Valuing profitability of Mediterranean forest plantations: the case of Permanent Polycyclic Plantations as a new business model combining industrial timber production and ecosystem services provision

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Forest plantations are estimated to contribute for more than one third of the industrial timber supply at global level, and most studies foreseen this contribution to increase up to 70-80% by 2050. In Mediterranean countries, consolidated segments of investments in forest plantations are the ones on poplar in Italy, eucalyptus in the Iberian Peninsula and pines in south-western France. These plantations types are traditionally mono-specific, using fast-growing species or clones, and intensively managed in order to generate high financial returns. In spite the production of industrial timber is still the major reason for investing in forest plantations, there is a growing awareness for the provision of other products and services, supporting the idea that forest plantations can generate economic, social and environmental benefits.

In the last twenty years, Permanent Polycyclic Plantations have been established and tested in northern and central Italy and emerged as a new interesting business model in intensively cultivated agricultural lands and peri-urban areas. These innovative types of plantations are composed of a mix primary and accessory species, with different objectives and rotation lengths. Therefore, they are able to combine the production industrial timber, wood biomass for energy and the provision of ecosystem services. In addition, the different length of the rotations allows a permanent canopy cover, overcoming the problem of the loss of environmental benefits at the end of the productive cycle.

In this poster we provide a general overview of the characteristics and the Italian experience with Permanent Polycyclic Plantations, and we present the results of a financial analysis estimating their profitability compared to other land-uses. This work is part of a research project which aims at valuing the profitability of forest plantations in the Mediterranean countries, comparing different segments of investment. The final scope of this research project is to support individuals, companies and professional investors to make better investments decision, and to provide policy makers of new and systematic information for improving policy-making, in particular concerning subsidies schemes and rural development policies.

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