Integrated Assessment of Ecosystem Services in the Czech Republic

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Introduction

Ecosystem services assessments represent substantial contribution to developing knowledge on the state of the environment and sustainable management of natural capital. After global and sub-global assessments of Millenium Ecosystem Assessment, actual scientific and even policy demand (e.g. EU Biodiversity Strategy 2020, Action 5) tends to initiate and conduct studies at lower, national scale, such as UK NEA or national TEEB initiatives. Following this trend, integrated assessment of ecosystem services is being conducted in the Czech Republic.

Main Aims:

- the identification and valuation of ecosystem services available in the Czech Republic
- the valuation of market and non-market benefits
- the comparison of values of natural and human-modified ecosystems
- the description of main drivers influencing delivery of benefits to society

THE STUDY AREA

Methods

We apply a habitat approach to ecosystem accounting, which is based on a classification of habitat types.

The study will draw heavily on the benefit transfer. To reduce generalization errors (Liu et al. 2010), we follow

- specific strategy for literature review
- stated criteria for values transferability (filters).

ASSESSED ECOSYSTEMS

ASSESSED SERVICES

Climate regulation	Erosion regulation	Crops	Fish prod.
Air quality regulation	Moderation of extreme events	Water	Game prod.
Water quality regul.	Control of invasive sp.	Timber	Medicinal resource
Regul. of water flows	Pest control	Livestock prod.	Aesthetic value
Waste treatment	Pollination	Biomas prod.	Recreation

INPUT DATA

- Databases of peer-reviewed scientific literature
- The TEEB valuation database
- *Benefit transfer*
- Czech Statistical Data

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DATABASE

Spatial identification	Ecosystem classification	Services classification	Services valuation	Source
GIS	7 types, 38 habitats	20 services	- Biophysical value - Economical value	

Expected Results

Two main outputs:

- the database combined with spatially explicit information regarding particular habitats
- certified methodology on integrated assessment of ecosystem services in the Czech Republic

An implementation of the methodology by Czech decision makers and advisors is expected to have considerable potential to improve natural resource management, urban planning and sustainable landscape use in the Czech Republic.

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