

Additional coastal erosion by year 2050, Denmark

The Coastal Erosion Atlas of Denmark shows, at a macro-scale level, the potential for total additional erosion until year 2050 due to a climatic change related sea-level rise. The atlas may be used to get an overview of the rate of erosion that may occur in the future and where a sea-level rise in most cases will lead to an increase in coastal erosion. The map does not tell, however, if this erosion actually will occur, as this locally depends on the coastal processes as well as on the geomorphological and geological characteristics of the coast.

The atlas combines coastal types with wave energy levels at the coast but does not take into account whether a specific coastal stretch currently is undergoing erosion. Local investigations therefore must be undertaken in order to differentiate between zones that are liable to an increased erosion rate compared to today; areas that will experience erosion in the future, and areas that may experience growth from sediments eroded elsewhere. At the sand nourished parts of e.g. the North Sea coast, the potential for additional erosion may be transformed into an intensification of the nourishment schemes in the future.

