UArctic
Thematic Networks

Local-scale Climate Resilience Seminar

17 March 2020
9am to 1pm
University of Alberta, Tory 3-57

Student Breakout Session - Key Takeaways

Theme 1: Social Vulnerability (R. Shields, University of Alberta)
By S. Kehler, MSc Candidate, University of Alberta

- Resilience, in the real world, tends not to be straightforward, compounding its complexity are several factors: perspectives of scale, in which larger trends, such as migration or displacement, have local implications that may not be considered and are difficult to articulate at a global level; and the social, economic and political issues that affect resilience (despite an overall lack of data from this perspective).
- Vulnerability is the sense of risk which exists as a complex and culturally rich projection of a future situation onto the present.
- This projection is the result of an entwining of our perceptions of the past, present and future.
- Vulnerable populations are dynamic and changing; they are essentially a liability crisis by which a feedback loop of compounding vulnerabilities amplify each other.
- The idea of a modernist “settlement” is both modern and capitalist; it is a space, or operating frame, in which we come to terms within our environmental context, and idealise the notion that we can control our environment by hardening our infrastructure.

Theme 2: Governance Systems (K. van Assche, University of Alberta)
By J. Muffly and S. Aiken, MSc Candidates, University of Alberta

- The levels of government from municipal to federal face different pressures, problems, and interests that make long term planning initiatives such as those required for climate change difficult to enact.
- Delegating power from a centralized government to experts leads to a highly modernist state, meaning that fierce competition is created between expert groups and citizens, creating backlash. This is a problematic tendency, as diversity of thinking, expertise, and participants is what is needed for a resilient strategy.
- There is value of differentiation in regard to knowledge as differentiation leads to specialization. This dialectic learning between different disciplines helps reiterate what exists, and this helps create new solutions of local strategy for northern resilience.

Theme 3: Sustainability (B. Summers, University of Alberta)
By T. Slater, MSc Candidate, University of Alberta

- The social sciences have a crucial role to play in helping Arctic and sub-Arctic communities break harmful path dependencies and transition to more sustainable states through understanding complex, multi-faceted systems in a northern context.

- Path dependencies arise when old ways of thinking affect how we do things in the present and future.
- The drive for productivity superseded care for our environment—leading to widespread environmental degradation. There has been a recent rise of sustainability awareness, of environmental harm as a side effect of economic productivity.
- Motivation to transition to resilient and sustainable communities has become more prevalent, especially in Arctic and sub-Arctic communities where the negative impacts of modernist systems, resource extraction and capitalism clash with traditional knowledge and inclusive economic processes.
- Many disciplines are still rooted in historic ways of thinking and there needs to be more bridging between them in order to fully study and understand complex northern systems.
- The boundary between disciplines needs to be torn down and replaced with interdisciplinary approaches that combine knowledge from both the sciences and social sciences—integrating traditional knowledge and welcoming new ways of thinking and understanding.

Theme 4: Adaptation in Practice (D. Koleyak, City of Edmonton)
By S. MacDonald, MSc Candidate, University of Alberta

- Some may consider resilience to be a topical buzzword, but framing things with a resilience lens can help to provide guidance when addressing climate change. Using a narrow definition of resilience can make it a more useful concept for urban systems.
- Municipalities are at a good scale to address climate change adaptation. Climate impacts are felt locally and can often depend on local conditions. Municipal governments are responsible for most of the world's populations and much of its infrastructure. They should be at the forefront of adaptation planning.
- Challenges to resilience building and adaptation do exist. Uncertainty around future climate impacts make it difficult to be confident that long-term action is going to have a significant impact on resilience. Additionally, it is difficult to quantify performance metrics or resilience standards so resilient development is much less tangible than movements like 'net zero'.
- Cities have a need for more granular, local climate science and data. More so than just achieving the "perfect data", it is important to be able to translate that data into meaningful policy.
- There is a need for collaboration through interdisciplinary work. How do you engage with multiple types of stakeholders? Flexibility is needed so that different methods can be used based on the type of stakeholder. Often people have the same goal but they approach it from a different angle. It is really about tying the needs of the city to the values of the stakeholder.

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S. Jeff Birchall July 27, 2020