CO_2 storage potential of the Norwegian Continental Shelf

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The studies indicate that there is sufficient storage potential in the Norwegian Sea and southern Barents Sea for CO_2 from local sources (industry and associated with natural gas). In the North Sea, the storage potential is much larger than the CO_2 volumes associated with natural gas and the volumes emitted from Norwegian point sources.

The work is based on an extensive database of exploration wells, 2D and 3D seismic data. Main objectives were to facilitate selection of sites which are suited for future CO_2 sequestration projects and to document the total storage capacity of Norwegian sectors of the North Sea, the Norwegian Sea and the southern Barents Sea.

In order to avoid conflict of interests with the petroleum industry, studies of CO_2 injection into saline aquifers were mainly restricted to areas where the generation and migration of hydrocarbons is considered to be limited.

To improve the estimates of storage efficiency, we constructed geomodels and reservoir simulation models for several traps and aquifer geometries. Learning from these models, we evaluated the storage efficiency for other possible sites which were studied by geological mapping only.

The CO_2 storage atlas is now available as StoryMap and as an interactive Map. This application gives you the possibility to explore the assessment result, and is also suited for mobile devices. The Factmaps information is synchronised with the NPD's databases on a daily basis.