



PROGRESS
Interreg Europe



European Union
European Regional
Development Fund

1st theme: Promote the measurement of the costs and benefits of ecosystem services derived from land use

LIFE Ecosystem Services: Ecosystem Services Assessment Methodology

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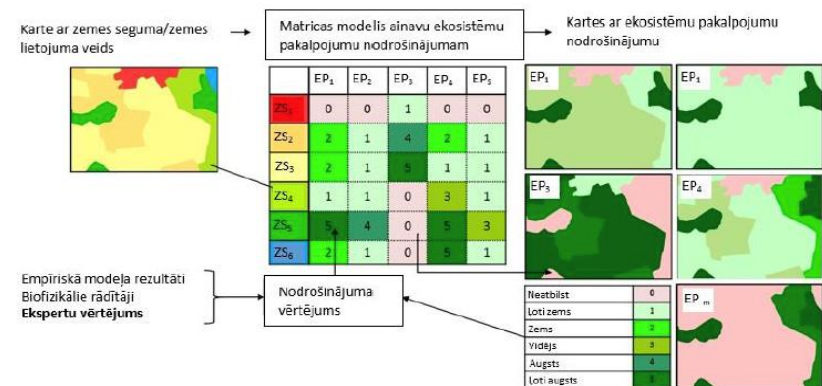
Barcelona (Riga), 31.03.2020.

The essence of Good Practice

- Ecosystem Services Assessment Methodology (ESAM)
 - Biophysical assessment
 - Economic assessment
- For municipalities of coastal areas for:
 - Spatial planning
 - Nature protection planning
 - Improvement of decision making processes

Ecosystem Services approach – biophysical assessment

- Identification and assessment of ecosystems, habitats and areas
- Identification of resources and ecosystem services – (provisioning services, regulating services, cultural services – identified by experts)
- Development of indicators
- Assessment of ecosystem services – carried out by experts
- Mapping of ecosystem services

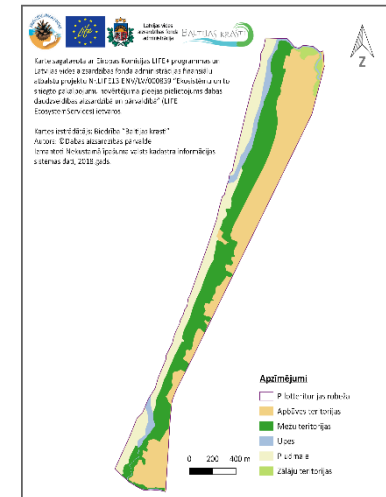
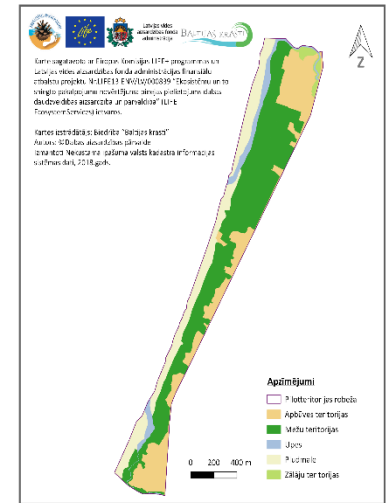


Ecosystem Services approach – economic assessment

- EUR/ha/year
- Economic assessment is based on 3 assessment methods:
 - **Direct Market Pricing (DMP)** – monetary value which is determined and paid for goods and services on the market;
 - **Benefit Transfer Method (BT)** – used to estimate economic values by transferring information available from other studies performed in a similar location/context;
 - **Travel Cost (TC)** - the total costs of time and travel that people have spent during their visit to a place.

Ecosystem Services approach – development scenarios

- Assessment of changes in the value of ecosystem services by modelling development scenarios
 1. Zero scenario (situation will remain unchanged (as it was before the project was implemented))
 2. Development by improving environmental education and recreation opportunities (*Development of Nature Design Park*)
 3. «Uncontrolled» development of pilot area (development by increasing building territories)

