

Understanding How Climate Change Adaptation Workgroups Influence Municipalities To Build Resilience

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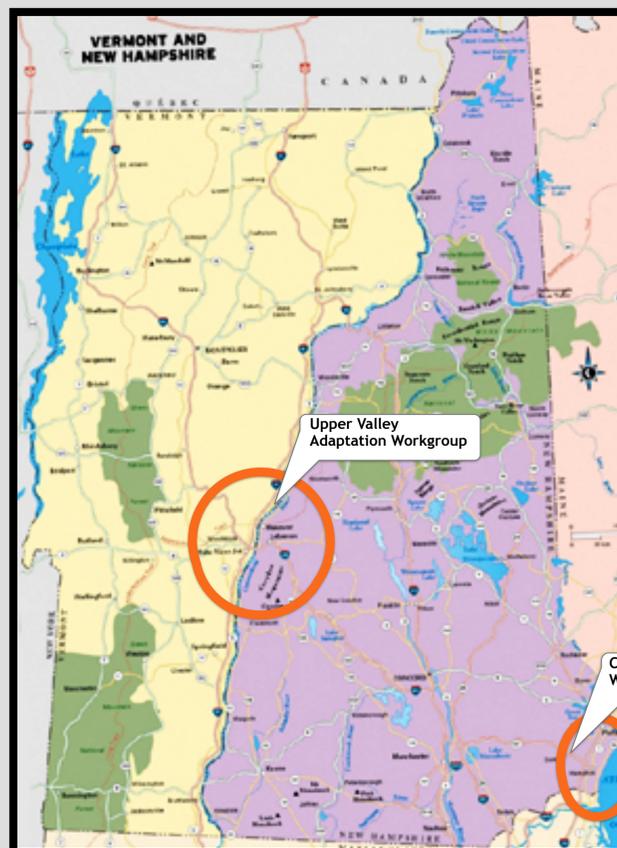


Abstract

Climate Change Adaptation workgroups are a relatively new strategy for helping communities adapt to the impacts associated with climate change. These workgroups aim to educate and empower citizens to begin thinking about climate change impacts at a local level. However, little research has been done on exactly how these climate change adaptation workgroups increase community resilience to climate change. In this study, interviews were conducted with leaders and members of these workgroups to determine how they influenced municipalities to build resilience. It was found that through educating community members, Climate Change Adaptation Workgroups are able to increase the adaptive capacity of municipalities.

Introduction

The impacts of a changing climate have taken a heavy toll on small rural communities in New England. As the risks associated with climate change begin to increase, some community members have responded by forming climate adaptation workgroups. These workgroups, comprised of different community members, work to disseminate information regarding climate adaptation and climate risk throughout the community. These climate adaptation work groups have catalyzed progressive thinking in regards to climate resiliency and have begun to serve as models for other communities seeking to address climate risks. The primary goal of this study was to both gauge how these workgroups influence decision making and examine the relationship between climate adaptation workgroups and local municipalities. A secondary objective was to find out exactly what factors are involved in creating climate change adaptation advocates.

