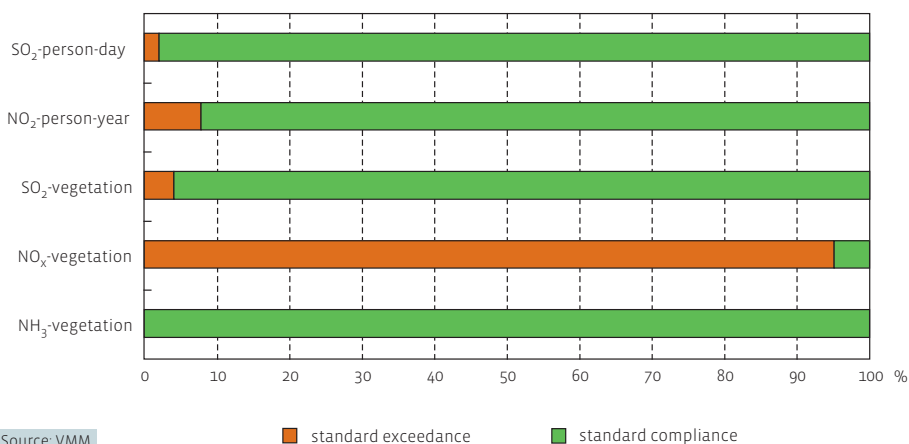




2007



## NO<sub>x</sub> concentration too high even in rural areas

Too high concentrations of potentially acidifying substances in the ambient air are harmful both for people and for vegetation. In the recent European Air Quality Directive 2008/50/EC, which replaces the former Framework Directive and three associated Daughter Directives, limit values are specified for the protection of public health and vegetation for SO<sub>2</sub>, NO<sub>x</sub> and NO<sub>2</sub> concentrations. NH<sub>3</sub> concentrations are assessed against the limit value for vegetation set by the World Health Organization (WHO).

SO<sub>2</sub>, NO<sub>x</sub> and NO<sub>2</sub> concentrations are measured in Flanders at 49, 41 and 51 places respectively. The measurement points are categorised according to their location as industrial, (sub)urban, rural or nature areas. The assessment against the limit values for vegetation can strictly speaking only be taken as a guideline. There is actually not a single measurement location in Flanders that fully complies with the criteria for vegetation assessment because of the dense urbanisation, the road network and the distribution of industry. This even applies for the measurement locations in nature areas.

The SO<sub>2</sub> daily limit for the protection of the public health (125 µg/m<sup>3</sup> ≤ 3 exceedances) was only exceeded at one measurement location in 2007, in the Antwerp port area. The SO<sub>2</sub> annual limit value for vegetation (20 µg/m<sup>3</sup>) was exceeded at two industrial measurement locations. The NO<sub>2</sub> annual limit value for the protection of the public health (40 µg/m<sup>3</sup>) was exceeded at four locations. Three of these are in industrial areas; one is in an urban area (Borgerhout).

The NO<sub>x</sub> annual limit value for vegetation (30 µg/m<sup>3</sup>) was exceeded in 2007 at 95 % of the industrial, urban and rural measurement locations. Even in rural areas was there an exceedance at 5 of the 9 measurement locations. In the nature areas only NO<sub>2</sub> is measured, so no NO<sub>x</sub> assessment can be made. The NO<sub>x</sub> concentrations in rural areas and NO<sub>2</sub> concentrations in nature areas indicate that the vegetation in Flanders should be protected better, certainly in the biologically valuable nature areas. With the increasing trend in car use and the number of cars, it is clear that measures are needed to lower the NO<sub>x</sub> emissions.

The assessment against the NH<sub>3</sub> limit value for vegetation (8 µg/m<sup>3</sup>) is done on the basis of measurements spread over the whole of Flanders, both in industrial, urban, suburban, rural and nature areas. For the first time since the start of the acidification deposition monitoring network in 2001, this limit value was not exceeded anywhere in the nature areas concerned (9 measurement points).