July 25, 2023

Ms. Pamela Williams
Assistant Administrator, Grant Programs, Resilience
Federal Emergency Management Agency
500 C Street SW
Washington, DC 20472

RE: Community Disaster Resilience Zones and National Resilience Index RFI: FEMA–2023–0009

Dear Ms. Williams,

The Geos Institute is a nonprofit organization based in Ashland, Oregon that works across the nation helping communities build resilience to the escalating impacts of climate change. The Geos Institute team has been helping communities build climate resilience since 2008, in the process developing the Whole Community Resilience planning framework, the Climate Ready Communities “assisted do-it-yourself" resilience program for small to mid-sized and under-resourced communities, and a Resilience Action Database to support community-driven climate resilience programs. We have been instrumental in the development of best practices in the climate resilience field over the past 15 years and are currently focused on bringing service providers, federal and state agencies, and academic institutions together in an integrated, nationwide system of resilience services for local governments.

Thank you for the opportunity to submit comments in response to the Request for Information (RFI) regarding implementation of the Community Disaster Resilience Zones (CDRZ) Act and its relationship with the National Risk Index. We appreciate the forward-thinking nature of this legislation, its potential to create transformational change for communities across the nation, and the Federal Emergency Management Agency’s (FEMA’s) partnership approach to implementing the legislation in the most effective way possible. The following comments are offered on behalf of the Geos Institute and listed partners.

Systems Thinking: Current and Future Scope of the CDRZ Initiative

Our highest priority recommendation relates to the scope of the CDRZ initiative. We encourage FEMA, and its federal agency partners, to consider the technical support program necessary for implementing the CDRZ initiative as the foundation for the climate services system that is needed to create a climate resilient nation. A climate resilient nation is one of the primary goals identified in FEMA's strategic plan, yet FEMA also understands that resilience is larger than emergency management. Thus, a climate resilient nation can be achieved only through a whole of society approach that brings together FEMA, other federal agencies, and civil society organizations and practitioners to support local governments in building resilience. The implementation of the CDRZ initiative can lay the foundation for this approach if it is developed with an eye toward the future structure that helps not only this first round of CDRZ communities, but all under-resourced communities looking to build resilience.

If developed intentionally for this purpose, the technical support element of the CDRZ initiative could easily become the foundation for a larger service delivery system that would benefit CDRZ communities, Justice40 communities, and eventually, all communities that are working to build climate and disaster resilience. This wider, long-term view is particularly important as disaster risks are accelerating rapidly across the nation, driven by a changing climate.

In passing this legislation, Congress made clear its intent to assist the nation's most at-risk communities in building resilience. The legislation directs FEMA to work across federal agencies in the development of the CDRZ initiative to serve these communities and to continue the initiative into the future. These directives make it clear that congressional leaders are keen to develop an initiative that not only supports CDRZ communities, but eventually can also help build resilience in the remaining 99% of census tracts across the nation.

Risk Assessment: National Risk Index

Engagement with Under-resourced Communities

A common struggle experienced by federal agencies (as well as academic institutions, state agencies, and other tool builders) is the difficulty of sharing information and programs with, and getting data from, local governments - especially those that serve under-resourced communities.

In this RFI, FEMA asks what it needs to provide better outreach to communities and individuals with fewer resources to encourage use of its hazard assessment products. This assumes that lack of knowledge of these programs is the problem. While that is certainly part of the issue given the complexity of the landscape of resilience resources, what is often overlooked is that communities with fewer resources have less time to invest in the tools and resources available to them. Additionally, these communities often lack staff with the technical training needed to engage with hazard assessment products.

For communities to effectively use the tools and programs designed to help them improve resilience they need the capacity to step forward to meet that information and take some form of action. FEMA should consider some element of capacity building to bring additional personnel resources, such as service programs, to local governments to support resilience planning or implementation in CDRZ communities. FEMA should also consider setting aside additional direct support funding for community planning and streamlining the proposal process to improve access to that funding.

We recommend that FEMA and other agencies work together to support a single system that allows them to efficiently share new data and programming with local governments and train them in the use of these products as they come online. This system can also gather data and emerging needs from local governments. Such a system will serve communities by making it easier to access the help they need, rather than adding to the noise of the many organizations and agencies that are trying to get the attention of the same overworked, under-resourced local leaders.

NOAA has released a Climate Ready Workforce notice of funding opportunity. It may be possible to leverage this program to support CDRZ communities while developing the resilience workforce and adaptive capacity needed in those communities.

FEMA should consider partnering with the Climate Ready America initiative, which is led by the Geos Institute and a National Strategy Team of leaders in the climate resilience field. It aims to build the system described above and in the technical support section below.

