Geophysical Research Abstracts
Vol. 12, EGU2010-10861-2, 2010
EGU General Assembly 2010


# Propagation and run-up of rockslide generated tsunamis in complex fjord systems

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A major unstable rock volume has been detected in the mountain side, Åkneset, in the narrow fjord, Sunnylvsfjorden, Western Norway. If large parts of the unstable masses are released as a whole, the slide will generate a tsunami that may be devastating to several settlements along the fjord. The maximum volume of moving masses may be over 80 Mm3.

The tsunami threat in the complex fjord system is evaluated trough laboratory experiments and numerical simulations using various models for the generation, propagation, and run-up. The investigation is done for a large set of slide scenarios with corresponding annual probabilities. The numerical models are validated through comparison with the results from the laboratory experiments and calibrated trough comparison with historical events in the same area.

The talk will mainly focus on tsunami propagation and run-up. The bathymetric effects for both propagation and run-up is discussed as well as the sensitivity to the slide parameters. In addition the consequences and risk for the potential tsunami threat are evaluated.