

Session VI- Climate change impacts in the Baltic Sea Region

Rapporteur: Marguerite Marlin

Illona Mettinen: “Planned or emerging futures? Addressing climate change on regional level by strategic planning.”

Mettinen traced the historical development of climate awareness and regional strategies for climate change adaptation and mitigation in Finnish Lapland as developed by regional councils. Key programs in this regard included the Regional Development Programme in Finnish Lapland and the Regional Development Scheme to the National Climate and Energy Strategy (2008). It was noted that these strategies included a consideration of how to utilize opportunities posed by climate change.

In the discussion of these strategies, the following was noted:

Challenges for addressing climate change at the regional level and in general: Knowledge gaps, long time span, complexity of the phenomenon.

Positive aspects of climate change from a (region-based) utilitarian point of view:

- Possibilities for hydroelectric power and (other) renewable energy
- Growth of forests = more wood for bioenergy and new materials
- More agricultural opportunities
- New transportation routes

Negative aspects of climate change from a (region-based) utilitarian point of view:

- Threat to winter tourism
- New pests
- Changes harmful to reindeer
- Loss of permafrost harmful to logging
- Flooding

Overall, Mettinen stressed that climate change must be discussed within the frame of regional development in Lapland, and noted that Lapland’s peripheral location was expected to change into a more central point in relation to the Arctic Area and Barents Sea. She also added that the strong role of climate change has only strengthened the reliance and dependence of Lapland on a resource-based economy, and suggested that projects done under the auspices of

addressing challenges or leveraging opportunities related to climate change may simply be a new disguise for old projects.

Jaak Jaagus: “Recent climate changes in the Baltic Sea region and their impacts in the coastal region of Estonia”

To begin, Jaagus introduced some key points that lay the foundation for his subsequent arguments:

- Climate is a variable component of nature, has changed in the geological past and will change in the future.
- Climate warming by 2 or 3 degrees is not as important as the change in frequency of extreme phenomena
- Climate scientists do not agree on all related things with climate change, such as the fact that CO₂ may not be the only factor influencing climate change.

Jaagus then described something called the Estkliima project, an Estonian initiative to measure and analyze climate change that included the following components:

- Estimating of climate variability
- Developing climate change scenarios
- Modelling of river discharge and sea ecosystems

The results of the Estkliima project showed that the temperature increase in Estonia has been significant in winter and spring, and that the increase of precipitation have been observed for the cold season. Jaagus pointed out that this warming was related to the intensification of westerly winds in winter, and asserted that this was a factor for all other observed changes as well.

Notably, many of Jaagus’ graphs showed discrepancies between different sets of results derived from the use of different methods to measure monthly mean temperature and other indicators of climate change.