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Valuing the Benefits and Costs of Provision of Ecosystem Services from Danish Forests

Suzanne Elizabeth Vedel, Jette Bredahl Jacobsen, Bo Jellesmark Thorsen

Department of Food and Resource Economics, Copenhagen University

ABSTRACT:

In the Danish forest policy, and in particular in Natura 2000 areas, there is an increased focus on the ecosystem services provided. On one hand they have a large value for society, e.g. in terms of recreational benefits and biodiversity and groundwater protection, on the other hand, providing these services typically implies a cost for the forest owner, in terms of lost production, but also losses in values from restrictions in future land use options, nuisance from visitors, and other non-monetary disutilities of restrictions on an area. A large part of the conservation effort relies on voluntary contracts, and therefore it is crucial to identify barriers to participation and the required compensation levels. This has to be weighted against which components adds to the benefit side. Therefore this study aims at addressing and comparing the value and the costs for three ecosystem services from forests, 1) recreational possibilities, 2) biodiversity and 3) groundwater production. The novelty in the study lies in the direct comparison of the ecosystem services at attribute level; thereby addressing where the potential welfare gain will be largest and smallest respectively. The analysis is based on two primary studies assessing respectively the welfare economic value obtained by citizens and the compensation requirement among forest owners.