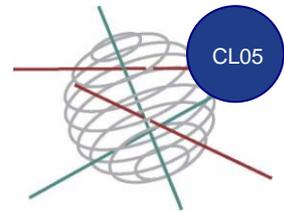


BEES



Belgium Ecosystem Services (BEES): A vision for society–nature interactions.

Cluster of the projects WETMAT-MANUDYN-ADAPT-LUSI

DURATION OF THE PROJECT
15/12/2009 – 31/01/2012

BUDGET
99.227 €

CONTEXT

Ecosystem services (ES) are the humans benefits derived from ecosystems. Since the Millennium Ecosystem Assessment (2005), many initiatives were taken to further develop this concept theoretically and to make it operational in daily policy. In Belgium, there is an urgent need to gain more insight into local ES. A crucial step is to bring together existing knowledge and expertise to inventory knowledge on the many important ES they deliver (provisioning services, such as fish, shellfish, reed,...; regulating services, such as water regulation and water purification,...; supporting services, such as primary production, nutrient cycling,..; and cultural services, such as recreation).

The ecosystem services concept has an enormous potential to reach a sustainable management of our open space and nature landscapes. Finding a balance between eco- and anthro-centric values has been always a difficult exercise. The ecosystem services concept shows that this contrast is only an appearance. Considering nature and landscapes as producers of ecosystem services is a promising concept which helps to value more the nature and the landscapes. The continued degradation of ecosystems may have important economic and social impacts. The systematic replacement of “free” ecosystem services by expensive technical solutions leads to a larger organisational and financial cost for the society. The ecosystem services concept offers a unique framework where social, economic and environmental aspects can be integrated. Moreover the economic valuation of ecosystem services offers clearly possibilities to evaluate the social and economic values of ecosystems and in this way to play a role in policy making. Building such process of valuation of ecosystem services is only possible by using the present basic knowledge. Both the social demand for ecosystem services as the ecological mechanisms which provide those services, are subject to a large variability and heterogeneity.

PROJECT DESCRIPTION

Objectives

By use of this cluster, we want to stimulate research on ecosystem services (ES) in Belgium. In comparison with the neighbouring countries, in Belgium still no large initiatives related to ES-research has been initiated. To bring research on ES in Belgium to a higher level, there is need to structure this research. Concrete objectives are:

- Bring together key scientists, policy makers and organizations that are either already involved with ES-research or who might catalyze the ES-research.
- Make an inventory on the ES expertise (who's doing what).
- To get a state of the art of ecosystem service related research in Belgium and to bring forward a methodology that could be used as a basis for an ecosystem assessment of Belgium.
- Evaluate the opportunity to establish a “virtual” research institute on ES research in Belgium, covering the necessary expertise to contribute to large international research initiatives.
- Formulate recommendations for scientific programs and policy objectives.

Methodology

The core of this project is workshops which cover the different themes of ES-research. The workshops are in English and at least one foreign specialist per theme is invited as keynote speaker. The form of the workshop could vary (presentations, brainstorming, debate) depending on the objectives of the workshop. After each workshop, a summary made by the coordinator will be integrated as a chapter in the final report.

The co-authorship of this chapter will be shared by all workshop participants, what promotes also cooperation with partners outside the consortium.

In First stance we make an inventory of existing expertise. Past and present projects that are related to Ecosystem services are included in the BioBel research database. By use of this inventory, we are capable to invite all relevant actors at a series of workshops that deal with specific aspects on ES-research.



