

USDA Forest Service

URBAN FOREST CONNECTIONS

webinar series

Second Wednesdays | 1:00 – 2:15 pm ET

www.fs.fed.us/research/urban-webinars

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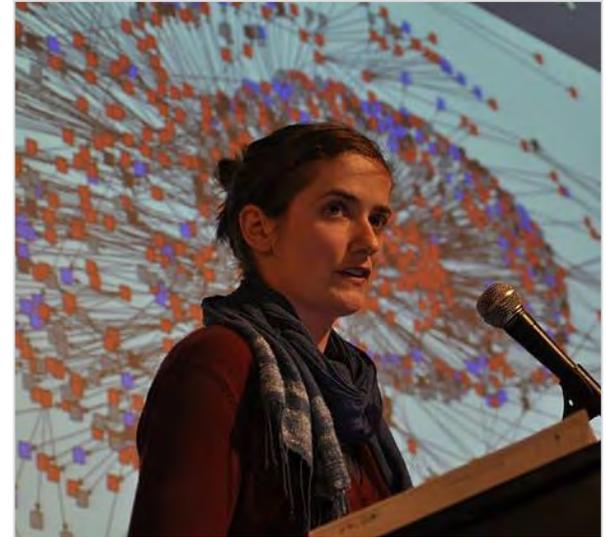


STRENGTHENING RESILIENCE THROUGH GREEN SPACE AND STEWARDSHIP



Samuel Carter

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The Rockefeller Foundation*



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An aerial photograph of a city, likely New York City, showing a river (the Hudson River) and a large, dark, rectangular structure (the World Trade Center site). The image is used as a background for the title. The title text is overlaid on the top left of the image.

