

Environmental & economic impact of the DELTA Programme

Since the launch of the DELTA Programme in 1995, more than 3'000 companies were sensitised to eco-efficiency and eco-management practices. More than 300 companies in Maghreb and Mashreq applied eco-management tools offered by SBA and the DELTA Networks initiating the application of corrective measures that allowed significant environmental and economic savings.

Between 2001 and 2003, the DELTA Programme had inspiring achievements reducing the environmental impact of more than 120 industries in Algeria, Jordan, Lebanon, Palestine, Syria, and Turkey. Two of the eco-management tools, the **Good Housekeeping** and **Ecomapping guides**, were used in companies in order to identify appropriate corrective measures. The overall economic and environmental results of their applications are impressive (see figures 1 & 2).

Domain	Specifications	Quantities	Unit
Water	reduction of consumption	370'319	m3
	treated water	-	-
	recycled water	338'937	m3
Energy	electricity	130'031	MJ
	diesel	27'000	l
	Fuel/biogas	87	t
	Natural gas	1'063'963	m3
Raw materials	reduction of raw materials loss (chemical)	14	t
	others	20	t
Wastes	liquid (oil/fuel)	5'228	kg
	organic	16	t
	paper	6	t
Air	red. of dust (PM 10)	17	kg
	reduction NOx	9'535	kg
	reduction CO	730	kg
	reduction SOx	16	kg
	reduction CO2	8'750	kg

Fig. 2 : Annual environmental gain obtained with the application of Good Housekeeping in Jordan, Palestine, Syria and Turkey

Those results are only the tip of the iceberg. Lots of data were not reported or simply not calculated, namely in the reduction of air emissions, or improvement of health and safety.

The two other eco-management tools used by the DELTA Networks have a different methodology that implies different results. With the help of the **Environmental Self Diagnosis Guide**, companies from Algeria and Lebanon were able to determine their

Domain	Specifications	Quantities	Unit
Water	reduction of consumption	19'380'037	m3
	treated water	1'584'000	m3
	recycled water	73'564	m3
Energy	electricity	2'604'739	MJ
	diesel	3'388'368	MJ
Raw materials	reduction of raw materials loss	14	t
	oil	2'080	l
Wastes	liquid (oil/fuel)	5	m3
	solid	4'369	m3
	metal	150	t
	recycled	842	t
Air	Dust	91'080'000	m3

Fig. 1 : Annual environmental gain obtained with the application of Ecomapping in Jordan, Palestine and Syria

environmental and managerial issues (including safety) and to set up an action plan of corrective measures.

With the **Environmental Performance Indicators**, companies in Jordan and Algeria were able to monitor and evaluate their environmental performance and communicate internally and externally their environmental progress. Its application does not necessarily require environmental improvements at once. That is the reason why there is no environmental and economic result available. However, most of the companies confirmed that some corrective actions have been undertaken or are in progress.

On the **economic side**, the results are more complete and accurate. All these actions allowed the saving of approx. 4.7 million USD annually with a total investment of only 3.2 million USD. Average payback period is below 9 months (see Fig. 3).

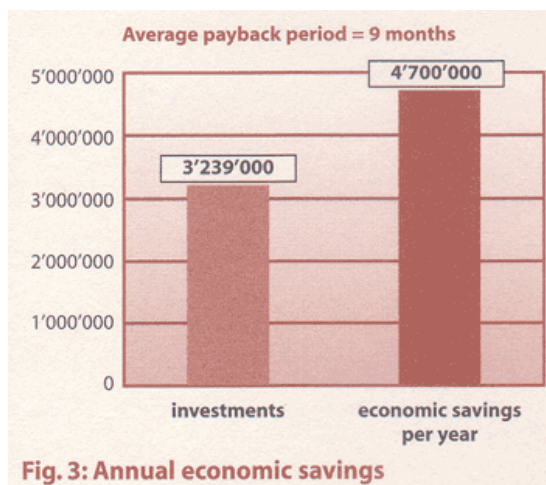


Fig. 3: Annual economic savings