

7.1 Models for dispersion of air pollution - application

Different kinds of models to estimate air quality are often used for a variety of purposes. The most simple application is a table where air quality in the vicinity of a road can be roughly estimated based on traffic readings, road width and some standard modifiers like distance and height of surrounding buildings.

A more sophisticated tool on a national bases has recently been introduced as a tool for local authorities. It is comprised of an internet based simple dispersion model where regional and long-range transported contribution is added in the model. Emission databases are as default regional and national databases. However the user can enter data for better modelling at the local scale. The system is to be used for a first check of compliance with air quality standards.

Other more sophisticated models are used in larger cities and some regions where extensive local emission databases have been set up. Models have been used for a variety of purposes in addition to compliance checking with air quality standards for example: Modelling of air quality changes in response to different abatement strategies; Assessment of human exposure to particular air pollutants in research studies; Modelling of emission plumes in response to accidents.