

FEMA National Advisory Council Annual Report

November 2023



Table of Contents

Letter from the NAC Chair	3
Executive Summary	4
Recommendation Research & Supplemental Information	7
Workforce Committee Recommendations	7
Recommendation 2023-01: Responder Mental Health	7
Recommendation 2023-02: Emergency Medical Services	8
Recommendation 2023-03: Emergency Management Vision & Identity	9
Recommendation 2023-04: Workforce Data Culture	10
Readiness Committee Recommendations	11
Recommendation 2023-05: Recovery Management Assistance Teams	11
Recommendation 2023-06: COVID-19 Lessons Learned	13
Recommendation 2023-07: Universal Design Framework	14
Climate Resilience Committee Recommendations	15
Recommendation 2023-08: Leadership in Nationwide Climate Resilience	15
Recommendation 2023-09: Resilience and Insurability	17
Recommendation 2023-10: Built Environment Resilience	18
Recommendation 2023-11: Earthquake Preparedness	20
Recommendation 2023-12: Risk Communications Program	22
Cross-Cutting Recommendations	23
Recommendation 2023-13: Technical Assistance to TSTLs	23
Recommendation 2023-14: Mitigation Grant Programs	24
Recommendation 2023-15: Benefit Cost Analysis Methodology	26
Recommendation 2023-16: Local Government Training Programs	27
Conclusion	29
Acknowledgements	30



Letter from the NAC Chair

Halito! It is my great honor to present this report from the National Advisory Council (NAC) to FEMA Administrator Deanne Criswell. The recommendations presented in this report center around the goals and objectives of the 2022–2026 FEMA Strategic Plan, the FEMA Administrator's 2023 Annual Planning Guidance, and concerns identified by the emergency management profession.

This report is the result of a year-long effort by the NAC to conduct research and engage stakeholders from a variety of fields to formulate recommendations relating to areas of readiness, workforce, and climate resilience.

Throughout the document, you may notice the use of the acronym TSTL (Tribal, State, Territorial, and Local) governments instead of the traditional SLTT (State, Local, Tribal, and Territorial) governments. After discussions with members of the NAC, we are using this new acronym to more accurately reflect the constitutional relationship FEMA has with the various sovereigns within the federal system.

The NAC continually strives to ensure that all recommendations are equitable, coordinated, and outcome driven. This report represents agreement among the members of the NAC and reflects the current and future needs of emergency management. I am pleased to share these recommendations with you.

Yakoke,

Jeffrey Hansen, NAC Chair Director, Community

Protection Choctaw Nation of

Oklahoma



Executive Summary

In January 2023, the National Advisory Council (NAC) met with FEMA Administrator Deanne Criswell and other FEMA leaders at the Emergency Management Institute in Emmitsburg, Maryland. This meeting served as an orientation for new NAC members and for FEMA to provide the council with information about programs and initiatives. The NAC received briefings regarding FEMA's organizational structure, the Administrator's 2023 Annual Planning Guidance (APG), and the 2022–2026 FEMA Strategic Plan. This information set the stage for the development of the 2023 NAC Report.

In alignment with the 2022–2026 FEMA Strategic Plan, the NAC organized efforts to provide actionable recommendations around three specific areas: workforce, readiness, and climate resilience. A committee dedicated to each topic held regular meetings, invited guest speakers with subject-matter expertise, and collaborated to develop 16 recommendations summarized below. The remainder of this report describes these recommendations in more detail, providing problem statements, research, and supplemental information.

Workforce Recommendations

Recommendation 2023-01: FEMA should expand its preparedness grant eligibility list to include the development and sustainment of mental and behavioral health programs, in addition to broadening post-disaster assistance to include mental and behavioral health support for all emergency responders and those who support emergency response efforts.

Recommendation 2023-02: FEMA should explore opportunities to position emergency medical services (EMS) as its own public safety profession similar to fire services and law enforcement; ensure adequacy of resources, including personnel, medical supplies, equipment, and vehicles to effectively respond to emergencies; and engage in ongoing investment in EMS infrastructure through grant funding opportunities.

Recommendation 2023-03: FEMA should refine its existing vision, purpose, and identity for emergency managers and provide a means to overcome barriers for entry and growth within the emergency management field.

Recommendation 2023-04: FEMA should focus on changing the workforce culture to embrace a "share by default" vision for the agency's enterprise data services, information, analytics, and geospatial capabilities.

Readiness Recommendations

Recommendation 2023-05: FEMA should develop a Recovery Management Assistance Team (RMAT) at each FEMA Region or provide all of the appropriate funding and resource support for the National Disaster Recovery Framework (NDRF) Federal Disaster Recovery Coordinator



(FDRC) and empower the interagency working group to identify and fully staff Federal Recovery Support Function (RSF) teams.

Recommendation 2023-06: FEMA should study the lessons learned and smart practices identified from the various COVID-19 related recovery grant programs including Coronavirus Relief Fund (CARES) and the Coronavirus State and Local Fiscal Recovery Funds (ARPA) and provide a presentation to the 2024 NAC with any findings that apply to FEMA's disaster recovery grant programs.

Recommendation 2023-07: FEMA programs should utilize a flexible universal design framework* that is inclusive of individual U.S. territory needs and concerns regarding program implementation.

Climate Resilience Recommendations

Recommendation 2023-08: FEMA should work with and request direction from the White House to designate a leadership role in building nationwide climate resilience, including the prioritization of the appointment and U.S. Senate confirmation of the FEMA Deputy Administrator for Resilience to lead that effort within the agency.

Recommendation 2023-09: FEMA should build resilience and insurability for the most vulnerable communities by 1) providing financial incentives for low income homeowners and technical assistance for communities in vulnerable areas to build to higher standards, 2) convening the insurance and reinsurance industry to negotiate differentiated underwriting standards for specific hazards and more resilient housing, and 3) working with state insurance commissioners and industry partners to develop educational programs for homeowners on resilient codes and standards and options to enable continued insurability of their property.

Recommendation 2023-10: In order to more effectively improve resilience of the built environment, FEMA should encourage, increase funding opportunities for, and provide technical assistance to TSTLs to 1) conduct scenario studies to evaluate disaster impacts and disseminate findings, 2) inventory vulnerable buildings and lifeline infrastructure and, 3) retrofit existing vulnerable assets, particularly those essential for maintaining community resilience. FEMA should also explore ways the proprietary Building Code Effectiveness Grading Schedule (BCEGS) and Building Code Adoption Tracking (BCAT) effort can be improved to increase the effectiveness of building code *enforcement* at the local level.

Recommendation 2023-11: FEMA should increase our nation's preparedness for earthquakes by 1) increasing funding to the National Earthquake Hazards Reduction Program (NEHRP) beyond the Congressionally authorized and allocated amount and provide equal mitigation funding for territories and tribes, 2) updating Benefit-Cost Analysis (BCA) requirements to more accurately capture the unique losses of earthquakes and unique benefits of associated mitigation activities, and 3) updating mitigation grant scoring criteria to more accurately capture the benefits of structural retrofits and other seismic mitigation activities.



Recommendation 2023-12: FEMA should work with other federal agencies and where appropriate TSTLs, private sector, and civil society to develop and implement a long-term coordinated risk communication and public awareness strategy to encourage behavioral change by providing communities, elected officials, and individuals with targeted, timely and relatable messaging about expected impacts from climate change and other hazards.

Cross-Cutting Recommendations

Recommendation 2023-13: FEMA should enhance technical assistance for TSTLs to build long-term resilience. The agency should: 1) lead a study to better understand the landscape of resilience-building technical assistance across the federal government, 2) expand recovery grant programs to focus on building resilience capacity, and 3) actively partner with TSTL and civil society organizations to help build capacity of Community Disaster Resilience Zone (CDRZ) designated and other under resourced communities.

Recommendation 2023-14: FEMA should allow mitigation grant applicants and sub-applicants for projects under \$1 million to provide a "narrative description" of the project's cost effectiveness in lieu of a standard FEMA BCA and establish a sampling methodology for capturing benefits to reduce data collection and complexity burdens on TSTLs for all other projects.

Recommendation 2023-15: FEMA should develop a more flexible BCA methodology for critical infrastructure of community-wide and cultural significance* by making allowances for projects that 1) provide a multitude of benefits, including the ability to address more than one hazard and benefits that cannot be easily quantified, 2) have a long-useful life, often 50-100 years or more; and 3) are designed to both withstand and be functional after disasters, including those events that occur less frequently but have an extremely large impact.

