

# The Millennium Ecosystem Assessment: Implications for Belgium

Jurgen Tack Belgian Biodiversity Platform



# The Millennium Ecosystem Assessment: Implications for research

Jurgen Tack Belgian Biodiversity Platform

## The Belgian Biodiversity Platform



- Facilitates access to primary biodiversity data
- Provides access to biodiversity research information
- Encourages interdisciplinary cooperation among scientists
- Promotes dissemination of research results to policy makers and stakeholders
- Serves as an interface between researchers and science policy organisations



## The Belgian Biodiversity Platform



- The Belgian Biodiversity Platform serves as an interface between researchers and science policy organisations
  - Advise on research priorities (national, international)
  - Representation of the Belgian biodiversity research interests within national and international organisations
  - Belspo, EPBRS, DIVERSITAS, EEA





#### Research priorities:

- Better understanding how biodiversity relates to ecosystem functioning
- Better understanding how biodiversity & ecosystem functions relates to the provision of services
- Impact of environmental change on ecosystem services
- Impact of changing ecosystem services on human well-being
- Management related research
- Scale issues

#### Communication:

- Science-policy interface
- Stakeholders, public?





Overview and classification of ecosystem services in Belgium

- Better understanding how biodiversity relates to ecosystem functioning
  - Research to study the effect of biodiversity changes (species loss) on ecosystem functioning
  - Research on resilience and stability of ecosystem functioning
  - Need to include field experiments





- Better understanding how biodiversity & ecosystem functions relates to the provision of services
  - Identification of ecosystem functions underpinning the provision of goods and services (relationship with biodiversity)
  - Research on environmental limits of acceptable change (how much change in biodiversity)
  - Development of tools allowing valuation of ecosystem goods and services reflecting as well total economic value of ecosystems as biological value (intrinsic biological value)
  - Valuation of the functional role of the bio-indicators





- Impact of environmental change on ecosystem services
  - Identify the different sources of disturbance and their impact on ecosystem services
  - Assessment of the impact of climate change, land use change, invasive species, overexploitation and pollution on ecosystem services
  - Quantify tolerance of major drivers/pressures on biodiversity, ecosystem goods and services
  - A better quantification of losses and desired levels of ecosystem services





- Impact of changing ecosystem services on human well being
  - Research on how we can manage environmental change in terms of ecosystem services
  - Development of interdisciplinary tools for assessing the value of impacts of changes in ecosystem services on human well-being



- Management related research
  - Models and/or scenarios to study the effects of environmental change and/or management changes on ecosystem services
  - Experimental testing of management options
  - Research on restoration of ecosystem degradation and system management





#### Scale issues

- Reserach on scale effects
  - No single ideal scale for multipurpose ecosystem assessment
  - Interactions take place at multiple scales
  - Choice of scale is not politically neutral

#### Time horizon

- Collection of relevant data; data archives (- 50 years)
- Long-term data series
- Development of scenarios (+ 50 years)
- Development of analytical tools for past and future trends





- Communication:
  - Science-science interface
    - Scientific credibility: large involvement
    - Low involvement of European researchers
    - MA methodology not known
    - Research funding opportunities in the 1st call of FP7 theme 6 (Dec 2006)
    - EEA plans an European ecosystem assessment by 2012
    - Belgian expertise in environmental assessment available through different NoE: MARBEF, ALTER-Net, Edit
  - Science-policy interface
    - Balance sheet
  - Stakeholders, public?



## What can the Belgian Biodiversity Platform do for you?

#### Facilitate access to primary biodiversity data:

We contribute to international initiatives that develop distributed systems of databases such as the Global Biodiversity Information Facility (GBIF) and the Antarctic Marine Biodiversity Information Network (SCARMarBIN).

As national node to GBIF, we offer IT support to researchers in developing their databases holding primary biodiversity data.



Provide access to biodiversity research information:

We develop and update BioBel, a reference database on Belgian biodiversity research and resources.

We provide access to information on European and international research organizations, funding programmes and calls in the field of biodiversity research through the BiodivERsA database.

Encourage interdisciplinary cooperation amongst scientists:

We manage thematic forums, organize workshops and publish scientific documents on topical issues together with the scientific community.

Promote dissemination of research results to policy makers & stakeholders:

We organize thematic events, provide experts' reports and recommendations to policy makers and stakeholders.

Serve as an interface between researchers and science policy organizations:

We advise on research priorities at the national and international level.



We represent Belgian biodiversity research interests within international organizations. As such, the Platform is the secretariat of the European Platform for Biodiversity Research Strategy (EPBRS) and the National committee of the international biodiversity programme DIVERSITAS.

