Assessing the Social Landscape for Adaptation: Lessons Learned from the New England Climate Adaptation Project

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Because planners like plans...

- The challenge
- The New England Climate Adaptation Project (NECAP)
- NECAP findings about the social landscape of adaptation
 - Case study: Dover, NH
- Implications and next steps

The challenge

Tendency to:

- Think of climate change as a long term risk
- Think of adaptation as something to be done in the future, if and when impacts manifest
- Adaptation is not just a future task
 - It is something we need to start doing today
 - Everyday decisions we make TODAY will effect the vulnerability and/or resilience of our communities
- Adaptation is basically doing "better planning"
 - Creating more resilient, less vulnerable communities and ecosystems
 - First step: taking projections of future climate into consideration in our everyday decisions about policies, regulations, investments, etc.

The challenge (cont.)

- Adaptation = a "collective risk management" challenge
 - Adaptation is not something individuals or individual groups can do on their own
 - Different stakeholders, sectors, and levels of government need to work together to prepare for and manage climate change risks
- □ Collective risk management = really tough
 - Different perspectives on:
 - Is climate change a risk?
 - What should be do about it, if so?
 - How much should we invest, in what efforts, and when?
 - Who pays and why?
 - Need for collective action amid different perspectives, uncertainty, and complexity
- We need to build the capacity of communities to take on this task of working together to manage current and future risks
 - "Enhancing collective readiness to adapt"

New England Climate Adaptation Project

Testing whether role-play simulations can help build public readiness to undertake adaptation and engage in collective risk management



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NATIONAL
ESTUARINE
RESEARCH
RESERVE
SYSTEM



Project design

What are local climate change risks?

Summary Risk Assessment for each municipality

What do key stakeholders think and what, if anything, are they doing to adapt?

Stakeholder Assessment for each municipality

What does the public think?

Professional public polls before and after our intervention

- Role-play workshops
 - Developed a tailored, science-based role-play simulation for each municipality
 - Engaged 110-170 diverse people in each town in the simulation through a series of workshops
 - Data collected through before-and-after surveys and in-depth interviews

Dover findings

Stakeholder Assessment

Findings from interviews with ~20 diverse stakeholders <u>before</u> NECAP workshops

Level of concern

Most if not all stakeholders have noticed a "change in the weather"

- "Less snow" and "wetter snow"
- "Hotter summers"
- "Freak storms"
- Generally concerned about more extreme storms and rising temperatures
 - Often did not refer to this as "climate change"
 - Many were vague on what climate change means
- Most said they believe in climate change and are worried about it
 - Some disagreement about whether it is human caused
 - At least one person expressed concern that "sustainability" is a government pretense for limiting growth and weakening property rights

When shown climate projections...

- Other than Dover planning staff, none of the interviewees were familiar with local or regional climate projections
- When presented with actual climate change projections for Dover, people "got it" and started to identify specific risks
 - Not surprisingly, they focused on their niche areas (e.g., emergency management or water supply)
- All stakeholders noted that flooding in Dover will get worse
 - Particularly from the from the Cocheco and Bellamy Rivers during extreme storms
- Many other concerns mentioned, such as:
 - Health impacts
 - Impacts on water supply
 - Environmental impacts

Perspectives on adaptation

- General pessimism about Dover's readiness to adapt:
 - Lack of public awareness and concern and/or disbelief
 - Tax cap seen as an impediment
- Some said that climate change is not urgent enough to be a priority
 - "Will not affect me in my lifetime"
- □ BUT...some confidence in Dover's ability to adapt
 - Adaptation possible if the public becomes more informed
 - They were generally supportive of the City of Dover taking proactive measures, such as:
 - Public education
 - Starting to use climate change projections in today's decision-making

Dover findings

Public Poll (May 2013)

Professional, randomized phone poll with 100 Dover residents <u>before</u> NECAP workshops

Q: Do you ever think about whether a change in the climate could affect your community?

Close to 50% = <u>often</u>
 Another 22.5% = every once in a while

A lot of people are thinking about local climate change risks

22.5%

Every once in a while

- I have once or twice
- No, not really

Q: How concerned are you about the possible impacts a changing climate might have on your town?

• About 65% = somewhat to very concerned



Q: To what extent do you agree with the following: When making decisions today, decision-makers in my town should take into account scientific projections about what the climate might be like in 50 years.

More than 50% = agree or strongly agree
 Less than 20% = disagree



Q: How significant do you think addressing climate change risk [should be/will be] in your town's planning and decision making over the next ten years?

Over 80% think Dover should address climate change risk



Q: How important is it that residents, local groups, and businesses be involved in deciding how to respond to climate change risks?

• More than $40\% = \underline{very}$ important More than 80% = somewhat to very important



Some take aways (I)

- A surprising number of people in coastal communities are concerned
 - People are seeing and concerned about "changes in the weather"
 - Many are thinking about climate change and how it might affect their communities
- Local climate change projections, when effectively communicated, can make climate change "real"
 - They allow people to translate climate change into local impacts that mean something to them
 - They show that this is a local issue, not just a national or international issue

Some take aways (II)

- People are more ready to accept climate change adaptation as a local issue than decision-makers think
 - Many people think that local government should act
 - Not only environmentalists, but people from diverse walks of life, particularly long time residents
- □ However, there is an "optimism gap"
 - People are pessimistic about the prospects of effective local action
 - Tendency to see adaptation as a big, expensive undertaking; not as changing how everyday planning is done
- Stakeholders want to be engaged—people want to have a say in how their community adapts

Implications

We need to effectively communicate risks, make them tangible

- Local climate change projections can help
- Tie climate change to the "changes in the weather" people are seeing
- Tie to things they care about
- We need to show pathways forward, increase confidence and optimism about local action
 - We know that people are more likely to act when we are optimistic that we can manage risk
 - Thus, we need to convey that adaptation is about "better planning"
 - There are things we can do today to prepare, despite uncertainty
- We need to find ways to meaningfully involve stakeholders in deciding how to adapt
 - People want to have a say
- In sum: We need to actively engage people in thinking about local risks and what their community can do to adapt
 - In other words: we need to enhance collective readiness to adapt

Learn more + connect with us

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 http://necap.mit.edu
- MIT Science Impact Collaborative
 http://scienceimpact.mit.edu
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