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Certifying forest-based ecosystem services: results from the world-first application of the FSC ecosystem service procedure in Italy

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Abstract

In recent years, several mechanisms have been put in practice to value forest-based ecosystem services in order to maintain or enhance their provision. Mechanisms range from more traditional - e.g. regulation of land use, taxes and subsidies - to more innovative market-based ones such as Payments for Ecosystem Services (PES).

More recently, the use of voluntary third-party forest certification schemes based on standards and procedures specifically aimed at considering the provision of ecosystem services has gained interests. Certification schemes have already been established for specific ecosystem services, in particular focusing on carbon, in some cases including biodiversity conservation as a co-benefit. The Forest Stewardship Council® (FSC) is currently the only scheme promoting the certification of multiple ecosystem services by demonstrating the positive impacts of FSC-certified forest management practices on five regulating and cultural services. A dedicated procedure has been developed, that allows the assessment of the impact of forest management on carbon sequestration and storage, biodiversity conservation, watershed services, soil conservation and recreational services, by means of specific methodologies and indicators.

We critically analyzed the world-first application of the FSC ecosystem services certification procedure with reference to the forest certification group Waldplus and Associazione Forestale di Pianura (Lowland Forest Association) in northern Italy. The case study includes 1,043 hectares of different forest types, from semi-natural productive forests to conservation forests, traditionally managed to deliver multiple benefits. Our objective is to give insights that could inform and improve future developments in the field of certification, promotion and marketing of ecosystem services.