Recommendation 2023-16: FEMA should partner with organizations that provide training to TSTL elected officials to deliver pre-disaster and just-in-time emergency management training programs so that elected officials understand FEMA's role and processes, as well as their own role in emergency management.



Recommendation Research and Supplementary Information Workforce Recommendations

Recommendation 2023-01: FEMA should expand its preparedness grant eligibility list to include the development and sustainment of mental and behavioral health programs, in addition to broadening post-disaster assistance to include mental and behavioral health support for all emergency responders and those who support emergency response efforts.

Issue Examined

The field of emergency management has evolved significantly over the past decade. Our nation has experienced significant disasters, putting a large strain on those serving in emergency response and recovery capacities. A 2023 study published by Jones, Jackson, and Usher¹ noted that the daily work of those in the emergency response fields can include being called to high-risk scenes, which are often traumatic and complex and, "have the potential to endanger the personal safety of the responder and impact their mental health." Compounding the potentially complex and traumatic response efforts, limited resources, shift work, unpredictable hours, and potentially dangerous situations involving workplace violence (e.g., mental, physical, sexual, intimidation, etc.), increase the risk of mental health issues, such as anxiety and post-traumatic stress disorder (PTSD), even more.

There is every expectation that those executing emergency response and recovery work will make fast and accurate decisions when performing their duties. Behavioral and mental health disorders, however, can make decision-making difficult and this does not exclude those in emergency management or first response. According to a Substance Abuse and Mental Health Services Administration (SAMHSA) bulletin published in 2018, approximately 30% of first responders develop behavioral health conditions compared to 20% of the general population. Recognizing and providing easily accessible treatment could save the lives of emergency responders as well as disaster survivors.

Research and Analysis

The Workforce Subcommittee reviewed current literature and studies concerning the impact of catastrophic events on the mental health of those in emergency management, including first

¹ Jones, R., Jackson, D, & Usher, K. (2023, September 7). First responder mental health, traumatic events, and rural and remote experience. Journal of advancing nursing, 00, 1-3. https://doi.org/10.1111/jan.15856

² SAMHSA. (2018, May). First responders: Behavioral health concerns, emergency response, and trauma. https://www.samhsa.gov/sites/default/files/dtac/supplementalresearchbulletin-firstresponders-may2018.pdf.



responders and others who support them. We also took into consideration the first-hand experiences of colleagues in the emergency management field.

Potential Outcomes

The mental health and wellness of emergency management staff at the TSTL levels are paramount to ensure community resilience and community improvements in the future. Including "the development and maintenance of a mental health program" as an eligible project within preparedness grant programs, as well as in post-disaster assistance, will provide much-needed resources that will allow the industry to take care of its staff.

Grant eligibility within preparedness grant programs will provide opportunities for the TSTLs to develop comprehensive mental health and wellness programs that can be sustained between emergencies. When coupled with eligibility within post-disaster assistance, TSTLs will have the resources and capacity to ramp up critical support in the aftermath of a disaster.

By having ready access to professional and peer-level assistance for mental and behavioral health issues, emergency managers will be more effective, have better job performance, have the skills to cope with critical incident stress and PTSD, and will be less likely to leave the profession. Emergency management organizations will have higher morale, fewer interpersonal relationship issues among employees, and will be able to sustain disaster response and recovery operations more effectively.

Recommendation 2023-02: FEMA should explore opportunities to position emergency medical services (EMS) as its own public safety profession similar to fire services and law enforcement; ensure adequacy of resources, including personnel, medical supplies, equipment, and vehicles to effectively respond to emergencies; and engage in ongoing investment in EMS infrastructure through grant funding opportunities.

Issue Examined

Those working in the EMS field are critical to the health and safety of every community on par with fire services and law enforcement; however, in the past decade, recruitment and retention within the EMS field has dwindled. In a study conducted by Sporer (2021)³, it was stated that, "most research suggests that EMS providers have higher rates of burnout than other health-care providers". The study went on to note that burnout affects job productivity, quality of service, patient safety, and, in turn impacts retention within the field. As a result, there is an urgent need for FEMA to strengthen EMS across the nation.

Research and Analysis

The Workforce Subcommittee heard presentations and received data from the U.S. Fire Administration (USFA), the Department of Health and Human Services (DHHS) Administration

 $^{^3}$ Sporer, C. (2021). Burnout in emergency medical technicians and paramedics in the USA. International Journal of Emergency Services, Vol 10, 3. 366-389. DOI:10.1108/IJES-03-2020-0012; p. 373.



for Strategic Preparedness and Response (ASPR), and from a member of the National EMS Advisory Council concerning the challenges faced by local EMS organizations and the current capabilities of the federal government to support EMS. The subcommittee also received a presentation on public sector recruitment and retention issues and challenges from the director of the New Hampshire State Economic and Labor Market Information Bureau and the director of the University of New Hampshire Carsey School of Public Policy.

Potential Outcomes

Establishing EMS as a separate profession through an Emergency Support Function (ESF) would allow for recognition of the unique skills and expertise required to provide pre-hospital emergency medical care. This allows for dedicated training, resources, and professional development opportunities specific to EMS providers, ensuring they stay up to date with the latest advancements in medical practices. This also emphasizes the importance of high-quality medical care during emergencies. By recognizing EMS as a specialized field, there is a greater likelihood that dedicated research, training programs, and quality assurance measures specific to pre-hospital care will be developed. The focus on excellence can lead to improved patient outcomes and overall community health. Additionally, having EMS recognized as a separate public safety profession would allow for more targeted resource allocation. EMS agencies would be better able to advocate for the necessary funding, equipment, and personnel needed to fulfill their vital role in emergency response. This can result in improved equipment availability, increased staffing levels, and better support for EMS providers.

By implementing these recommendations, EMS can be further strengthened as a critical component of FEMA's ESF, enhancing its ability to provide lifesaving medical care and support during emergencies. FEMA's initiatives to support EMS will strengthen recruitment, retention, and emergency response capacity, and should be inclusive of an EMS ESF, clearly defined EMS roles and responsibilities, enhanced training opportunities, and the provision of funding and grant support. In conclusion, positioning EMS as its own public safety profession offers numerous benefits, including specialized focus, enhanced efficiency, professional recognition, tailored resource allocation, and improved quality of care.

Recommendation 2023-03: FEMA should refine its existing vision, purpose, and identity for emergency managers and provide a means to overcome barriers for entry and growth within the emergency management field.

Issue Examined

The existing FEMA emergency management principles were developed and published to define the profession in the early 2000s. Since the inception of the emergency management principles, the nation has experienced more frequent and increasingly catastrophic disasters, including a global public health pandemic. The role of emergency managers has expanded dramatically, evolving beyond the original scope of these principles. As a result, an updated,

⁴ FEMA. (2008, October 10). Principles of emergency management. Emergency Management Institute (EMI) | Emergency Management Principles (fema.gov)



clear, and robust sense of vision, purpose, and identity for emergency managers should be developed as part of the 2024 NAC's Emergency Management Task Force.

Research and Analysis

The Workforce Subcommittee received input from FEMA leadership, staff, and emergency managers at the TSTL levels.

Potential Outcomes

Beginning with a focus on identifying and defining the broad range of emergency management duties and responsibilities, followed by defining an emergency management vision and purpose, would strengthen recruitment, retention, and promotion efforts. The overarching goal would be to continue attracting talented individuals in today's highly competitive employment market, promote continuous professional development, and ultimately raise the overall competence and effectiveness of emergency management practices.

A clear vision, purpose, and identity for emergency managers will greatly enhance the field of emergency management in several ways. A clear vision will provide a roadmap for emergency managers to follow, ensuring that their efforts and resources are directed towards a common goal. This clarity would allow for better coordination and collaboration among emergency management teams, as everyone would be working towards a shared objective. Moreover, a defined purpose would help emergency managers understand the core values and principles that guide their work. It would enable those working in the field to prioritize their actions and decision-making based on what truly matters—saving lives, minimizing harm, and promoting resilience in communities. This purpose-driven approach would bring a sense of meaning and motivation to emergency managers, leading to improved performance and outcomes.

