



Water and nutrients input into the Mediterranean Sea

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Mediterranean agricultural land management is continuously adapting to cope with environmental, social and economic requirements. Water quantity and quality in the arid and semi-arid Mediterranean area are very closely related to agricultural land use. Conserving and improving the sustainability of the Mediterranean area is a priority in EU Mediterranean policies and the EU initiatives, such as the EU-MED Water Initiative and Horizon 2020. Concerning the water quality, the assessment of the current pressures due to agriculture on the Mediterranean waters is therefore a priority. However, information on nutrients sources (point and diffuse) and measurements of water quality are scarce in this region. In this study we produced a spatial mapping of nutrients input for the whole Mediterranean catchments and we used these consistent data to estimate the nutrients load export to the Mediterranean Sea. The estimates obtained in the calibrated catchments, were extrapolated to the whole area, to provide an assessment for all the river basins draining into the Mediterranean Sea. We aimed at evaluating the impact of these loads on ecosystems functioning, and perform a source apportionment allocating the nutrient loads to various sectors of activities. This study is the base for further scenario analysis to evaluate the impact of various management options on these loads and associated impacts on water quantity and quality draining in the Mediterranean Sea.