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The PROMEDRICE project: objectives and expected outcomes

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Abstract. The PROMEDRICE project aims to develop and promote site-specific agricultural practices that reduce soil and water pollution, while maintaining or improving productivity and water-use efficiency in Mediterranean rice-based agroecosystems. Building on the findings of the MEDWATERICE project, which demonstrated the feasibility of innovative irrigation strategies that reduce water use without affecting yields, PROMEDRICE takes this approach further to address broader environmental challenges.

Between 2024 and 2025, monitoring and experimental activities were conducted in six Mediterranean countries, at both farm and irrigation district scales. The project identified the main constraints affecting soil and water quality by compiling and updating existing information with experimental results. Key issues included soil salinisation as well as nitrate and pesticide contamination of surface and groundwater. To address these challenges, site-specific mitigation strategies were implemented to assess their technical, environmental and social impacts.

In many of the study areas, best management practices were scaled to district and regional levels using tailored modelling approaches. These approaches provided tools to assess the impacts of alternative rice farming practices on the mid-to long-term sustainability of Mediterranean rice-based agroecosystems.

Keywords: Farming-practices, Rice, Agroecosystem, Pollution, Sustainability.