Additionally, a well-established identity for emergency managers will enhance their professional standing and recognition. It would help establish emergency management as a distinct field of expertise, leading to increased credibility and respect from other disciplines, stakeholders, and the public. Reshaping the definition, purpose, and vision of the emergency management field is essential during a time when the general public may look to popular culture for information. In summary, a clear vision, purpose, and identity for emergency managers would provide a strategic direction, instill a sense of purpose, and elevate the profession. This, in turn, would enhance coordination, performance, and recognition within the field, ultimately improving emergency management outcomes and the safety of our communities.

Recommendation 2023-04: FEMA should focus on changing the workforce culture to embrace a "share by default" vision for the agency's enterprise data services, information, analytics, and geospatial capabilities.

Issue Examined

⁵ Mantano, S. & Carr, J. (2022, April 1). The landscape of disaster film, 2000-20. Disasters. Vol 46, 2.



The FEMA Administrator's 2023 APG identified the need to have unified and coordinated data analysis efforts and modernize and streamline agency processes to enable secure data sharing with mission partners and stakeholders.

Research and Analysis

The Workforce Subcommittee received presentations on the 2023–2027 FEMA Data Strategy, the FEMA Enterprise Data and Analytics Modernization Initiative (EDAMI), and FEMA's use of geographic information system (GIS) technologies when responding to disasters. The subcommittee also received a presentation from the HHS ASPR Chief Data Officer on ASPR's initiative to become a data-centric organization.

Potential Outcomes

By embracing a "share by default" strategy, data will be readily available across all operational units within FEMA, resulting in improved organizational efficiencies, more effective and more rapid decision making for preparedness, response, mitigation and recovery missions, and more streamlined delivery of services. FEMA should also establish and share its best practices for "sharing data by default" with emergency management organizations.

Readiness Recommendations

Recommendation 2023-05: FEMA should develop a Recovery Management Assistance Team (RMAT) at each FEMA Region or provide all of the appropriate funding and resource support for the National Disaster Recovery Framework (NDRF) Federal Disaster Recovery Coordinator (FDRC) and empower the interagency working group to identify and fully staff Federal Recovery Support Function (RSF) teams.

Issue Examined

As the nation faces ever-increasing natural and human-caused hazards and threats, TSTL emergency management workforces are under constant strain to prepare and respond to these hazards. At the same time, they are balancing increased responsibilities with shrinking budgets. FEMA has assisted in providing some relief in the form of the Emergency Management Performance Grant, and the agency has offered training through both online and traditional onsite classes at the National Emergency Training Center and other training facilities and programs. These steps are laudable; however, they only touch the surface of preparedness and response. An emergency manager must address the significant recovery challenges that emerge during response and for many years following a disaster. Current programs do not address the most complicated and long-term portion of the emergency management continuum: recovery and mitigation. Jurisdictions that are not accustomed to dealing with large disasters and are limited in staff and fiscal capacity find themselves quickly overwhelmed in dealing with the numerous requirements that flow from a major disaster declaration. A need exists where expertise and assistance are required both before disasters and as response



begins, so that teams can assist TSTLs to tackle the complicated and myriad of tasks surrounding recovery and mitigation. Additionally, a need exists for teams to assist in the long-term recovery process to help communities with long-term recovery strategies, which are usually only funded when a community requests an FDRC and associated RSF teams post disaster.

Research and Analysis

FDRCs were previously full-time positions aligned to the FEMA Regions. These positions were carved out of the Federal Coordination Officer (FCO) Cadre and designed to perform disaster recovery work in the field and during steady state recovery efforts. Due to near constant deployments of FDRCs, the steady state role was not adequately or consistently supported. In 2016, the Government Accountability Office (GAO) identified numerous challenges with the rollout of the FDRC program. According to FEMA regional officials, the ability of regional staff to conduct training and recovery exercises has been constrained by staffing limitations—particularly a shortage of FDRCs. As of 2016, FEMA had nine FDRCs assigned to its 10 regional offices. FEMA officials said they estimate a need for 23 FDRCs to fully support ongoing recovery readiness activities in all 10 FEMA regional offices. FEMA officials told the GAO that at the time of the NDRF's launch in September 2011, FEMA had established one FDRC position per FEMA region for a total of 10 FDRC positions. FEMA officials also told the GAO that FEMA filled these 10 positions in 2012 over the course of six months.

When not assigned to post-disaster work, the FDRC is responsible for facilitating pre-disaster recovery planning at the state and local level and for coordinating the collaboration between federal and TSTL governments. Specifically, according to FEMA officials through presentations to the NAC, about 60% of an FDRC's time should be spent on preparedness and readiness activities, such as pre-disaster planning with the region's states and localities, as well as on conducting recovery-related trainings and exercises. FDRCs from several regions reported to the GAO, however, that the current number of FDRCs cannot fully support these NDRF implementation efforts. To address both disaster and steady state roles, the FDRC positions were returned to the FCO cadre and FDRCs translated to FCOs with significant recovery expertise. In October 2022, the FEMA Administrator announced the return of the FDRC title. This is a field title—not a separate position—that is filled by qualified FCOs in certain complex disasters. The FDRC focuses on integrated recovery operations and reports to the FCO of record for these incidents.

Potential Outcomes

The development of Recovery Management Assistance Teams (RMATs), made up of subject matter experts in all recovery program areas, could assist TSTLs in developing long-term recovery strategy plans and assist with training regarding recovery and mitigation programs. These RMATs can be tailored to meet the needs of each community and scaled accordingly. Alternatively, if FEMA determines that capabilities exist to fulfill the identified need, hiring additional staff would allow the agency to conduct training, develop strategic recovery plans,

⁶ GAO. (2016, May). Disaster Recovery: FEMA Needs to Assess Its Effectiveness in Implementing the National Disaster Recovery Framework. GAO-16-476. https://www.gao.gov/products/gao-16-476.



and deploy teams before, during, and after the event occurs. Additionally, RMATs would be able to develop relationships with their supported regional partners, beginning with those underserved, repetitive loss communities that lack the ability to tackle these issues alone. RMATs can assist with the identification and development of Disaster Recovery Centers in these areas as they will have established relationships prior to any disaster. These RMATs can be tailored to meet the needs of each community and scaled accordingly.

Recommendation 2023-06: FEMA should study the lessons learned and smart practices identified from the various COVID-19 related recovery grant programs including Coronavirus Relief Fund (CARES) and the Coronavirus State and Local Fiscal Recovery Funds (ARPA) and provide a presentation to the 2024 NAC with any findings that apply to FEMA's disaster recovery grant programs.

Issue Examined

The COVID-19 pandemic created a need for all levels of government to examine programs, processes, and procedures to determine how to continue meeting the needs of their communities outside of normal business practices. This led to technological improvements, new innovations in how to conduct site assessments and damage assessments, and stronger business strategies that saved money in the long-term. These improvements also illustrated that it is possible to fundamentally change FEMA programs and services to reach a broader audience, meet the needs of diverse communities, and improve equity across the agency.

Research and Analysis

Despite efforts in recent years to streamline the FEMA Public Assistance process, the administrative burden for TSTLs to participate in this program while they are in the complex and taxing stage of disaster recovery is still significant. The operation of this program requires substantial staffing and support. Additionally, communities with heightened demographic or socioeconomic vulnerability and who are more susceptible to disaster's adverse impacts frequently experience significant repercussions due to these capacity constraints. Many TSTLs have noted the challenges with insufficient financial capacity to pay for the nonfederal cost share or to cover upfront costs necessary for reimbursable grants. The Public Assistance program is limited by law to fund specific activities related to disaster recovery, even when funding is needed by a jurisdiction for resilience-building activities unrelated to the reconstruction of damaged infrastructure.

Potential Outcomes

Monitoring the lessons learned and smart practices identified from the various COVID-19-related recovery grant programs, including CARES and ARPA, can improve fiscal responsibility and provide benefits to all communities served.

The lessons learned and smart practices captured by the GAO, Congressional Research Service (CRS), Federally Funded Research and Development Centers, or other organizations in the coming months and years about the execution and long-term effects of these programs has the



potential to positively alter the landscape of FEMA programs and services, better positioning the agency for the threats and hazards of the future.

Recommendation 2023-07: FEMA programs should utilize a flexible universal design framework* that is inclusive of individual U.S. territory needs and concerns regarding program implementation.

*Universal Design Framework provides guidance for implementing and promoting a barrier-free process with the principle of multiple means of representation, expression, and engagement.

