Conservation of the Biodiversity in Denmark
An Analysis of Effort and Costs

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Denmark has ratified the Convention on Biological Diversity, which aims at halting the loss of biodiversity no later than 2020. The aim of this study is to (1) investigate the effort needed to conserve Danish biodiversity, (2) evaluate which measures to implement and how to prioritize them and (3) estimate the economic cost of a coherent national effort.

In the study we integrate information on the spatial distribution of almost 900 terrestrial species, species' habitat preferences, spatial distribution of main habitats and the efficiency and social cost of specific measures to conserve biodiversity in different habitats. Transparent analytical approaches were used to identify the sets – or networks – of areas in Denmark, which fulfil the objective of conserving all 900 species most efficiently with respect to required area and social costs.

The analyses show that the effort needed to conserve the species will require an area of 126,000 ha of forest and unforested natural areas such as grassland, heathland and meadows. The economic cost of nationwide measures judged to preserve the vast majority of these species amounts to 845 million DKK (115 million €) per year. Of this, the proposed forest measures account for only 115 million DKK per year, although they will preserve more than half of the species, as the majority of Danish species depend on forests. Based on the analytical results, it is recommended to focus on and strongly increase the biodiversity conservation effort in Danish forests, especially through the conversion of production forest into more natural forest without commercial forestry. The management actions in unforested natural areas should become much more focused on biodiversity than previously.

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