



Economic valuation of the riparian landscapes of transitional waters – LT/RU

1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space

2. Key approaches

- Knowledge based
- Socio-economic

3. Experiences that can be exchanged

Although the economic valuation is time- and resource-demanding, yet it is very effective in delivering adequate economic values of the total use values of landscapes and habitats. Economic valuation is very useful tool in providing necessary information to weight the public support of various riparian landscape and habitat management and conservation policies against their costs. Hence, it is indispensable in the feasibility studies of the riparian landscape and habitat management and conservation programs for the trans-boundary transitional bodies under stress (e.g., the South Baltic coastal lagoons and the Sound).

4. Overview of the case

In 1997, 2003 and 2009, the staff of the Department of Recreation and Tourism has conducted recurrent economic valuation of the riparian landscapes of the Curonian Lagoon. The priority focus was on the economic valuation of the shifting dunes of the Curonian Spit and the wetlands of the Nemunas Delta, i.e., the most important landscapes and habitats for preservation of environmental integrity, identity and touristic attraction of the trans-boundary Curonian Lagoon region. In contingent valuation survey randomly selected respondents were asked about their real willingness to pay certain amount as a lump sum for the conservation of the landscapes of the Curonian Spit or the Nemunas Delta.

5. Context and Objectives

a) Context

Conservation and management policy of the riparian landscapes and habitats of the transitional waters on different administrative levels and particularly in the trans-boundary context is very much dependent on two inter-related factors:

- Availability of funds.
- Public attitude towards the necessity of landscape management and conservation.

The key precondition to gain wide public acceptance for technical, financial and policy measures of conservation and management of the riparian landscapes and habitats of the transitional waters (particularly, wetlands and shifting dunes) is to show social and economic inter-relationships between costs and benefits of the undertaken efforts. This precondition is especially important in the times of economic and financial crisis.

It is widely accepted that the direct and indirect economic valuation of active and passive use economic values of landscapes and habitats, particularly, the contingent valuation, could provide the best evidence shaping positive public attitude towards allocating public funds for their conservation and management (Venkatachalam, 2004).

Following this assumption, economic value of environmental goods and services is a measure of the relative importance which individuals place on the quality of their living environment, biological diversity, aesthetic attractiveness of landscapes or other environmental goods and services associated with 'nature'.

b) Objectives

1. To investigate and practically apply different methods of economic valuation for the elicitation and comparison of active and passive use economic values of the adjacent riparian landscapes of the Lithuanian part of the Curonian Lagoon.
2. To develop recommendations for including economic valuation into standard appraisal and decision-taking procedures related to riparian landscape and habitat conservation and management and the transfer of the methodology to the Russian part of the Curonian Lagoon.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

EU currently provides large amounts of Structural and other funds for landscape and habitat conservation, particularly on the sites designated as NATURA 2000 areas. These sites cover the better part of the Nemunas Delta and the Curonian Spit on the Lithuanian side of the border. However, the situation is rather different in the Russian parts of the Nemunas Delta and the Curonian Spit as the Government of the Russian Federation focuses on active use values of riparian habitats (agriculture for the floodplains and tourism for the dunes) in its landscape management policy. The long-term goal of the implementation of the trans-boundary approach in the riparian landscape and habitat conservation in the Curonian Lagoon region is to ensure the coherence of habitat and landscape conservation policy on both sides of the border, both, in Lithuania and in Russia. Such coherence could be ensured by coherent efforts in economic valuation of costs and total (active and passive) use values of the riparian landscape and habitat conservation in the Curonian Lagoon region.

b) ICZM tool

The economic valuation study involved recruitment of the professional staff from the EUCC Baltic Office, EUCC – Italy and Department of Recreation and Tourism of Klaipėda University. The contingent valuation survey was conducted by volunteers mobilized by the EUCC Baltic Office. Such management approach ensured a nation-wide scope of the study: the contingent valuation survey covered a representative sample of the Lithuanian population (over 1000 respondents living in various places of the country). The conducted recurrent economic valuation study enabled developing and practical testing of methodology for the elicitation of non-use values of the riparian landscapes as one of the key socio-economic decision-support tools for the ICZM of the Curonian Lagoon. The methodology enables weighting the public support for different riparian landscape and habitat conservation policies in relation to their costs. Contingent decisions of the respondents on the willingness to pay for the conservation of the riparian landscapes are economically realistic, i.e., the demand for the riparian landscapes as specific environmental commodities is either bid- restrained or income-restrained. The economic value of the riparian landscapes, which is elicited in the realistic income-restrained decision framework, should be interpreted as a total passive use value rather than a total economic value of landscape or habitat.

