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Water Conflicts and Water Management on Mediterranean Islands

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The vulnerability to droughts and the decrease in water availability due to climate change represent noteworthy problems on Mediterranean islands. This is due –to a large extent- to their geographical isolation and thus the impossibility to draw on more distant or more divers aquifers. While Mediterranean islands share numerous characteristics, their approaches to and their procedures for water management vary considerably. The perception of stakeholders and water consumers and the various practices of water distribution and water use were investigated in the framework of the EU-funded MEDIS project (EVK1-CT-2001-00092). One aspect of distinct importance for the emergence of conflicts related to water availability and use relates to historical, traditional and regulatory practices. This includes water rights that have been inherited over generations and that are difficult to integrate into an overall management scheme for a region or an island, e.g. in the context of the EU Water Framework Directive. A specifically difficult obstacle to an effective water management regime are inappropriate or inadequately enforced legal regulations and provisions by the water authorities.

In our analysis, we identified the Local Farmers Irrigation Organisations (TOEB) on Crete (and mainland Greece) as an instrument that appeared to be particularly favourable for an effective management of water and for reducing conflicts among various water consumers. In addition to the distribution and management of irrigation water, TOEBs also engage in capacity building and provide useful information on farming and irrigation practices to their members. Water allocation to each member (i.e., each single farmer) is strictly regulated by the General Assembly, where every

member has the same rights (and obligations), thus ensuring a high degree of equitable self-government/management with regard to water distribution. In addition, a Council of a few members elected by the General Assembly (less than 10; elected for four years) and a Director take care of the TOEB's operation on a daily basis. Each TOEB has the autonomy to determine the price for irrigation water through a decision by its General Assembly. The costs for operation, management and maintenance of the irrigation network operated by the TOEB is covered by a fixed fraction of the water price to be paid by its members. While the current water price (on the order of $<$ 0,1 EUR/m^3 on Crete) is quite low, every extraction is being strictly metered. The very low water price on Crete is partly also justified by a mandatory system of drip-irrigation, which ensures a low and highly economical water consumption level per hectare.

This type of self-government on a local to regional scale provides not only an effective and highly competitive means of water provision for agricultural purposes, it also helps to minimize conflicts between users by providing a self-imposed regulatory system that is founded on equitable and democratic principles. The paper will describe one TOEB on Crete in particular and will outline how similar structures on other Mediterranean islands might reduce or even prevent conflicts between water consumers.