Estimate: Waterborne transport induced NMVOC emissions in marine areas

Background
As part of the EU LIFE project: *LIFE4DEGAS*, world leading experts from CE Delft was consulted to do a study on degassing from shipping in the EU. The study concluded successfully on most issues related to degassing in the EU. However, the study could not estimate degassing in EUs marine areas due to lack of data – data are today protected by law and only available for the EU and each member state – neither the EU nor member states was willing to release data in anonymous form for use in the study despite several attempts to guarantee data protection.

The estimate on degassing from shipping in EUs marine areas below should only be seen as a very uncertain estimate to give an order of magnitude for marine degassing in the EU.

Estimate on marine degassing
According to the report from CD Delft (*Degassing of tankers in the EU, 2026*) around 3.814 tonnes of NMVOC are degassed (controlled and uncontrolled) per year in inland waterways in the EU. The CE Delft study finds that the amount of flammable liquids shipped in marine EU areas are about six times larger than the amounts shipped in inland waterways. This indicates that NMVOC emissions may be substantial higher in EU marine areas compared to inland waterways.

If we assume a proportional relation ± 30 %, the magnitude of marine degassing would be:

Marine degassing in the EU: 6 · 3.814 tonnes per year ± 30 % = **22.884 ± 6.865 tonnes per year**

This estimate should only be seen as an order of magnitude since a simple scaling factor like this is very uncertain as substances carried and degassing at sea are not comparable to inland waterways.

To comparison, the emission from manure management and residential burning in the Netherland is respectively 910.000 tonnes and 627.930 tonnes NMVOC per year i.e., the volume of NMVOC from ship degassing is low compared to other NMVOC sources. However, this does not necessarily reflect that degassing from ships does not have a significant negative impact on society or that it is not a good investment to limit degassing from shipping in the EU. This will be investigated further in delivery 3.1 of project LIFE4DEGAS: Health and environmental implications.

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Co-funded by the European Union
EU Project 101216271 — LIFE24-PRE-IT-LIFE4DEGAS