**2024-25 Environmental Law and Policy Hack
Problem Statement**

The Issue:

As regions around the world grapple with rapidly intensifying climate impacts, the need for resilient infrastructure built to both withstand and buffer a range of shocks and stressors is becoming increasingly clear. Fortunately, this type of infrastructure is already being developed.

Nature-based solutions, for example, provide multiple benefits that strengthen communities. At the community scale, nature-based solutions include street trees, pocket parks, and community greening, which provide stormwater management, urban heat-reduction, and coastal protection. Critically, these interventions also lead to improved physical and mental health outcomes, reduced crime, and improved cognition in children.[1,2]

While numerous pilot projects and research efforts have provided clear evidence to support the outsized cost-benefit ratio of nature-based solutions, the full range of physical, social, and health gains generated through these protective interventions continue to be undervalued in the traditional approach to infrastructure investment.

A critical gap exists in how nature-based solutions are valued, captured, and monetized. Innovative resilience infrastructure calls for innovative financial structuring. Funding for these projects comes largely from government and philanthropy. Examples of innovative place-based financial mechanisms are emerging from small organizations such as BlueForest's forest resilience bond in California, Quantified Ventures' environmental impact bond for DC Water, and the Connecticut Green Bank.

To scale up investment in green infrastructure to meet the scope and pace demanded by changing environmental conditions, the value provided by such products must be better understood and communicated to investors, asset owners, government, insurers, rating agencies, and other stakeholders. A new strategy of valuing and integrating successful social and health outcomes into resilience infrastructure design and finance could unlock significant resources desperately needed by cities around the world.

The Problem:

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[1]Julius Dewald, Jane Southworth, José Szapocznik, Joanna Lombard, & Scott Brown, *Greening the Urban Landscape: Assessing the Impact of Tree-Planting Initiatives and Climate Influences on Miami-Dade County's Greenness,* 16 REMOTE SENSING 157 (2023).
[2] FLORENCE WILLIAMS, THE NATURE FIX: WHY NATURE MAKES US HAPPIER, HEALTHIER, AND MORE CREATIVE (2017).

We challenge you to re-envision how capital could flow to resilient urban infrastructure, by examining policy interventions, regulatory changes, or new institutional arrangements that might help scale investment in both the innovation and implementation of resilience-building infrastructure in cities. How do we capture and monetize the broad value of nature-based solutions and the ecosystem services they provide? How can we convert the so-called "resilience dividends" into a viable financial structure that perpetuates and scales investment?

The challenge is broad and successful proposals could take many forms, including, for example, by focusing on any or some combination of:

- An analysis of ownership structures and policy provisions that may currently inhibit or disincentivize nature-based infrastructure

- Proposals for alterations in tax laws or environmental review regulations

- A demonstration of a cost-benefit ratio that prizes investment in human-focused resilience to best guide public and private resources

- An assessment of the state of opportunity for novel nature-based financing and the identification of opportunities for pilot projects

- A proposal of changes by specific actors (regulators, rating agencies, insurers, government) that would lead to more efficient capital flow to resilience-building projects

Teams may approach the problem more holistically or choose to consider:
- A specific type of nature-based solution or intervention
- A specific region, state, or local community
- A specific type of financial strategy or product
- A specific type or class of benefit on a certain population

Proposals should be grounded in and explain current law, including how the proposed approach will intersect with existing laws and policies. Proposals should also cognize and consider intersections with justice, including how an approach could impact different socioeconomic, racial, ethnic, religious, and/or indigenous groups, and offer solutions to avoid disproportionate impacts.

Submission guidelines:

• Participating teams should propose an innovative approach to financing resilient infrastructure. For example, this could be in the form of regulatory changes, new policy that changes the incentives landscape, new institutional structures (like green banks), or innovative finance structures.

• Teams should situate the approach within existing law; identify steps and actors necessary to implement the approach; and clearly explain how the approach would change the current approach to financing resilient infrastructure.

• Teams should describe how the Hack award funds could be used to support implementation of the team's proposed approach (for example, a policy brief proposing changes to a regulation or policy or stipends for the teams to pay for support to actually create an innovative structure).

• The Hack encourages teams to consult and work with (even include as members of their team) groups or individuals drawn from a variety of fields whose contributions support the team's work. Teams are welcome to work with government officials, private businesses, or community groups.