

Nationwide Sea-level Rise Flooding Tool Launched in Denmark



At a flooding conference held in the Danish Parliament on 3rd February 2012, the Danish Minister for the Environment launched a nationwide online interactive tool to map the risk of flooding in Denmark due to rising sea-levels. The tool is based on a SCALGO computation performed on a very accurate, 1.6-metre resolution raster terrain model for the entire country. The detailed, and hence massive, model contains more than 20 billion cells.

It was vital for the accuracy of the sea-level rise flooding tool that such a high-quality model was used, since it ensured that dikes and other important features with small spatial

extent were taken into account.

The tool visualises the flooded area for a (user-)given sea-level rise, and is part of the national climate change adaptation [portal](#) available to both government specialists and citizens.

The SCALGO technology for processing massive terrain data on normal desktop computers was essential for the computation behind the sea-level rise flooding tool. Using the SCALGO Hydrology software package, the computation can be performed on the entire model of Denmark (without thinning or tiling) in approximately one-and-a-half days on a normal desktop computer with 4GB of main memory. Apart from a module for the sea-level rise flood mapping, the package also includes modules for computing flow accumulation, watersheds, and bluespots (maximal depressions).