Spatially-explicit model of the Baltic Sea based recreation demand – identifying recreational hotspots

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Abstract:

Recreation in coastal areas has been growing over the past decades, and is becoming a key factor in the European regional development. Coastal recreational activities are primarily dependent on socioeconomic factors as well as environmental quality (e.g. water quality) and coastal site characteristics. Baltic Sea, one of the largest semi-enclosed brackish water bodies in the world, provides essential recreational opportunities to the surrounding nine riparian countries. Taking into account non-market services (such as recreation) can play an important role in coastal management such as in connection with the implementation of the Marine Planning Directive.

This study uses data from a 9-country survey of the Baltic Sea based recreational activities to estimate a random utility-based destination choice model. The spatially-explicit approach allows us to derive reliable estimates of welfare generated by each of the visited coastal sites and to present the first heat map of the distribution of recreational values. We then compare these site-specific values with results of a non-spatially explicit TCM conducted by Czajkowski et al. (2015), where the Baltic Sea coast is represented as one site per country.

Spatially explicit site values indicate values of access in the range of a few cents per visit to ca. 15 euros around the Baltic Sea coastline. Highest per visit site values are found in Finland, Lithuania and Latvia and lowest per site value in Denmark.