RESILIENCE BY DESIGN

Samuel Carter
The Rockefeller Foundation

Image: Rebuild by Design

RESILIENCE

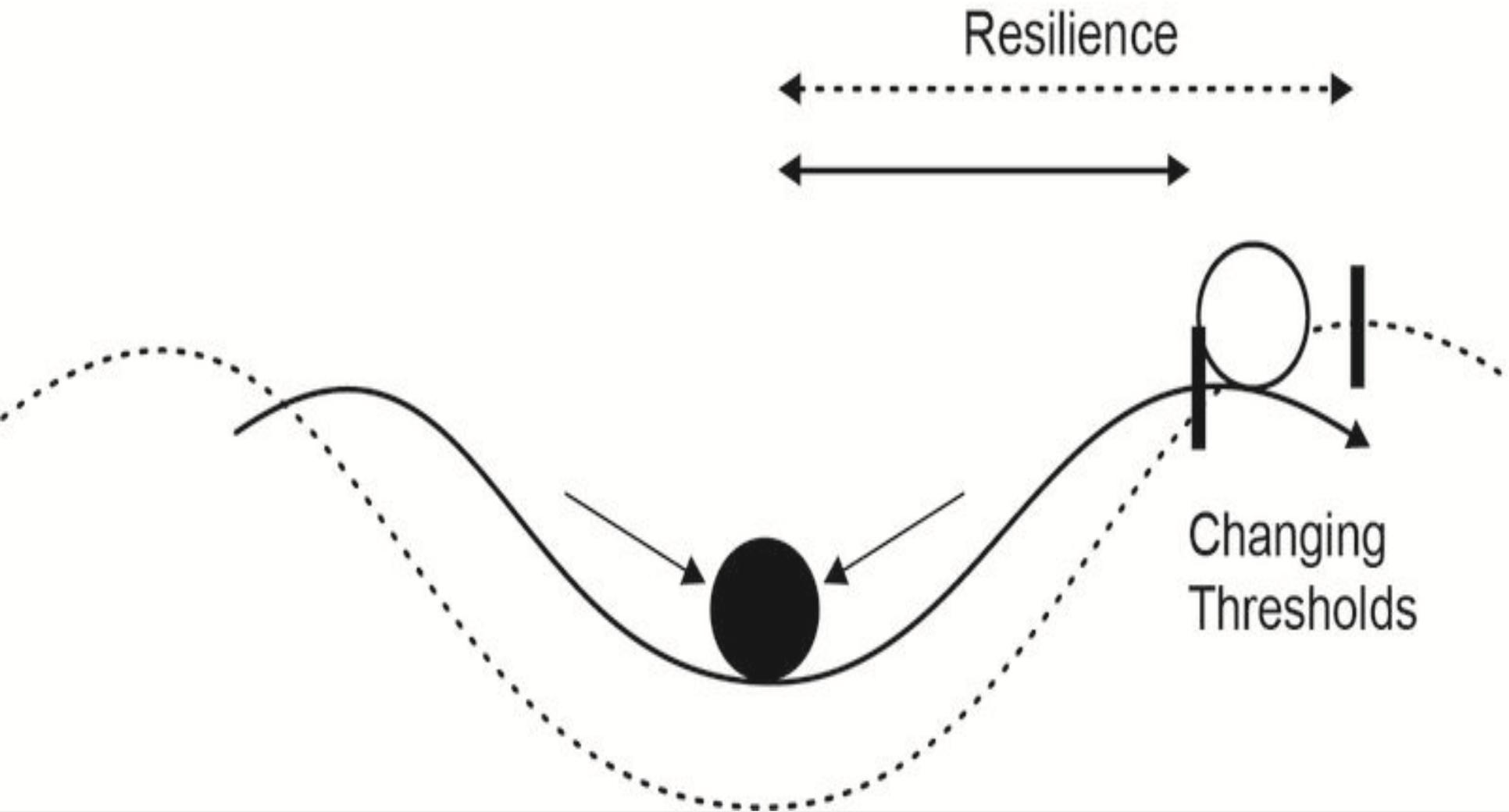


RESILIENCE

Resilient



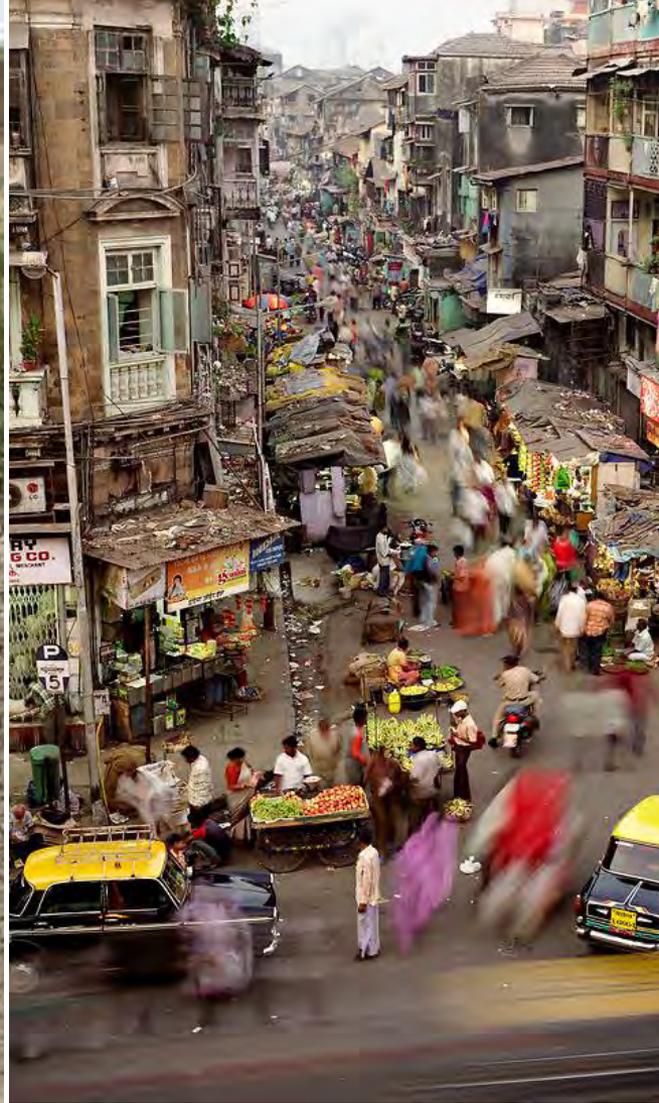
Collapsing







Global Environmental Change

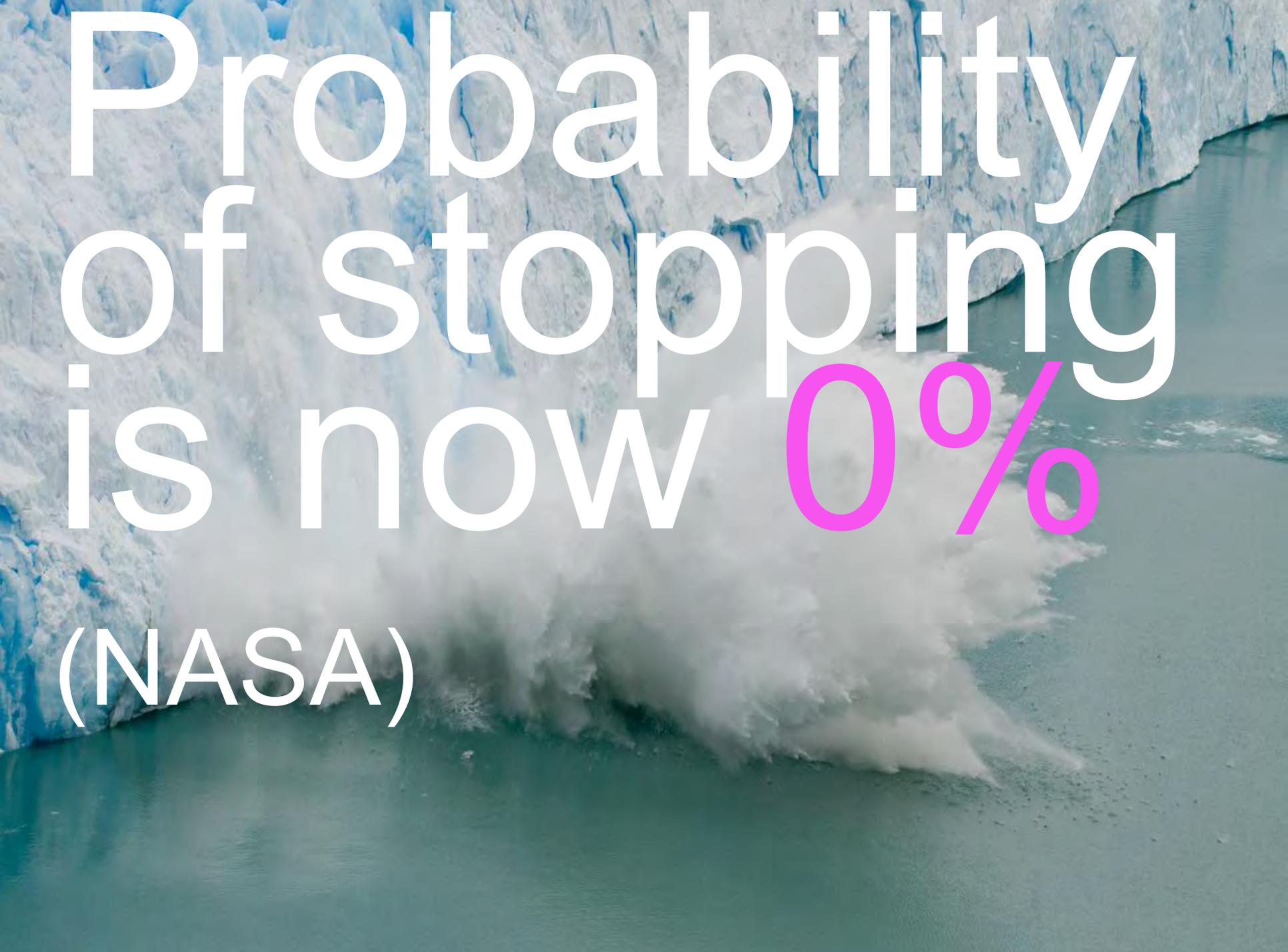


Urbanization



