



Environmental performance indicators case study

• Towards eco-efficiency

Modern Aluminium Industries Co. Ltd., Jordan

The company and its motivations

Modern Aluminium Industries Co. Ltd. (MODAL), is a limited liability company, established in Jordan. It produces high quality of different aluminium profiles for architectural, industrial and other applications. Production started in November 1996, using the latest and most up-to-date machinery.

Already certified ISO 14001, the company would like to implement eco-efficiency by globally rationalising consumption. By using the Environmental Performance Indicators, MODAL wants to present the company's environmental performance to the management as well as to the stakeholders.

Selection of Indicators

MODAL would like to focus its environmental performance indicators on eco-efficiency. It differentiated, therefore, three environmental improvement areas it would like to monitor:

- Water consumption
- Energy consumption
- Material consumption (oil, acids, solvent, etc.)

With the aim to link environmental performance indicators to financial indicators, MODAL decided to express them as an eco-efficiency ratio: environmental costs/output.

• Environmental performance indicators

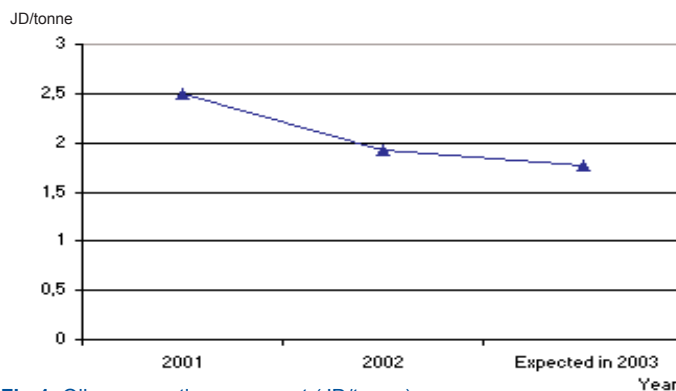


Fig 1: Oil consumption per output (JD/tonne)

Comments:

Thanks to a simple policy of rationalisation of oil consumption, MODAL reduced successfully its consumption of oil per output by 29% in the last 3 years. By reusing the oil in the process and systematically collecting used oil, 1500 JD were saved in 2003 on oil purchases.

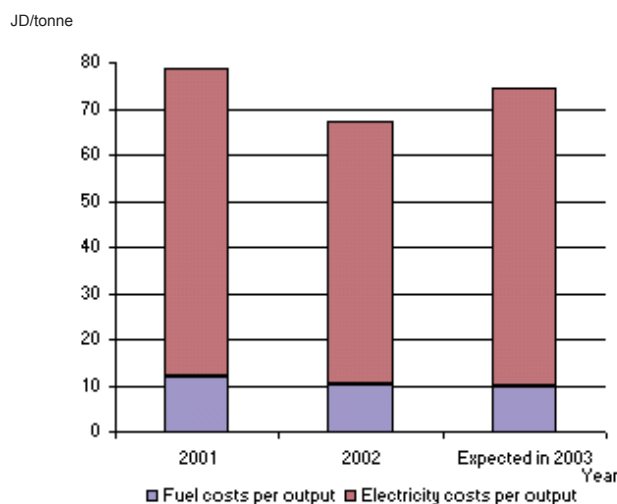


Fig 2: Energy consumption per output (JD/tonne)

Comments:

The Quality Assurance Department, in charge of the environmental management system, implemented in 2001 a plan for reducing energy consumption in all of the company's departments. It promoted energy-saving actions: extrusion line off during peak demand period, light off in areas that do not need lighting, etc. By acting so MODAL achieved a reduction of its energy costs per output of 6%.

• Interpretation and corrective measures

Indicators	Interpretation	Action	Payback
Water consumption (JD) per output (tonne)	To evaluate the water consumption.	The identification of water-saving actions: to recycle water within the process, to collect rain water, to develop water consumption devices, to monitor leakages, etc.	A water saving of 5% = 1'000 JD.
Energy consumption (JD) per output (tonne)	To control the results of the energy-saving plan implemented in 2001.	To develop new energy-saving actions. To analyse the results and communicate them within the company.	After 3 years, 6 % reduction of energy cost per output.
Raw materials consumption (JD) per output (tonne)	To monitor the raw material consumption.	To promote recycling and reduction of non conform products.	Diminution of the production costs and reduction of the quantity of solid waste.

• Communication

The whole company is taking part in the development and the implementation of the different environmental actions (energy saving, reduction of water consumption, etc.). To support these efforts, the department in charge of the environment informs all the employees of the results of their actions through the environmental performance board on a regular basis.

• Monitoring

To keep its environmental management system certified ISO 14001, the company should be able to monitor and to assess the results of its environmental actions. By using the environmental performance indicators and by regrouping them within the Environmental Performance Information Board, the company controls the adequation of its actions with its environmental objectives and that it meets at the same time the ISO 14001 requirements.

• For further information

• WHO IS SBA ?

SBA, Sustainable Business Associates, is an international non-governmental organisation (NGO) working to engage industrialist in 'eco-efficiency' with the aim of minimising environmental impact and improving business productivity. To pursue this aim SBA has initiated the DELTA Programme to sensitise industrialists to new business risks and opportunities, and to provide them with the management tools and training to move towards sustainable development.

• WHERE ARE THE DELTA NETWORKS ?

The DELTA Networks are operating in: Algeria, Egypt, Jordan, Lebanon, Libya, Mauritania, Morocco, Palestine, Syria, Tunisia and Turkey.

• SUPPORT TO DELTA



• WHAT IS DELTA ?

DELTA stands for **D**eveloping **E**nvironmental **L**eadership **T**owards **A**ction. Chapter 30 of Agenda 21 (an outcome of the 1992 United Nations 'Earth Summit') indicates that business & industry have a critical role to play in achieving sustainable development goals. After an initial awareness-raising phase, the DELTA Programme focused on structuring industrialists in 'business & environment' networks (DELTA Networks) in 11 countries of the Mashrek & Maghreb. These Networks are composed of key industrialists interested in taking a proactive role and leadership on environmental issues.

The DELTA Networks are practical, working structures for industrialists to obtain information & contacts, exchange experiences, develop environmental know-how, and gain access to practical management tools that can offer 'win-win' options based on ecoefficiency.

• SBA

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The Environmental Performance Information Board, developed by SBA in collaboration with ABCD-Durable, completes the other eco-management tools developed within the framework of the DELTA Programme. It is based on the data collected, it enables companies to measure environmental impacts and to build performance indicators. Its 'monitoring' dimension acts as a thread in the implementation of an Environmental Management System (EMS).