

Advanced systems for the enhancement of the environmental performance of WINeries in Cyprus (WINEC)



Deliverable 6 Initial Environmental Review Report



1. Introductory

One of the project objectives of WINEC is to conduct an initial Environmental Review for Tsiakkas Winery as a first step in creating an Environmental Management System (EMS). During the Environmental Review the baseline environmental conditions are reviewed, the legal requirements which have an operational impact are recorded and considered, the possible environmental impacts are identified and evaluated while indirect impacts are also considered.

The Initial Environmental Review conducted was based on the "ecomapping procedure". The name ecomap is used in the "EMAS easy" methodology to practically map out in a simplified manner the environmental weaknesses under each environmental aspect. Such a map is a useful tool for small and medium sized enterprises (SMEs) like Tsiakkas Winery that do not obtain the human resources nor the financial capacity to source out expensive consultants in carrying out specialised environmental impact assessments. For this reason the "EMAS easy" methodology was chosen by the project consortium as the best way forward resulting in a paperless, yet effective implementation of the EMS.

The Environmental Review stage included field visits, collection of data and research and identified the environmental impacts arising from the winery's activities in the areas of waste and wastewater management, air emissions, energy and water consumption, soil and groundwater contamination and the urban environment. In specific, the direct and indirect impacts were investigated and identified by the University of Cyprus in close collaboration with RTD Talos Ltd and Tsiakkas Winery. The results will be used as guidance by the winery management in order to improve environmental performance while they also serve as the basis according to which a long term Environmental Action Plan will be adopted with an aim to enhance competitiveness.

A number of issues that have been considered in the Environmental Review are related to material and energy inputs, discharges, waste and emissions and the environmental activities of the organisation that are regulated. By comparing the severity of the identified issues and by considering compliance with the Community and local legislation it has been decided which of the environmental aspects have a

significant impact as a basis for setting the company's environmental objectives and targets.

The major environmental impacts identified for Tsiakkas Winery are the following:

- Production of packaging waste material and lack of knowledge whether these materials were made by considering social accountability and resource preservation,
- Air emissions and pollution resulting by the use of pesticides, the production stage, the use of refrigerants and delivery of the final product,
- Water pollution through the watering of grapevines and wine making,
- Health and safety issues such as fire hazard, use of chemicals and chemical residues,
- Consumption of non-renewable resources,
- Soil contamination by the use of pesticides and fertilizers.

In order to further investigate and promote the "EMAS easy" approach for small businesses the ecomapping procedure was also applied in five more wineries in Cyprus in order to identify their major environmental impacts and encourage them to implement an EMS. The visits for the Environmental Review of these wineries were conducted on June 8 and 9, 2010 and on September 5, 2011 and the ecomaps completed during this exercise have also been appended to this deliverable.