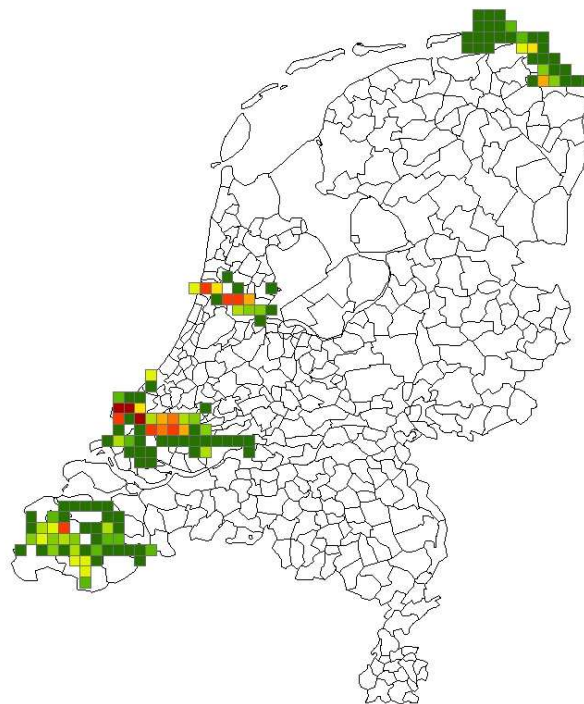


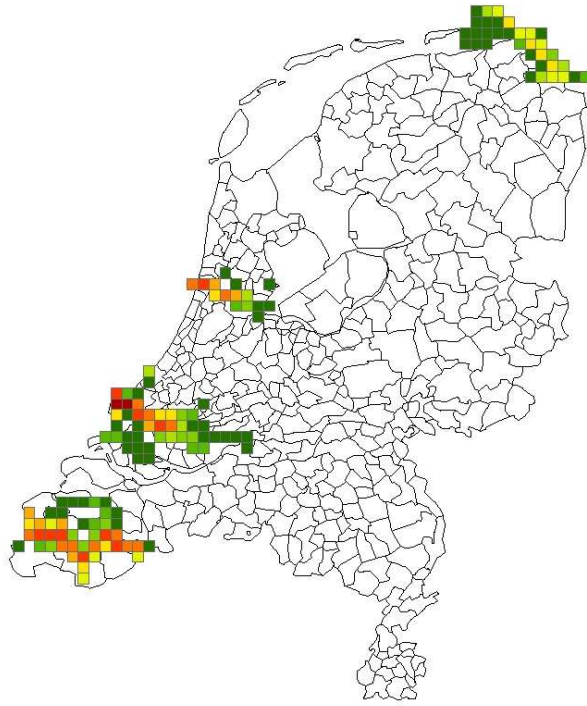
15) Name: allocation to harbours and routes on the national continental shelf, based on Wet Surface Area

Description

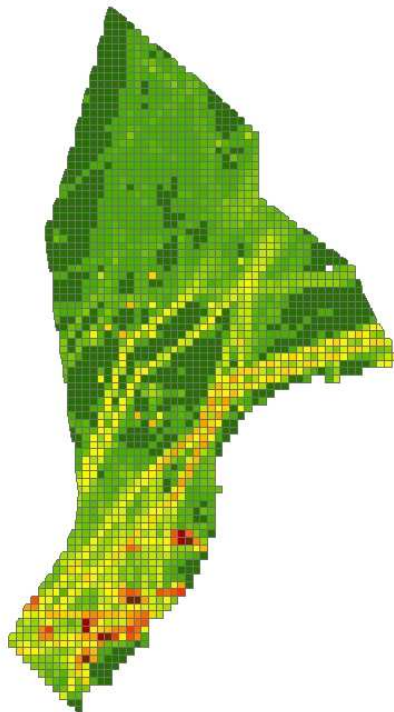
The leaching out of coatings and dissolving of so called 'sacrificial anodes', used in cathodic protection are important sources for the emission of metals through sea-shipping. Emissions by leaching are allocated per 5* 5 km grid cell, according to the amount of Wet Surface Area (WSA). This is the hull area of the vessel that is under the water line. The total amount of WSA is derived by MARIN (Marine Research Institute Netherlands) from so-called AIS (Automatic Identification System) data . This is a system used by ships principally for identification of vessels at sea., and (since 2005) compulsory for all but the smallest sea going vessels. Several times per minute a signal is broadcasted containing (among others) information on speed, course and position. Also, it contains a unique identification number for each ship. All AIS data broadcasted within the national continental shelf are logged by the Dutch Coast Guard and available to MARIN for research. Through AIS it is also possible to distinguish ships at berth from those manoeuvring or sailing.



Example map 15a: Wet Surface Area, harbours, ships at berth (5x5km)



Example map 15b: Wet Surface Area, harbours, manoeuvring ships, 5 x 5 km



Example map 15c: Wet Surface Area, NCP, sailing and anchoring, 5 x 5 km

Institutes involved

MARIN

TNO

Currency of distribution basis data

Data are for 2010

Background documents

MARIN (2012)

Coating emissions of Sea Shipping for 2010

Netherlands Continental Shelf, Dutch port areas and OSPAR Region II

MARIN, Wageningen