limited
+233269824866

Isaac.boakwah@cosmoseafoods.com



SUPPORTING PARTNERS



IMPLEMENTING ORGANIZATIONS

www.ncpcgh.org

info@ncpcgh.org

**GHANA NATIONAL CLEANER PRODUCTION
CENTRE**