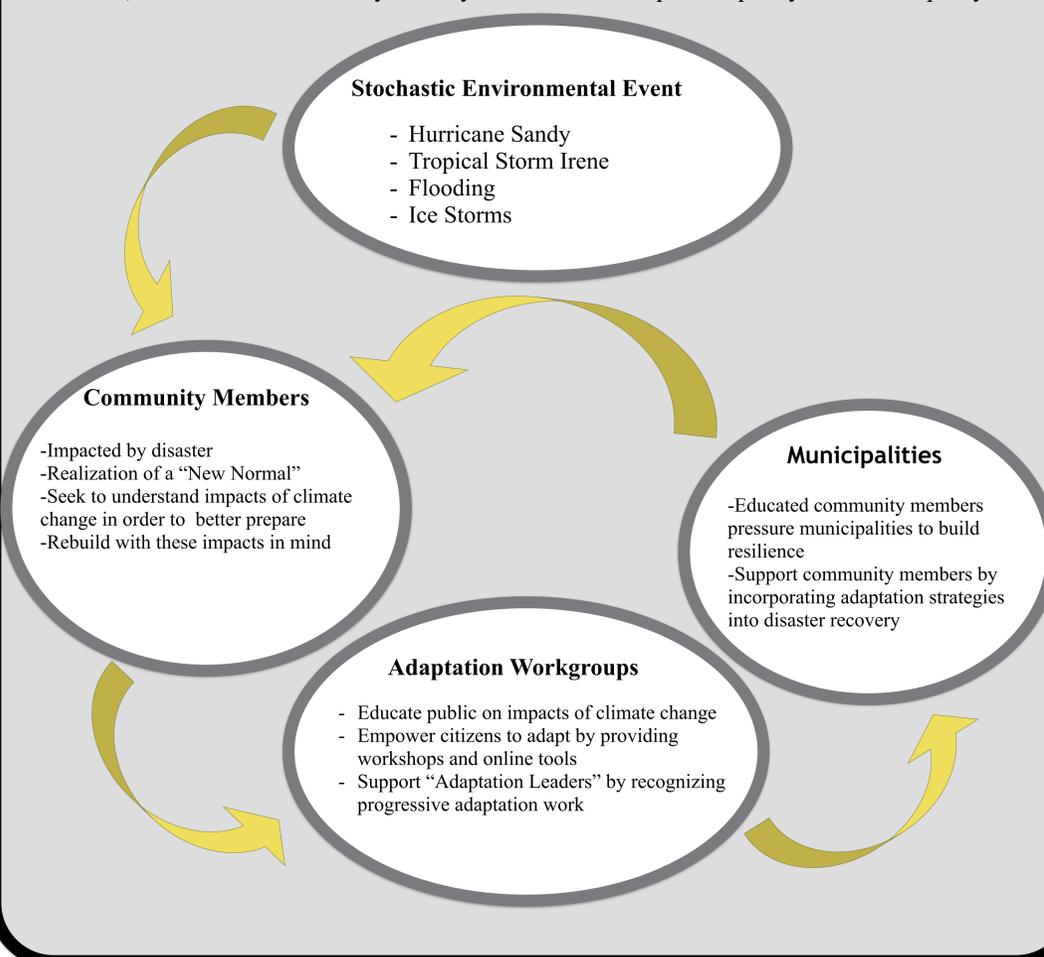


Methods

This study incorporated two methods: semi-structured interviews and a targeted literature review. The interview phase relied on five 30-minute interviews; three interviews with the Co-Chairs of the adaptation workgroups and two interviews with working members who represent local municipalities. An interview protocol and ethics application were filed prior to the study and were approved by Penn State's Internal Review Board. For this part of the study, in-person and phone interviews were utilized. In-person interviews were conducted in Lebanon, NH while phone interviews were conducted in the EES office. A separate line of questioning was used for the Chairs and Municipality Members. Participants were identified by their work with the Upper Valley and Coastal Adaptation workgroups. The literature review phase of the study principally examined two texts: *Sustaining Champions of Climate Adaptation in Coastal Communities: A New England Study* (Philip, 2014) and *Risk Communication: A Mental Models Approach* (Morgan, 2002). To determine exactly how these climate change adaptation workgroups build resilience to climate change, the information from the interviews and the literature review were incorporated into a flowchart illustrating the processes that lead to community resilience.

Results

The figure below illustrates the role climate adaptation workgroups play in building community resilience to climate change. As communities begin to feel the impacts of climate change, community members begin seeking information on climate change and its subsequent impacts. Adaptation Workgroups provide this information to community members through workshops, speakers, and a multitude of online tools. Because municipalities are made up of community members, an educated community directly increases the adaptive capacity of a municipality.



Results Continued

Through the interviews, a series of common factors were identified that lead to the creation of a climate change adaptation leader:

- Stochastic environmental event
- Impacted community
- Progressive political atmosphere
- Support of adaptation work
- Education on climate impacts

The below excerpts from interviews conducted in Lebanon, NH summarize the methods that climate change adaptation workgroups use to build resilience:

"Our target audience has been municipal leaders because they are the ones that make the decisions; town planning board zoning board, town administrators, etc"

"Most of the leaders in climate change adaptation right now are doing the work purely on a volunteer basis, it is imperative the we recognize the work of these leaders"

"The problem needs to be real to your target audience, don't talk about sea level rise to Vermont communities, talk about flood risk"

Conclusion

Climate adaptation workgroups influence municipalities to build resilience by educating the public on climate change impacts and risk. By making risk assessment tools available online, hosting workshops, and bringing in speakers, these workgroups provide their communities with the support needed to manage the impacts of climate change. Furthermore, by engaging the public in climate change adaptation, these workgroups are able to put pressure on municipalities to incorporate resilience into their Master Plans. The findings of this study also indicated that climate adaptation is a local issue and that grassroots support for adaptation is essential in preparing for climate change. Lastly, this study highlighted the important role that stochastic environmental events play in getting people involved with climate change adaptation at a local level.

References

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