



A SOLID KNOWLEDGE OF NATURAL CAPITAL AND ECOSYSTEM SERVICES IS FUNDAMENTAL FOR A SUSTAINABLE DEVELOPMENT

Natural capital is an economic metaphor for the capacity of ecosystems to provide goods and services. A very cautious use of this capital forms the basis for sustainability.

Why we need to act?

The conceptual model of INSPIRATION includes the four themes (i) demand, (ii) natural capital, (ii) land management, (iv) net-impacts. These four themes interact with a number of cause-effect relationships, non-linear functions and feedback loops. The concept of natural capital is of great importance within this network. Natural capital can be considered as an antagonist of the theme demand, i.e. a well-equilibrated balance between supply and demand is fundamental for a sustainable development. Land management decisions have to consider the potential and the limits of what natural capital can offer. Last but not least, a good knowledge of natural capital is essential to quantify net-impacts on ecosystems.

What we will gain?

In Europe space and resources are very limited and a sustainable development of our society requires careful political decisions. Costs and benefits of investments have to be evaluated not only from the viewpoint of economy but also with regard to ecology. Research on natural capital will provide qualitative and quantitative knowledge on natural resources and thus a solid basis for political decisions on land use. Well balanced decisions will be possible and detrimental long term effects on the environment can be avoided. Natural capital will not be exploited for imminent profit but preserved for future generations.

Key research areas

A detailed bottom up approach revealed six important research topics within the theme of "Natural capital"

- Quantity and quality of soils, health of soils, soil carbon, greenhouse gases: A careful assessment of soil quantity and quality is important for decisions with regard to agriculture, forestry, housing and infrastructure.
- Biodiversity, organismic and genetic resources: Biodiversity is a "life insurance" for a sustainable development.
- Water, water cycle: Water is a key issue particularly from the viewpoint of climatic change.
- Pollutant degradation, filtering and immobilization capacity: Healthy soils and water bodies are only possible if natural purification processes are active.
- Prevention of erosion and mud slides, natural hazards: Loss of fertile soil has to be avoided.
- Intrinsic values of soils and landscapes: Intrinsic values (e.g. aesthetic, cultural and social values) are of paramount importance for the wellbeing of society.

How to become active?

Get in contact with your INSPIRATION national contact to express your interest in collaborative funding of research to increase understanding of natural capital and ecosystem services

