

TESTIMONY TO  
SENATE COMMITTEE ON EDUCATION, HEALTH, AND ENVIRONMENTAL AFFAIRS  
PROVIDED BY  
ALLIANCE FOR NATIONAL & COMMUNITY RESILIENCE  
IN SUPPORT OF SB630

Chair Pinsky, Vice Chair Kagan, and Members of the Committee, thank you for the opportunity to provide testimony in support of Senate Bill 630 to establish an Office of Resilience and a state Chief Resilience Officer. We commend Senator Hester for her leadership in advancing this bill and look forward to working with the Senate and House of Delegates on its passage.

Establishing a Chief Resilience Officer (CRO) will position Maryland to effectively address the myriad social, economic and environmental challenges before us. In 2021 the Nation experienced 20 climate or weather disasters causing \$1 billion in losses or more—the second highest since tracking began in 1980, only 2 events less than in 2020. These events resulted in a total of \$145 billion in damages and 660 deaths. Since 1980 Maryland has been impacted by 66 such events.<sup>1</sup> These \$1 billion events do not account for the impacts of the COVID-19 pandemic and other disasters that impact communities but did not exceed the \$1 billion threshold. It also does not include the disasters that develop over time including the impacts of sea-level rise due to climate change.

In addition to the losses of property, disasters impact lives and livelihoods. Acute shocks like flooding and derechos displace businesses and residents, cause loss of power, and disrupt educational pathways. And these impacts are disproportionately felt by vulnerable populations and people of color.<sup>2</sup>

Meanwhile, governments have limited resources to address these risks—both fiscally and technically. Therefore, a holistic approach that can identify co-benefits from mitigation strategies, policy levers and funding sources is necessary. Additionally, many of the risks, shocks and stresses and the solutions to address them are interrelated.

The Alliance for National & Community Resilience (ANCR) was established in recognition of the challenges outlined above. A 501(c)(3) non-profit organization, ANCR was founded by the International Code Council and the U.S. Resiliency Council and brings together representatives from the public and private sector. Our leadership has included representatives from leading

---

<sup>1</sup> NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2021). <https://www.ncdc.noaa.gov/billions/>, DOI: [10.25921/stkw-7w73](https://doi.org/10.25921/stkw-7w73)

<sup>2</sup> SAMHSA (2017). Greater Impact: How Disasters Affect People of Low Socioeconomic Status. [https://www.samhsa.gov/sites/default/files/dtac/srb-low-ses\\_2.pdf](https://www.samhsa.gov/sites/default/files/dtac/srb-low-ses_2.pdf).

businesses like Target and Dupont and resilience practitioners from New York City; Washington, DC; and Pinellas County, Florida.

We saw that interest in resilience solutions was growing, but many of the initiatives developed under the rubric of resilience were focused on a single infrastructure or social service delivery systems, not recognizing that communities (which we define broadly from the scale of a state down to a neighborhood or campus) are actually a complex, interconnected system of systems. Individual systems rarely operate in isolation from one another.

ANCR aims to provide the information that communities need to understand and benchmark their current level of resiliency, identify and understand options available to fill gaps and increase resiliency, and to understand the future benefits to be gained by investing in advance of the next hazard event.

ANCR identified 19 community functions that cut across the social, organizational and infrastructural aspects of communities. See Figure 1. We believe that a community is only as resilient as its weakest link, so communities need the tools to identify and improve these weak links. ANCR is developing a coordinated set of benchmarks that looks at each community function individually, but also how they contribute to the resilience of a community as a whole.

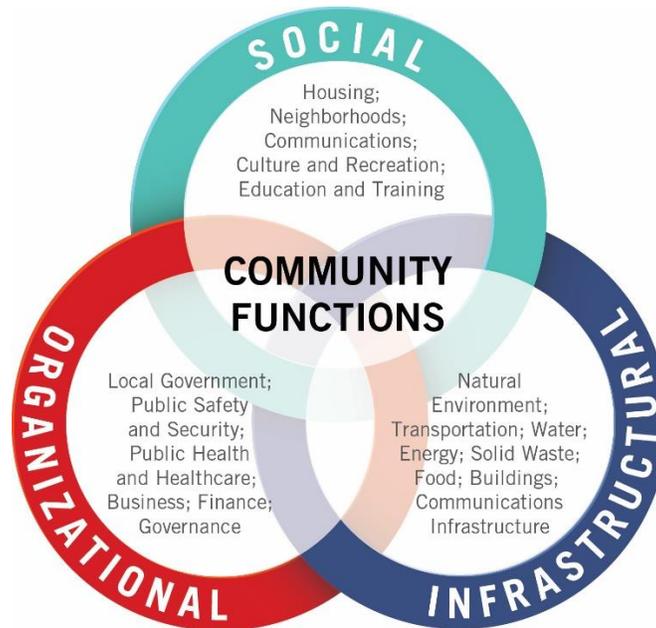


Figure 1. Community Functions Identified by ANCR

Effectively advancing resilience requires a leader with the ability to look across community functions to understand the interdependencies across these functions, how they influence the resilience of each other and how strategic, cross-sector policies and programs can be deployed to address common challenges across these functions. In other words, a Chief Resilience Officer.

As recognized in the legislation, resilience requires an understanding of the current situation and metrics to support long-term evaluation of progress towards meeting established resilience goals. The ANCR Community Resilience Benchmarks (CRBs) are designed to provide communities with tools to assess their current state of resilience, identify initiatives that can improve resilience, and support monitoring of progress. The CRBs can be effectively used with other resilience planning tools including the National Institute of Standards and Technology (NIST) *Community Resilience Planning Guide for Buildings and Infrastructure*.<sup>3</sup> We look forward to working with the CRO and the University of Maryland Center for Environmental Science to leverage the content of the CRBs.

