

DRAFT OUTLINE OF THE BACC II CHAPTER 3.c.ii. Terrestrial cryosphere  
Sirpa Rasmus 24.11.2010

- Chapter will be an update of the BACC I chapters Ice regime / Snow cover (and also the appendices)
- Chapter will include a short introduction (background, summary and analysis of the BACC I finding (Is the BACC I still valid? Additional knowledge?), sources of data and uncertainties, possible reasons for changes (NAO etc, also non-climatic), perhaps some discussion on effects on other biotic and abiotic systems)
- Chapter will include four sub-chapters:
  - Seasonal snow cover
  - Ground frost
  - Lake ice
  - River ice
- These sub-chapters will include short description of the baseline (mean present day conditions), and recent and present changes in:
  - amount (e.g. depth and SWE)
  - length of the season
  - extremes
  - when appropriate, structure and properties (e.g. albedo)
  - if literature exists, discussion about interactions with biotic environment (e.g. snow in the forest, interception...)
  - synthesis of the findings.
- all this in all regions in Baltic sea watershed, all regions dealt with similar emphasis
- Sources:
  - Published literature (especially 2006-2012, including IPCC AR4)
  - National contributions from all of the countries (Finland, Sweden, Norway, Russia/Karelia, Poland, Lithuania, Estonia, Latvia)

During the writing process we will decide with the other chapter 3 lead authors if the chapter 3 should be a joint “Terrestrial watershed area” chapter or should there be at least one longer hydrology chapter, where snow and ice would be sub-chapters and the whole hydrological regime could be discussed in a reasonable order and with a balanced emphasis.

The cryospheric chapter needs also to be interfaced with the chapters Projections of future climate change (4b), Terrestrial ecosystem change (5a; plant/animal populations etc), Socio-economic impacts (5c; traditional livelihoods, transportation, hydropower, tourism etc).