

Designing

BACC II

Helsinki, Finland
13 January 2008

BALTEX SSG#23



The Climate Change Assessment: Report for the Baltic Sea catchment - BACC

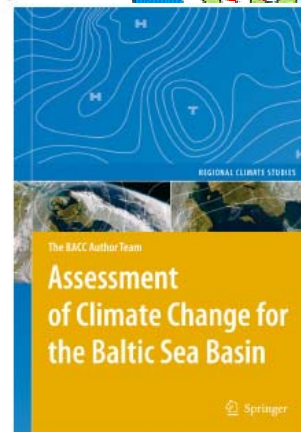


An effort to establish which scientifically legitimized knowledge about anthropogenic climate change is available for the Baltic Sea catchment.

Approximately 80 scientist from 10 countries have documented and assessed the published knowledge.

The assessment has been accepted by the inter-governmental HELCOM commission as a basis for its future deliberations.

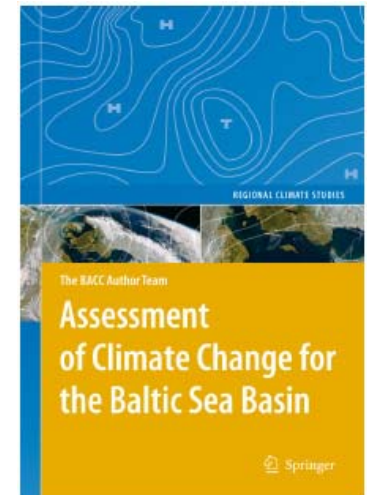
In 2012 a second assessment report (**BACC II**) will be published.





BACC results – in short

- Presently a warming is going on in the Baltic Sea region, and will continue throughout the 21st century.
- BACC considers it plausible that this warming is at least partly related to anthropogenic factors.
- So far, and in the next few decades, the signal is limited to temperature and directly related variables, such as ice conditions.
- Later, changes in the water cycle are expected to become obvious.
- This regional warming will have a variety of effects on terrestrial and marine ecosystems – some predictable such as the changes in the phenology others so far hardly predictable.



climate consensus reports have become a regular tool for science-stakeholder exchange

Assessments about regional climate change

- for the recent past (200 years), for present change and possible future change

- consensus of what is scientifically documented

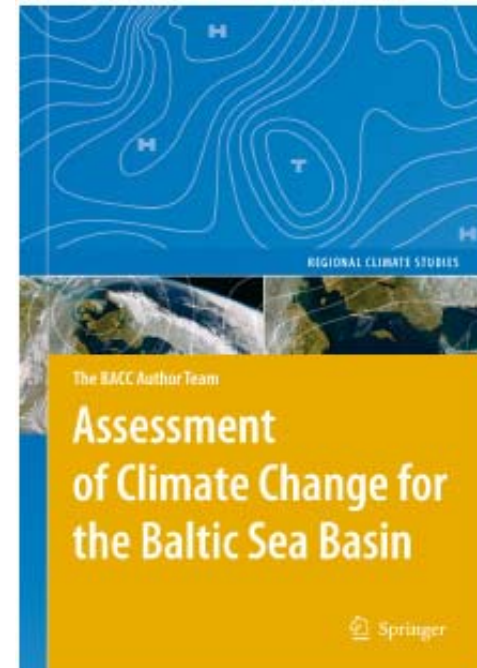
for

+ Baltic Sea (BACC)

+ Hamburg region (underway)

+ North Sea (planned with AWI Bremerhaven)

+ Laptev Sea (planned with AWI Bremerhaven)



Climate assessment for the metropolitan region of Hamburg

In 2007-2010 a climate assessment report about the scientifically documented knowledge of climate change in the region of Hamburg will be prepared. This is an activity of the Climate Center of Excellence CLISAP at the University of Hamburg, jointly operated with GKSS and MPI.

The effort is supported by the Senate of Hamburg and by the Environmental Ministry of Schleswig Holstein.



Media Response to BACC-1

Total Media Responses: 105

Media Response to Göteborg BACC Conference, May 2006: 3

Media Response to HELCOM Report, March 2007: 12

Newspapers: 8 (2 EST, 5 FIN, 1 SWE)

Online publications: 3 (3 D)

WCRP: 1

Media Response to BACC Book Publication, January 2008: 90

Newspapers: 57 (55 D, 1 LV, 1 PL)

Online publications: 28 (26 D, 1 FIN, 1 ESP)

TV and Radio: 3

WCRP: 2

Articles on BACC written by the BALTEX or BACC representatives: 7

Related Press Responses:

114 responses to an Interview by Joachim Dippner on " Climate Change Consequences for the Baltic Sea" (based on BACC Chapter 5) in German Newspapers in December 2008

The **purpose**

of the BACC assessment is to provide the scientific community with an assessment of ongoing climate change in the Baltic Sea basin. An important element is the comparison with the historical past (until about 1000?) to provide a framework for the severity and unusualness of the change. Also changes in relevant environmental systems, due to climate change, shall be assessed – such as hydrological change, ecosystems, and ocean waves.

The overall format is similar to the IPCC process, with author groups for the individual chapters, an overall policymaker-summary, and a review process.

A survey will be conducted on the opinions of regional climate researchers.

Principles

- **BACC considers only legitimately scientific material, i.e. material available from libraries.**
- **Scientific contributions are welcome only from scientifically accepted institutions, not from groups with a political, economic or ideological agenda.**
- **Questions from political, economic or ideological groups are welcome.**
- **No financing by third parts**
- **Purpose is the presentation of consensus about knowledge and lack thereof.**
- **The assessment will be evaluated by independent scientific reviewers.**

The time schedule for BACC-2 could be

Nomination of lead authors, mid 2009

Updating of BACC 1/HELCOM, early 2010

Starting Symposium 2010 at BALTEX Conference

Completing chapters – mid 2011/BONUS

Review/”Göteborg” Symposium – mid of 2011

Review until September 2011

Revision until November 2011

Finalization until February 2012

Publication report: 1.3.2012

Completion web presentation 1.5.2012

Completion book manuscript end of 2012

Book Publication – March 2013

BACC-2 chapter structure

1. Overall assessment and summary
2. Past and current climate change, detection and attribution (mainly 200 years)
 - a. Atmosphere
 - b. Ocean
 - c. Sea-ice
 - d. Sea level
 - e. Hydrology
 - f. Cities
3. Variability of the past 1000 years
4. Skill of models for describing regional climate
4. Projections of future climate change
5. Effects of changing regional drivers – industrial aerosols and land-use
6. Climate related terrestrial ecosystem change
7. Climate related marine ecosystem change
8. Socio-economic impacts
8. *Empirical evidence for consensus and disensus among regional climate researchers*

The effort is lead by a Scientific Steering Committee, which has been formed on an ad-hoc basis. The members of the SSC are so far

Hans von Storch (Chair), GKSS, Germany

Sirje Keevallik, Marine Systems Institute at TUT, Estonia

Juha-Markku Leppänen, FIMR, Finland

Anders Omstedt, Göteborg University Sweden

Timo Vihma, FMI, Finland

Hans-Jörg Isemer, BALTEX Secretariat, Germany

Maria Laamanen, HELCOM

More needed

Organisational support by the BALTEX secretariat (Hans-Jörg Isemer)