

DEMASK: policy options for underwater noise

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The North Sea is one of the busiest shipping areas in the world, which leads to almost continuously increased noise levels along certain shipping routes. At the same time, the pressures from other human activities such as fishing, tourism and ambitious plans for a tenfold increase in the production of offshore renewable energy are increasing. Marine ecosystem health is already impacted by these cumulative human activities, in addition to the effects of climate change, highlighting the urgency of more sustainable ocean management. The last decades have seen many projects to monitor underwater noise and increase the knowledge on its impact on underwater life. Now policy makers want to effectively manage the impact of underwater noise on the environment. Underwater noise is recognised as a pollutant in the Marine Strategy Framework Directive (MSFD) and EU member states are mandated to monitor and mitigate noise pollution as part of their efforts to maintain or achieve Good Environmental Status. To do this, policy options are needed that effectively reduce this pollutant in the marine environment. By building capacities to define and assess scenarios for development, DEMASK supports policy makers, NGOs and the maritime industry in the management of the underwater North Sea soundscape to take measures that contribute to a well-managed soundscape and environmental protection of the North Sea. DEMASK stands for: Development and evaluation of noise management strategies to keep the North Sea healthy. DEMASK is currently developing scenarios for noise management in close collaboration with a wide range of stakeholders. These consider commercial shipping, OWF support traffic, OWF operational noise and recreational boating. Different scenarios for the mitigation of underwater noise, such as speed limits, re-routing or technical measures will be tested against base scenarios and the effect on noise pollution in the North Sea will be evaluated and discussed with the stakeholders. Sound energy budgets are calculated prior to the detailed analysis. Specific case studies will be chosen to illustrate noise for different regions and sound sources. Indicator species will be identified and soundscape maps produced and combined with knowledge on the effects of noise on marine species to quantify the impact of these scenarios. DEMASK thus aims to propose a knowledge-based approach for quantifying the effectiveness of management options.