



Biodiversity and Forest Recreation: Economic Valuation in Protected Natural Areas in Serbia

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Collaboration: University of Belgrade, Faculty of Forestry

Thematic action concerned: WP4

Context —

Long-term protection of biodiversity through Protected Areas (PAs) requires sustainable financial sources to cover management costs. Researchers and policy makers have suggested that tourism and recreational services could help funding the ever-growing number of protected areas. The traditional reliance on government sources to support PAs is often untenable, in both the developed and developing world. In the Republic of Serbia PAs represented 8.82% of total territory in 2018. The managers of Serbian PAs can be public or private but in both cases they face a lack of financial resources needed to maintain ecological and economic viability of PA management. There is a strong demand for studies that can contribute to the development of more sustainable

sources of funding, including increased user payment, as well as establishing a sound welfare economic basis for public funding.

Objectives —

The main goal is to assess the Serbian population's preferences for biodiversity protection in Serbia PAs. On the one hand, this will be used to justify the allocation of public budgets to PA management and, on the other hand, it will be the basis for the development of improved market-based mechanisms to finance biodiversity protection in natural areas. More specifically, the study aims to assess the demand for access to the PAs, including the determinants of this demand, which will allow: 1) to optimise the management of the PA according to the visitors' preferences and thereby attract more visitors, 2) to optimise the pricing of entrance fees, and 3) to guide marketing strategies. Furthermore, we aim to assess the so-called non-use values of biodiversity protection which include non-visitors' value of protecting biodiversity in the PA. Our hypothesis is that, due to non-use values, public funding will be needed to achieve social optimal funding of PAs, even with optimally set entrance fees. Finally, it is the objective to strengthen the research cooperation between BETA and the Faculty of Forestry of the University of Belgrade in Serbia.

Approaches —

By carrying out a survey of a representative sample of the adult population in Serbia, we can estimate both use values (for visitors or potential visitors) and non-use values of biodiversity protection in PAs in Serbia. The population's preferences will be assessed through the travel cost method (visitors) and a discrete choice experiment (all) imbedded in a questionnaire. The project provides a unique opportunity to compare not only results from stated preferences (discrete choice experiment) and revealed preferences (travel cost method), but also to compare with real transactions (entrance fees). This will represent an important contribution to the existing literature on economic valuation. The project benefits from an ongoing PhD study, which provides important data (e.g., PA management costs) necessary for the analysis.

Key results —

Preliminary results:

- Based on an on-site survey in selected protected areas a dataset is obtained with, among others, visitors' travel distance and willingness to pay higher entrance fees.
- A first version of a questionnaire for the survey of the general population has been developed and is being tested.
- Two researchers from BETA visited October 2022 the Faculty of Forestry of the University of Belgrade and two protected areas.

Main conclusions including key points of discussion —

The project progress is as anticipated. The survey of general public is planned to be implemented in spring 2023 and parallelly the data from the on-site survey will be analysed. The data from the national Serbian survey will be analysed in the fall 2023.

Perspectives —

The insight from the analyses of entrance fees to the Serbian PAs will benefit the project PERCEVAL (Lead by BETA and funded by INRAE TETRA program, Region Grand Est, and Metropolis Grand Nancy) where one of the objectives is to develop and test new mechanisms for financing environmental services from forest.

Valorization —

- Presentation of BETA's research on forest ecosystem services at a seminar at the Faculty of forestry in Belgrade.