



# DELTA Programme

## Good Housekeeping

case study

- Giving a second life to wastewater by using it for agriculture  
International Poultry Company (Tamam), Jordan

### In brief

Tamam (131 employees) processes chickens and distributes them around Jordan. The different steps of the production process, mainly slaughtering and cutting, require huge amounts of water (250 m<sup>3</sup>/day), which comes from the artesian well of the company. The wastewater was transported to the municipality sewage without consideration for the environment. As the quantity of fresh water could not be reduced due to hygienic standards, the company decided to reuse the water for irrigation purposes.

### The challenge

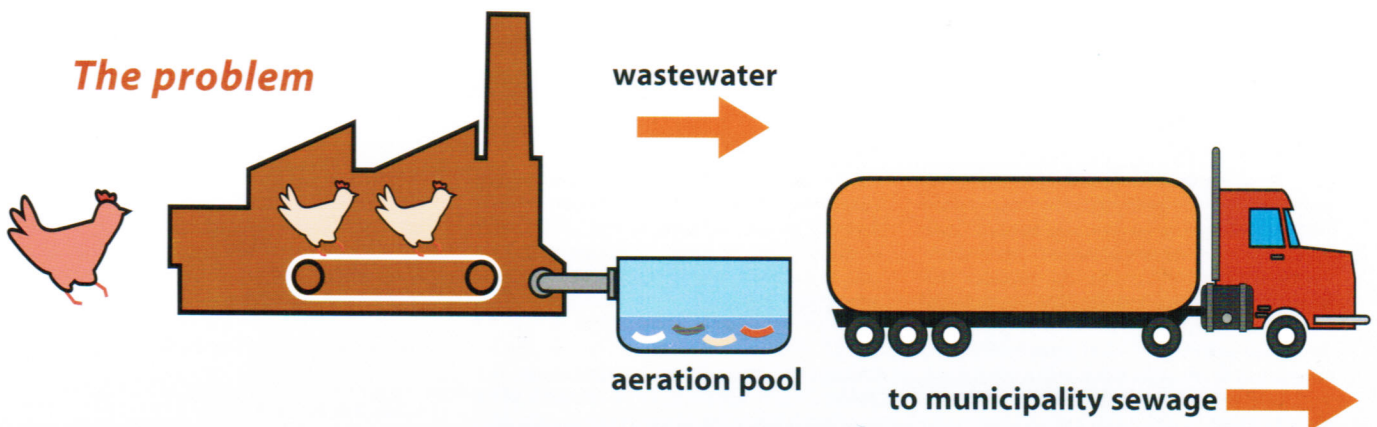
To maintain the highest hygienic standards expected by the customers, the company is obliged to conduct extensive sanitization and cleaning operations along the production process. Once the liquid and solid wastes were separated in the aeration pool, the wastewater was transported to the municipality sewage treatment plant, which generated high transportation costs (US\$ 1.4/m<sup>3</sup>).

### Application

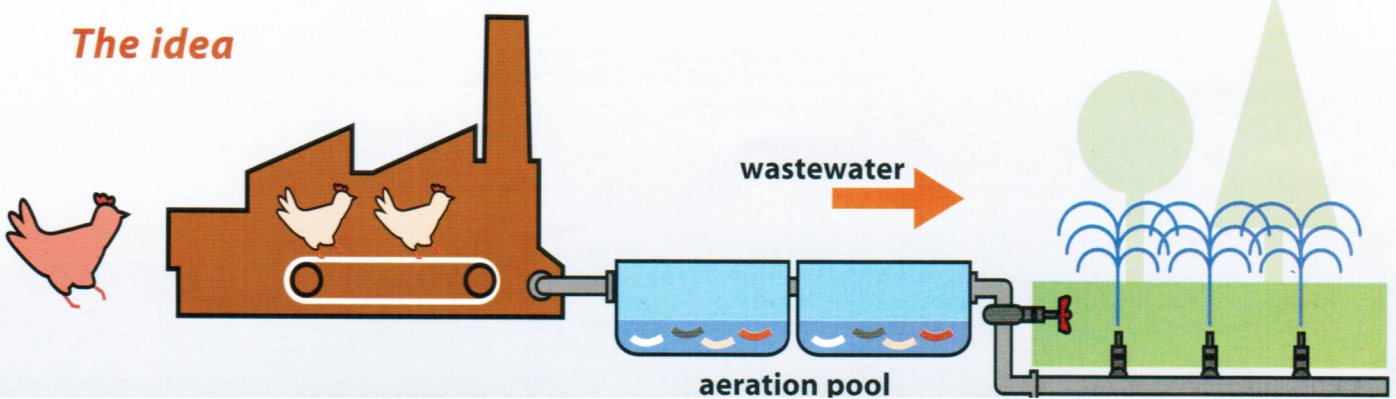
Referring to the Good Housekeeping Guide, the company analysed the usability of wastewater effluents for agricultural purposes. As results were positive, the management decided to build additional aeration pools to separate liquid and solid waste and then use the wastewater to irrigate the new clove fields next to the factory.

- Action taken within the company

### The problem



### The idea



## • Economic results

Investment cost	Annual savings	Running cost	Payback
100'000 US\$	<ul style="list-style-type: none"> <li>• 128'571 US\$</li> <li>• 7'512 US\$</li> </ul>	<ul style="list-style-type: none"> <li>• 171.40 US\$</li> <li>• 5'142.80 US\$</li> </ul>	9 months
building additional aeration pools	<ul style="list-style-type: none"> <li>• saving on transportation cost for wastewater</li> <li>• selling the harvested clover</li> </ul>	<ul style="list-style-type: none"> <li>• purchasing clover seeds</li> <li>• workers to sow and plough the field</li> </ul>	

## • Environmental results

Efficiently managing the use of water is essential in a country facing frequent water shortages. The company was able to solve two important environmental problems: the segregation between solid and liquid waste as well as the reuse of wastewater.

## • Lessons learned

Monitoring the flows of waste and analyzing their content helped the company to find ways of reusing it or disposing of it in the most eco-efficient manner.

## • 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.

### • SBA

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