

## Session 2: New Perspectives on Resilience: Paper Presentations & Discussion

### **Kelly Klima**

*Ten Strategies to Systematically Exploit All Options to Cope with Anthropogenic Climate Change*

#### **Abstract:**

The frequency and severity of many types of extreme weather events may be changing because of climate change. To date, most vulnerability studies and resulting toolkits for decision makers, while state of the art, only address a specific subset of possible extreme weather events and mitigation and adaptation efforts. This paper extends Haddon's Strategies to facilitate a holistic, systematic analysis of the options that communities have to cope with uncertain impacts from multiple hazards in multiple sector of society. This framework distinguishes between efforts to reduce the hazard, the exposure, and the vulnerability, thus helping end the semantic confusion of the meaning of adaptation and mitigation. Two case studies demonstrate the merits of the proposed framework. First, we show how the framework can facilitate the systematic identification of mitigation and adaptation strategies for a sector like human health. Second, we apply the framework to a particular hazard, anthropogenic climate change, in three cities in U.S. Northeast. We find that the three cities pursue a range of strategies, with varying degrees of effort. Comparing cities reveals that some still have unused capacities, especially in terms of reducing the exposure and vulnerability to climate-enhanced hazards. Spreading efforts across multiple feasible strategies increases the robustness of the cities' policy approach and diversifies the cities' investment in the face of an uncertain future. Subsequent work, such as a benefit-cost analysis, would help a decision maker to evaluate policy options and steer research efforts appropriately.

