



## **Assessment of health-cost externalities of air pollution at the national level using the EVA model system**

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An integrated model system EVA (Economic Valuation of Air pollution) has been developed to assess external costs related to air pollution from individual sources as specific power plants or different emission sectors, as e.g. power production, road traffic, farming etc. The EVA system is based on the impact pathway chain and consists of a regional scale non-linear Eulerian atmospheric transport-chemistry model including detailed emissions inventories (the Danish Eulerian Hemispheric Model, DEHM), address-level or gridded population data, state-of-the-art exposure-response functions and monetary valuation of the impacts from air pollution.

The first general assessment of health-cost externalities at the national level using the EVA system is presented here. Health-cost externalities from different emission sectors in Denmark e.g. power production, road traffic, as well as all sectors simultaneously have been calculated. Furthermore, the health-cost externalities based on emissions from international ship traffic in the Baltic Sea as well as the North Sea have been estimated. Examples of delta functions, human exposure levels and the total costs of impacts from different chemical species are given.

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