Issue Examined

Each of the five U.S. territories have unique challenges. In a 2018 GAO report, disagreements between state and territory government officials and FEMA over project estimates caused delays in recovery. This is due, in part, to not accounting for "the higher costs associated with procuring and shipping materials to the Pacific region."

Territorial communities rely on resources that exist only on their islands. This includes workforce, building materials, food and water, transportation (land, air, and sea), etc. Additionally, many only have one hospital to provide necessary medical services for the territory. The GAO report further stated that a shortage of personnel in the Commonwealth of the Northern Mariana Islands (CNMI) led to missed funding opportunities. In Guam and CNMI, a "shortage of construction workers in their respective locations may impede recovery from Typhoons Mangkhut and Yutu and could also increase the cost of completing recovery-related work." It is common for employees to have a multi-representative role because of the limited population on the island. For these reasons, a more flexible and adaptable approach is required to meet the needs of these communities.

Research and Analysis

Existing federal laws—the Jones Act⁹ and Cabotage Law¹⁰—may contribute to the increase in materials and how they are delivered to the Pacific and Caribbean territories. For example, materials ordered out of Hawai'i are sent to California before being shipped to the Pacific territories. Consideration must be given to the cost of equity, which may limit remote communities from fulfilling all activities and increase the gap in community resilience.

National Risk Index. The FEMA National Risk Index dataset and the online tool provide decision-makers in the field a snapshot of a community's natural hazard risk; however, the current tool does not include the territories. The 2022–2026 FEMA Strategic Plan will remain unachievable with the exclusion of data from the various U.S. territories.

⁷ GAO. (2021, February). 2018 Pacific Island disasters: Federal actions helped facilitate the response, but FEMA needs to address long-term recovery challenges. GAO-21-91. https://www.gao.gov/assets/gao-21-91.pdf.

⁸ Ibid.

 $^{^9}$ 46 U.S.C. App Ch. 24: Merchant Marine Act, 1920. https://uscode.house.gov/view.xhtml?req=granuleid% 3AUSC-2000-title46a-chapter24&edition=2000.

¹⁰ 49 U.S.C. 41703. https://www.ecfr.gov/current/title-19/chapter-I/part-122/subpart-Q/section-122.165.



National Flood Insurance Program (NFIP). The National Flood Insurance Act of 1968 was signed into law to respond to flood disasters that caused hardship and economic distress among survivors, and due to the increased cost of federal resources. In an evaluation report provided to FEMA on the NFIP, the American Institutes for Research listed a chronology of significant events beginning in 1824 to 2006. None of the events listed a U.S. territory. This discrepancy will continue to exclude territories from benefiting and participating in various opportunities to increase community resilience.

Potential Outcomes

The utilization of a universal design framework for all FEMA-funded projects would promote responsiveness to diversity, equity, inclusion, and accessibility in all designed products (tools, indexes, etc.). Flexibility in various indexes and toolkits will enhance community resilience in underserved communities, such as those with disabilities and access and functional needs.

This recommendation can increase an understanding of the unique needs and resilience of island communities. Utilizing indexes and tools that do not include all five U.S. territories in formulas should be recognized as "incomplete" products and not be used.

Climate Resilience Recommendations

Recommendation 2023-08: FEMA should work with and request direction from the White House to designate a leadership role in building nationwide climate resilience, including the prioritization of the appointment and U.S. Senate confirmation of the FEMA Deputy Administrator for Resilience to lead that effort within the agency.

Issue Examined

The NAC recognizes FEMA's recent work to expand its climate-focused initiatives. Whether it is being the first representative for the Department of Homeland Security (DHS) as the newest and 14th member of the U.S. Global Change Research Program (USGCRP) or updating policies to address future hazard risk, advancing nature-based solutions, collaborating with other federal agencies in joint initiatives, or building alliances for climate action, FEMA has worked to be a leader in this space.

While attention to and investments in climate resilience are on the rise inside agencies across the federal government, the result is a disjointed assemblage of federal programs housed within a variety of agencies that have redundant offerings and unidentified gaps. There is no overarching structure within the federal government that identifies which agencies are taking

American Institutes for Research. (2006, December). Evaluation of the National Flood Insurance Program: Recommendations from the individual reports. https://www.fema.gov/sites/default/files/2020-07/fema_nfip_eval-recommendations.pdf.



the lead on what aspects of developing climate resilience and how these efforts are integrated into a system where the whole is greater than the sum of its parts. There is also no evident process within the federal interagency of looking at climate adaptation and risk reduction programs, research, or funding, to determine where redundancies and gaps exist and take corrective action. There are so many different climate data portals across the federal system that the "portal proliferation problem" is being increasingly seen as an obstacle to developing a nationwide climate resilience strategy. This leads to a lack of cohesion, consistency, clarity, and momentum for TSTL governments to address the threat of our changing climate and impedes government's ability to partner with academia and the private sector to enact meaningful programs that move the needle on this global crisis.

Research and Analysis

An inventory of the federal government's disparate climate resilience efforts was conducted in 2023, which found that "nearly 30 federal agencies" are involved with climate resilience. ¹² The White House Climate Policy Office and the National Climate Task Force, both established by Executive Order 14008 (Tackling the Climate Crisis at Home and Abroad) Sections 202 and 203 ¹³ addressed this challenge by producing the September 2023 National Climate Resilience Framework, which calls for an "all-hands-on-deck" effort across all levels of government ...". ¹⁴ The report also noted that while collaboration exists in the climate resilience space, it could be defined as "silos of excellence," and identified the need to "strengthen interagency coordination bodies to support community resilience." ¹⁵ Incidentally, Priority Action 3 of the DHS Climate Action Plan tasks the FEMA Administrator with incorporating climate adaptation into National Preparedness and Community Grants and Projects.

Given its statutory mission and subsequent legislation, FEMA is uniquely qualified and authorized to serve as the interagency coordinator for climate adaptation planning, response, and recovery efforts. FEMA's mission includes a mandate to "develop a federal response capability that, when necessary and appropriate, can act effectively and rapidly to deliver assistance essential to saving lives or protecting or preserving property or public health and safety in a natural disaster, act of terrorism, or other man-made disaster." ¹⁶

Potential Outcomes

¹² The White House. (2023, September). National climate resilience framework. https://www.whitehouse.gov/wp-content/uploads/2023/09/National-Climate-Resilience-Framework-FINAL.pdf; page 8.

¹³ The White House. (2021, January 27). Executive order on tackling the climate crisis at home and abroad. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/.

¹⁴ The White House. (2023, September). National climate resilience framework. https://www.whitehouse.gov/wp-content/uploads/2023/09/National-Climate-Resilience-Framework-FINAL.pdf; page 5.

¹⁵ Ibid; page 10.

 $^{^{16}}$ (FEMA Disaster Operations Legal Reference (DOLR), p. 4-1 – citing 6 U.S.C. § 313(b)(2)(C); See also Stafford Act §§ 403(a) and 502(a), 42 U.S.C. § 5170b(a) and § 5192(a); 44 C.F.R. §§ 206.201(b) and 206.225. Moreover, "FEMA coordinates with state, territorial, tribal, and local governments, as well as other federal partners, nongovernmental organizations (NGOs), and the private sector to fully utilize the nation's resources." (FEMA DOLR, p. 4-1 – citing 6 U.S.C. § 313(b)(2)(B).



Should FEMA be placed in a leadership position for climate resilience, adaptation, and risk reduction, we would expect increased unity of effort from the federal interagency to address the dynamic and evolving risks associated with our changing climate, to include one-stop-shops for data, funding opportunities, smart or best practices, and resources for TSTL governments to address this challenge in community-specific ways. We would also anticipate that duplicative programs could be consolidated, and gaps in climate resilience would be more readily identified and addressed at the federal level. This recommendation could also lead to emergency management at the TSTL levels being elevated in the climate change resilience efforts within their jurisdiction, creating a knowledge, skills, expertise, funding, and problemsolving approach that is a hallmark of emergency management programs to be leveraged across the country.

Recommendation 2023-09: FEMA should build resilience and insurability for the most vulnerable communities by 1) providing financial incentives for low income homeowners and technical assistance for communities in vulnerable areas to build to higher standards, 2) convening the insurance and reinsurance industry to negotiate differentiated underwriting standards for specific hazards and more resilient housing, and 3) working with state insurance commissioners and industry partners to develop educational programs for homeowners on resilient codes and standards and options to enable continued insurability of their property.

