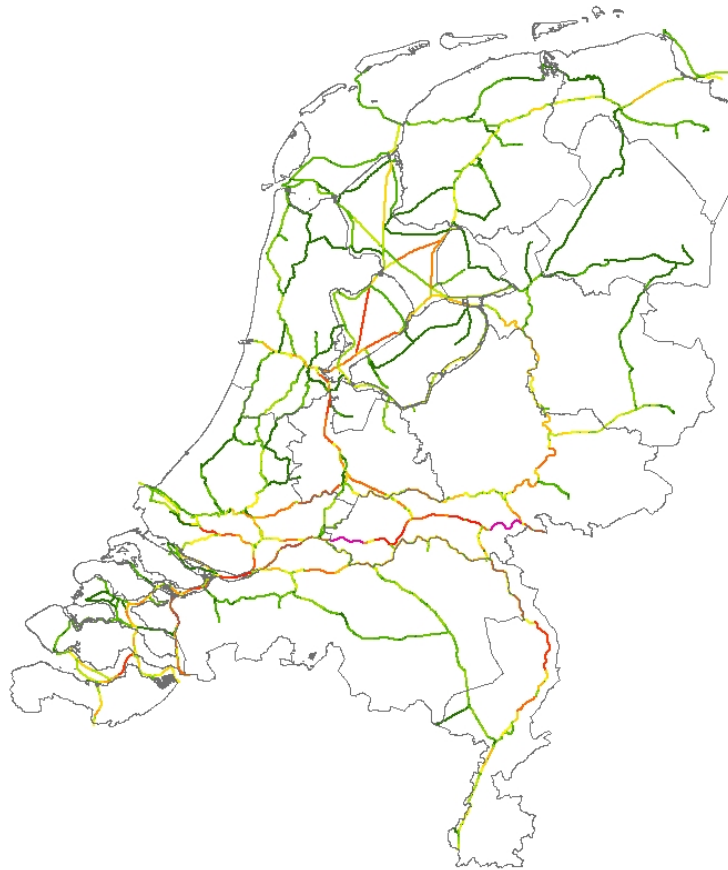


17) Name: allocation to inland waterway section (commercial vessels) based on energy consumption or vessel kilometres

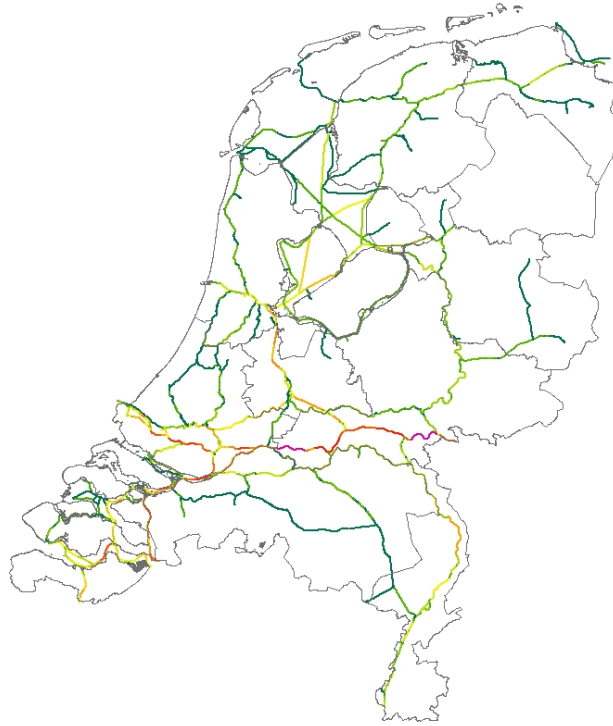
Description

The determining factors for the distribution are the yearly energy consumption (expressed in TJ) and the number of vessel kilometres per waterway section, based on the number and type of barges. A distinction is made between push tow traffic and other types of traffic. The distribution of numbers and types of vessels to the Dutch waterways originates from BIVAS (inland shipping analysis system). Based on data about point of departure, destination, vessel type and waterway class, the model calculates the route with the shortest travel time for each vessel, where for each trip there is a minor variation in the travel time per waterway. This ensures that vessels in the model do not always take the same route if there is also an alternative.

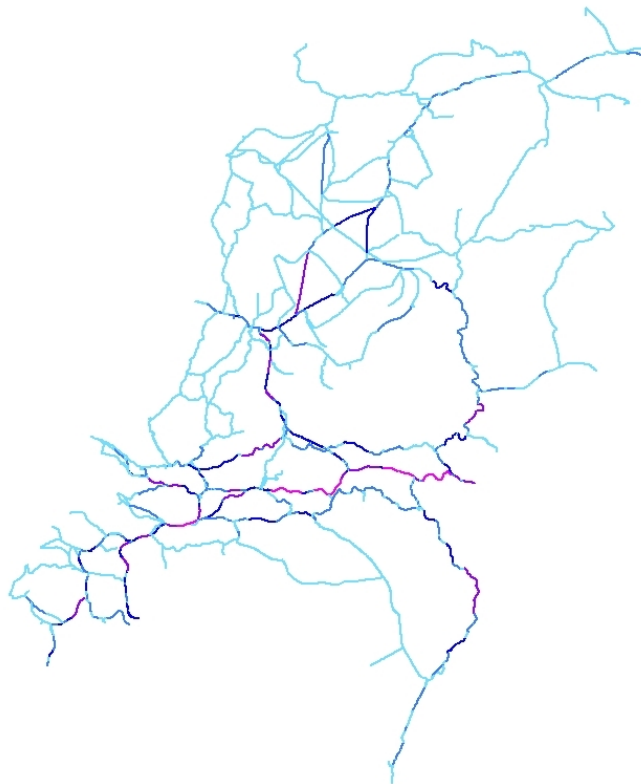
Numbers and types of barges, as well as data about the points of departure and destination, originate from the CBS (Statistics Netherlands) and the transport and maritime economy service of RWS, the Directorate for Public Works and Water Management (Ministry for Infrastructure and Environment). This directorate also administers data about the location and length of the waterways (NWB ,National Roads Database).



Example map 17a: Relative distribution of emissions on inland waterways based on energy consumption (non push tow traffic), orange and red colors indicate the highest energy consumption.



Example map 17b: Relative distribution of emissions on inland waterways based on energy consumption (push tow traffic), orange and red colors indicate the highest energy consumption.



Example map 17c: Relative distribution of emissions on inland waterways based on vessel kilometres per waterway section (all traffic), dark blue and purple indicate the highest number of vessel kilometres.

Institutes involved

CBS
RWS

Currency of distribution basis data

Basis data about energy consumption are from 2008

Background documents

<http://www.pbl.nl/sites/default/files/cms/publicaties/pbl-2014-methods-for-calculating-the-emissions-of-transport-in-the-netherlands-1484.pdf>