Globalization



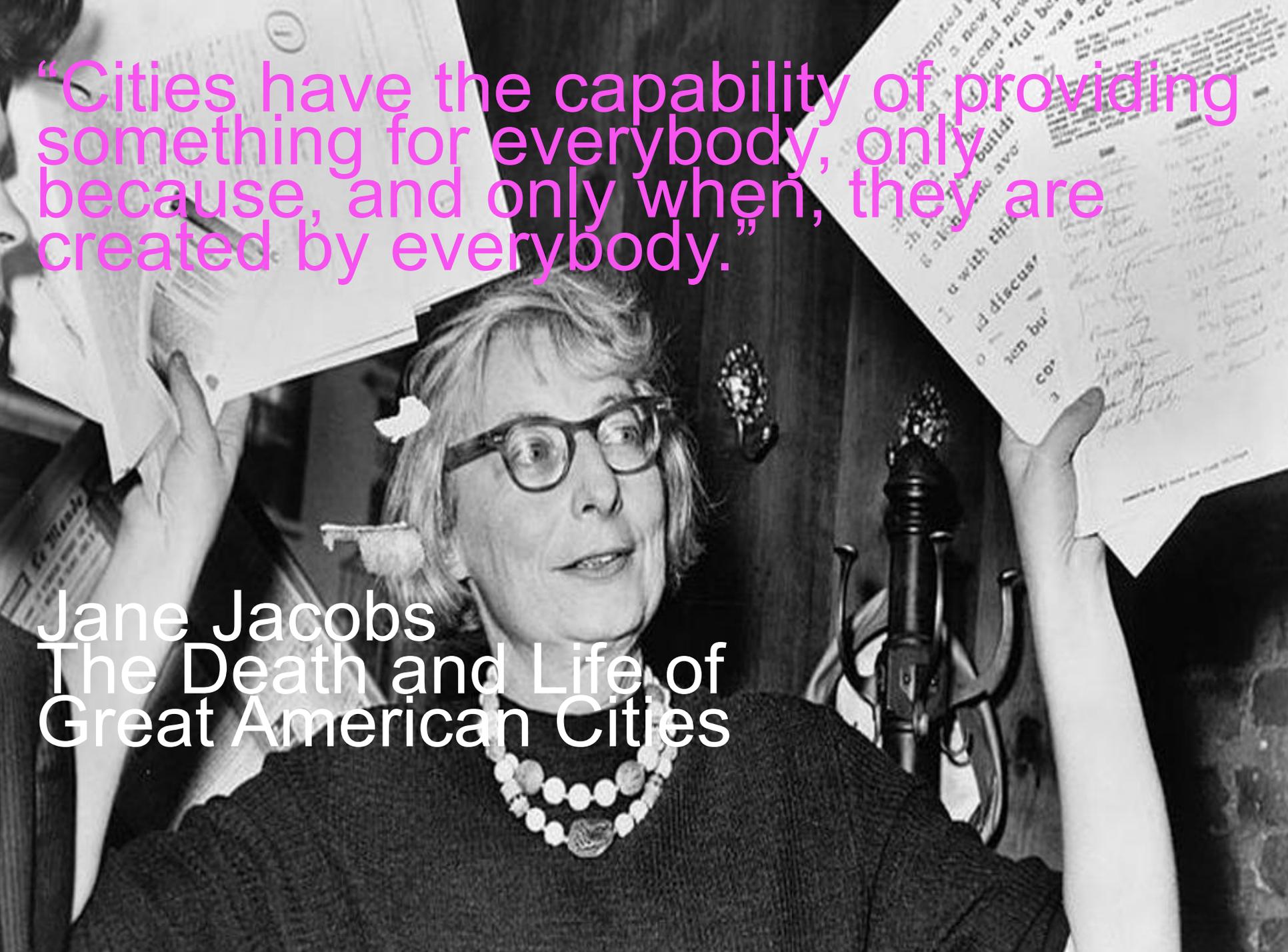
An aerial photograph of a glacier's edge where it meets the ocean. The glacier is a mix of white and blue ice, with a large piece of ice breaking off and falling into the dark blue water, creating a splash of white water. The text is overlaid on the image.

