

Assessments of regional climate change and its impacts in Northern Europe

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Regional climate change assessments are urgently needed to complement the big picture with regional results and scenarios of higher resolution and with relevance for local decision makers and stakeholders. A new type of assessment report originated in the original BACC report of 2008 (BALTEX Assessment of Climate Change for the Baltic Sea region) which has served as role model for other assessments published or in preparation. It represents an approach to assessing and making available current knowledge on regional climate change and its regional impacts on the physical, biogeochemical and biological environment (ecosystems, socio-economic sphere). Reports of this type which are available or underway are the original BACC book (2008), the second BACC book (2015), the climate report for the greater Hamburg area (2011), and the NOSCCA report (North Sea Climate Change Assessment) which is expected to be published in 2016.

The assessments are produced by teams of scientists from the region, led by lead authors who recruit experts from relevant topics to contribute. The process is not externally funded and completely based on published scientific evidence, and not biased by political or economic interest groups. The BACC-type reports aim to bring together consolidated knowledge that has broad consensus in the scientific community, but also acknowledging issues for which contradicting opinions are found in the literature, so that no consensus can be reached (“consensus on dissensus”). An international steering committee is responsible for overlooking the process, and all manuscripts are anonymously peer-reviewed by independent international experts.

An outstanding outreach aspect of these reports is the close collaboration with regional stakeholders (for the BACC reports: HELCOM, the intergovernmental Baltic Marine Environment Protection Commission and the major regional science-policy interface in the Baltic Sea region; for the Hamburg climate report: the Hamburg city government; for NOSCCA: OSPAR, the intergovernmental commission for protecting and conserving the North-East Atlantic and its resources)