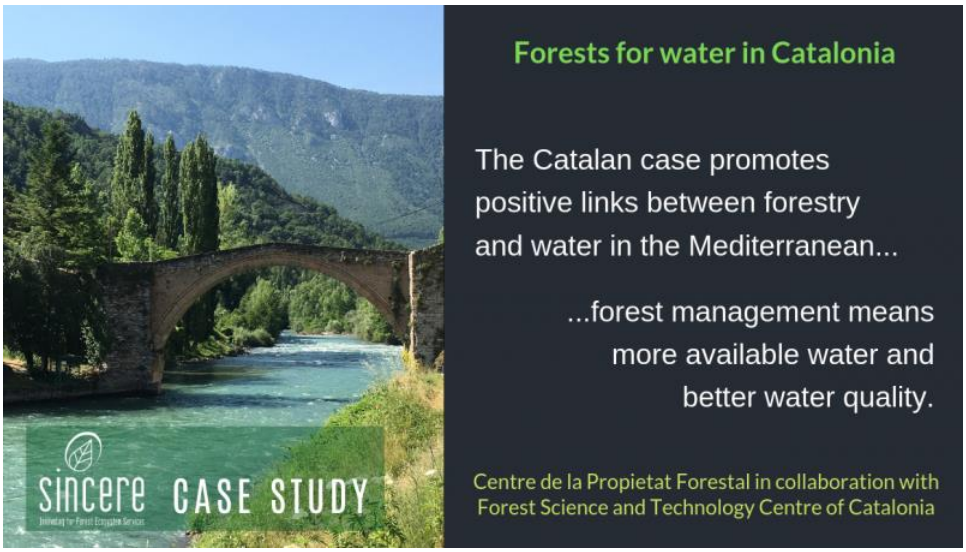
Forests for water in Catalonia

This case study consists of the inclusion of forests and forestry in a joint planning instrument for the Rialb water reservoir and the creation of a Forest and Water Fund that relies on a PES mechanism.



Location: Rialb water reservoir, Catalonia, Spain

Type of business model: Integration of forestry in the Urbanistic Masterplan (PDU) of the Rialb water reservoir

Ecosystem services targeted: Water quality and regulation

Providers: Public administration of the park and private owners

Users: Visitors

Stakeholders consulted: Public administration of the park, Institute for Development and International Relations, Civil society, Croatian Mountain rescue service, hotels, resorts, web service providers

Context

Water is a key driver for the socio-economic development of the Rialb area and climate change is posing a major threat to its availability and quality. Forests are the main land cover in the watershed and play a considerable role in water regulation: recent studies show that unmanaged forests can contribute to a decline in water availability. Forest management is the main tool to guarantee the provision of forest ecosystem services (FES), including those related to water (quantity, quality and landscape).

The region's forests are primarily owned by private owners (about 80%). Only 36% of private forest land is under a forest management plan. The forests have in general low profitability due to low productivity, complex topography and inaccessibility. This, combined with a general rural population exodus, has led to abandonment, where former fields are evolving to new forests. The unmanaged forest growth increases the risks of large forest fires, diseases or mortality during drought episodes that negatively affect FES provision, particularly the quantity and quality of water but also biodiversity and climate regulation.

Objective

- Include forests and forestry in a joint **strategic planning tool** with **participatory design** of a local forest fund.
- The innovative mechanism (IM) consists of a **PES scheme focused on forests and water**, strengthening governance for joint forest-water planning and on finding new resources to support forest owners to provide water-related services.

Implementation

The Forest and Water Fund was implemented with an underlying payment for ecosystem services scheme. A forest owner association was created to ease the participation of small forest owners by reducing individual transaction costs and is also responsible for creating the forestry management plan for adaptation and mitigation, to increase resistance and resilience. Impacts on water provision, biodiversity and carbon have been calculated using the CLIMARK framework. Forest management is 'certified' by the regional public forest agency (Centre de la Propietat Forestal). Targeted buyers of the FES are water utility providers (hydroelectric companies, water provision utilities), and also companies interested in corporate social responsibility. A conditional incentive structure is in place which appears to support the IM sustainability.

Outputs

- The involvement of the stakeholders in a strong participatory process stretching over four years has secured as an output a good level of shared understanding and objectives and a co-responsibility.
- A total of four meetings involved a high number of participants representing stakeholders from regional and public entities, forest owners, farmers unions and rural associations, locals, nature NGOs, research, and water governance.

Outcomes

Establishing the Forest and Water fund and the underlying PES mechanism will potentially be able to generate income for small forest owners who in turn provide better conditions for further FES provision.

Impact

- The case study has scheduled forest treatments to be implemented over three years on 20 hectares of forestland.
- These treatments will impact water provision as well as carbon balances and biodiversity to the benefit of the local communities and beyond.

Upscaling potential

National geographical upscaling:
The demand for better water quality and higher water quantity yields is well known and the lack of forest management is not a problem unique to the case area. Potential upscaling seems possible to similar cases in Spain or even to a federal or national level. The use of the CLIMARK framework establishes the relationship between treatments and FES provisioning and, in combination with the certification of treatments, it appears to create incentive structures that can secure financing of forest owners and the sustainability of the PES scheme. The lessons learned in relation to the carefully designed instruments and implementation of the stakeholder involvements might be a key element for successful upscaling of similar PES schemes to other case areas and wider federal or national level.

Upscaling to other schemes:
PES schemes are well-documented in literature to have upscaling potential. The instrument can be applied in other schemes where similar clearly defined relations between 'upstream suppliers of 'actions' and 'downstream' beneficiaries can be found.

Upscaling in scope:
The IM has as such already expanded the scope beyond only focusing on water provision to also potentially be used for carbon credits and biodiversity conservation. This kind of PES scheme has therefore already demonstrated its upscaling potential.

Upscaling to other countries:
As is well documented, PES schemes have been successfully implemented in various situations, especially in developing countries, where they present an effective way to obtain sustainable financing for ecosystem services provision.

Further information

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Synthesis report: D4.2 Synthesis report of the experiences and lessons learnt, situating them in the global experiences and knowledge

Upscaling report: D4.1 Assessing the upscaling potential of SINCERE IAs using a Theory of Change structure

Explore more findings from SINCERE case studies: www.sincereforests.eu/resources/factsheets/

About SINCERE
Spurring INnovations for forest eCosystem sERvices in Europe (SINCERE) is a four-year project to develop novel policies and new business models by connecting knowledge and expertise from practice, science and policy, across Europe and beyond.

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