

Building Community Resilience I

The Power of Frontline Leaders to Shape Our Future

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Residents facing the possibility that they may be displaced as a result of flooding and climate change can feel isolated in their struggles to raise awareness of the problem and in their efforts to explore and implement approaches to reduce risk. Tremendous emotional and mental energy is needed to problem-solve in trying circumstances, especially as new crises like the COVID-19 pandemic and extreme weather events have emerged. The Climigration Network (CN) will partner with the Anthropocene Alliance (Aa) and their leaders from low-income, Black, Latino, and Native American communities, both leaving and receiving, to provide a platform for them to share their experience and their histories with climate displacement and relocation, including colonialism, historic forced relocation and disaster capitalism. CN and Aa will support dialogue and learning opportunities sought by frontline leaders and help them establish a leadership structure as a foundation for the development of recommendations for policy makers, government and funders. The recommendations will guide and inform both networks' approaches on managed retreat and ensure both are serving community needs. Frontline leaders will be compensated for their time developing policy recommendations. The recommendations will be shared with community and practitioner allies to broaden understanding, build a coalition to advocate for policy change, and serve as the foundation for future collaboration between Aa members and CN.

The Long Goodbye on a Disappearing, Ancestral Island: A Just Retreat from Isle de Jean Charles

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Climate change will necessitate more frequent and complex managed retreats in the future. Policies that are equitable and just for those residents who are relocating will be essential. The United States' first federally funded, community-scale, climate-driven resettlement is underway in coastal Louisiana. In January 2016, the U.S. Department of Housing and Urban Development (HUD) awarded the state of Louisiana \$48.3 million to plan, design, and implement a structured, just, and scalable resettlement with former and current Isle de Jean Charles residents. Most Island households are multi-generational and directly descended from Jean Marie Naquin, after whose father the Island is named. This session will outline how the dimensions of sense of place prompted policy changes different from standard relocation policies: assurance that the properties and land from which residents are departing will continue to be in their possession as long as the land remains. For most Island residents, this was non-negotiable. The intangible connection to place – feelings of belonging, lifestyle, family connections, and culture - plays a central role in many families' decision to stay or go. The choice to relocate is rooted in this complex entanglement of identity, familial ties, land loss, historical and current marginalization, and a way of life passed on by multiple generations. In forthcoming community resettlements, continued access and ownership of the properties being left behind may be considered as a critical component for planning just retreats.

Envisioning a Resilient Oregon Coast: Co-developing alternative futures for adaptation planning and decision-making

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Coastal communities in Oregon increasingly face challenges related to coastal hazards, both chronic (storms, sea level rise) and acute (earthquakes, tsunamis). Planning for both types of coastal natural hazards has historically faced barriers such as limited financial resources, lack of capacity at local levels, and slow-to-change policy and regulations. The Oregon Coastal Futures Project (<http://explorer.bee.oregonstate.edu/Topic/coastalresilience/>) is co-developing adaptation pathways and hazard resilient mitigation measures by quantitatively examining common resilience decisions and associated trade-offs across a range of scales. We are developing, applying, and assessing a transdisciplinary and transferable framework for increasing coastal community adaptation and resilience to chronic and acute coastal hazards. This framework combines deep stakeholder engagement, a powerful alternative futures model, robust evaluation of policy and coastal hazard scenarios to inform decision-making. One dimension of the project is to investigate the societal impacts of chronic and acute hazards and explore how specific policies may decrease or increase community sensitivity, particularly for vulnerable and underrepresented populations. While it is widely understood that vulnerable and underrepresented populations (e.g., low-income, persons with disabilities, minorities, and the elderly) are more sensitive to the impacts of a natural disaster, there is little information on how specific community actions can mitigate this sensitivity over time. By first exploring how particular community actions may affect underrepresented groups, we can then simulate long-term socio-economic metrics such as life safety, construction costs, etc. of these hypothetical actions in our agent-based model Envision. Example of socio-economic metrics that are being modeled in the project include, but are not limited to, the cost of retrofitting residences, relocating vulnerable populations away from hazardous areas, the rates of outmigration for different populations after an acute hazard event, and access/protection of critical infrastructure (e.g., schools, hospitals, fire stations) and community assets (e.g., places of worship, community resource centers). These actions and associated metrics are intended to provide community leaders with new insights and hopefully facilitate decision-making processes that help their communities—particularly highly vulnerable population segments—prepare for chronic and acute hazards.

