

## Marine stewardship and complexity – How to enhance a better process of risk governance in the Norwegian area of the Arctic Ocean?

In 2006, the Norwegian government published a white paper that presented an integrated oceans management plan for the Barents Sea and Lofoten areas (St.meld. nr. 8 (2005-2006)). The plan was based on environmental principles such as sustainable development, the ecosystem approach and the precautionary approach (ibid). The plan came about mainly as an incentive to open new oil- and gas fields, and map consequences with respect to the environment and the other sectors using the ocean space (Knol 2010). The overall idea is to create a foundation for joint, cross-sector decision-making for those actors that use the area. The Barents Sea houses many commercially important fish species such as cod, haddock and saithe (Olsen et al 2009). Increased activity in the Arctic enhances the risks of unwanted effects on the fish stocks, and consequently the fisheries depending upon them. Potential severe risks include acute pollution from petroleum activities and shipping in addition to radiation from accidents due to more nuclear- powered vessels (Meld.st.10 2006: 127). Interests in the Barents Sea include oil and gas, shipping, fisheries, tourism and bioprospecting amongst others. Opening the management from single species to ecosystems, as well as spanning across sector boundaries, highlights interdependencies, trade-offs, knowledge gaps and joint risks. To govern risks of a high level of complexity, uncertainty and ambiguity, calls for an inclusive risk governance and a discourse with many different stakeholders. Theories from collaborative planning underlines the need for a procedure to reach consensus. How can a planning process including a great variety of stakeholders aim for reaching consensus? To improve this process, experts in the field of consensus building could be included in the new process with the new Barents Sea white paper that will apply from 2020 to 2040.