Issue Examined

Americans are increasingly physically and financially exposed to the risks of climate impacts. The current systems and programs to reduce risks and help communities quickly recover and rebuild are significantly underfunded, unequal, and insufficient. Insurance approaches and risk transfer products, especially parametrics, at the micro, mezzanine, and macro/sovereign levels hold the potential to cover climate risks borne by local governments and residents—and to help finance the risk reduction and climate adaptation—combined with supportive policy at the national, state, and local level.

Research and Analysis

The increasing frequency and severity of climate-related events, such as hurricanes, wildfires, and flooding, have made it more difficult for homeowners to predict and financially prepare for the risks associated with these events. These disasters can result in higher insurance premiums and deductibles, making coverage less affordable for some homeowners. Socioeconomic disparities also play a significant role. Low-income households often have limited resources to invest in climate resilience measures, such as reinforcing their homes or relocating to safer areas. They may also struggle to afford comprehensive insurance policies, leaving them more vulnerable to the financial consequences of climate-related disasters. This exacerbates existing inequalities and can lead to a disproportionate impact on vulnerable communities.



some regions, insurance companies may become reluctant to offer coverage or, if they do, premiums may be exorbitant, which can discourage homeowners from purchasing adequate protection. Additionally, the NFIP, which provides flood insurance in the U.S., has been criticized for underpricing premiums, potentially leading to a lack of incentive for homeowners to adequately prepare for flood risks. Finally, there is a lack of awareness and understanding among homeowners regarding the specific risks they face and the insurance coverage available. Many people may not be fully informed about the potential impacts of climate change on their properties, and this lack of awareness can lead to inadequate preparation and insurance coverage. Educational campaigns and outreach efforts are essential to address this knowledge gap and encourage homeowners to take necessary steps to protect their homes and finances.

The drivers of U.S. homeowners being less able to reduce climate disaster risks and purchase appropriate insurance include the increasing frequency and severity of climate-related events, socioeconomic disparities, challenges related to insurance availability and affordability, and a lack of awareness among homeowners. Addressing these issues requires a multi-faceted approach, including improving risk communication, providing affordable, flexible, and new insurance policies, government policies that incentivize climate risk reduction, and efforts to reduce inequalities in climate-related vulnerabilities.

Potential Outcomes

Appropriate and affordable insurance for climate disasters would provide low and middle-income homeowners with financial security, encourage resilience measures, reduce the burden on public resources, enhance economic stability, promote social equity, and offer environmental benefits. It is a key component of comprehensive climate adaptation and disaster risk reduction efforts that can safeguard both individual and societal well-being.

Recommendation 2023-10: In order to more effectively improve resilience of the built environment, FEMA should encourage, increase funding opportunities for, and provide technical assistance to TSTLs to 1) conduct scenario studies to evaluate disaster impacts and disseminate findings, 2) inventory vulnerable buildings and lifeline infrastructure and, 3) retrofit existing vulnerable assets, particularly those essential for maintaining community resilience. FEMA should also explore ways the propriertary Building Code Effectiveness Grading Schedule (BCEGS) and Building Code Adoption Tracking (BCAT) effort can be improved to increase the effectiveness of building code enforcement at the local level.

Issue Examined

The NAC examined the following issues regarding this recommendation: lack of modern building standards, impediments to lasting mitigation, availability and function of current tools, and code enforcement. Our existing built environment predominantly consists of aged buildings that do not meet modern building standards, and our communities have been assembled on lands now vulnerable to the effects of our changing climate. Communities struggle to



implement effective and lasting mitigation activities. They are impeded by a lack of general awareness, public engagement, political will, and stakeholder buy-in, particularly from the business and commercial sectors. Currently available tools lack granularity and "value-added" information that is needed to engage stakeholders more effectively with real-life impacts. It can also be technically and financially unattainable, requiring expensive consultants to perform a holistic identification of disaster impacts. While technical assistance is available to jurisdictions, it is not currently sufficient to conduct the deeper dives necessary to inform more meaningful dialogue with stakeholders.

The same impediments impact the effective enforcement of building codes. A strong building department is a key component to effectively improve resilience of the built environment, but communities across the U.S., including those where the latest code has been adopted, struggle to adequately enforce codes. This is due to several factors including lack of qualifications, lack of resources, but namely lack of awareness and support by decision-makers to support any change.

Research and Analysis

Scenario studies are one of the most proven effective techniques for implementing lasting change in communities. As a result of political will and public buy-in gained through scenario studies, performing inventories of vulnerable buildings and/or lifeline infrastructure in communities is a natural segue and important next step in following the scenario planning process. Inventories facilitate the community to intentionally recognize the existence of vulnerable buildings and lifeline infrastructure. This data provides essential information for quantifying potential losses and establishing justification for the creation and implementation of a retrofit or replacement program.

The BCEGS and BCAT efforts are used in FEMA Hazard Mitigation Assistance (HMA) scoring criteria to assess and award the effectiveness of building code enforcement. The BCEGS and BCAT appear to have the greatest potential within FEMA programs and policies to capture the realistic state of effectiveness of building code enforcement activities at a jurisdictional level. Innovative solutions are possible to more accurately and impactfully account for problems that plague building departments today, including a lack of sufficient staffing, a lack of sufficient staff qualifications, and the engineer-of-record not required for occupancy permit approval.

Potential Outcomes

Improving access to and promotion of the tools, funding, and technical assistance TSTLs need to conduct scenario studies and inventories and execute retrofit programs will improve understanding of disaster impacts, reduce vulnerability of buildings and infrastructure, and increase the effectiveness of building code enforcement.

Taking a comprehensive inventory of vulnerable assets in the built environment can help communities identify, prioritize, and justify buildings and lifeline infrastructure for retrofitting. Retrofitting can make buildings and infrastructure more resistant to damage and improve the overall community's capacity to withstand a major event, particularly if the retrofit programs



are targeted to community functions and services important for preserving safety and well-being.

Building codes are essential for ensuring the safety of buildings and reducing a community's overall risk for decades to come. By accurately capturing the efficacy of building code enforcement across our nation through improved scoring criteria with BCEGS and BCAT, FEMA can incentivize communities to renew the importance and authority of building departments and increase their capacity and qualifications. We appreciate the recent set-aside within the FY2023 BRIC Notice of Funding Opportunity (NOFO) scoring criteria for states, territories, and tribes to improve building code adoption and enforcement and workforce capability development.

Recommendation 2023-11: FEMA should increase our nation's preparedness for earthquakes by 1) increasing funding to the National Earthquake Hazards Reduction Program (NEHRP) beyond the Congressionally authorized and allocated amount and provide equal mitigation funding for territories and tribes, 2) updating Benefit-Cost Analysis (BCA) requirements to more accurately capture the unique losses of earthquakes and unique benefits of associated mitigation activities, and 3) updating mitigation grant scoring criteria to more accurately capture the benefits of structural retrofits and other seismic mitigation activities.

Issue Examined

Nearly half the U.S. population is at risk of experiencing a damaging earthquake within the next 50 years. The National Earthquake Hazards Reduction Program (NEHRP) was created to address this risk and create a more seismically resilient nation. Yet chronic underfunding hampers the ability of the NEHRP agencies to adequately achieve their missions, and it hinders TSTLs from accessing effective funding levels. Tribal Nations face an additional obstacle by their exclusion from NEHRP grants. HMA and BRIC do not provide a realistic funding alternative for earthquake mitigation projects. TSTLs encounter significant barriers to meet FEMA's cost effectiveness requirement and are forced to hire private consultants to increase their chances.

Research and Analysis

A 2023 joint report by FEMA and the United States Geological Survey (USGS) estimates that the total economic exposure to earthquake losses for buildings and contents in the U.S. is \$107.8 trillion.¹⁷ Annualized earthquake losses to the national building stock are estimated to be \$14.7 billion per year. This is a minimum estimate. It does not include losses to lifeline infrastructure, indirect (long-term) economic losses, or losses associated with induced seismicity. The National Research Council (NRC) produced a 2011 report that assessed the activities and costs required

¹⁷ FEMA P-366 (April 2023). Hazus Estimated Annualized Earthquake Losses for the United States, https://www.fema.gov/sites/default/files/documents/fema_p-366-hazus-estimated-annualized-earthquake-losses-united-states.pdf.



for the nation to achieve earthquake resilience within 20 years. ¹⁸ The report identified 18 tasks for furthering NEHRP goals, from knowledge building to implementation. Notably, the list of tasks excluded the need for, or costs associated with, retrofitting vulnerable buildings. The NRC reported that funding for NEHRP agencies should be \$300 million (not adjusted) every year for 20 years.

