

Participatory valuation of Ecosystem Services (ES) aligned with The Economics of Ecosystems and Biodiversity (TEEB) approach



Introduction

People rely on ecosystems to provide many beneficial services. The beneficiaries of ES and those who own and manage landscapes that produce them play a key role in ES analysis. They identify the services they receive from a water body and its catchment. Non-monetary valuation relies on perception and values of these stakeholders. The ES framework aims to support informed decision making by explicitly linking the goods and services produced by functioning ecosystems to human well-being.

The IMPLICATIONS Module aimed to value ESs in the case-study basins, by means of integrated modelling, development of methodologies for socioeconomic management, and economic valuation.

Challenges

- ▶ Natural capital valuation
- ▶ Ecosystems assessment
- ▶ Stakeholder participation
- ▶ Evidence-based decision making

Activities

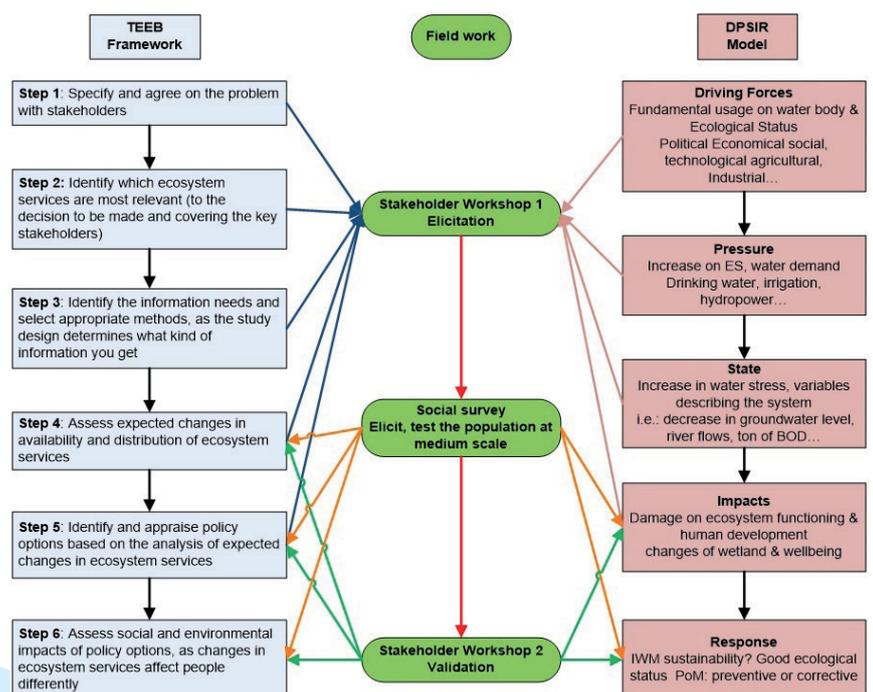
1. Policy review and appraisal
2. Ecosystem Service identification and quantification
3. Scenario development (Sustainable and Myopic) and downscaling to case study level
4. Ecosystem Service prioritisation and assessment
5. Preliminary assessment of a monetary value to a change in the provision of ESs

Approach

The research adopted a mixed approach using both quantitative and qualitative methods.

ESs such as water provisioning, erosion control, waste treatment, water purification, and habitat for species were quantified in biophysical units using the InVEST model; while stakeholder workshops across all six case study regions were carried out in order to identify the most relevant for each particular river basin.

Finally econometric methods were used to determine the value of these services under various scenarios.



Scientific results

While the most relevant ESs across all case studies resulted as water provisioning, soil erosion, habitat for species and recreational services, it was found via the downscaling process (based on literature and data acquired from stakeholders) that value attributed to the different ESs varied from one river basin to another. The policy appraisal revealed inconsistency between the key ES threats and pressures to be addressed via the Programmes of Measures proposed within the various River Basin Management Plans.

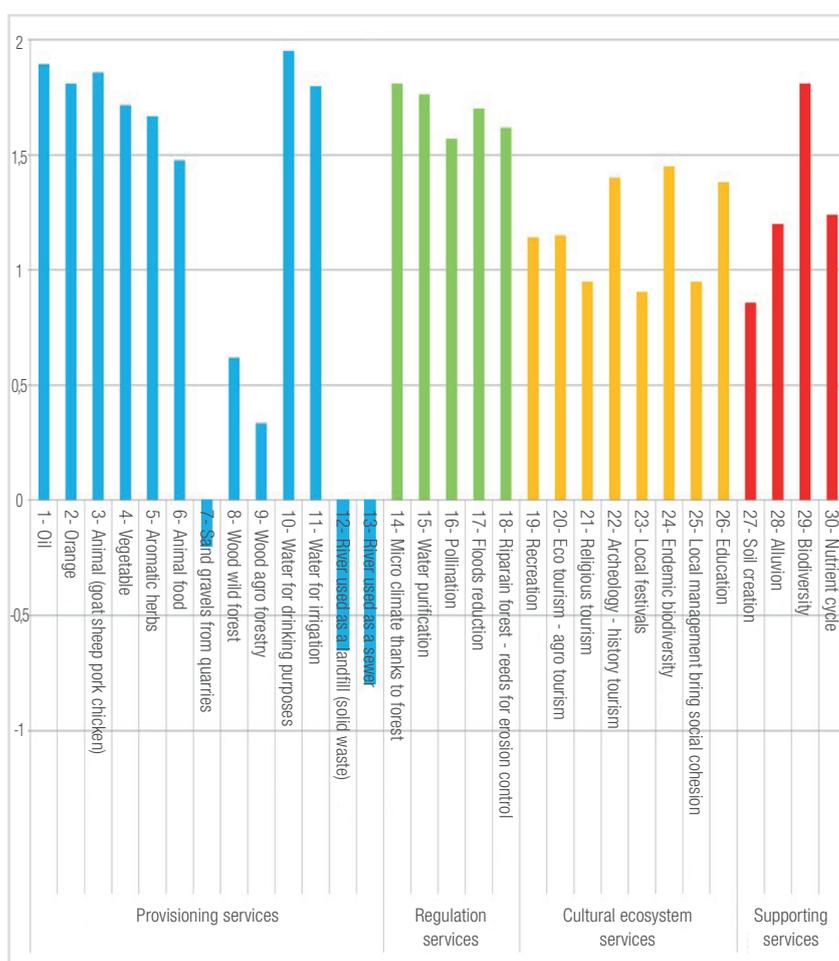


Figure 3.1. Stakeholder prioritization of ESs in the Evrotas river basin

References

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Key outcomes

- ESs are not currently appropriately considered within the WFD
- The link between key ESs, their threats and the pressures addressed by the relevant policy is undefined
- Regionally appropriate methods for valuing ESs are currently not implemented
- Stakeholder insight and contribution to the valuation process is vital

Recommendations

For Policy Makers:

- Greater emphasis needs to be placed on embedding ESs within all relevant natural resources management policy
- One-size-fits-all valuation methods will fail to capture the eccentricities at lower scales of analysis and assessment, as such downscaling must comprise an essential part of the process
- Stakeholder participation is key and the relevant beneficiaries need to be drawn into the policy making process in a more meaningful manner than mere consultation

For River Basin Managers:

- Greater capacity and awareness must be developed in the application of natural resource valuation methods for optimal resource management, e.g. through training workshops
- More open lines of communication and dialogue with beneficiaries within the river basin districts is required; not only to aid implementation of policy directives, but also to serve as a feedback loop to inform bottom-up policy intervention and improvements