

27) Allocation to road section based on NO_x emission

Description

Considering traffic emissions, the PRTR distinguishes six different combinations of road type and traffic type:

- Roads with maximum speed ≥ 100 km/h, passenger cars and delivery vans
- Roads with maximum speed ≥ 100 km/h, lorry traffic
- Roads with maximum speed ≥ 60 km/h and < 100 km/h, passenger cars and delivery vans
- Roads with maximum speed ≥ 60 km/h and < 100 km/h, lorry traffic
- Roads with maximum speed < 60 km/h, passenger cars and delivery vans
- Roads with maximum speed < 60 km/h, lorry traffic

For each of these categories, the spatial distribution is based on the NO_x emission per road section, calculated from vehicle kilometres and specific emission factors. A road section is any part of a road situated between two approaches, crossroads, fly-overs or bridges. For a particular road section, vehicle kilometres are calculated as the annual mean number of vehicles per day multiplied by the road section length in kilometres. Emission factors are obtained from research carried out by the Netherlands Organization for Applied Scientific Research (TNO). No separate distribution is calculated for other traffic emissions as particulate matter (PM₁₀), SO₂ and VOC, as they have a high correlation with NO_x.

Both distribution and number of vehicle kilometres are derived from a model developed by DATmobility traffic consultants. This model uses the NWB (National Roads Database) for the position and length of roads and road sections. Traffic data for roads with maximum speed ≥ 100 km/h are derived from the Ministry for Infrastructure and the Environment. Provinces are the source for roads with a maximum speed between 60 and 100km/h, and municipalities for roads with a maximum speed below 60km/h.

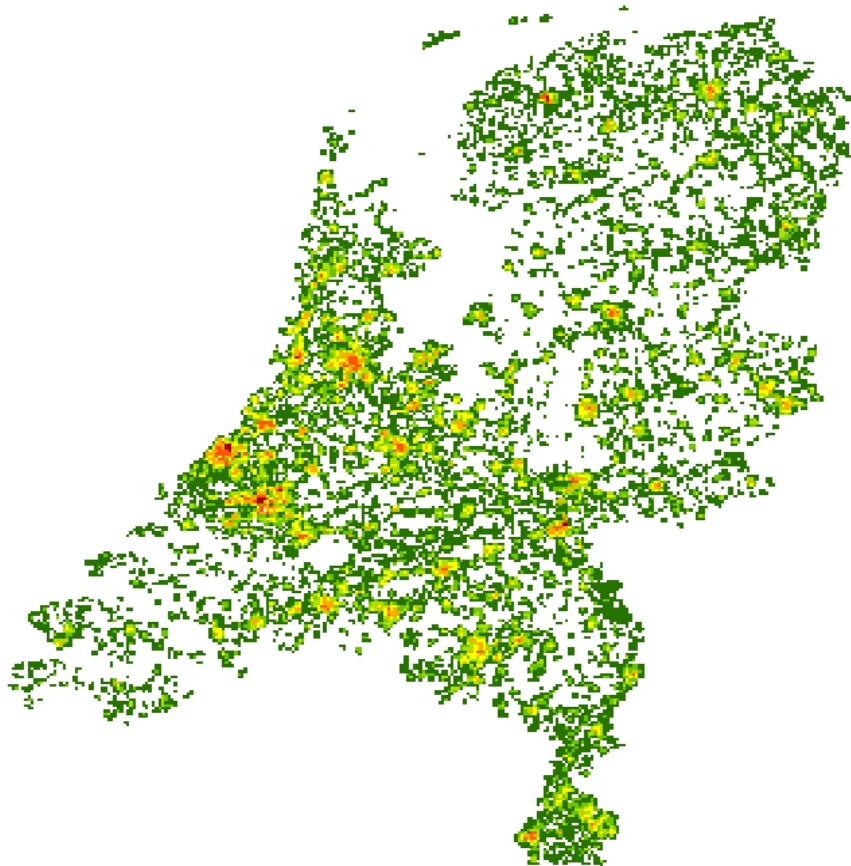
Example



Example map 27a: Vehicle kilometres roads maximum speed ≥ 100 km/h, passenger cars and delivery vans



Example map 27b: Vehicle kilometres roads with maximum speed ≥ 60 km/h and < 100 km/h , passenger cars and delivery vans



Example map 27c: Vehicle kilometres roads maximum speed < 60 km/h, passenger cars and delivery vans

Institutes involved

National Institute for Public Health and the Environment (RIVM)

Ministry of Infrastructure and the Environment, Directorate General of Waterways and Public Works (I&M/RWS)

DATMobility Traffic Consultants

Currency of data

2014

Background documents

Klein et al. (2016): Methods for calculating the emissions of transport in the Netherlands

DATMobility (2016): Database verkeer 2014 voor milieumodellering