Probability
of stoppping
is now 0%

(NASA)

“Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.”

Jane Jacobs
The Death and Life of
Great American Cities



An aerial photograph of a dense urban landscape, likely New York City, showing a grid of skyscrapers and a large body of water (the Hudson River) running through the center. The sky is a clear, light blue. The text is overlaid on the image.

75%

of people in 2050
will live in cities

(Urban Age Project)

An aerial photograph of a dense urban landscape, likely a major city like New York City, showing a grid of skyscrapers and a wide river or canal cutting through the center. The sky is a clear, pale blue, and the overall scene is brightly lit, suggesting a clear day.

80%

of global GDP is
generated by
urban areas

(World Bank)



Urban areas
expand
2X as fast
as their
populations
(IPCC AR5)

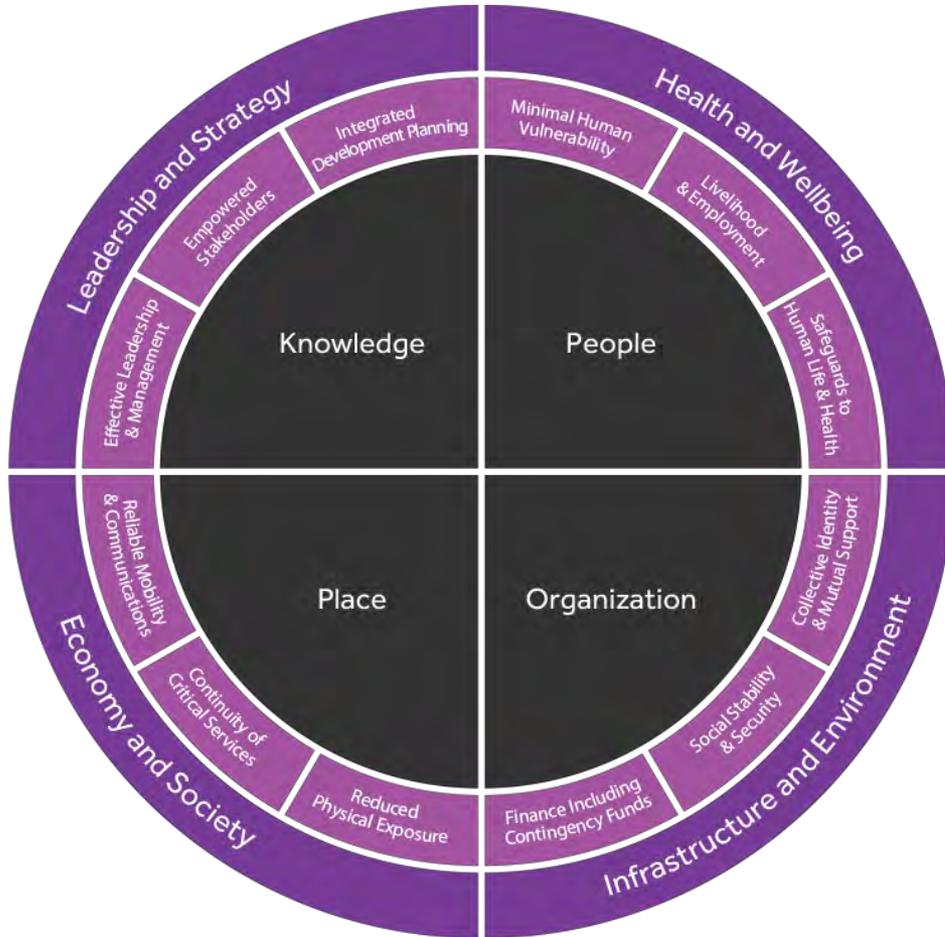
An aerial photograph of a dense urban landscape, likely a major city like New York City, featuring a large body of water (a river or canal) that runs through the center. The skyline is filled with numerous skyscrapers and buildings, creating a complex, textured appearance. The lighting suggests a clear day with a bright sky.

RESILIENCE

of

CITIES

WHAT ARE THE INDICATORS OF A RESILIENT PLACE?



The CRF is a way to articulate resilience in a measurable, evidence-based and accessible way to inform planning, practice, and investment patterns that enable communities to survive and thrive multiple shocks and stresses.



