

Utilizing Scenario Building to Assess Future Vulnerabilities

Many New York communities do not plan for extreme events, but rather react to them after the events occur. Scenario building exercises are a way for communities to begin thinking through their resiliency to local threats and identifying community vulnerabilities. For scenario-building exercise facilitators, resource managers, planners, etc., this process provides insight on the climate impact perceptions of local stakeholders and identifies gaps in climate adaptation planning.

In 2017, New York Sea Grant (NYSG) and the Environmental Finance Center (EFC) at Syracuse University facilitated a scenario building exercise at a regional local government training. Small groups (with grids and sticky notes) used community assets, e.g., built environment, transportation, utilities/communications, natural environment, social environment, and economy, to identify impacts about how their community might look under five scenarios:

- ice storm
- blizzard
- flash flood
- wind storm
- loss of major employer.

Scenario Building:

A facilitated, interactive process that can be used to assess future climate-related vulnerabilities and increase participant understanding of potential extreme weather impacts, and other threats, within a community.

Forty participants provided a total of 273 responses on seven grids. Impacts ranged from single phrases, e.g., “property damage,” to localized recollections of past events, e.g., “People stayed put; we didn’t have public transport.” Some responses were general, others explicit, e.g., “If Darien Lake folded, many part-time minimum wage jobs lost; seasonal workers and retirees out of work.”

Qualitative analysis software (CAQAS) was used to identify major trends in participant responses. The words that appeared most frequently were damage and loss. See others in the word cloud above right.



Above, scenario building participants work on their grid priorities. Photo: Mary Austerman, NYSG

Right, a word cloud of most frequently used words in the scenario. Image: EFC



NYSG and EFC are available to groups interested in utilizing scenario building exercises to assess resiliency options for their communities. Contact NYSG as noted below. EFC is located at the Syracuse University Center for Sustainable Community Solutions.

Partner:

- Environmental Finance Center at Syracuse University

The Sea Grant Focus Area for this project is New York Resilient Communities and Economies

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