



• A first step for better water management Al Rastan Company, cement industry, Syria

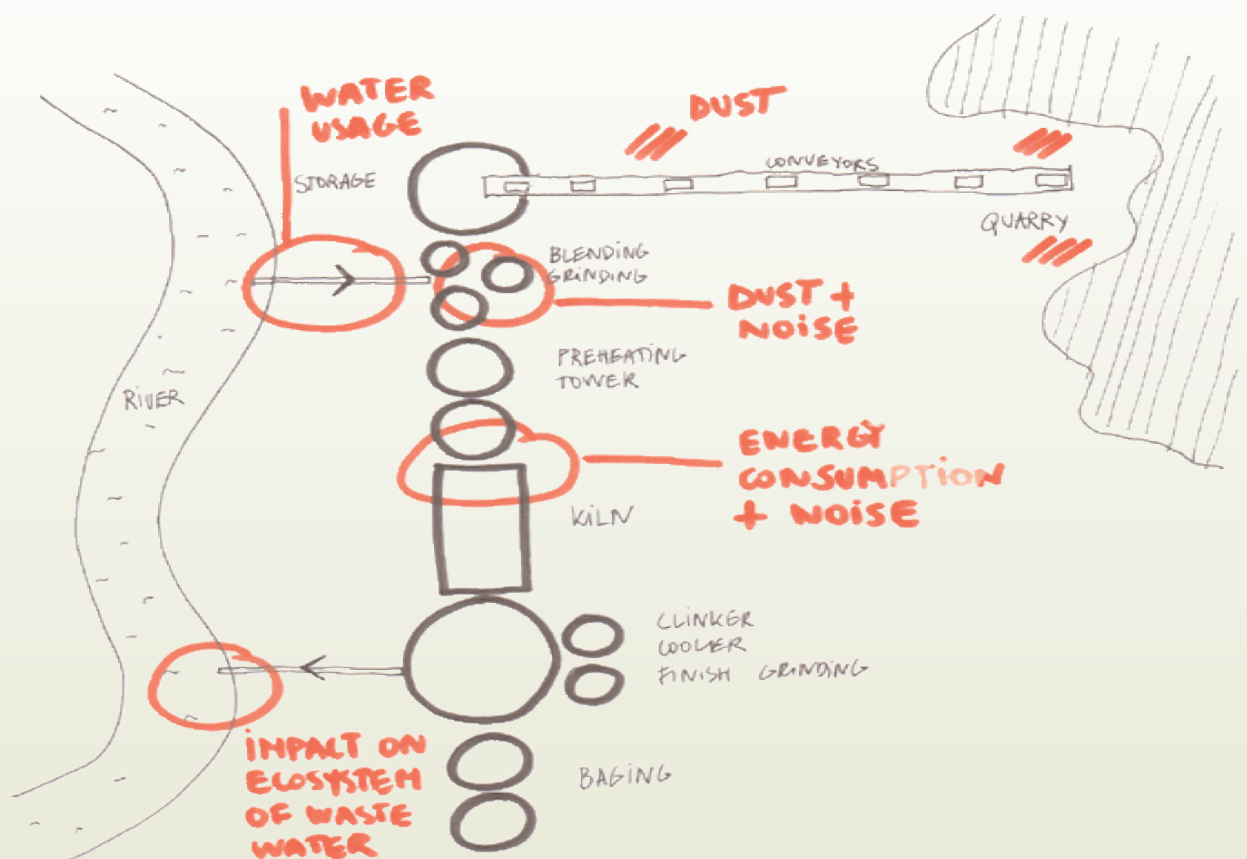
In brief

Al Rastan Company for cement manufacturing (400 employees) is located 7 km east of Al Rastan. The company produces approximately 450 tonnes of cement per day using wet process. The cement factory was built next to a river from which they pumped big amounts of water for the production. The wastewater was a problem to the ecosystem as it was rejected without any treatment in the same river downstream. Ecomapping training was a good opportunity for the company to take the first step to assess its environmental situation and engage in some environmental actions. Thus, a review of the production process from the beginning to the end enabled to pinpoint a number of environmental problems. However, the problem of water was mainly addressed.

Application

Al Rastan produces cement using wet process. As water is a scarce natural resource in Syria, the ecomaps helped, during the visit of the production unit, to identify the departments where water could be better exploited and saved. Big quantities of water were used for mixing the raw material at the grinding phase (before combustion in the kilns) and also for cooling the equipment. The resulting wastewater of these processes was charged with leaking oils and dust. The Management decided to build 2 precipitation basins to separate the clean water from the polluted water. Clean water was reused for cooling, thus saving 200 m³/day of fresh water, whereas the polluted water was being treated accordingly before its discharge.

• Ecomaps



• Action plan

| Environmental aspect | Corrective measures | Investment | Annual savings |
|----------------------|---|-------------|----------------|
| Water | Installation of 2 precipitation basins; Closing the water system | 17'040 US\$ | 70'000 US\$ |

• Mini audit *

As one could expect in a cement factory, the employees rated noise and air pollution as two of the major environmental problems. A short study confirmed that the noise caused by the mills of clinker and raw materials exceeded the Syrian standards and needed to be corrected. However, the management chose to deal with the issue of water first due to its scarcity and its economic value.

Noise

Air pollution, dust

Health and safety

Use of water and wastewater

• Lessons learned

The company chose to focus on one problem: water resources. The Ecomapping guide helped to do the first step in environmental management and some action was taken. Other problems were noticed and in the future, the management wants to undertake wider studies and find adequate solutions. For example, the problem of noise and dust in the mills will need special attention as it harms the working conditions of the employees.

• For further information

• WHO IS SBA?

SBA, Sustainable Business Associates is an international non-governmental organisation (NGO) working to engage industrialists 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 Developing Environmental Leadership Towards Action. 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 eco-efficiency.

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The **Ecomapping Guide**, elaborated by the Association Belge des Eco-Conseillers (ABECE, Belgium), is a visual tool that enables managers and their staff to assess the environmental performance of a micro-company or workshop. By drawing a set of maps (water, soil, risk, air, etc.) of the plant, the main environmental risks and sensitive areas of the factory can be identified. See <http://www.ecomapping.org>

*The mini audit is a 120-second audit done by the workers to assess the company's environmental performance. The results of all staff are then consolidated in a table that is analysed and graphically interpreted.