

THE TRAGEDY OF LOCAL – USING DISCRETE CHOICE METHODS TO INVESTIGATE HOW SPATIAL-HETEROGENEITY OF PREFERENCES MAY LEAD TO SOCIALLY SUBOPTIMAL ALLOCATIONS WITH RESPECT TO NATIONAL PARKS

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The Białowieża Forest (BF) is the last remnant of a natural deciduous, temperate forest ecosystem at European lowland. The Białowieża Forest is located on the border between Poland (58 000 ha) and Belarus (67 000 ha). The Belarusian side of the Białowieża Forest is fully protected as a national park. On the Polish side, the Białowieża National Park (BNP) comprises only 17% of the forest (10 500 ha). The forest outside the BNP has very high natural value – about 25% is covered with stands that are over 100 years old, while additional 30% is covered with 80-90 years old stands that developed naturally on old, non-replanted clearings. There is no other forest in Europe with such a large surface representing a well-advanced natural succession after the historic clearing of natural stands. Despite its uniqueness and numerous actions undertaken by NGOs, ecologists and the Ministry of Environment, the national park still does not cover the entire area of the Białowieża Forest. All the initiatives failed because the enlargement was not accepted by the local communities. In this paper we test the hypothesis that the current law that gives the local communities the right to obstruct the national park enlargement leads to large social losses.

To test the hypothesis a choice experiment study was undertaken. The experiment was run on three subsamples representative for: communities living in the proximity of the Białowieża Forest, the larger Podlaskie region (without communities living close to BFP) and national population (without the Podlaskie region). The main aim of this CE study was to elicit preferences in these three samples for different conservation regimes. We estimated a pooled level model in which the differences in preferences between these three groups were tested. To account for possible differences in the scale parameter and preference heterogeneity a state-of-the-art Generalized Mixed Logit model was used.

Our results indicate that there are no statistical differences in respondents' preferences at the national and regional level. Both groups support BNP enlargement and are willing to pay for maximum protection regime of BPF. The local communities have significant and negative willingness to pay for increasing protection regime. Our results indicate that the current situation is not socially optimal. Social benefits associated with BNP enlargement are much larger than costs including minimum compensation required for the local communities.