Sediment and society: assesing approaches for including stakeholder interests and contaminated sediment management

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Introduction: Management options for large scale contaminated sediment remediation projects can be challenging with regard to competing stakeholder interests. The reasons may include, high upfront remediation costs, often unequal distribution of these costs, scientific uncertainty about health and environmental risks, and differing stakeholder perceptions of the risks. NGI, NIVA, Bioforsk and TNO from the Netherlands have therefore initiated a three year research project (2008-2010) funded by the Norwegian Research Council, with the aim to develop a collaborative approach that will incorporate local and scientific knowledge in order to achieve mutual gains in the management of contaminated marine sediments.

Methods: The core methodological task of the 'Sediment and Society' research project is to assess and employ alternative approaches of stakeholder involvement — from informative, through consultative, to participative — in sediment remediation planning. In order to accomplish this task, the research team will focus on two Norwegian harbours: Oslo Harbour and Bergen Harbour. Thus far research activities have focused on assessing stakeholder perceptions and interests with regard to sediment issues regarding the sediment remediation project in Oslo Harbour.

The Oslo Harbour remediation project has encompassed dredging over $500.000~\text{m}^3$ of contaminated sediments in the harbour area and placing the dredged material in a controlled aquatic disposal site (CAD) further out in the fjord at 70 m depth. The use of a CAD in the project has been controversial and the resulted in a lot of attention from various stakeholder groups and media.

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Results: The sediment and society project has identified and classified the key stakeholders involved in the Oslo Harbour remediation project. Through interviews the importance of involvement, risk perception and communication for the outcome of the project has been assessed. These findings are used as input for the development of new methods for stakeholder involvement witch will be used in forthcoming sediment remediation projects along the coast of Norway. Preliminary results regarding the extent to which stakeholder involvement approaches influenced the outcomes in Oslo Harbour will be presented.

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