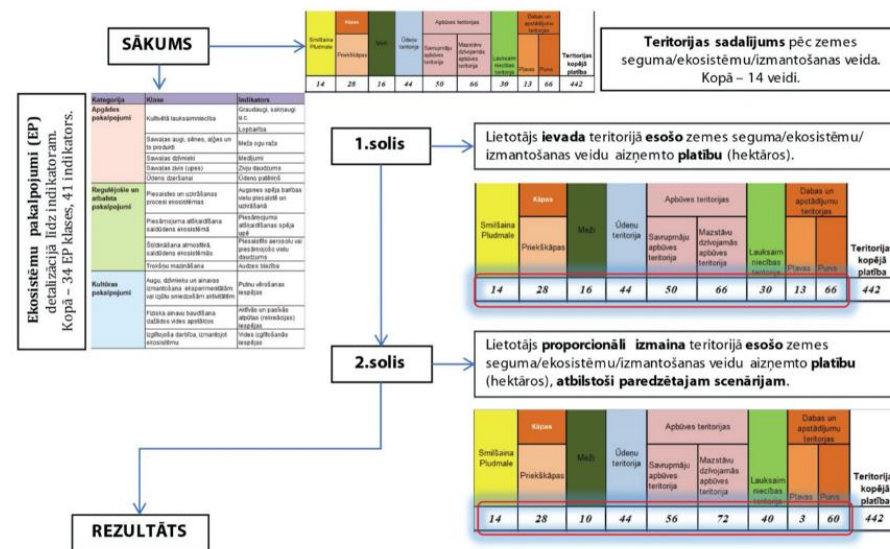
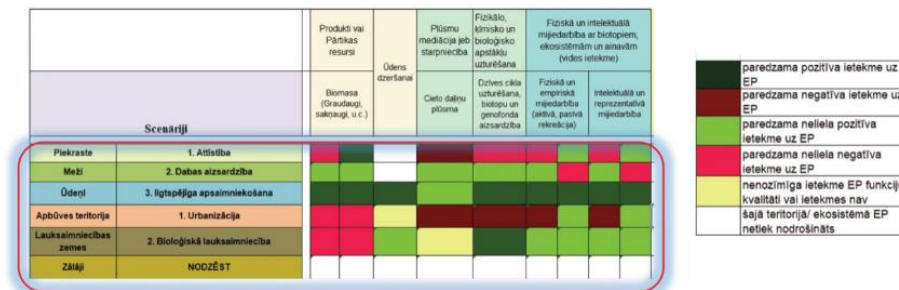


ESAM – Case of Latvia - results

- 22 indicators developed:
 - Provisioning services – 5 indicators (Forest berry yield, Number of lamprey traps, Medicinal plants, ...)
 - Regulating services – 13 indicators (Stand density, Air quality, Insect-pollinator diversity, River water quality, ...)
 - Cultural services – 5 indicators (Bird watching opportunities, Environmental education opportunities, ...)
- Biophysical and economic assessments carried out for pilot implementation areas – Saulkrasti and Jaunķemeri
- Recommendations for policy planning documents:
 - Recommendations developed and integrated in Saulkrasti municipality Development Programme 2014 – 2020; the results will be used for the following planning period (2021-2027) as well;
 - Recommendations developed and integrated in Nature Management Plan for Natura 2000 site - Nature Park “Piejūra”
- Approbated Cost-Benefit Analysis in Saulkrasti pilot area

Support tools for using the ecosystem service approach in planning

1. Management Strategy Model
2. Territory Planning and Modelling Model
3. Ecosystem Services Economic Valuation Model



Added value

Ecosystem services assessment helps to:

- calculate investment in environmental protection;
- provide different spatial development scenarios;
- make better negotiation with different groups of society;
- identify economic value of nature and its contribution to the society;
- choose the most sustainable spatial development options;
- determine and compare investment economic efficiency on the ecosystem;
- calculate costs of the environmental damage;
- evaluate different ways of ecosystem management such as land use etc.;
- raise awareness about ecosystem services and their linkage with the social and economic well-being.

Transferability of GP to partner regions

- The methodology of ecosystem services approach provides **potential monetary measurements of ecosystem services allowing to compare ecosystem services**
- Even though GP has greater potential to be transferred to **coastal areas**, framework of methodology can also be used to evaluate ecosystem services in non-coastal areas adjusting the indicators of 1) provisioning services; 2) regulating services; and 3) cultural services
- Potential **change in policy planning documents**

Additional information

GP (project) webpage: <https://ekosistemas.daba.gov.lv/public/eng/>

Toolkit for application of ecosystem services approach in planning:
<http://riks.ekosistemas.daba.gov.lv>

Short film «Ecosystem services» (Latvian with English subtitles):
https://www.youtube.com/watch?time_continue=19&v=RNiWe7j-c3Y&feature=emb_title

Short film «Ecosystem Services evaluation» (Latvian with English subtitles):
https://www.youtube.com/watch?time_continue=6&v=cLbO236dw_Q&feature=emb_title

Short film «Ecosystem services assessment – a tool for spatial planning»
<https://www.youtube.com/watch?v=IbNQkM0UJDg&t=2s>



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Thank you for attention!

Questions...



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