Funding levels through the Individual State Earthquake Allowance (ISEA) grant are so small that states and territories are unable to execute the full range of allowable activities. Some states reportedly don't apply because the associated administrative costs and relatively small impact of any activity make the pursuit futile. While ISEA grant funding levels are prohibitively small for states and territories, they are inaccessible altogether for Tribal Nations. The GAO highlighted this exclusion in a 2022 report. Besides ISEA, the only other available funding source for Tribal Nations, sstates, or territories to address seismic risk is through traditional HMA grants, including BRIC. Yet just 1% of BRIC funds are awarded for earthquake risk reduction projects. They fail to be competitive in the current program landscape because existing criteria for BCA calculations and BRIC scoring favor seasonal disasters like hurricanes, wind, and flooding.

FEMA BCA fails to accurately calculate losses from earthquakes, such as collapse rate, injuries, or cascading impacts like fires and tsunamis. The BCA also fails to accurately capture benefits associated with structural seismic retrofits, such as reduced debris and carbon emissions. BRIC Scoring Criteria similarly deprioritizes earthquake mitigation projects through the awarding of points for "nature-based solutions" and "enhancing climate adaptation and resilience." These criteria favor climate hazards and fail to recognize the benefits of preventing building collapse, including the reduction of embodied carbon.

Potential Outcomes

While it is the role of the U.S. Congress to authorize and appropriate funding for NEHRP, it is FEMA's responsibility to request sufficient funding for meeting the nation's need to reduce earthquake risk. FEMA also has a duty to inform Congress of the legislative exclusions that Tribal Nations encounter to access FEMA NEHRP grants and to request a legislative update.

By Congressional direction, the allowable activities for FEMA NEHRP grants can provide states and territories with meaningful preparedness work to reduce earthquake risk, including mitigation planning and inventorying of vulnerable buildings and lifeline infrastructure. Earthquakes cannot be addressed with a response and recovery mindset. They are fundamentally different disasters than flooding or wind and require a long-term, incremental investment. We encourage FEMA to explore creative funding solutions for appropriated NEHRP

¹⁸ National Research Council. 2011. National Earthquake Resilience: Research, Implementation, and Outreach. Washington, DC: The National Academies Press. https://doi.org/10.17226/13092.

¹⁹ GAO. (2022, May). Earthquakes: Opportunities exist to further assess risk, build resilience, and communicate research. https://www.gao.gov/assets/gao-22-105016.pdf.

²⁰ BRIC funding and earthquake project allocations, fiscal years 2020-22. Data obtained from BRIC sub applicant status tables, www.fema.gov, September 2023.



funds, such as rotating or rollover allocations, which could more effectively facilitate the execution of allowable grant activities. Further, it is essential that FEMA preserve the funding it is allocated for NEHRP activities.

The existence of NEHRP alongside HMA and BRIC grants appears to present confusion among both FEMA personnel and external stakeholders on what funding avenues are available or should be used for earthquake mitigation and preparedness projects. We recommend earthquake-specific programmatic clarity be shared with TSTL partners and FEMA staff.

Recommendation 2023-12: FEMA should work with other federal agencies and where appropriate TSTLs, private sector, and civil society to develop and implement a long-term coordinated risk communication and public awareness strategy to encourage behavioral change by providing communities, elected officials, and individuals with targeted, timely and relatable messaging about expected impacts from climate change and other hazards.

Issue Examined

While the science of the risks posed by climate change is becoming clearer, the way we talk about those risks is not. This is in part due to the multivalent way climate change impacts us. To complicate matters, the federal government has to date undertaken a siloed and science-driven communication approach. Additional data, facts, and figures may be appropriate for some audiences, but experience shows that more nuanced communications campaigns are necessary to drive the widespread behavior change—such as improved building code adoption and zoning changes—that we need to protect ourselves from climate shocks and stresses.

The recent release of the National Climate Resilience Framework is an important step in aligning the information and data communities receive about climate risks, but there can still be a more intentional alignment of messaging with campaign-style urgency that draws on other successful risk awareness campaigns—such as anti-smoking, drunk driving, and wildfire risk reduction. This campaign will need many more voices than just federal agencies, including trusted and innovative partners in the private sector and civil society. The strategy that we are proposing here should look to align and amplify those voices, not script them.

As the federal government's interagency coordinator and lead consequence manager, FEMA is well positioned to work with federal partners like the National Oceanic and Atmospheric Administration (NOAA), the Department of Agriculture, and the White House Council on Environmental Quality to align messaging about the evolving risk of climate change and what we can do to protect ourselves and our communities.

Research and Analysis

To understand current federal messaging, we examined relevant efforts to communicate climate risks and spoke to communication experts in the field. Research included examining the NOAA's Climate.gov, the National Integrated Heat Health Information System's Heat.gov, Yale's



program on climate change communications, non-profit risk data organization First Street²¹, as well as a briefing from FEMA's director of external affairs.

Potential Outcomes

With clear and effective messaging delivered by appropriate formal and informal leaders, individuals will have a better understanding of climate change-driven risks, and what they should do to protect themselves and their families. Implementing this recommendation is expected to result in a well-aligned approach to communicating long-term climate risk from the federal family that:

- Enables the American people to protect their families, businesses, and communities.
- Results in better prepared and more resilient individuals, families, and communities.
- Leverages communications resources across FEMA and other federal agencies working to ensure a climate resilient nation.

Cross-Cutting Recommendations

Recommendation 2023-13: FEMA should enhance technical assistance for TSTLs to build long-term resilience. The agency should: 1) lead a study to better understand the landscape of resilience-building technical assistance across the federal government, 2) expand recovery grant programs to focus on building resilience capacity, and 3) actively partner with TSTL and civil society organizations to help build capacity of Community Disaster Resilience Zone (CDRZ) designated and other under resourced communities.

Issue Examined

With the risk of natural disasters accelerating nationwide due to climate change, and historic federal investments being made in resilience, FEMA can help communities do their part to ensure a climate resilient nation. However, several obstacles stand in the way of meeting that goal that can be addressed through a systematic approach to resilience-building.

Technical Assistance. Many agencies offer forms of technical assistance that support communities in implementing resilience-building and hazard-mitigation projects. It is not clear, however, which of these technical assistance approaches are most effective at leading the transformational projects that our under-resourced communities need to face the impacts of disasters. Without the knowledge of the most effective approaches, FEMA is unable to identify the best technical assistance investments. This is particularly important given the role FEMA has in the CDRZ initiative. To deliver technical support services, FEMA should collaborate with other federal agencies and civic partners that have experience assisting under-resourced

²¹ First Street Foundation. https://firststreet.org/.



communities. This will result in an integrated nationwide technical assistance system to support CDRZ communities.

Post-Disaster Impediments. The recovery phase after a disaster is often a good opportunity to build greater resilience to future disasters, but too often FEMA's rules fail to support communities in taking appropriate, future-oriented action after a disaster. For example, policies like Section 1206 of the Disaster Recovery Reform Act (DRRA) reimburse eligible costs for only 180 days after a major disaster declaration. Important resilience efforts, such as updating building codes and adopting new zoning requirements, are not eligible for DRRA Section 1206 resources because while correcting these issues will build resilience, outdated zoning or insufficient building codes are not directly the result of the disaster.

Capacity Needs. While myriad federal funding programs have unlocked a once in a generation investment of federal resources to reduce disaster risk and build resilience, there is no guarantee that these funds will support transformational projects that fortify communities, address climate threats, and promote equity. To access this funding, under-resourced communities will need significant resources to build local capacity. This is particularly true for many communities that have CDRZ designations.

Research and Analysis

The analysis on which this recommendation relies comes directly from the lived experience of NAC members as formal research on these issues does not appear to have been undertaken.

