

MACH Focus Areas



Household Decision-Making

What problem does this focus area address?

The Household Decision-Making group investigates how households in urban and suburban communities experience and respond to climate-related challenges such as flooding and heat waves. Their research pays particular attention to the lived experiences of marginalized populations such as low-income residents, immigrants, Black, Indigenous, and People of Color (BIPOC) communities, and renters. The group aims to understand how households perceive and experience such hazards, what resources are available to them, and how they weigh their options when deciding how to adapt or recover. By documenting how these communities make day-to-day decisions about climate risk, the group aims to bring their voices into policy-making.

How can this research be used?

The group organizes its inquiry around four central themes:

- **Exposure** – which examines how households encounter climate-related hazards.
- **Resource awareness and access** – which considers the extent to which people know about and can use tools such as emergency assistance or city services.
- **Social networks and support systems** – highlighting the crucial role of relationships with family, neighbors, and community groups in coping with crises.
- **Decision-making** – encompassing both immediate reactions to emergencies and longer-term planning.

What is MACH?

The Megalopolitan Coastal Transformation Hub (MACH) is a consortium of 13 institutions that brings together academics, policymakers, and community leaders to research climate change impacts and develop effective, evidence-based responses in the Philadelphia–New Jersey–New York region and beyond. Learn more about MACH at coastalhub.org.



Coastal Climate Risk



Adaptation Strategy Design



Housing, Insurance, and
Mortgage Markets



Municipal Finances



Transdisciplinary Research
and Co-Production Design

facilitate this, researchers have nurtured relationships with mutual aid groups such as Homies Helping Homies, non-governmental organizations, activist networks, local government councils (e.g., Manville, NJ), and educational institutions like the Community College of Philadelphia. These collaborations allow the researchers to be present in community life—attending food distributions, joining public events, and engaging in casual conversations, which makes it possible to gather meaningful, nuanced insights.

The group has observed that many forms of climate adaptation occur in everyday life and often go unrecognized by formal systems. For example, cleaning up flood water or negotiating with a landlord for repairs can be critical acts of adaptation. In some cases, residents do not connect the idea of “climate change” with their experiences. Instead, they describe their problems in terms of poor housing conditions, landlord negligence, food insecurity, or unreliable infrastructure. These insights underscore the importance of developing climate communications and policies using a bottom-up approach, rather than a technical approach.

Similarly, informal networks—such as shared cellphone plans or collective arrangements for food access—often serve as lifelines. These support systems are vital, even though they may be invisible to policymakers or absent from official datasets.

Importantly, the group found that many residents are unaware of existing programs or resources that could help them. Moreover, historic experiences of exclusion can lead to mistrust. This illustrates a misalignment between government services and the communities they serve. It also points to the



Hurricane Irene flooded homes in Bound Brook, N.J., site of repeated flooding.

limitations of top-down climate strategies that focus on long-term infrastructure investments. While these efforts are important, they often do not address the urgent, everyday needs of vulnerable populations, such as food security, safe housing, or clean water.

How does this research relate to the work of other focus areas?

Through careful observation, long-term relationship building, and collaborative knowledge production, the Household Decision-Making group is revealing how everyday life is increasingly shaped by environmental risks—and how climate policy must respond to these lived realities. This form of research complements technical work done by other MACH groups to present a holistic analysis of societal climate impacts in the northeast coastal region. Their work demonstrates that climate adaptation is not only a technical challenge, but also a human one. Underlying inequalities mean those least responsible for climate change are the most impacted. Here is where societal transformation must begin.

The work described here is conducted by researchers at Rutgers University, the University at Albany, and Carleton University affiliated with the MACH consortium. Reach out to coastalhubinfo@gmail.com for more information.

KEY POINTS

- The Household Decision-Making group studies how urban and suburban households—especially marginalized groups—experience and respond to climate-related hazards.
- Their research centers on exposure to hazards, awareness, and access to resources, the role of social networks, and how households make decisions during and after climate events.
- The group uses ethnographic research methods, working closely with community partners and participating in community events to gather in-depth insights.
- Many climate adaptation actions happen informally and go unrecognized by policymakers. Residents often don't label them as climate-related, highlighting different ways of knowing between community experiences and climate policy.
- The research underscores that climate adaptation must be grounded in lived experiences, address immediate needs and be led by those most affected.