Meets basic needs



Supports livelihoods and employment



Ensures public health services





Promotes cohesive and engaged communities

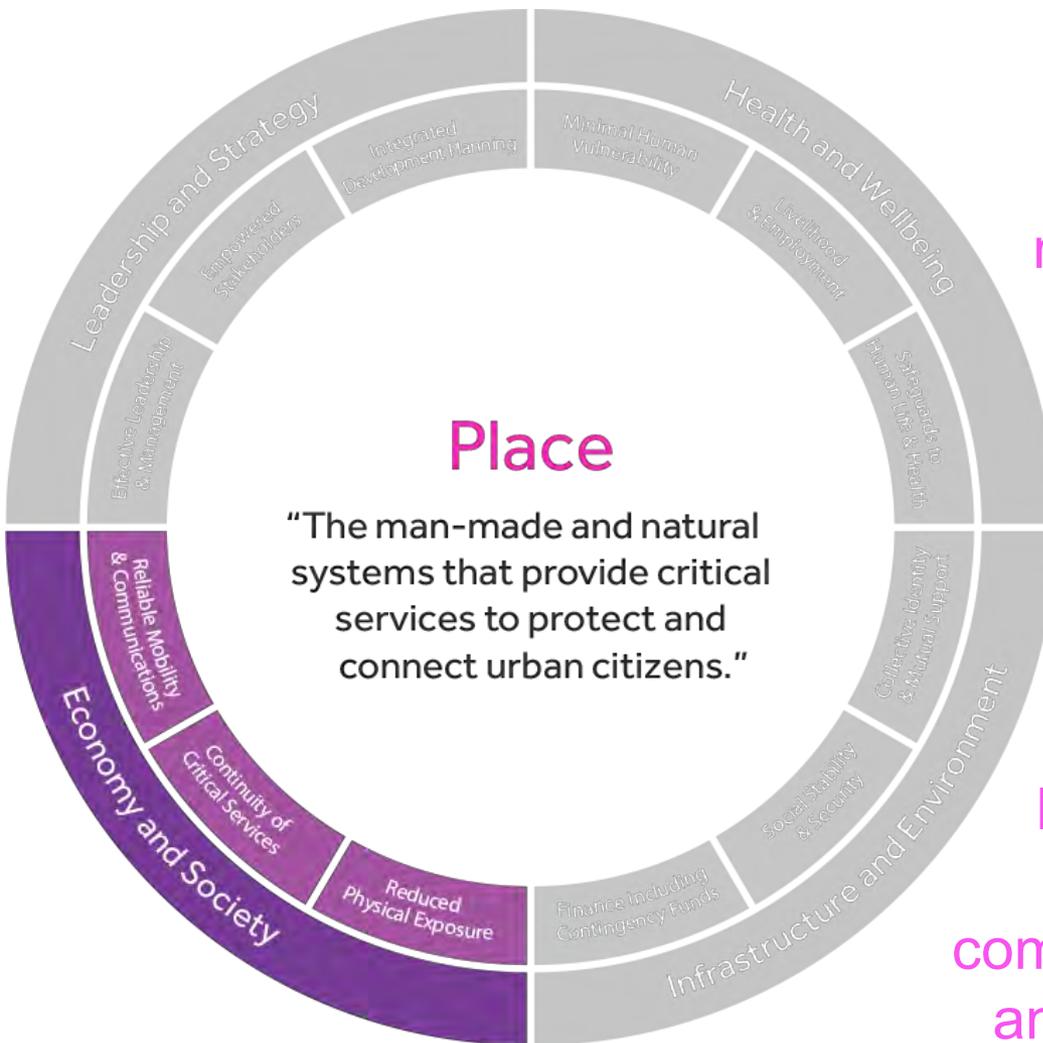


Ensures social stability, security and justice



Fosters economic prosperity





Enhances and provides protective natural & man-made assets



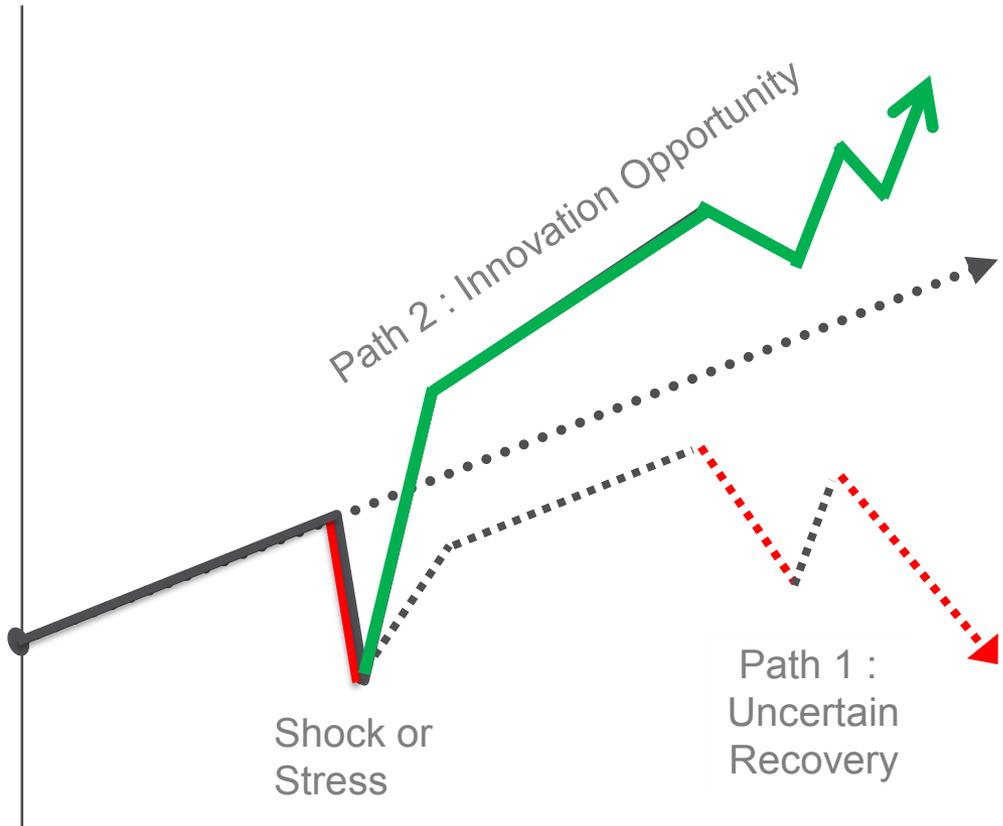
Ensures continuity of critical services



Provides reliable communication and mobility



Resilience Dividend



Shocks and stresses can bring opportunities for places to evolve and in some circumstances transform.

- Provides **benefits** under normal times
- Allows states, counties, and cities to **recover faster**

