



An operative environmental accounting framework for forest land blue water production

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We present a conceptual framework for the economic valuation of the water flows occurring in the forest lands. This framework is an extension of the criteria developed in the System of Environmental Economic Accounting-Experimental Ecosystem Accounting (SEEA-EEA) and provides a practical tool for the assessment of national or regional environmental assets. In terms of environmental policy, our accounting framework aims at valuing the contribution of forest lands to fresh water supply, contributing to a more complete valuation of the environmental asset value of forest land. Thanks to a combination of hydrological and economic models, our approach allows organizing hydrological and economic information in a coherent manner, constituting an informed tool to support the design of efficient incentives for forest-owners to manage their land cover towards more water-friendly options.

As an example, we apply our hydro-economic model to a real life case study of two reservoirs in Andalusia, Spain, that differ significantly in their use of water. We use available hydrologic and economic data for evaluating the water environmental income at each site. We discuss on the differences found between the two sites and between vegetation types, and we present a sensitivity analysis regarding the main assumptions made in our calculations.