Climate Change Adaptation Strategies in New York City and New York State

Gabe Cowles1, Megan O’Grady2,3, Cynthia Rozenzweig2,3

NPCC: New York City Panel on Climate Change

Introduction: What is the NPCC?
To respond to climate change and accomplish the goals outlined in PlaNYC, the City’s comprehensive plan to create a greener, more sustainable city, Mayor Michael Bloomberg, in partnership with the Rockefeller Foundation, convened the New York City Panel on Climate Change (NPCC) in August 2008. The NPCC, which consists of leading climate change and impacts scientists, academics, and private sector practitioners, was charged with advising the Mayor and the New York City Climate Change Adaptation Task Force (the “Task Force”) on issues related to climate change and adaptation as it relates to infrastructure.

Methods: What does the NPCC provide?
The NPCC is creating three workbooks to guide Task Force members through the process of identifying climate risks to their critical infrastructure, creating adaptation plans, and considering the regulatory environment as it pertains to climate change adaptation. The Climate Risk Information (CRI) workbook provides a summary of climate data and projections for New York City and identifies potential risks to the City’s critical infrastructure posed by climate change. The Adaptation Assessment Checklist (AAC) guides stakeholder consideration of the climate information presented in the CRI in their risk-management and planning processes. The Climate Protection Levels (CPL) report evaluates some of the policies, rules and regulations that govern infrastructure to determine how they could be affected by climate change.

Global Climate Scenarios
- SRES greenhouse gas emissions pathways (A2, A1B, B1)
- GCM simulations

Local Climate Information
- Observed data
- GCM-based projections
- Quantitative
- Qualitative

Climate Risk Factors
- Generalized climate hazards of most consequence to NYC infrastructure used to determine critical infrastructure at-risk

Results: Climate Risk Information
Through analysis of existing climate change research, such as the Intergovernmental Panel on Climate Change’s Fourth Assessment Report, areas considered to be-at-risk from climate change are identified and a framework for creating adaptation policies is developed. The goal is for this framework to be applicable in other urban settings where climate change poses serious risks.

ClimAID: New York State’s Climate Change Adaptation Assessment

Introduction: What is ClimAID?
The New York State ClimAID project seeks to identify areas in the State that are threatened by climate change and develop adaptation strategies to mitigate climate-related impacts. To achieve this goal, stakeholders representing various sectors have been assembled to produce a broad, comprehensive report that will classify at-risk regions and develop effective adaptation policy. This collaborative effort has brought together a variety of professionals from The Earth Institute at Columbia University, Cornell University, The City University of New York’s Institute for Sustainable Cities, and Rutgers University, just to name a few. This project is funded by the New York State Energy Research and Development Authority (NYSERDA).

Methods: How does ClimAID operate?

Stakeholder Identification
In collaboration with NYSERDA and the Project Advisory Committee, the ClimAID group will identify the sectors, sub-sectors, and public (state and local policymakers) non-profit, and private stakeholders to be included in the subsequent tasks. The sectors identified will provide a diverse set of conditions that will facilitate translation of this work to future assessments focused on other sectors and impacts.

Stakeholder Interaction Process

Case Studies
The use of case studies will help the ClimAID group identify and illustrate the links between the vulnerabilities, climate risks, and adaptation, and demonstrate specific monitoring needs. The case studies will target those areas that experience frequent climate impacts under current climate conditions, which will help identify useful adaptation strategies regardless of uncertainties in future climate projections.

About NYSERDA
NYSERDA is a public benefit corporation that seeks to use innovation and technology to solve some of New York’s most difficult energy and environmental problems in ways that improve the State’s economy. NYSERDA’s programs provide a vehicle for the State to work collaboratively with businesses, academia, industry, the federal government, environmental community, public interest groups, and energy market participants. (http://www.nys erda.org/About/default.asp)

Results
During the term of the project, the ClimAID group will provide NYSERDA with quarterly progress reports describing the work performed during the reporting period. Such reports shall describe any difficulties encountered during the reporting. Ultimately, a final report will be created that compiles the final results from all sectors. The report will be divided into chapters for each sector and will describe vulnerabilities, present adaptation strategies and provide those relevant to each sector. The ultimate goal is to provide a broad perspective on climate change risks as they pertain to New York State.