

Danish citizen's preferences for buffer strips: An economic valuation study

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Abstract: Riparian buffer strips, i.e. unfertilized buffer strips along waterbodies bordering agricultural land, have been the topic of a heated political debate in Denmark in recent years, and the regulatory requirements governing these have been subject to frequent revisions. Apart from the indirect use values related to reducing the impact of agriculture on the aquatic environment, buffer strips provide benefits in terms of direct use values related to e.g. recreational use and landscape values, which can be assumed to vary depending on the characteristics of the buffer strip. The benefits relating to the direct use of buffer strips are often estimated on a single waterbody level, making evaluation of the effect of broader policies difficult. This paper investigates the benefits of different types of buffer strips on a regional level. In a discrete choice experiment we ask respondents in Denmark to value a change in the current buffer strip regulation in the region where they live. Our results show large differences in the benefits from buffer strips depending on how they are designed. Furthermore, we attempt to link preference for buffers strip characteristics to spatial variables, such as distance to closest waterbody and the current status of the waterbodies near the respondent, as well as aggregate variables for the region. The results from our study provide valuable information to policymakers regarding the design of future buffer strip regulation, both on what the characteristics of optimal buffer strips are, as well as how the regulation should be spatially differentiated.

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