Potential Outcomes

By leading a federal government-wide analysis to better understand the effectiveness and gaps of the various pathways of technical assistance that help communities conceive, design, and implement resilience-building programs, FEMA will be better positioned to provide effective and efficient technical assistance that ultimately saves taxpayer funding. Based on that identification of best practices, FEMA could expand partnerships with other agencies to align technical assistance across the federal system with a focus on the nation's most vulnerable communities.

Expanding the concept of Recovery Capacity Grants to include a longer-term view of building place-based capabilities and disaster resilience and renaming these grants as "Recovery and Resilience" Capacity Grants will assist communities in building resilience rather than obstruct such efforts.

Finally, development of RMATs in each region—to include trained professionals who support the goals of the Recovery and Resilience Capacity Grants program—will allow under-resourced communities to develop local capacity that helps them build resilience.

Recommendation 2023-14: FEMA should allow mitigation grant applicants and sub-applicants for projects under \$1 million to provide a "narrative description" of the project's cost effectiveness in lieu of a standard FEMA BCA and establish



a sampling methodology for capturing benefits to reduce data collection and complexity burdens on TSTLs for all other projects.

Issue Examined

To determine cost-effectiveness, FEMA currently requires projects seeking HMA grants to include a BCA, implemented in accordance with Office of Management and Budget Circular A-94. According to the RAND Corporation, applicants for mitigation grants have provided extensive feedback that the BCA process is cumbersome and that finding the right data to include in the calculations of costs and benefits is difficult. Administrative burdens and the costs of application processes should not discourage sub-applicants with fewer resources and underserved communities from applying for these grant funds and making their communities more resilient.

Research and Analysis

Enabling the use of narratives rather than costly analysis and data collection will provide numerous benefits to the nation's risk reduction efforts. First, the BCA process continues to be burdensome to sub-applicants. The process is not intuitive, and despite FEMA's best efforts to provide additional training and technical assistance, it still serves as a primary reason why jurisdictions are unwilling to engage in mitigation grant programs. Second, many jurisdictions have not maintained detailed records necessary to document impacts and losses from historical events. Although jurisdictions may have projects that would reduce or prevent future damage or loss of life or injury, they likely do not have the supporting records to demonstrate this benefit. Furthermore, such a revised policy will help FEMA achieve greater equity and fairness in allocating federal resources, in alignment with the 2021 executive orders and Justice40 initiatives.

It is likely that many mitigation projects within this cost range might meet the statutory and regulatory cost-effectiveness requirements without conducting a BCA. Applicants and subapplicants would be required to create a narrative that provides, "reasonable expectation that future damage or loss of life or injury will be reduced or prevented by the activity." This approach is used successfully with FEMA's 5 Percent Initiative. These relaxed requirements with the 5 Percent Initiative that do not require a BCA (aligned with Circular A-94's BCA methodology) demonstrate that FEMA has the authority to interpret the cost-effectiveness requirements of the Stafford Act and the Title 44 regulations.

Potential Outcomes

Implementation of this recommendation would greatly improve the quality, breadth, and diversity of HMA grants. Reducing the need for TSTL staff and consultants to generate BCAs for

²² OMB. Circular A-94: Guidelines and discount rates for benefit-cost analysis of federal programs. https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a94/a094.pdf.

²³ Miller, B.M., Clancy, N., Ligor, D.C., Kirkwood, G., Metz, D., Koller, S., & Stewart, S. (2023). The cost of cost-effectiveness: Expanding equity in Federal Emergency Management Agency Hazard Mitigation Assistance Grants. RAND. https://www.rand.org/pubs/research_reports/RRA2171-1.html.



relatively small award amounts would produce savings for these jurisdictions in the millions of dollars. It would enable jurisdictions that have been historically excluded from participation in these programs, due to excessive and burdensome BCA processes, to submit projects with little risk to the overall grant program.

Recommendation 2023-15: FEMA should develop a more flexible BCA methodology for critical infrastructure of community-wide and cultural significance* by making allowances for projects that 1) provide a multitude of benefits, including the ability to address more than one hazard and benefits that cannot be easily quantified, 2) have a long-useful life, often 50-100 years or more; and 3) are designed to both withstand and be functional after disasters, including those events that occur less frequently but have an extremely large impact.

*Infrastructure of community-wide and cultural significance may include, but is not limited to, the following: transportation, water control, energy, communication systems, critical healthcare, public safety, education, food support facilities, shelter, and public housing facilities.

Issue Examined

The rigid structure of the BCA methodology used to determine eligibility for hazard mitigation has resulted in several unintended consequences for TSTLs seeking resources to address critically important community infrastructure. While recent improvements to the BCA methodology, including a potentially lower discount rate, are important, they do not address inherent problems with the methodology that prevent vital mitigation projects for critical infrastructure that provide multiple benefits. Likewise, critical community infrastructure assets that have a long-useful life and require post-disaster functionality are not considered.

Research and Analysis

The BCA does not and cannot capture every benefit of a mitigation project. FEMA continues to update the BCA software to expand options and opportunities for calculating monetary benefits but does so in small increments. Even with these changes, larger scale and geographically expansive projects that have long-useful lives are unable to monetize benefits, resulting in disqualification or being put at a comparative disadvantage to other projects. Additionally, the level of effort in producing and reviewing BCAs for large and complex infrastructure projects is exceedingly difficult. This is due to the lack of defined benefits and inability to capture initial, secondary, even third order benefits. Finally, it is important to note that communities continue to rely on critical facilities that do not meet modern code performance levels. This is especially true for earthquakes where new critical or essential facilities are designed for functionality and minor damage after very large earthquakes. Achieving this level of performance with existing facilities is often very expensive or not possible without substantial replacement. Unfortunately, the current BCA methodology often leaves out these facilities.

Potential Outcomes



Implementation of a more flexible BCA methodology will enable TSTLs to access hazard mitigation funding programs to support critical infrastructure. This will increase the pool of eligible projects and connect FEMA's funding programs to projects necessary for community resilience before, during, and after a disaster. Allowing applicants to consider the benefits related to multiple hazards over a longer period of time will also improve efficiency of federal expenditures by supporting projects that achieve multiple objectives through one project rather than addressing each objective in isolation.

Recommendation 2023-16: FEMA should partner with organizations that provide training to TSTL elected officials to deliver pre-disaster and just-in-time emergency management training programs so that elected officials understand FEMA's role and processes, as well as their own role in emergency management.

Issue Examined

Local and state governments are responsible for response in the immediate wake of a disaster, and residents look to their elected officials to help them understand what is happening, what they should do, and what to expect. FEMA arrives only when certain thresholds are met. This relationship, however, is often not well understood by elected officials who are responsible for formal and informal communications in the days following a disaster.

Not knowing the process for requesting FEMA assistance and the limits of that assistance for residents can lead to inaccurate information being shared and, in some cases, elected officials expressing frustration with FEMA publicly or promising support to their constituents that FEMA cannot deliver. These circumstances set FEMA up to be seen as ineffective even when the agency delivers its full range of assistance professionally and in a timely manner.

Many elected officials receive training from statewide associations of cities and counties, or by state government, that covers a wide range of information needed to do their jobs, such as ethics rules, public meeting laws, and land use processes. Many of these programs, however, do not include training about the elected leader's role in a disaster. Without this knowledge base, elected officials are called upon to lead in a disaster without the tools necessary to do so.

This recommendation invites FEMA to identify and partner with training programs for elected officials in all TSTLs to ensure that those programs include the basics of emergency management, including the role of elected officials and what FEMA does and does not provide in the wake of a disaster. This effort will leverage the training materials already developed by FEMA and provide a mechanism to gather feedback to continually improve those materials. Just-in-time training when disaster strikes is equally important as it provides the specific information needed to help elected officials lead in a way that is constructive for the residents, the larger community, and FEMA. This effort to provide just-in-time training is already underway and should be strengthened and integrated with the pre-disaster training identified above, so that elected officials understand the process for just-in-time training before they need it.



Research and Analysis

The identification of this problem and the development of the recommendation comes primarily from the lived experience of NAC members who have seen elected officials struggle to lead their communities in the aftermath of a disaster. The long-term decline in the trust the public has in government is illustrated in research conducted by the Pew Research Center in 2022.²⁴

Potential Outcomes

Helping elected officials at the local and state level understand their roles in emergency management will support the following outcomes:

- Lives saved and injuries avoided because residents trust the information they hear from their local government officials and follow the directions given to them before, during, and after a disaster.
- More effective emergency management efforts at the local level because elected officials understand and are prepared to do their part in a positive way.
- Better outcomes for frontline FEMA employees who are helping residents in the wake of a disaster as residents will be less confused and frustrated.
- Less frustration by and a better support experience for residents on what is often one of the worst days of their lives.
- More positive regard for FEMA by elected officials and the residents they serve.
- More effective use of taxpayer dollars by leveraging existing investments in training materials already developed by FEMA.