7. Cost and resources

Complete costing is not available

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The results of the study allowed weighting the public support and benefits of various riparian landscape and habitat conservation policies against their costs in the Lithuanian part of the Curonian Lagoon Region. By applying the coherent systematic cross-border economic valuation survey in both parts of the trans-boundary area valuable comparative data on the conservation priorities in both neighboring countries could be elicited and differences in priorities understood.

9. Success and Fail factors

The success factors for the economic valuation (particularly, contingent valuation) studies are listed in the seminal recommendations of the ‘Blue Ribbon Panel’ (Arrow et al., 1993). The Panel concluded that contingent valuation studies convey “useful information” for economic values of any riparian landscapes and habitats, including the accidental damage assessment, which is comprised of the lost passive use values, provided they follow a number of “stringent guidelines”. These guidelines first of all include: (1) the use of rigorous probability sampling with a high response rate, (2) in-person interviews, (3) a discrete choice referendum elicitation format, (4) accurate description of the management and conservation program or policy, (5) conservative questionnaire design, (6) checks on respondent’s understanding and acceptance, (7) debriefing questions following the referendum questions, and (8) careful pre-testing.

Some economic valuation survey biases can cause failure of the undertaken economic valuation efforts. Contingent valuation studies being the most realistic and comprehensive economic valuation studies are at the same time the most prone to survey biases (Venkatachalam, 2004): 1. Starting bid bias; 2. Information bias; 3. Hypothetical bias; 4. Free-riding bias; 5. Strategic bias; 6. Anchoring effect, to mention few.

10. Unforeseen outcomes

None as yet

11. Prepared by

R. Povilanskas, EUCC Baltic States Office, Lithuania

12. Verified by

N. Stybel, EUCC–Germany

13. Sources

Venkatachalam, L. (2004). The contingent valuation method: a review, *Environmental Impact Assessment Review* 24: 89–124

Carson, Richard T. (1999). *Contingent Valuation: A User's Guide*. UC San Diego: Department of Economics, UCSD. Retrieved from: <http://www.escholarship.org/uc/item/2mw607q7>

Carson, R.T.; Flores, N.E.; Mitchell, R.C. (1999). *Theory and Measurement of Passive-Use Value*, Kn.: I.J. Batemen & K.G. Willis (red.) *Valuing Environmental Preferences: Theory and Practice of the Contingent Valuation Method in the US, EU, and Developing Countries*, Oxford University Press: New York, pp. 97-130

McCollum, D.W., Peterson, G.L., Swanson, C.S. (1992). *A Manager's Guide to the Valuation of Nonmarket resources: What Do You Really Want To Know?* In: G.L. Peterson et al. (eds.) *Valuing wildlife resources in Alaska*, Boulder, Colorado: Westview Press.

Gren, I.-M., Söderqvist, T. (1994). *Economic valuation of wetlands: a survey*, Beijer Discussion Paper Series 54

Sessoms, H.D., Henderson, K.A. (1994). *Introduction to leisure services*, 7th ed., Venture Publishing.

Arrow, K.; Solow, R.; Portney, P.R.; Leamer, E.E.; Radner, R.; Schuman, H. (1993). *Report of the NOAA Panel on Contingent Valuation*, January 11, 1993 (manuscript), NOAA, 66 p.

14. Relevance for cross-border management of transitional waters

Coherent systematic cross-border economic valuation survey using a consistent and approbated methodology in both parts of the trans-boundary area could deliver valuable comparative data on the conservation priorities in both neighboring countries and enable better understanding of differences in policy priorities regarding conservation of different riparian habitats, upgrading water quality, resource protection or similar issues of reinforcement of the environmental integrity of the transitional waters.