

Session I - Sustainability in the north and nature resources

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The first parallel session of the programme took a focus on the broad theme of *Sustainability in the north and natural resources*. The session consisted of four very different presentations which in itself already very well demonstrated the diversity of issues connected to and addressed under the themes of natural resources and sustainability in the context of the North. During the sessions, the theme was approached through the lenses of several academic disciplines ranging from economics to planning and architecture, again highlighting the complex and interdisciplinary nature of the topic in question.

The first presentation given by **Stefán Sigurðsson** focused on the reindeer as a natural resource and its regional economic impact in the case study context of Eastern Iceland. In the East of Iceland, the reindeer is an animal that is hunted; however, in terms of assessing its role in the regional economy not only the hunting done by locals, but also, and more importantly, the economic impacts of reindeer hunting tourism and associated services and activities need to be accounted for. As a whole, the presentation highlighted that when the economic impacts of any natural resources, living or non-living, are assessed, not only the direct but also indirect and induced impacts need to be taken into account.

The second presentation by **Sigríður Kristjánsdóttir** took a focus on the built-in tensions of the concept of sustainable development in the face of a changing climate and the role of planning in resolving these tensions. The concept of sustainable development, understood in the manner popularized by the Brundtland Commission in 1987 – consisting of the interconnected pillars of the economy, the environment and the social dimension – was presented as problematic to operationalize: at the level of policy- and decision-making, different sustainability dimensions and criteria can and often do contradict. As the globe continues to warm, new concerns will

only continue to emerge and the role of planning in forecasting and resolving the tensions between different sustainability dimensions will only become more and more crucial.

The third presentation by **Susan Carruth** approached the session's topic from an architect's viewpoint and through a case study focus on Greenland and its energy landscapes. Instead of understanding 'energy landscape' as a synonym of 'energy mix', (energy) landscapes were seen as physical and social environments and as shaped by and hybrids of the cultural and the environmental. The presentation outlined that through borrowing and learning from the landscape, also energy production and systems could be designed and implemented in a manner which would not dominate the landscape and stand out as alien, stationary objects but blend into their surroundings and also contribute to stimulating living and active cultures and communities.

The final presentation of the session by **Jón Þorvaldur Heiðarsson** looked at different alternatives for Arctic shipping and their implications in a situation where the sea ice continues to retreat and the Arctic waters are becoming navigable. The presentation portrayed the issue of shipping as far more complex than transporting goods from one location to another through the shortest route; in addition to issues of technological design and economics, also factors such as locations of harbors and their spin-off and adverse effects need to be forecasted and accounted for in the processes of planning and decision-making.

As a whole, the session highlighted the manners in which questions related to sustainability and natural resources in the north are far from simple and straightforward. They are dependent from time, location, scale, viewpoint and the resource or dimension in question. Furthermore, the impacts of any resource or development – equally in the context of economic, environmental, social, or cultural impacts – need to be assessed not only terms of the direct but also the indirect and induced ones and in relation to temporal and spatial contexts. The complex interrelations between different issues and different sustainability dimensions highlighted the need for planning as well as continued interdisciplinary dialogue.