²⁴ Pew Research Center. (2023, September 19). Public trust in government: 1958-2023. https://www.pewresearch.org/politics/2023/09/19/public-trust-in-government-1958-2023/.



Conclusion

Since FEMA's inception, there has not been a more challenging or complex disaster environment than the one our nation is experiencing now. It is true the cost and severity of disasters are rising; however, there is now better technology and enhanced interconnectedness of systems to help FEMA coordinate and collaborate to increase the efficiency and effectiveness of its programs.

With this 2023 report, the NAC seeks to provide recommendations that align with FEMA's strategic goals and planning priorities. It is our hope that these recommendations can be quickly addressed and implemented to ensure operational readiness, prepare for climate impacts, and ensure a healthy workforce for the future.

Note: On November 17, 2023 (two days after originally posting the NAC 2023 Report on November 15) the Office of the National Advisory Council replaced the publicly posted online version of this NAC 2023 Report with a slightly updated version. This was primarily done to make minor edits to the language of Recommendations 2023-03, 2023-05, 2023-06, 2023-08, 2023-09, 2023-10, 2023-11, 2023-13 and 2023-15. These edits correct minor mistakes to fully incorporate verbal edits made during NAC deliberations on September 28, 2023. In total, the recommendation edits were the addition of 23 words and the removal of 30 words across the 9 affected recommendations.



Acknowledgements

2023 Members of the National Advisory Council

Jeffrey Hansen, Chair, National Advisory Council Director, Office of Emergency Management Choctaw Nation of Oklahoma Durant, Oklahoma

Carrie Speranza, Vice-Chair, National Advisory Council Director, Emergency Management Solutions Esri Arlington, Virginia

Lori Hodes, Secretary, Na ional Advisory Council Director, Office of Emergency Management Larimer County Johnstown, Colorado

Jeanne Abadie

PACE, Program Manager Office of Aging and Adult Services Louisiana Department of Health Baton Rouge, Louisiana

Michael Antoine

Associate Vice President Campus Safety, Emergency Preparedness & Response Louisiana State University New Orleans, Louisiana

Kathy Baughman McLeod

Senior Vice President, Atlantic Council and Director, Adrienne Arsht-Rockefeller Foundation Resilience Center Washington, District of Columbia

Sue Anne Bell

Assistant Professor University of Michigan Ann Arbor, Michigan

Brenda Bergeron

Deputy Commissioner, Emergency Services and Public Protection, Emergency Management and Homeland Security, Connecticut Middletown, Connecticut

Chad Berginnis

Executive Director Association of State Floodplain Managers Madison, Wisconsin

Michael Berkowitz

Founding Executive Director Climate Resilience Academy University of Miami Brooklyn, New York

Christopher Blanco

Chief Financial Officer NYC Emergency Management New York, New York

Donald Bliss, Chair, Workforce Subcommi ee Vice President, Field Operations (Retired) National Fire Protection Association Quincy, Massachusetts

Donna Boston

Senior Manager, Business Resilience & Emergency Planning Southern California Edison Silverado, California

Paul Downing

Indian Township Tribal Council Member Passamaquoddy Tribe at Indian Township Indian Township, Maine



Jody Ferguson

Director, Department of Emergency Management Pierce County Tacoma, Washington

Karl Fippinger

Vice President,
Fire and Disaster Mitigation
International Code Council
Washington, District of Columbia

Tim Gleason

City Manager City of Bloomington Bloomington, Illinois

James Gore

Sonoma County Supervisor and Second Vice President, National Association of Counties Sonoma, California

Tonya Graham

Mayor City of Ashland Ashland, Oregon

Jonathan Greene, Ex Officio

Director
Office of Operations and Resources
Assistant Secretary for Preparedness and
Response, DHHS
Washington, D.C.

Justin Kates

Senior Business Continuity Advisor Wawa Somerville, Massachusetts

Misti Kill

Vice Provost, Academic Affairs and Dean, College Safety and Emergency Services Columbia Southern University Fargo, North Dakota

Ramesh Kolluru

VP for Research, Innovation and Economic Development
University of Louisiana
Lafayette, Louisiana

Ryan Lanclos

Director, Public Safety and Disaster Response Solutions Esri Conroe, Texas

Anna Lang, Vice-Chair, Climate Resilience Subcommittee Research Engineer, Founder Zylient San Diego, California; Kalispell, Montana

Lorie Liebrock

Founding Director
New Mexico Cybersecurity Center of
Excellence, New Mexico Institute of Mining and
Technology Socorro, New Mexico

Linda Long

Battalion Chief Philadelphia Fire Department Philadelphia, Pennsylvania

Kelly McKinney

AVP, Emergency Management and Enterprise Resilience NYU Langone Health New York City, New York

Paula Pagniez

Americas Practice Lead, Climate and Resilience Hub Willis Towers Watson New York, New York



William "Brad" Richy, Chair, Workforce Subcommittee Director, Office of Emergency Management State of Idaho Boise, Idaho

Andrew Phelps

Vice President
Emergency Management and Homeland
Security
AC Disaster Consulting
Lake Oswego, Oregon

Jim Redick

Director Emergency Preparedness and Response City of Norfolk Norfolk, Virginia

Carol Salas Pagán

Director,
Puerto Rico University Center for Excellence
in Developmental Disabilities
University of Puerto Rico
San Juan, Puerto Rico

Brian Strong, Chair, Climate Resilience Subcommittee Chief Resilience Officer and Director, Office of Resilience and Capital Planning, City and County of San Francisco San Francisco, California **Tina Titze,** *Vice Chair, Readiness Subcommittee*Director
South Dakota Office of Emergency Management

Pierre, South Dakota

Tafaimamao "Tafa" Tua-Tupuola

Director, University Center for Excellence on Developmental Disabilities American Samoa Community College Pago Pago, American Samoa

James Waskom, Chair, Readiness Subcommi ee Director (Retired) Louisiana Governor's Office of Homeland Security and Emergency Preparedness Baton Rouge, Louisiana

Jiqiu "JQ" Yuan

Vice President of Engineering National Institute of Building Sciences Washington, District of Columbia



Special Thanks

Our **esteemed presenters and contributors** to NAC meetings, whose perspectives, thinking, and ideas helped frame and shape the 2023 Recommendations of the Council.

The **State of Utah** and **Salt Lake City Emergency Management** for hosting the NAC at the Public Safety Building during final deliberations and voting meeting in September 2023. And to the Utah FEMA Integration Team for their strong support. Learn more about the situation the NAC investigated while in Utah – the Wasatch Fault – from SLC EM: Mission | Emergency Management (slc.gov)

Office of the NAC Fellows from the University of Maryland: Joseph Dolinger, Caroline Tristani, Emma Sharpe, Mark Salman, Jackie Orban, Devki Shah, Sophia Taur and Grace Hayden.

FEMA Liaisons to the NAC, from numerous corners of the agency, who are essential to providing the NAC with fact-finding and briefings during sensemaking efforts.

The Emergency Management Institute and personnel at the National Emergency Training Center who hosted NAC members for training and new member orientation in January 2023.

Everyone who supports the NAC members in their mission to provide consensus recommendations to the FEMA Administrator for improvement on all aspects of emergency management. The NAC is an all-volunteer service group, and each NAC member dedicates significant time to NAC endeavors. This is time that they are missed by their families, during which they are not performing their normal work duties, and time taken from other pursuits in which they are supporting others. To all the people who cover for the members, miss them while they're away, or wish they had more time with those members who mentor and support them – THANK YOU – because you too are supporting the NAC by making it possible for NAC members to commit the time required to perform this important service to our people.

Sincerely,

Rob Long
Designated Federal Officer to the NAC

Points of Contact at the Office of the National Advisory Council

Rob Long, Designated Federal Officer, FEMA **Sara Andresen,** Alternate Designated Federal Officer, FEMA FEMA-NAC@fema.dhs.gov

FEMA Mission

Helping people before, during and after disasters.