

WHAT ARE THE FACTORS THAT MOTIVATE LOCAL DECISION MAKERS TO INVEST IN NATURAL INFRASTRUCTURE?

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Coastal hazard mitigation policy in the US has historically focused on hardened, or gray, infrastructure. Recently, there is increased public interest and policy supporting the use of habitats, or natural infrastructure (NI), following decades of increasing ecological, engineering, and economic evidence. This trend suggests that behavioral and institutional factors may be as important as scientific evidence for mainstreaming NI. To understand what factors affect decisions to use NI, Sheila Reddy a social scientist at the Nature Conservancy and colleagues analyzed 10 years of public meeting minutes in six counties in three states (MD, NC, CA) and conducted semi-structured interviews with 16 individuals associated with three NI investments (one per state). Over the last ten years, consideration of NI by county commissioners is extremely rare; however, in the last five years, county staff has recommended NI as a preferred option. Our grounded theory analysis of three NI investments revealed four themes; diffusion of technology led by innovators (N=34), local champions (N=46), social networks and norms (N=30), and perception of benefits (N=45) and costs (N=31). This grounded theory suggests that the decisions to use NI were driven by innovators (citizens, local NGO staff, or state resource managers) who were influenced by seeing NI successes implemented by trusted experts and who perceived NI benefits beyond protecting coastlines (e.g., sense of place). Innovators also acted as local champions, getting others “comfortable” with NI and connecting to local interests. In 2008, MD passed a policy that mainstreamed NI by making it the required technology as opposed to the preferred technology in places where it is scientifically justified, while in CA and NC it is only a preferred technology.

This presentation will identify opportunities to use behavioral nudges and policies to mainstream NI in places where it is scientifically justified. It will also identify risks associated with local decision processes and the role of trusted experts.

If time permits in this session, we could also structure this as a dialogue with audience members on factors they think influence consideration of NI. I could invite a local official and community leader to discuss their views and then open it up for conversation. I could also share a short film that we produced on the study, with the help of a professional film producer that has interviews with local decision makers on site.