

Comparing extreme rainfall exposure to climate-focused planning efforts

Objective

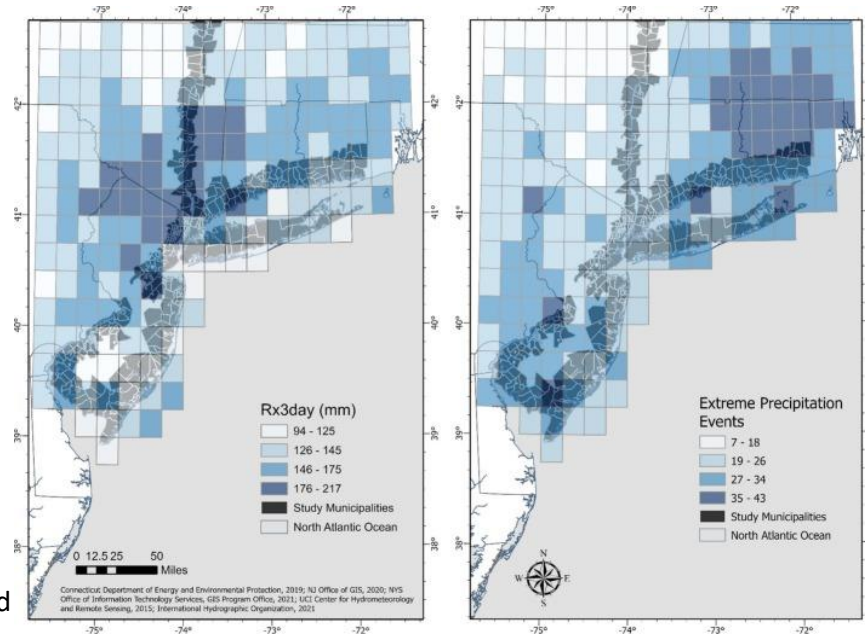
- To better understand what attributes have led some communities to address climate-related planning imperatives but not others, this study assesses whether municipalities along the United States Atlantic coast are more likely to have climate-focused plans in place if the municipality has previous experience with extreme precipitation events.

Approach

- Extreme precipitation is evaluated as a motivator of climate planning due to its high visibility and role in flooding events, association with tropical cyclones, and expected changes as global temperatures increase.

Impact

- Of 461 municipalities studied, only 18 % had a standalone climate plan.
- Coastal communities seem to engage in more climate-focused planning.
- Coastal places show positive relationships between extreme rainfall and climate planning.
- Riverine communities exhibit negative relationships between extreme rainfall and climate planning.



PERSIANN-CDR derived extreme precipitation events and maximum 3-day accumulated precipitation amounts (respectively) observed over the study region from 2000 to 2021.

Miller, N., Finn, D., & Reed, K. A. (2025). Comparing extreme rainfall exposure to climate-focused planning efforts: A mixed methods analysis in the northeastern United States. *Urban Climate*, 59, 102258.