Towards ecosystem services-inclusive environmental assessment processes

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Integrating ecosystem services in land use planning

The Ecosystem Services–inclusive environmental assessment processes

Towards ecosystem services–inclusive environmental assessment processes
Environmental assessment processes

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1. “Component” or “Philosophy”?

- One stream considers ecosystem services as **elements** that need to be integrated into traditional EA content.

Baker et al., in press

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Another stream proposes to use ecosystem services to re-frame EA content.
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«Traditional» framing

ES-focused framing

Karjalainen et al., in press
2. Scale and spatial relationships

P: Area of production of ES

F: Area of fruition of ES

Boundary of the project/plan/policy region

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Plan objectives

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<th>Increase competitiveness in the nature tourism sector</th>
<th>Increase competitiveness in the timber sector</th>
<th>Reduce exposure to natural risks</th>
<th>Protect areas with high natural value</th>
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Ecosystem services
- Climate regulation
- Water regulation and supply
- Waste treatment
- Soil formation
- Erosion control
- Raw materials
- Cultural
- Recreation
- Food production
- Disturbance regulation
- Refugia

- Interaction extends beyond the boundary of the area being planned

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• Addressing scale issues implies identifying other relevant decision levels, and coordinate actions with them

(in EIA/SEA jargon: compatibility test)
3. Bias towards some ES categories

References to ES in a sample of EIA

Honrado et al., in press
4. Improving the treatment of causal links

Honrado et al., in press

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5. Methods heterogeneity

- Methods of analysis (e.g., economic valuation) and reliability of results **vary largely**: the validity of the assessment can be challenged
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