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GREEN BUSINESS SERVICES

For

Egyptian Small and Medium Enterprises

Success Story from the Food Industry, Egypt



Implemented by: **giz** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Savings in Fresh Water Consumption

Success Story from the Food Industry, Egypt

Company

The company was established in 1990 as a joint venture of two international companies. It is a leading producer and exporter of French fries and frozen vegetables and fruits.

The company participated in WAFFAR 3.0, January-June 2007. WAFFAR 3.0 is an industrial service for industries to improve their resource and environmental managements while increasing their profitability and competitiveness. It is an interactive training programme suitable for any industrial company. WAFFAR 3.0 consists of training modules, network meetings and company visits and audits. Its objective is to help the company identify environmental and organizational problems and implement measures to overcome these problems with cost benefits.

Actual Situation

The measure in concern is reducing the fresh water consumption in the production process to follow international industry norms.

Due to the nature of the industry, the company uses large quantities of fresh water. The average water consumption is 6.8 m³/ton of product, but industry norms are an average of 4.8 m³/ton of product.

The reasons for this high water consumption are:

- Leakage of water in the piping system of the cooling tower
- No water is recycled in the whole process
- Workers were careless about the amount of water used in the production processes

This procedure has following negative impacts:

- Excess load on the water and sewer networks
- Negative effect on the environment
- Wasting fresh water resources

Solution

Mind mapping method was used to identify the causes of the problem and to develop the most suitable measure. The identified measures were

- Reuse of water in washing in the trimming belt, optical sorting and blancher
- Maintain the cooling tower and water pipelines to prevent water leakage
- Use of wastewater in irrigation of greenery
- Raise workers awareness about the importance of water

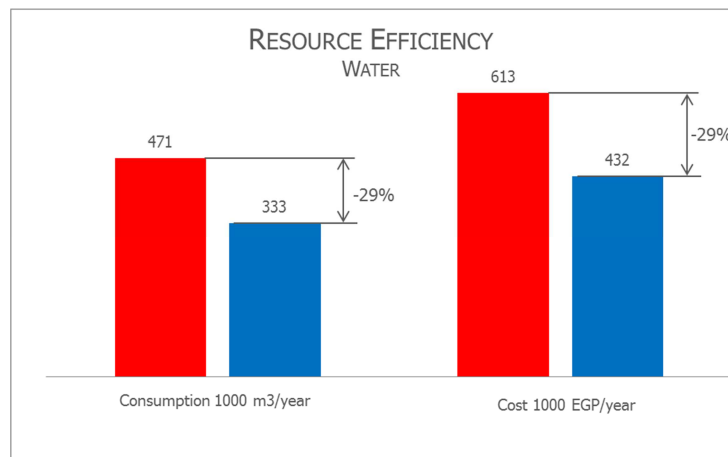
The last measure was implemented directly through meetings with the workers. The first three measures were studied to determine their cost and their expected negative and positive impacts. After this study, all measures proved to be effective with reasonable cost and pay back periods. Thus, they were implemented over a four-month period.

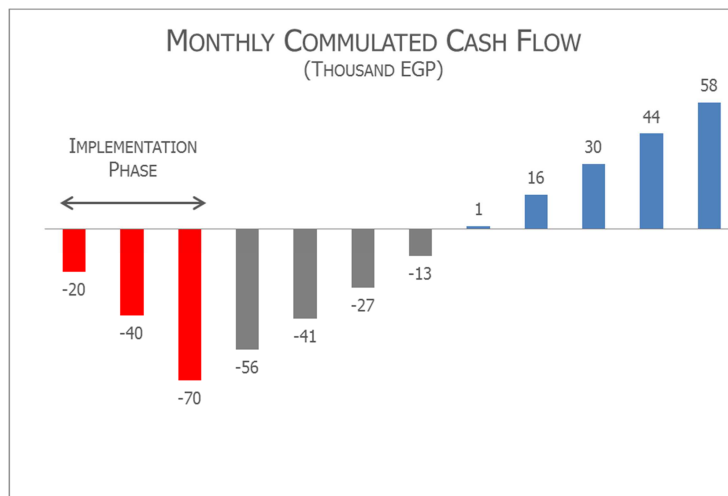
Implementation Timeline



Benefits

Economic Benefits





Environmental Benefits

Reduction in water consumption has a favourable effect on the environment since water is a natural resource. In addition, reduction of fresh water consumption leads to reduction in wastewater generated. Less wastewater means less soil pollution and lower load on the sewer network

Organizational Benefits

Since the idea was originally generated by the staff and the WAFFAR 3.0 team, the company staff was motivated to search for new ideas to either increase productivity, decrease the production cost, or reduce the waste produced by the facility.

Contact

Markus Donath

Head of Green Business Services

Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH

27 A Abdel Khalek Tharwat St., MTI
Building 2nd floor
Downtown - Cairo - Egypt

T +20 2 23914816 Ext 28

F +20 2 23904 185 Ext 17

E markus.donath@giz.de

I www.giz.de/egypt

I www.psdp-egypt.info