The transplanting of *Posidonia oceanica*: best practices for Italy

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In the last decades *Posidonia oceanica* meadows have been undergoing a strong regression phenomena mainly due to a rapid and high overexploitation of coastal zones (e.g. urban encroachment, waste dumping), that significantly altered their natural characteristics and heavily affected marine ecosystems in the whole Mediterranean Basin. As *P. oceanica* meadows are protected as priority habitat according to Habitat Directive 1992/43/CEE and Barcelona Convention (16.02.1976) and play an important role within some European Directives (WFD: 2000/60/EC and MSFD: 2008/56/EC) each type of human pressure that potentially produces impacts or changes on *Posidonia* meadows must be deeply assessed to avoid any negative effect on this sensitive habitat.
In this contest, transplant of *P. oceanica* plants may be necessary to reduce meadow regression or to facilitate meadow recovery, reducing the sacrifice of those portions of meadows destroyed by infrastructural works. The Italian National Institute for Environmental Protection and Research (ISPRA) published the technical volume “Preservation and management of coastal-marine ecosystems. The transplanting of *Posidonia oceanica*" (in Italian language) with the aim to provide a useful tool for operators and Public Administrators involved in this topic at different levels. The manual contains all available information on transplant of *P. oceanica* derived from a critical analysis of the existing technical and scientific literature and reports, the legal aspects of this issue as well as the main biological characteristics of *P. oceanica* meadows. Moreover specific details about different transplant techniques and their results over time in some case studies in Italy, have been presented in specific datasheets enclosed to the manual.