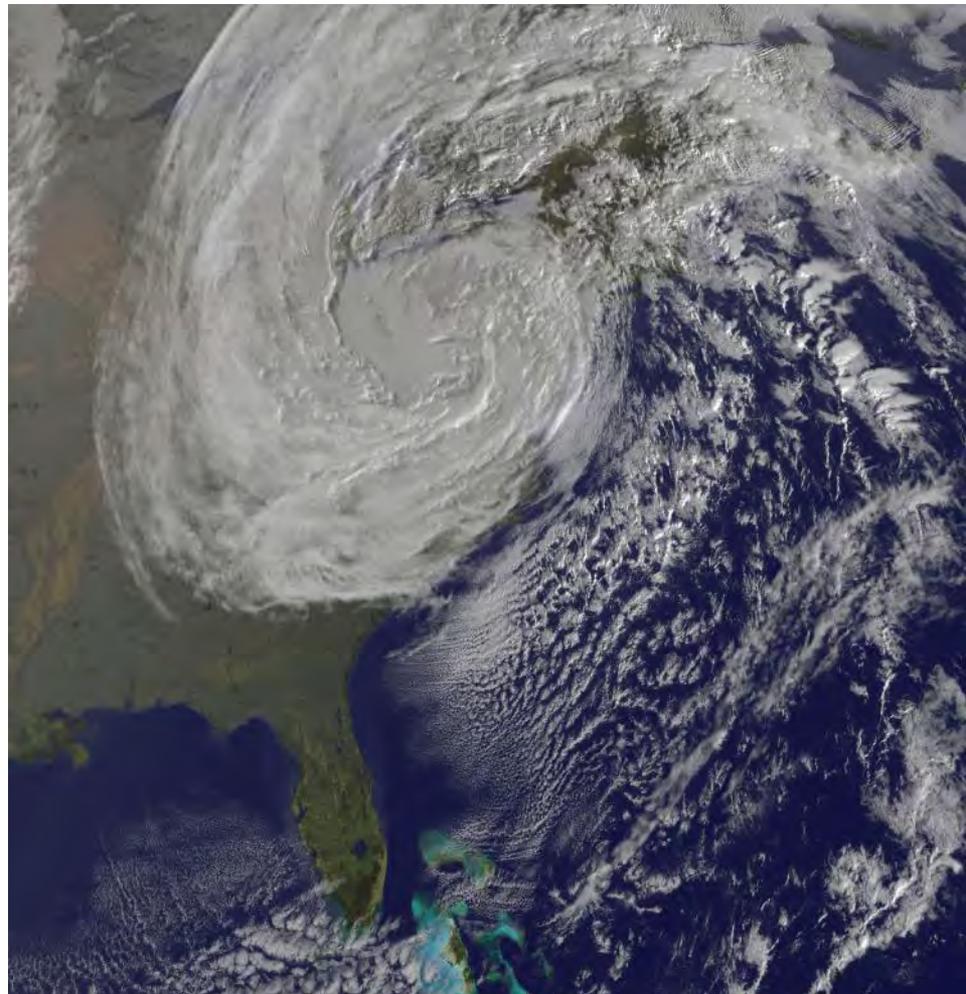
How do we
scale resilience
to improve the lives
of millions of poor or
vulnerable people?

RESILIENCE BY DESIGN

An aerial photograph of a city, likely New York City, showing a river (the Hudson River) flowing through it. A large, green, landscaped park area is visible in the upper left quadrant, featuring winding paths, trees, and a central pond. The city's dense urban grid is visible in the lower right and bottom portions of the image. The sky is a pale, hazy blue.



Hurricane Katrina: Aug. 9, 2005



Hurricane Sandy: Oct. 28, 2012

PUTTING RESILIENCE INTO PRACTICE

- Understand that the future will not be like the past
- Iterate and co-design across disciplines and with communities
- Forge partnerships to leverage authority and resources
- Shift paradigms



KREDHOOKRED
BROOKLYN

KED HOOK WORKS





Long Island Sound

The Blue Dunes Regional Formation

W X Y **WEST 8**



MATERIAL



FURNITURE



INFRASTRUCTURE



NEIGHBORHOOD



CITY



REGION



MEGA-REGION



1-5 YEARS

5-15 YEARS

15-25 YEARS

25+ YEARS

BIG TEAM

RESILIENCE



**REBUILD
BY
DESIGN**

SCR

Structures of Coastal Resilience

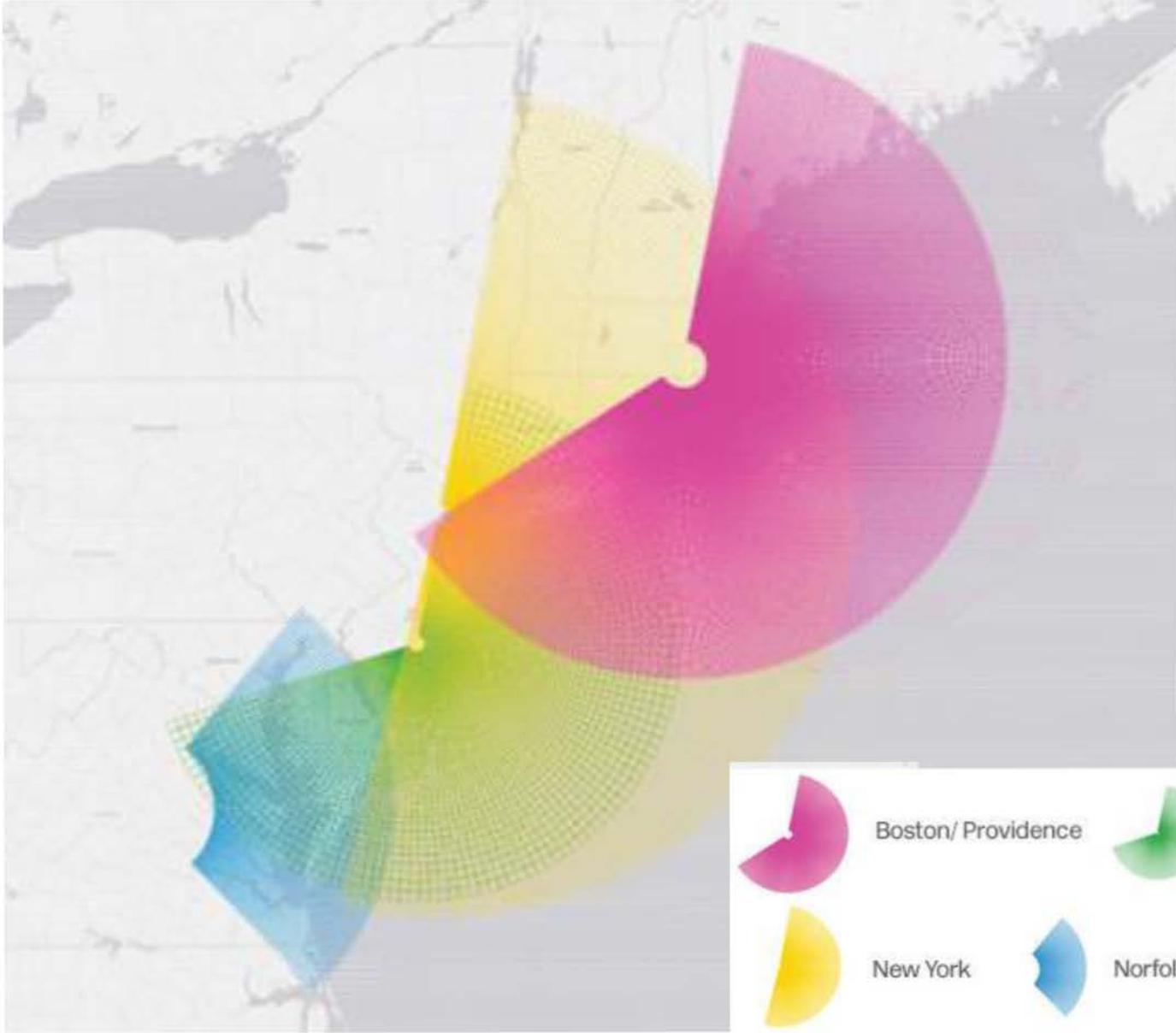
Agency Partner: US ACE

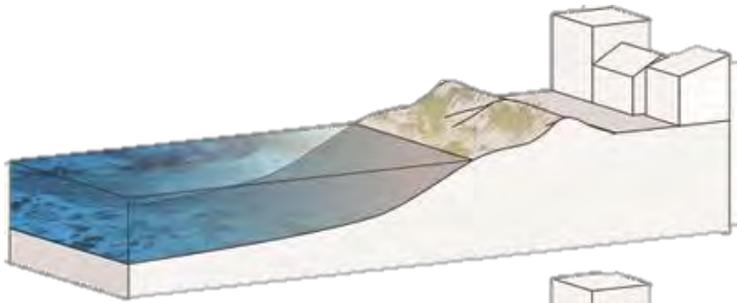
Scope of Work: North Atlantic Coast Comprehensive Study

