



In partial fulfillment of the requirements for the degree of

**Doctor of Philosophy**  
**Vanessa Lueck**

will defend her dissertation

**Governing climate change adaptation through insurance:  
complexity, risk and justice concerns?**

Friday, October 23, 2020  
9:00 am MST

<https://asu.zoom.us/j/89770191960>

Faculty, students, and the public are invited.

Supervisory Committee:  
Dr. Sonja Klinsky, Co-chair  
Dr. Michael Schoon, Co-chair  
Dr. Hallie Eakin, Member

**Abstract**

Climate adaptation has not kept pace with climate change impacts which has formed an adaptation gap at all scales. Increasingly insurance is viewed as a popular solution to close this gap. However, the efficacy and implications of using insurance in the climate adaptation space are not clear. In addition, past research has focused on specific actors or processes, not on the interactions and interconnections between the actors and the processes. In the first part of my dissertation I take a complex adaptive systems [CAS] approach to map out how these dynamics are shaping adaptation and to interrogate what the insurance climate adaptation literature claims are the successes and pitfalls of insurance driving, enabling or being adaptation. From this interrogation it becomes apparent that insurance has enormous influence on its policy holders, builds telecoupling into local adaptation and its inverse, and creates structures which support contradictory land use policies at the local level. Each of these has implications for what kind of adaptation insurance drives and who benefits from

insurance in the adaptation space.

Based on the influence insurance has on policy holders, I then argue that insurance should be viewed as a form of climate adaptation governance. I synthesize insurance, governance and adaptation literature to examine exactly what governance tools insurance uses to exercise this influence and what the consequences may be for climate adaptation. This research reveals that insurance may not be the exemplary adaptation approach the international community is hoping for. Using insurance, risk can be reduced without reducing vulnerability, and risk transfer desirable for private insurance and the financial system actors can result in risk displacement which can reduce adaptation incentives, fuel maladaptation, or impose public burdens. Moreover, insurance requires certain information and legal relationships which can and often do structure that which is insured to the needs of insurance and shift authority away from governments to insurance companies or public-private partnerships. Each of these undermine the legitimacy of insurance-led local adaptation and contradict the stated social justice goals of international calls for insurance in the adaptation space. Furthermore, the findings raise questions about the assumption that those with insurance in wealthy countries will adapt.

The third portion of this dissertation explicitly interrogates the potential justice concerns that emerged through an analysis of insurance as a form of adaptation governance. Using a multi-valent approach to justice I examine a suite of programs intended to support agricultural adaptation through insurance. This analysis demonstrates that although some programs clearly attempted to consider issues of justice, overall these existing programs raise distributional, procedural and recognition justice concerns and do not appear to fulfill international calls for insurance to either be a form of or to drive climate adaptation.

Despite the challenges that insurance has in the climate adaptation space, I still support using insurance as one measure to attempt to fill the adaptation gap. Insurance does wield enormous power and the consequences of rules depend on the context. Introducing modularity, diversity and multi-valent justice for local policy holders would all improve insurance's ability to deliver climate adaptation, while retaining the strengths of current insurance approaches.