

BALTEX Assessment of Climate Change for the Baltic Sea Basin II (BACC II)

BACC II Working Group meeting

Finnish Meteorological Institute (FMI), Helsinki, Finland
12 January 2009, 6 pm-7.30 pm

Minutes

Participants include:

BACC II WG members Sirje Keevallik, Maria Laamanen, Juha-Markku Leppänen, Anders Omstedt, Timo Vihma, Hans von Storch (chair), Hans-Jörg Isemer;
and
Valery Vuglinsky

Topics

1. Review aftermath BACC book publication
2. Purpose and principles of BACC II
3. BACC II report structure draft
4. BACC II suggested future timeline
5. BACC SSC membership

1. Review aftermath BACC book publication

Hans reviewed the impressive media response material which had been compiled by the BALTEX Secretariat, see summary statistics in Annex 1. It was noted that the responses archived so far may not be complete and the Secretariat is asked to continue action towards a complete overview on responses in both the relevant science communities and the public.

2. Purpose and principles of BACC II

Hans reviewed and suggested the purpose and principles of BACC II, which were approved by the participants as given in Annex 2. Particular issues discussed and approved include

- the need for *consensus* opinion also on *dissent*, if a consensus cannot be reached among experts on a particular topic. BACC II needs to represent consensus to broaden the acceptance. Minority views should be listed and possible methodical limitations of reviewed studies need be mentioned. Also, BACC II should avoid overweighting individual papers, which are not (yet) supported by independent analysis by other parties.

- *detection and attribution*. BACC II needs to first document the changes, then address whether these are unlikely to be a possible swing in the natural sequence of events and finally select the most plausible ones (attribution) from a series of different explanations. Also, BACC II shall document changes until very recently, because there has been a trend reversal with the NAO in the late 1990s.

- *homogeneity of observational data*. This must be thoroughly addressed in order to identify processes which may have influenced or even contaminated data series.

- *presentation style* of results, which must avoid normative statements and “sloppy” language.

3. BACC II report structure draft

Based on a suggestion presented by Hans, a first overview on contents and structure of the future BACC II report was established, see Annex 3. Core chapters of the BACC report published in 2008 (referred to as *BACC I* further on) will be maintained, but several new chapters and also an extended structure of sections in chapter 2 were suggested, as follows:

Chapter 2 is planned to include sections on *sea level*, *sea-ice* and climate in *cities*. The latter topic will be new in BACC II, while *sea level* and *sea-ice* were sub-sections to the BACC I *Baltic Sea* section in chapter 2, but are “upgraded” now in BACC II to stay each as a separate section parallel to the section on the Baltic Sea, thereby more visibly representing the relevance of these parameters for *e.g.* the society.

The contents of Chapter 3 is new and is expected to deal with climate change and variability of *the past 1000 years* or so, thus covering also paleo-climate data and time scales.

“*Skill of models for describing regional climate*” is partly already covered by BACC I, but shall be extended and brought up more upfront in BACC II and is therefore planned as a separate Chapter 4.

Chapters 6, 9 and 10 are new in BACC II (compared to BACC I). Chapter 10 would stand out from other chapters of the BACC II report because it is suggested to be the result of a dedicated survey among relevant climate researchers about their views on consensus and dissent on climate science, rather than an assessment on available published evidence as with the other chapters. Such a dedicated BACC II survey would have to be conducted under guidance of a relevant expert. Dennis Bray at GKSS was mentioned as a potential candidate.

For each chapter (also sections in chapter 2) **one or two lead authors** shall be identified and appointed by the BACC II Science Steering Committee (SSC, see topic 5 below). As with BACC I, the lead authors for Chapters 2a-f, and 3-9 will be responsible for the overall chapter, with respect to: broad coverage (near-completeness), unbiasedness, fairness and objectivity (to the extent possible). They may invite additional authors to contribute in writing to the chapter, for instance with respect to sub-sections, but any such contribution will not relieve the lead authors from their overall responsibility

4. Suggested BACC II future time line

Several aspects were discussed when establishing a first draft timeline for BACC II, see the present schedule in Annex 4. The following thoughts were considered:

1. BACC II should be available roughly 5 years after the publication of BACC I as a executive summary and as a book describing the assessment in sufficient detail.
2. Most of the BONUS+ funded projects started in 2009 (all planned currently for a duration of 3 years) are expected to create evidence to be considered for BACC II, a tentative date for establishing a first BACC II report is set to mid 2011.