Structure:

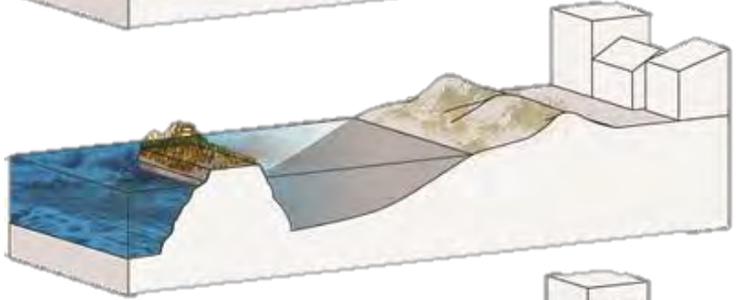
- Core Research Unit
 - SLR + Storm Modelling
- Four Design Teams



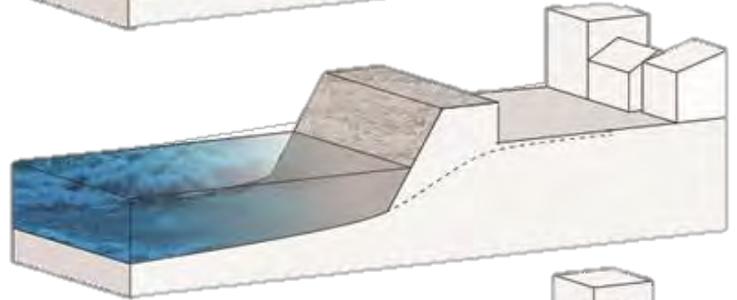




ATTENUATION



DISSIPATION

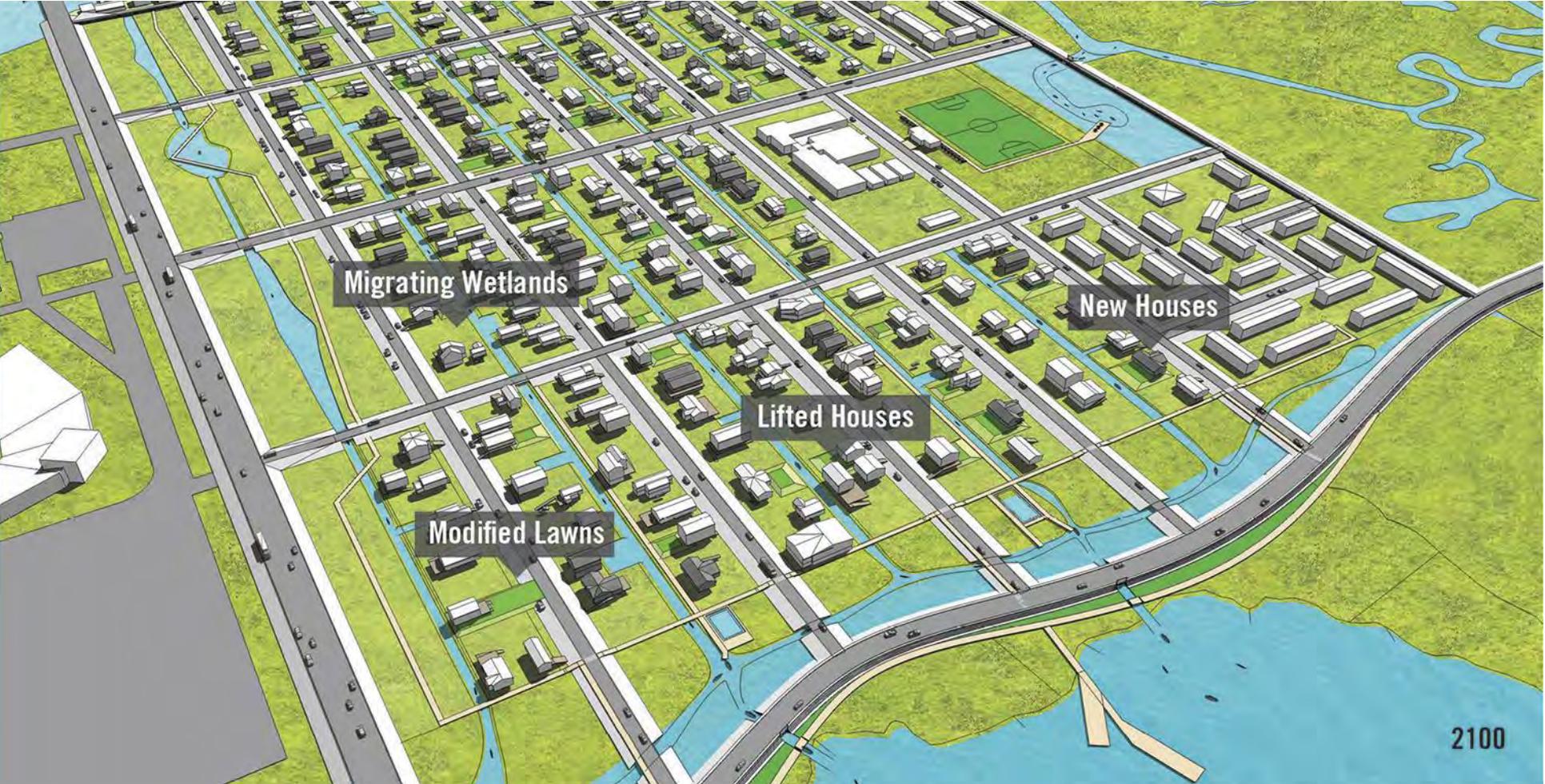


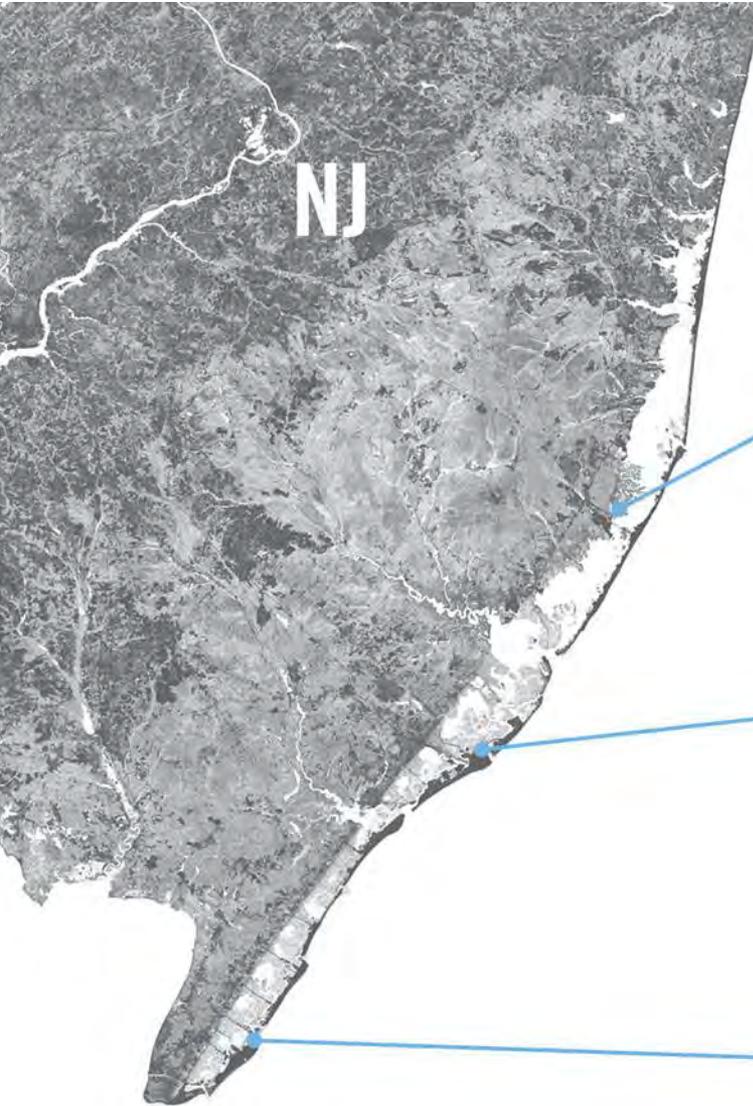
PROTECTION



PLANNING

THE AMPHIBIOUS SUBURB, ATLANTIC CITY, NJ





NJ



Amphibious Suburbs



Agency Partners: US ACE, Port of New Orleans, State of Louisiana

Scope of Work: Lower Mississippi River Delta; part of
US ACE Mississippi Valley Authority

Structure:

- Core competition design and management by Environmental Defence Fund, with Van Alen Institute and Buro Happold
- Interdisciplinary



REBUILD BY DESIGN

Agency Partners: HUD

Scope of Work: CDBG-DR authority, Sandy affected region.

Structure:

- Selection of 10 Interdisciplinary Teams
- 3 Month Research Stage producing 41 Design Opportunities
- 4 Month Community Engagement and Design stage, producing 10 Final Proposals
- HUD expected to award



NEW MEADOWLANDS
(MIT CAU + ZUS + URBANISTEN)

HUNTS POINT LIFELINES
(PENN/OLIN)

HOBOKEN COMPREHENSIVE
STRATEGY (OMA)

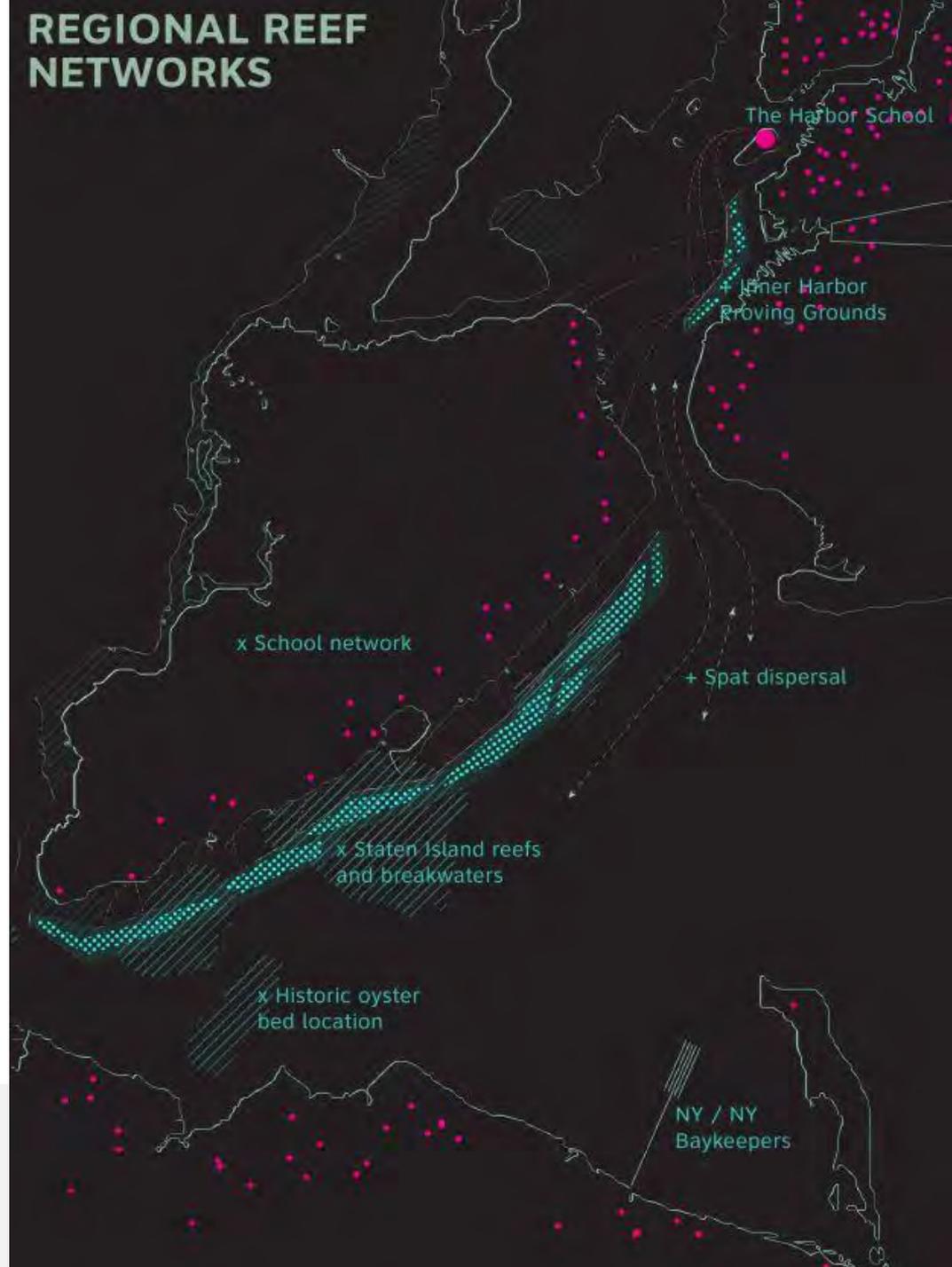
THE BIG U
(BIG)

LIVING WITH THE BAY
(INTERBORO)

