

## Using Ecosystem Accounting beyond GDP: applications to the Complementary Accounting Network (CAN) and Genuine Savings (GS)

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### Abstract

*Ocean and coastal ecosystems provide critical ecosystem services, including carbon sequestration, food provisioning, and recreation. Yet, these systems are increasingly degraded by overexploitation, pollution, use change, and climate-driven pressures. Despite their importance, such losses remain poorly recorded in a systematic way. In recent year, the System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA EA) has emerged as a key framework for integrating ecosystem extent, condition, ecosystem services, and monetary asset accounts into national statistical systems, supporting the transition toward “Beyond GDP” approaches and sustainability assessment.*

*This study explores how ecosystem accounting outputs contributes to holistic and wealth accounting frameworks, with particular attention to the Complementary Accounting Network (CAN) and the Genuine Savings (GS) indicator. Ecosystem flow and stock accounts (extent, condition, key ecosystem services including fisheries provisioning, carbon sequestration, marine tourism and recreation) are developed for Posidonia oceanica meadows in Italy for 2014 and 2020. Subsequently, the link between ecosystem accounting outputs and CAN and GS has been explored. Results from the two applications examines i) the integration of coastal and marine ecosystem accounts within the CAN framework, highlighting the potential of ecosystem accounting to complement traditional macroeconomic indicators through multidimensional indicators; ii) the incorporation of coastal and marine natural capital into Genuine Savings calculations, emphasising the importance of accounting for ecosystem degradation and restoration in measures of inclusive wealth. Overall, the study illustrates the potential use of ecosystem accounting not only within the SEEA EA framework itself, but also as a foundational information system for broader “beyond GDP” initiatives aimed at capturing the contribution of nature to sustainable development and intergenerational well-being.*

### Keywords:

*beyond GDP, wealth accounting, Genuine Savings, holistic approach, CAN*

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