



3rd Science for the Environment Conference
Aarhus Denmark 1-2 October 2015

AIR QUALITY AT YOUR STREET

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ABSTRACT

Citizens are frequently concerned about the air quality where they live, where they go to work, where their children go to kindergarten or where they want to move to. Municipalities may also have an interest in location based air quality information e.g. in relation to screening of complaints from concerned citizens, or in the context of localization of institutions, etc.

The purpose of the project 'Air Quality at Your Street' is to create interactive air quality maps on the internet using webGIS to illustrate the geographical variation of air quality in Denmark for selected health related air pollutants. The maps show annual means of NO₂, PM_{2.5} or PM₁₀ for 2012.

The user interface presents modelled air quality data on a map where the user can select map view, pan, zoom in and out, etc. It is also possible to get the air quality for a particular address by entering a specific address.

Air quality is calculated with a model system consisting of a regional model (DEHM), an urban background model (UBM) and a street model (OSPM) with associated meteorology and emissions data etc. Recently updated input data has been used for the road network and traffic data based on the national traffic model (LTM) from DTU Transport as well as data on travel speeds based on GPS data from SpeedMap from the Danish Road Directorate. Modelled concentrations have been compared to fixed regional, urban background and street air quality monitoring stations to assess uncertainties, and to model results from about 30 streets in Aalborg and 100 in Copenhagen where traffic counts are available.

The presentation will focus on the objectives of the website, air quality models and data used, evaluation of results, and give examples of views from the website.



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