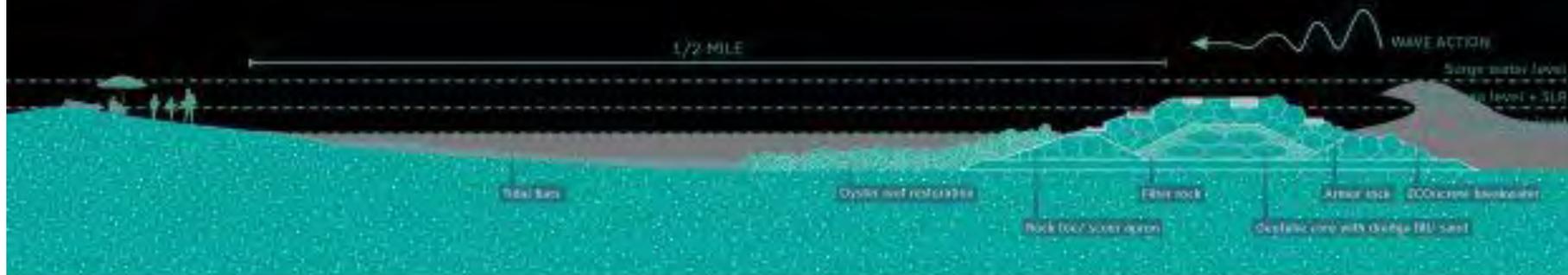
LIVING BREAKWATERS
(SCAPE)

**\$920M to
Winning
Projects**

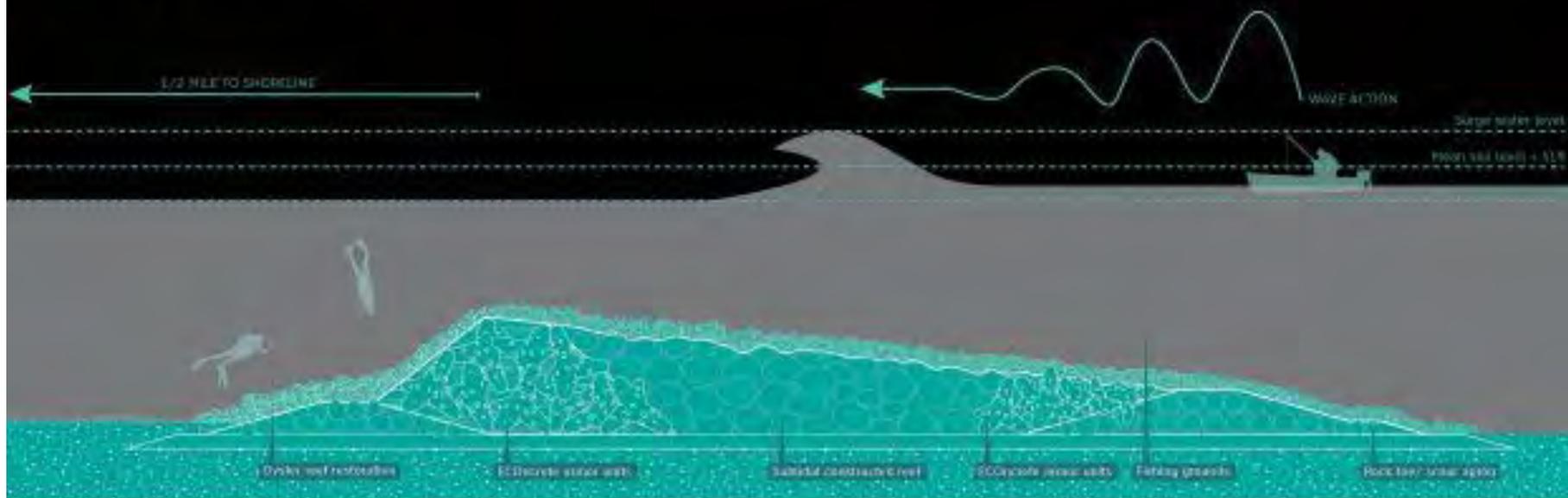
REGIONAL REEF NETWORKS



LIVING BREAKWATERS STATEN ISLAND



HABITAT BREAKWATER



CONSTRUCTED REEF



CONSTRUCTION OF THE
BUILDING IS UNDERWAY
AND THE FOUNDATION
IS BEING LAYED.



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NATIONAL DISASTER RESILIENCE COMPETITION

Agency Partners: HUD

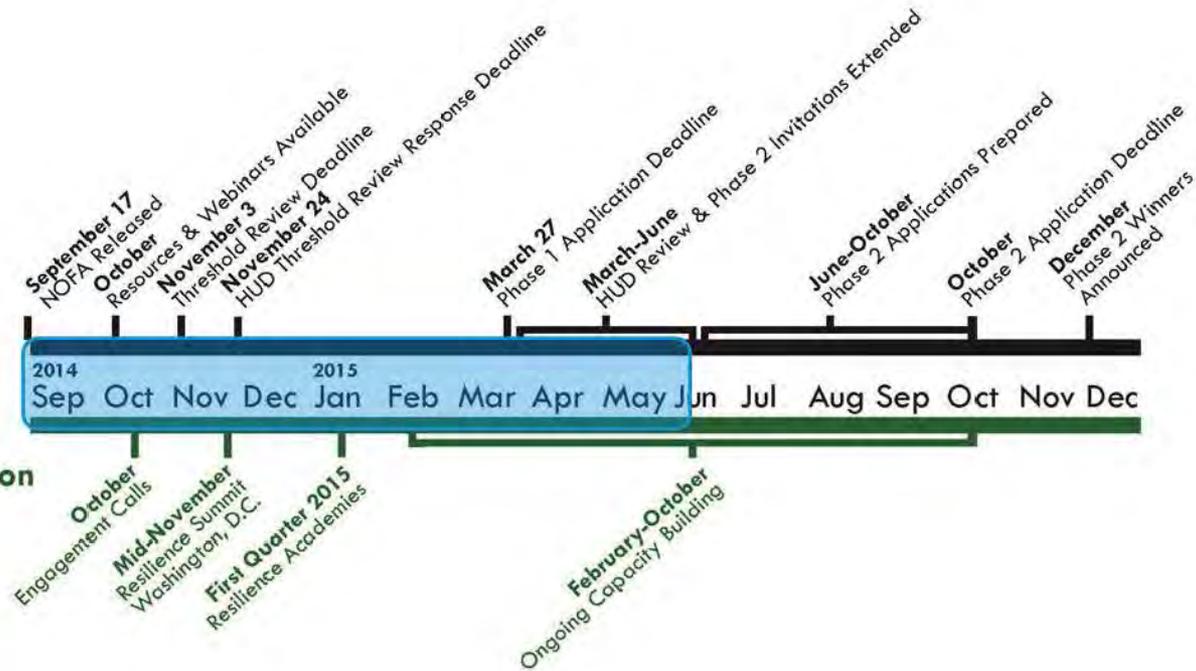
Scope of Work: CDBG-DR authority, 67 eligible jurisdictions nationally

Structure:

- Two phase process to develop approach, then project
- RF Capacity Building Initiative
- Resilience Academies, Technical Assistance
- HUD expected to award 1 Billion to develop

The Rockefeller Foundation conducted a national capacity building initiative in partnership with HUD

NDRC Timeline



Rockefeller Foundation Capacity Building Initiative



An aerial photograph of a city, likely New York City, showing a river (the Hudson River) and a large, dark, rectangular structure (the World Trade Center site). The image is overlaid with a semi-transparent architectural plan of a city block, showing streets, buildings, and green spaces. The title 'RESILIENCE BY DESIGN' is prominently displayed in the upper left quadrant.

RESILIENCE BY DESIGN

Samuel Carter
The Rockefeller Foundation

Image: Rebuild by Design