The proactive focus on preparing communities for shocks and stresses in advance of hazard events is highly cost effective. Post-disaster recovery and rebuilding is expensive, placing strain on federal and state budgets and personnel—not to mention the impact on the people affected. Policies and programs focused on preparation and pre-disaster mitigation can reduce the impacts of future events while also supporting jobs and economic activity.

The Congressionally established National Institute of Building Sciences (NIBS) conducted an extensive benefit cost analysis on various mitigation measures. NIBS found that, at a national level, investments in pre-disaster mitigation can provide up to \$11 of savings for each \$1 invested (with local or hazard-specific benefits potentially reaching \$32 or more).<sup>4</sup> See Figure 2.

National Institute of BUILDING SCIENCES™		ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS
Overall Benefit-Cost Ratio		11:1	4:1	4:1	4:1	6:1
Cost (\$ billion)		\$1/year	\$4/year	\$520	\$0.6	\$27
Benefit (\$ billion)		\$13/year	\$16/year	\$2200	\$2.5	\$160
 Riverine Flood		6:1	5:1	6:1	8:1	7:1
 Hurricane Surge		not applicable	7:1	not applicable	not applicable	not applicable
 Wind		10:1	5:1	6:1	7:1	5:1
 Earthquake		12:1	4:1	13:1	3:1	3:1
 Wildland-Urban Interface Fire		not applicable	4:1	2:1	not applicable	3:1

Copyright © 2019 The National Institute of Building Sciences

Figure 2. Benefit Cost Ratio for Various Hazard Mitigation Measures

<sup>3</sup> See *Using the ANCR Community Resilience Benchmarks with the NIST Community Resilience Planning Guide*, [http://www.resilientalliance.org/wp-content/uploads/ANCR\\_Community\\_Resilience\\_Benchmarks\\_and\\_NIST\\_RPT\\_FINAL\\_LORES\\_compressed\\_1.pdf](http://www.resilientalliance.org/wp-content/uploads/ANCR_Community_Resilience_Benchmarks_and_NIST_RPT_FINAL_LORES_compressed_1.pdf).

<sup>4</sup> Multi-Hazard Mitigation Council (2019). *Natural Hazard Mitigation Saves: 2019 Report*. Principal Investigator Porter, K.; Co-Principal Investigators Dash, N., Huyck, C., Santos, J., Scawthorn, C.; Investigators: Eguchi, M., Eguchi, R., Ghosh, S., Isteita, M., Mickey, K., Rashed, T., Reeder, A.; Schneider, P.; and Yuan, J., Directors, MMC. Investigator Intern: Cohen-Porter, A. National Institute of Building Sciences. Washington, DC. [www.nibs.org/mitigationsaves](http://www.nibs.org/mitigationsaves).

Based on the growth in post-disaster response and recovery costs and the strong benefit cost ratios for pre-disaster mitigation, federal grant programs are increasingly looking to support initiatives that help states and localities lessen the impacts up front. The new Building Resilient Infrastructure and Communities (BRIC) program within the Federal Emergency Management Agency (FEMA) sets aside 6 percent of disaster spending to support pre-disaster investments.<sup>5</sup> BRIC funding for 2021 totaled \$1 billion. Some of this funding is awarded on a competitive basis and FEMA has identified resilience measures that weigh more heavily in favor of some projects.

The BRIC program represents just one source of funding to help enhance resilience. The U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG) also includes funding for disaster recovery (CDBG-DR) and now hazard mitigation (CDBG-MIT). While the state can be (and has been) effective in pursuing these programs individually, these funds can be best used in support of a coordinated and deliberate strategy that looks across all community functions and state programs and identifies the areas of greatest need and biggest impact.

A CRO with access to information from across the state government, tools to effectively organize that information and monitor progress, and the mandate to enhance the resilience of the state is in the best position to prepare the state and its residents from the hazards ahead and leverage available funding to capture the significant cost savings resilience planning provides.

Currently, at least 11 states have established state-wide chief resilience officers (Colorado, Florida, Louisiana, New Jersey, North Carolina, Oregon, Rhode Island, South Carolina, Virginia, West Virginia, and Wyoming). While they all face different hazards, the legislatures and governors recognized the importance of coordination in addressing resilience challenges. The Environmental Council of the States (ECOS), National Emergency Management Association (NEMA), and Environmental Defense Fund established a CRO Work Group to identify recommendations on the establishment and function of CROs.<sup>6</sup> Key recommendations include:

- Legislation can provide permanency and continuity for CRO positions while also codifying the intention and outcomes the state expects
- With the CRO as the "hub" of state resilience efforts, each individual agency should have a point of contact who has the support of agency leadership and authority to work directly with the CRO
- Legislation can provide an important basis for appropriately resourcing CROs

Again, thank you for the opportunity to provide testimony in support of this legislation. As the legislative process moves forward and the CRO begins their work, The Alliance for National &

---

<sup>5</sup> <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>

<sup>6</sup> Instituting Resilience: Recommendations for Governors and Legislators on Establishing and Supporting Chief Resilience Officers. ECOS, NEMA, EDF. <https://www.edf.org/sites/default/files/documents/InstitutingResilience-FINAL-Web.pdf>.

Community Resilience (ANCR) is poised to assist in the resilience planning process and associated benchmarking. Please reach out to ANCR Executive Director Ryan Colker ([ANCR@resilientalliance.org](mailto:ANCR@resilientalliance.org), 202-569-5795).