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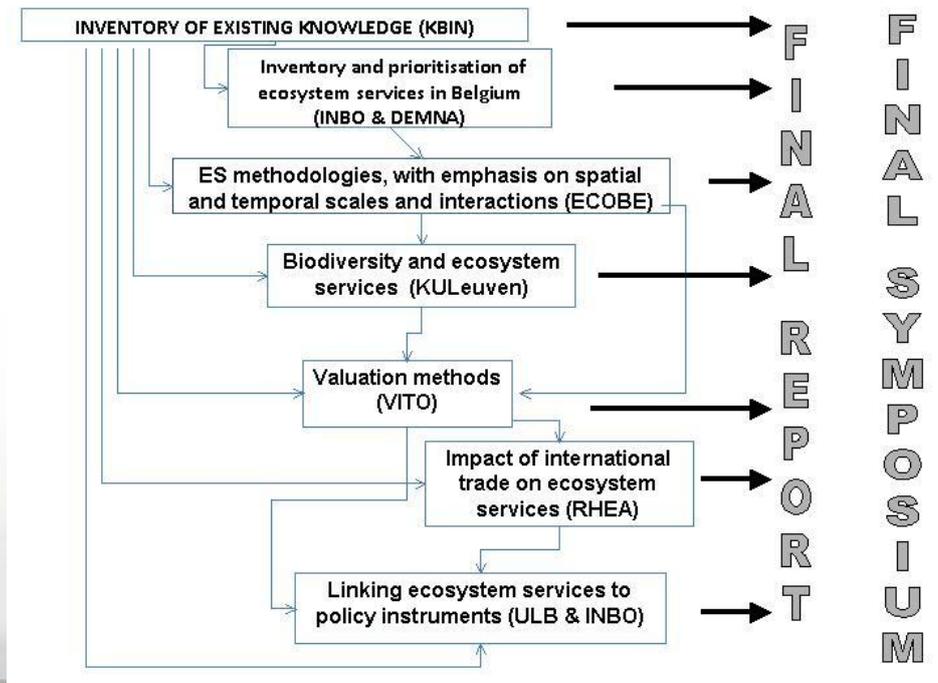
1. A first workshop covers the inventory outcome and aims to identify which ES need to be prioritized in the Belgian context. Indirectly this determined which ecosystems and processes have research priority for research and monitoring of ES.
2. The second workshop covers the state of art in terms of methods to assess the variability and heterogeneity of ES-delivery on different scales. ES are delivered by complex interactions, processes and mechanisms that occur on different spatial scales and temporal dimensions (seconds, hours, days, and years). In addition, the demand for ES is also dependent on spatial and temporal dimensions. Knowledge on this subject is crucial to determine the quantity and timing of effective ES-delivery.
3. The third workshop has a specific focus on the role of biodiversity on the generation of ES. Biodiversity in all its aspects (habitat-diversity, abiotic diversity, species etc...) has a positive effect on ES. Through which mechanisms does biodiversity promote ES, what are the most crucial aspects and how to evaluate biodiversity in the ES-context?
4. The fourth workshop deals with valuation methods for ES. Which methods are most suitable and how do we deal with spatial and temporal aspects in the valuation of ES? How do we value biodiversity and the option value of potential ES?
5. The fifth workshop brings the attention to the impact of international trade of ES. Mostly unaware, we are all intensive users of ES that procure from elsewhere. Also, we are exporting certain ES to other nations.
6. The sixth workshop aims to bridge the gaps between ES-research and policy development.

A final symposium will be elaborated in close cooperation with the funding agency (BELSPO) and has the objective to communicate the outcome of the project to a broad public (non experts, policy makers, NGO's etc.).

INTERACTION BETWEEN THE DIFFERENT PARTNERS

It is our profound belief that advances on ES research cannot only depend on large-scale initiatives and a top-down knowledge transfer. Like ecosystem services, there are scaling issues involved. The ecosystems in our region might differ from those in other regions, both in terms of ecological aspects as from a socio-economical viewpoint. To put Belgian research on ecosystem services on the international map, there is a need to structure and focus the research initiatives within the Belgian context. Within this cluster this will be put into practice since all WP are strongly linked and interdependent (Fig. 1)

Figure 1 : An overview of the workshops and their interrelations



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EXPECTED OUTCOMES

The cluster brings together several key players in the field, covering both academics and institutions, and natural and human sciences. As it is impossible to include all relevant partners in the proposal several workshops will be organised to be able to reach all relevant actors. In this way, the cluster will stimulate the dialogue and exchange of ideas between scientists of human sciences (economist, sociologists, lawyers) and natural sciences (ecologists, environmentalists, agronomists), civil servants, environmental NGOs, international organisations and the private sector. It will help Belgian scientists to get an international authority in this research field and to prepare European research projects. As leading foreign scientists will be invited to workshops, it will be an opportunity for Belgian researchers to discuss their ideas with them and to propose common research projects. Finally, as this cluster is also linked to the dedicated research projects that will be granted under call 5 of SSD this should allow us to bring forward a new vision on a truly integrated approach of the concept of ecosystem services and the possibilities to incorporate this concept in policy and management. Every workshop will result in a chapter of the report/book on "Ecosystem assessment in Belgium", the outcome of this project. To disseminate the results, the cluster will organise a final symposium in cooperation with BELSPO.

PARTNERS

Activiteiten

UA has vast experience in the field of ES. The project for restoration of the Scheldt estuary is based on research done by UA. The rationale of this restoration project was the optimization of ES of the estuary. The economic valuation of this project was done by VITO and both research groups have worked together in several projects on ES.

KULeuven has a long standing reputation in research on the relation between diversity and functioning. The INBO is responsible for the reporting of the state of the nature in Flanders and has extensive databases on all biota. INBO has also experience with societal aspects of ES.

DEMNA is the Walloon counterpart of INBO. The ULB partner carries out multidisciplinary studies on various aspects of environmental policies and strategies concerning sustainable development. It deals with the design and evaluation of these policies and actions, as well as their relationships with the technical, socio-economic or philosophical context of sustainable development.

KBIN carries out scientific research in the area of the natural sciences, mainly concerned with the study of evolution, diversity, and ecosystems.

RHEA carries out consultancy concerning natural resources, human environment and agronomy.

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