Social and Physical Dimensions of Climate Resiliency: A Case Study of Environmental Justice in the Bronx River Watershed

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Climate change is happening now. Its impacts are already being borne disproportionately by environmental justice communities, such as the South Bronx. Extreme heat events particularly affect EJ communities such as Hunts Point. Racist policies that have led to the disproportionate siting of polluting land uses (particularly along the waterfront) now raise concerns about the potential for human exposure to toxic chemicals in the event of coastal flooding. Extreme weather events (e.g., “rain bombs,” flooding, hurricanes) will affect communities of color more than others because they will be overlaid on existing

community maladies: poverty, poor air quality, lack of access to open space and clean water/air, as well as high levels of stress, heart disease, obesity, and asthma. In the same way that COVID-19 is disproportionately affecting communities of color, climate change is as well. Adaptation strategies must be both targeted to and led by these communities. These strategies must include both social components (e.g., community organizing), as well as physical interventions (e.g., retreat along the shoreline, planned flooding, soil remediation, green infrastructure, adaptive habitat management). Community-based initiatives in the Bronx River watershed illustrate both approaches, and suggest ways that they can be married via long-standing, deep partnerships that lead to collective action and community power.

THE POINT CDC is dedicated to youth development and the cultural and economic revitalization of the Hunts Point section of the South Bronx through the lens of environmental justice, and has pioneered several approaches to growing social resiliency to climate change. The Bronx River Alliance is a public private partnership dedicated to protecting, improving and restoring the Bronx River corridor and greenway so that they can be healthy ecological, recreational, educational, and economic resources for the communities through which they flow. The two organizations are engaged in physical and community efforts to educate and prepare the Bronx for a climate disaster, control invasive species, restore native habitat, reduce erosion and improve water quality, reducing the amount of pollution that flows downstream to the communities of the South Bronx. In addition, the Bronx River Alliance is developing the Bronx River Greenway--a system of parks and trails along the full 23-mile length of the river, The development of the Bronx River Greenway is a form of managed retreat with initiatives such as the remediation of post-industrial sites and the renaturalization of the shoreline.

Community Response to Local Coastal Resilience Programs: Results of Household Survey in the New York Metropolitan Region

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It is becoming increasingly evident that there are significant impediments to climate adaptation advancement and acceleration. Coastal resilience programs generally and those focused on contentious issues such as managed retreat require consistent and effective communication between practitioners and policy-makers developing these strategies and local stakeholders - those potentially impacted by the policies, such as home owners. This paper attempts to address the linkages between these two groups by conducting a survey of household residents in coastal New York and New Jersey communities (two older urban communities, two suburban, and two exurban). The survey (n=265 total) addresses research questions on community climate resilience program effectiveness. Specifically, the questions address what factors influence how local community stakeholders understand the effectiveness of these programs, strategies and activities and what conditions influence their ability and interest in engaging with these efforts? In addition, it discerns how the respondents' climate risk perception and risk management strategies will influence their future resilience practice (e.g., uptake of climate resilience efforts such as managed retreat). The results indicate a wide variation in responses across the communities and respondents. However there are some consistent results overall; for example, the understanding of local coastal resilience programs was quite limited among the household respondents. With respect to respondents' perception of future risk and their attachment to place, again the results were fairly consistent. The vast majority felt that the level of flooding risk would increase in the future, yet they remain very much attached to their homes and neighborhoods. With respect to receptivity of

managed retreat programs, a majority stated that another Hurricane Sandy-type storm in the near future (within ten years) would encourage them to consider leaving their home.

Building Community Consensus for Flood Risk Adaptation

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Hudson estuary riverfront communities in New York State are facing increasing flood risks from sea-level rise, riverine flooding and storm surge, and they will be challenged to adapt in place as these trends continue. Like communities across the state, they struggle to get local residents engaged in meaningful dialogue on possible solutions to the longer-term risks. This lack of dialogue leaves communities frozen in place – aware of the challenges headed their way but unable to take meaningful action. Led by a partnership of government and nonprofit organizations and supported by foundation funding, a team, led by the Consensus Building Institute (CBI), the DEC Hudson River Estuary Program, Scenic Hudson and Nechamen Consulting, explored a new approach to this challenge in partnership with leaders from Piermont, NY, a small riverfront community just north of New York City. The approach recognized that the concept of municipal investment in adaptation strategies, particularly strategic relocation, is difficult to discuss at a community scale without individual homeowner consideration of their risk and personal options. CBI first began to push at this approach in summer 2017, holding “living room” conversations in four Piermont neighborhoods to understand how residents perceive their risk. More recently, in 2019-2020 CBI and its partners trained and empowered residents as informal leaders and facilitators in their own neighborhoods (“neighborhood liaisons”) to lead conversations on risk, adaptation options, including relocation, and their community’s future. New tools were developed to provide homeowner-scale flood risk information (a personal flood risk assessment profile) and navigate the practical and emotional considerations (a personal flood risk tolerance questionnaire). This presentation will summarize these new tools and report out on Piermont’s post-project progress in helping individual homeowners in flood-risk areas plan for their future. Local Piermont leader Nathan Mitchell and CBI facilitator Bennett Brooks will share lessons learned from the effort.