

## Managing forests to provide goods and services: is there an innovation near you?

Keywords:

Economic instruments

Market-based Instruments

Forest Ecosystem Services

Payments for environmental services (PES)

Geographical location:

Europe



The SINCERE inventory of innovative mechanisms for forest ecosystems services

### Context

Forest managers and owners across Europe face a growing challenge to manage their forest so that it provides goods and services which benefit people, known as forest ecosystem services (FES). Forest goods include timber, edible forest products, cork, biomass and aromatic & medicinal plants. Services provided by forests include a space for recreation, tourism, well-being, or a cultural or spiritual function. Forests contribute to climate change mitigation by absorbing carbon dioxide, can have an important role in the water cycle and can improve and maintain soil quality. And of course, forests host a substantial part of our planet's biodiversity and store genetic resources.

Often there might be multiple demands on one area of forest from society, meaning that there is a need to find trade-offs or balance between FES, such as wood production, recreational services, biodiversity provision and carbon storage. Forest owners and managers around Europe are rising to the challenge to respond to societal demands for multiple forest ecosystem service via innovative mechanisms: many of these are well documented and could provide inspiration for other forest- and land-owners.

### Objective

The Inventory of Innovative Mechanisms provides easy access to information for landowners and managers who are interested in new ideas to manage their forests to deliver one or more ecosystem service. It details existing information on mechanisms to support the provision of forest ecosystem services (FES), including novel policies, business models and other projects or initiatives. The ecosystem services targeted by the Innovative Mechanisms are divided into three types: i) provisioning, which include material and energetic forest outputs; ii) regulation and maintenance, which include the ways in which forests mediate or moderate the environment; and iii) cultural, which include the non-material outputs of forest ecosystems. Useful information also includes the main actors involved into the mechanism and a description of how it works.

## ✓ Results

- Information collated in the Inventory of Innovative Mechanisms is accessible via a map tool that provides forest- and land-owners with a digested view of initiatives supporting FES provision.
- Innovative mechanisms (IM) are most frequently managed either by private or public bodies. NGOs and semi-public bodies, such as citizens, communities, associations, foundations and other collective initiatives, are still underrepresented as mechanism administrators.
- IM are most often local and are mainly located in rural areas. Most IM have been implemented since 2000 and a large majority are designed with a duration of 10 years or more.
- IM do not focus solely on forests, and several of them also extend their effects to other ecosystems and land uses, such as agricultural land or wetlands.
- Timber, water provision and non-wood forest products are the most frequently targeted provisioning services; climate regulation and lifecycle maintenance-habitat protection are the most frequently targeted regulation services and aesthetic, educational and recreational services are the most frequently targeted cultural services.

Various economic mechanisms are described, with many examples given of Payments for Ecosystem Services (PES) schemes. Other economic instruments include: public-private management contracts; land acquisition by private bodies; competitive tenders / auctions; subsidies and grants; cap-and-trade schemes; public procurement schemes.

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## 💡 Recommendations

- Innovation in FES provision is often incremental rather than radical and often includes the introduction or modification of some elements rather than establishing a completely new mechanism.
- Innovation is typically seen in terms of *product*, *service* or *process innovation* and can also be applied to the introduction of a *new technology or business model*. An important fifth aspect for FES provision is change in social practices, or *social innovation*.
- In many cases innovative elements are combined or integrated within the same mechanism. A 'hybrid' innovation bundles together different products or services, technologies, processes, actors, institutions and sources of knowledge. This approach seems to be the more efficient in term of innovation success.
- 'Cascade' innovation is where one type of innovation generates another. So social innovation can lead to new products or processes, while technical or product innovation might stimulate social innovation by involving or establishing new actors, or enlarging the scale of action. Therefore, aiming to create a new network, involve different stakeholders, or start a process to generate collaboration is recommended.

## ⚠️ Impacts and weaknesses

The limitations of the inventory include a bias in terms of country coverage, with the most cases identified from Italy, and mainly cases described in English, French, Portuguese and Spanish, in addition to Italian, being considered. New cases in other languages have been added by partners in the SINCERE project but the possible wealth of cases described in local languages in countries not covered by the research team remains unexplored.

## ➔ Future developments

As the development and implementation of innovative mechanisms is a dynamic process, new mechanisms are emerging all the time. The inventory will be updated during the lifespan of the SINCERE project.

### Further information

Map: <https://sincereforests.eu/innovation/innovation-inventory-map/> Full report: [D1.2 Inventory of Innovative Mechanisms in Europe](#)

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#### 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.