Spatial-econometric analysis of landowner participation in voluntary forest conservation programs.

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A principle threat to terrestrial biodiversity is the lack of proper habitat. For many industrialized countries a long-standing history of intensive land-use has left a fragmented landscape with only few undeveloped areas. Denmark is a prime example of this. A great share of the remaining habitat is privately owned, leading species conservation in the hands of private landowners who often lack proper incentives to coordinate their land-use with conservation objectives. To circumvent this public conservation policies are required. Such policies include e.g. protecting of land through land acquisitions or the involvement of private owners through regulative, informational or financial instruments to encourage more of them to manage their land in accordance with nature conservation goals.

This study focuses on voluntary conservation programs, and the factors determining landowner participation in these. Using existing Danish private forest as a case study, 3 different voluntary conservation schemes deployed by the Danish Nature Agency from 1997-2010 is examined, drawing on detailed information about the owner’s socioeconomic status and information about the owner parcels. Further as many species rely on habitat that spans across owner boundaries, a challenge when designing such schemes is to ensure owner coordination to increase the connectivity of the enrolled lands. To examine whether landowners show evidence of coordination in their conservation decision, the discrete choice model is extended to test for spatial spill-over effects in a spatial-econometric setting.

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