

Impact of dredging on aquatic GHG emissions

Aquatic ecosystems are global hotspots for greenhouse gas emissions. Climate smart water management, aiming at reducing the emission from aquatic ecosystems is a potentially effective tool to reduce aquatic greenhouse gas emissions. Climate smart dredging (baggeren in Dutch), i.e. removal of the – often organic carbon rich – sediment may be a strong mitigation practice. In the Netherlands alone roughly 9 million m³ of sediment is removed from inland water systems on an annual basis. The removal, transport and deposition of aquatic sediments however leads to unknown changes in greenhouse gas emissions. A first pilot experiment shows that the emission intensities from mimicked dredged and non-dredged systems may vary considerable and that laboratory scale dredge disposal sites can be a great source of various greenhouse gases. The pilot experiment gives a lot of food for thought and if you are interested in diving deeper in this scientifically interesting and societal relevant topic we offer you an interesting start for a literature review or a master internship including various field measurements.

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