3. In May 2010, an international ministerial meeting in the context of HELCOM is planned. It was suggested to explore whether an interim review of BACC I may be conducted with the view to establish new input material to the above HELCOM meeting in the form of an update to the HELCOM's climate report of 2007.
4. The external peer-review including a conference dedicated to both the science community and the public with subsequent revision of the draft BACC II material is planned according to the positive experience made with BACC I.
5. Important for the start of BACC II are both the completion of the BACC II SSC membership and the subsequent identification and nomination of the lead authors, this whole process was suggested to be completed by and large in summer 2009.

5. BACC SSC membership

Hans recalled that the present BACC II Working Group members are at the same time the nucleus of the new Science Steering Committee for BACC II (BACC II SSC). The key task of the SSC is to guide the BACC II process. SSC members are not be involved in documenting the BACC II assessment, but one prominent task will be to identify, approve and motivate lead authors (and, if appropriate, also contributing authors) for the BACC II chapters and chapter 2 sections.

The following individuals were suggested as additional members to the BACC II WG and SSC:

Valery Vuglinsky, Russian State Hydrological Institute (RSHI), St.Petersburg, Russia
(Approved onsite)

Ippo Vuorinen, University of Turku, Finland
(Official request and confirmation required!)

Mikko Alestalo, FMI, Finland
(Approved at BSSG#23 meeting on 14 January 2009)

Bärbel Müller-Karulis, University of Latvia, Latvia
(Official request and confirmation required!)

Action: The present SSC members are asked to discuss further potential SSC candidates with Hans before the end of February 2009.

With the completion of the SSC membership the terms of reference of the BACC II SSC will have to be adjusted and finally approved before the summer 2009.

A subsequent immediate task of the BACC II SSC will be the identification and approval of BACC II lead authors, preferably to be concluded also before summer 2009.

Draft Hans-Jörg Isemer, 4 Feb 2009

Comments by Hans von Storch, 5 Feb 2009

Approved by participants, 18 Feb 2009

Annex 1**Media Response to BACC I***(Status: known at the BALTEX Secretariat as of 20 February 2009)*

<u>Total Media Responses:</u>	<u>115</u>
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Media Response to Göteborg BACC Conference, May 2006:	3
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Media Response to HELCOM Report, March 2007:	12
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Newspapers:	8 (2 EST, 5 FIN, 1 SWE)
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Online publications:	3 (3 D)
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WCRP:	1
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Media Response to BACC Book Publication, January 2008:	100
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Newspapers:	62 (55 D, 1 DK, 2 FI, 1 LV, 3 PL)
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Online publications:	31 (26 D, 1 FIN, 1 ESP, 1 RU, 2 PL)
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TV and Radio:	5
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WCRP:	2
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Articles on BACC written by the BALTEX or BACC representatives: 8

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

Annex 2

Purpose and principles of BACC II

Purpose

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.

BACC II will formally similar to BACC I, but it will document the consensus about climate knowledge until about 2010.

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

Note: Printed in bold are key changes compared to BACC I.

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, including the identification of contested issues.
- The assessment will be evaluated by independent scientific reviewers

Annex 3

Draft structure and contents of the future BACC II report

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

Note: Changes to the published BACC I report printed in **bold**. Sections 2c and 2d were sub-sections to the BACC I Baltic Sea section in chapter 2, but are “upgraded” in BACC II to stay now as a separate section each parallel to the section on the Baltic Sea.

Annex 4

Draft time line for BACC II

March 2009: Nomination of BACC II Science Steering Committee (SSC)

Mid 2009: Nomination of BACC II lead authors

Early 2010: Update of BACC 2008 material for HELCOM

June 2010: Starting BACC II Symposium at 6th BALTEX Study Conference

Mid 2011: First version of BACC II chapters established
(Considering also BONUS projects results to the extent possible)

Mid 2011: Review/stakeholder conference (of the “BACC/Göteborg 2006” type)

Autumn 2011: External peer-review completed

End of 2011: BACC II material revised according to review

March 2012: BACC II report published

End of 2012: BACC II book manuscript print-ready

March 2013: BACC II book published