

Modelling leisure day trips between Berlin and its surrounding

The paper describes the development, application and validation of a quantitative spatial model for leisure day trips from Berlin into the surrounding regions.

Leisure activities can contribute substantially to the economies of rural regions like the surroundings of Berlin, but these activities are also often very sensitive to environmental quality, which is usually negatively affected by the traffic caused by the leisure travelers... A model of the spatial distribution of leisure day trips can help to develop planning and management strategies in order to reduce these potential conflicts.

Existing studies estimate the number of day trips from Berlin to the region of Brandenburg at about 36 Mio per year and provide some general information on activities, mode choice and destinations. In this paper, these demand-oriented figures are combined with attraction-related datasets and mode dependent travel time information of all potential destinations in order to develop a GIS-based spatial distribution model of leisure day trips. This model is then calibrated and validated using independent datasets, e.g. traffic census data.

The results produced by the model are in good accordance with the validation data and clearly show the close relationship of accessibility by different means of transport and relative attractiveness of the destinations. By combining the model output with other datasets (e.g. about overnight tourism), regions of potential can be identified. The model could easily be adopted to evaluate the effects of future infrastructure and management measures.