



## **Main issues for preserving Mediterranean soil resources from water erosion under global change**

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Soil resources are important for the socio-economic development of the Mediterranean area, and their durability is sometimes threatened because of intense erosion processes that result in severe degradation in the field (on-site effects) and downstream degradation (off-site effects). Based on the literature and results obtained during several research projects, this paper aims to present the main lessons and challenges dealing with Mediterranean soil resources under global change. After a review of the main drivers of Mediterranean soil erosion and the main impacts of water erosion processes, the paper highlights that the nature and intensity of active erosion processes are as diverse as the mosaic of the Mediterranean landscape. It then discusses the expected evolution of Mediterranean soil resources under global change and illustrates the prevalent influences of land use (partly depending on climatic constraints) on the evolution of erosion risk and soil vulnerability. Finally it details some main challenges for the future of Mediterranean soil resources dealing with a better knowledge of factors and processes involved in soil erosion; a better evaluation of soil vulnerability through a combined quantitative and qualitative soil erosion approach; and the need for a site-specific conservation strategy for Mediterranean soil resources.

**KEYWORDS :** Mediterranean, soil resources, global change, erosion, preservation.