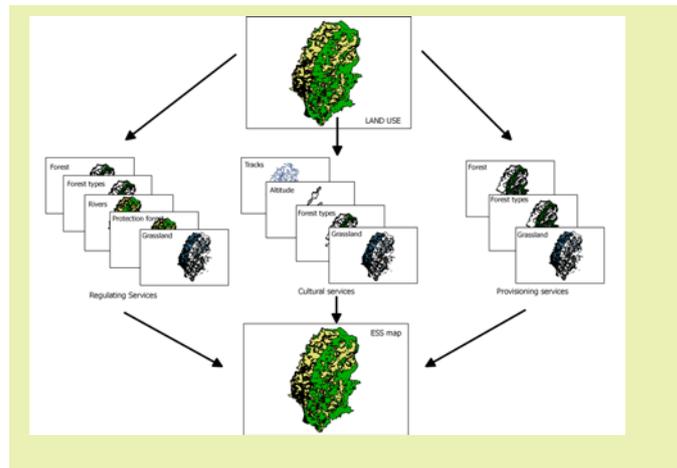


# ESS Evaluation and Mapping



## Short description

In order to preserve the ecosystems and the provision of their services it is important to manage natural resources in a sustainable way, so that these services may not be depleted. For this purpose, within the recharge.green project, ecosystem services of the pilot areas are evaluated in monetary terms. Several evaluation techniques have been used to assess the economic benefit of a list of ecosystem services, specifically: provision of timber, firewood, non-wood forest products, carbon sequestration, and protection against natural hazards and recreation.

After the evaluation, we used several local spatial data in order to make these values spatially-explicit. The procedure is replicated for each pilot area. Once the maps are prepared it is possible to understand the loss in monetary terms of the ecosystem value, which is created by the harvesting of renewable energy. Such an approach allows the identification of the most suitable sites that could be exploited for energy production without damaging the environment.

## Link(s) to further information

Additional information about the economic approach to the ecosystem services is available in the technical report on the recharge.green website: <http://www.recharge-green.eu/>

**Renewable energy type(s)**

Forest biomass, hydropower, solar PV and wind-power.

**Main objective(s)**

The main objective of this approach is to highlight the existing conflicts and the trade-off between renewable energy and nature conservation. The decision of using a monetary evaluation to assess the ecosystem services benefits was made because in this way the benefits and loss of producing renewable energy are estimated with the same unit of measure.

**Target group(s)**

The information provided by the economic evaluation of the ecosystem services and the impacts of renewable energy is useful for the decision-makers, to make choices with a high level of information.

**Operating site(s)**

The ecosystem services evaluation is applied in the pilot areas: Gesso and Vermenagna valley, Triglav National park, Leiblachtal, Mis and Maé valley

**Experiences / best practise examples**

The first examples of monetary evaluation of environmental services and functions dates back in the sixties. Many application have been carried out within the sphere of cost-benefit analysis, in order to understand the environmental impact of alternative projects. Moreover, a recent approach to include monetary estimation of the ecosystem services is the framework of payments for ecosystem services (PES). PES allows the compensation of social actors facing economic losses because they adopt clean technologies to maintain certain ecosystem services. PES scheme is particular important in the development countries.

**Data source**

Partners provide data for the local situation. The techniques and the application of the tool is described in the scientific literature available in this field.

**Responsible Partner(s)**

EURAC, CRA-MPF

**Stakeholders involved**

Each category of stakeholder may be involved in the evaluation of the impacts of renewable energy on the environment. Based on their values and beliefs, stakeholders may contribute to choose the best option for the energy development of the area.

**Contact person(s)**

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