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# Mainstreaming ecosystem services: which needs and opportunities for mountain areas?

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## Abstract

Natural Capital depletion has become one of the most relevant concerns for a sustainable development. The rising number of regulatory frameworks and scientific initiatives on natural resources and environmental asset protection reflects this concern at the international level. At the same time decision making capacity is becoming urgent at the scale of local ecosystem service supply. Operational frameworks should allow effective implementation of ecosystem service planning into natural resources management at multiple-scale.

The EU FP7 OpenNESS project (<http://www.openness-project.eu/>) adopts a multi-scale approach to integrate case study analysis into the process of decision making support at different levels. This work presents one of the local case studies, located in the Vercors Mountains Range (French Alps), focusing mainly on natural and semi-natural habitats. The local scale of analysis allow assessing specific ecosystem services at the stage of their potential supply and actual delivery.

The area present specific issues related to the loss of grasslands and open areas, the loss of traditional practices (pastoralism) and the impact of suburban sprawl and tourism (ski resorts). Those issues and the related services shift need to be investigated trough a spatio-temporal approach which analyses the distribution of land use and landscape patterns affecting the delivery of ecosystem services.

The ecosystem service approach offers an opportunity for mainstreaming multifunctional management into policies and land planning. At the same time it poses questions about how to integrate different services and ecological structures. This is particularly crucial in mountain regions which are hotspots for biodiversity and recreation activities, and, at the same time, highly sensitive to rapid land cover changes.

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