

Making Waves in Equitable Coastal Resilience: A National Workshop on Social Equity and Coastal Resilience November 2022

Coastal Squeeze, Climigration, and Equity Implications

Summary: Coastal squeeze is impacting communities across the United States. Agricultural lands are affected by groundwater salt intrusion, habitats are lost due to limited space for species to migrate inland, natural capital and flood protection values are impacted by reduction in undeveloped land for natural ecosystems, infrastructure such as transportation are affected by flooding, and insurance companies are withdrawing from covering properties in coastal communities experiencing sea level rise and flooding. Resulting 'climigration' is occurring, for example, in Puerto Rico residents moving off the island, and subdivisions in North Carolina and Virginia being turned over to conservation. Lower-income communities are often at greater risk and have limited resources. Urban centers on the coast experience more severe climate impacts, but inland rural communities are more disadvantaged and may be impacted disproportionately. Data availability might also introduce equity challenges, as there is more data on coastal communities and less on riverine communities. In most coastal areas, the majority of land in the land-estuary interface is owned by private landowners. Human decision-making is complex and personal; a deeper understanding of decision-making by individuals, households, and communities is needed. Climigration will increase demand for higher elevation property locations in cities or towns and for cities and towns at higher elevation. This may affect property values in high-demand areas and drive out or exclude lowerincome residents. Stakeholder buy-in and support are critical for both leaving and receiving communities, but there can be cultural and ideological resistance to policy implementation.

Research Questions

^① Data, Mapping, and Modeling

- What existing models and tools are available for predicting coastal squeeze hotspots?
- How do we predict climigration?
- How far out do we evaluate coastal squeeze impacts?
- What models and mapping tools need to be developed to determine future hotspots of coastal squeeze and climigration implications?
- How do these models and tools intersect flooding and sea level rise data with people, communities, infrastructures, the environment, and other important factors?
- Do we have enough of the right data types to synthesize into models that address equity impacts of coastal squeeze and climigration?
- How are we being intentional in identifying relevant data, collecting data, integrating data, and conducting analysis to ensure the community is considered?

- What new data do we need (e.g., receiving communities, demographic shifts, existing disparities, riverine communities)?
- What timelines are we using for modeling and do these match decision making?
- How do we decide what timeframe is relevant (e.g., infrastructure planning horizon, mortgage decisions, accelerated sea level rise, level of certainty)?

^② The human dimension

- How do we understand the human dimension of decisions-making and actions regarding response to coastal squeeze and climigration (e.g., who, why, and when to move)?
- How do people, households, and communities make (re)location decisions that consider sea level rise, flooding, coastal hazards, etc.?
- How do we understand decision-making about migration and relocation in a way that goes beyond dollars and cents?
- What factors do we need to consider in understanding mobility and migration?
- What are the push and pull factors considered in individual, household, and community decisions regarding relocation and migration (e.g., social networks, age, economic opportunities, essential services, mental health, crime rates and perception of safety, affordable housing, etc.)? How do they interact?
- What roles do pre-existing disparities and inequities play in determining who stays, who moves, and where they move to?
- How much of the decision is driven by individual factors compared to manipulable by policy?
- How do we account for sense of attachment, sense of place, or sense of community that can shape decision making?
- How do we model human behaviors and mental health impacts of decisions to move? How are these impacts distributed across a community?

③ Movement of people and communities

- How do we predict the social and economic impact of inter- and intra-locality movements? What are the equity impacts of inter- and intra-locality movement?
- How can this information be used for planning? For conservation efforts? For understanding equity and environmental justice implications?
- What can we learn from existing examples of climigration (e.g., Isle de Jean Charles, Tangier Islands, Newtok)?

Politics and policy

- What is the role of politics and policy in climigration?
- What role does insurance play in decision-making?
- How does the concept of climate refugees fit with climigration?
- What role does the political ideology of climate change play in climigration?
- What can we learn from the FEMA or other buyout processes?
- What other solutions should be considered to support climigration?

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