Ensuring Decision-makers Can Understand Data

The best way to ensure that the users of scientific products understand how to use them is to co-produce those products with representatives of user groups, especially local government staff in under-resourced communities. This process will require compensating these end users so that they have the capacity to participate in the co-production process. Co-production processes will be easier when all federal agencies have better access to data from the community level regarding community needs through an integrated climate services system. This access will also assist agencies in identifying representatives of user groups who can partner with them in co-producing the next generation of data, tools, and resources.

Expected Annual Loss

Expected Annual Loss (EAL) is problematic because of the bias it creates by placing a higher value on the loss of structures in more affluent communities or neighborhoods within larger communities, even though those residents are likely better able to recover from a natural disaster on their own. This structural bias in the formula must be addressed long-term by changing the formula to better assess the loss of structures on the lives of individual residents and the fabric of the community in question.

As FEMA moves through this designation process, it is imperative that the agency accounts for the skewing effect that EAL analyses can create. In the short-term, EAL should be augmented with data and analysis that tell the larger story. One way in which to do this is to overlay the Climate and Economic Justice Screening Tool (CEJST) to ensure that the selection process does not advantage more affluent communities. CEJST identifies disadvantaged census tracts based on measures of social vulnerability. Admittedly this is not perfect since CEJST uses data from the 2010 Census, but it can still be very helpful as an additional screen of CDRZ designations. We recommend FEMA apply the CEJST overlay and then investigate any census tract that is identified by the National Risk Index as a CDRZ candidate and is being considered for designation, but is not identified as disadvantaged using the CEJST overlay. This will ensure that all CDRZ designations are appropriate and defensible.

Integrating Climate Change

It is clear from the RFI that FEMA is appropriately valuing the integration of future climate projection data in the National Risk Index. This will be helpful for both future CDRZ designations as well as the National Risk Index generally, given that climate change is driving significant shifts in risk profiles of communities across the nation. Relying on back-casting no longer works for any type of local planning that intersects with climate conditions, and this is particularly true for assessing natural hazards.

The Portal Proliferation Problem

Once the CDRZs are designated, it is important that community leaders can integrate climate change data into their resilience planning. One of the difficulties that already exists in this regard involves the sheer number of climate data portals that exist and how difficult it is to navigate among them. A common phrase is used in the climate resilience field for this rapid increase in the number of climate portals - the “portal proliferation problem.” It has become such a challenge that the Aspen Global Change Institute developed a guide for navigating climate data portalsand this accompanying comparison table of existing portals.

Communities that need to integrate the impact of changing climate conditions into resilience planning need a single access point to view the various data tools in one place, simple instructions for what each tool provides, and the appropriate way to use it. Training must also be provided. The implementation of the CDRZ initiative is a good opportunity to call for the consolidation of climate data portals. To that end, we recommend that FEMA encourage a cross-agency effort that creates a single portal for communities to access necessary climate data. In the meantime, FEMA should consider partnering with other agencies, specifically the National Oceanic and Atmospheric Administration (NOAA), and academic institutions to provide climate data to CDRZ communities using tools that already exist.

Climate Data Needs

The climate resilience field uses risk assessment products to help communities develop and implement climate resilience plans. Primary considerations in tool selection are that they integrate future climate conditions, are scientifically credible, and communicate risk in a way that local government staff can use them in planning processes, even if they are not technically trained. Practitioners are concerned primarily with future climate projections, so we look to data products that can provide credible mid-century and end of century projections for use in long-term, community-based planning.

It is important that these projections include analysis of two Representative Concentration Pathways (RCP) for greenhouse gas emissions - the business-as-usual pathway (RCP 8.5) and the pathway (RCP 4.5) that represents what happens if appropriate efforts to reduce greenhouse gas emissions are implemented globally.

While they should plan using the RCP 8.5 pathway, it is important that local governments see how future projections change if action is taken on greenhouse gas emissions. Showing these two pathways and the difference in projections, especially the end of century projections, is critical since that is when we tend to see significant variation between the two pathways. Local leaders need this information to encourage their communities to limit the eventual extent of climate change to a level that humanity can adapt within, as it is impossible to build resilience to runaway climate change.

Finally, little is known about in-country climate migration and the impacts it will have on the assessment of hazard risk. FEMA should watch for research and modeling related to climate migration and integrate it into the National Resilience Index as it becomes available given that many community-level risks will be exacerbated by rapid increases or decreases in population.

Designating CDRZs

The process of designating CDRZs is an important one because it will focus technical support and financial resources on the communities within which the designations occur. FEMA has had a very short runway to prepare for this first set of designations, so we recommend that FEMA consider this a pilot effort to be learned from and refined over time. We also encourage FEMA to consider identifying additional CDRZs sooner than the five-year maximum identified in the legislation given that there are likely to be significant data improvements in the NRI in the near future, particularly related to integrating climate change data.

Selection Recommendations

FEMA has significant discretion within its directive to pick the top 50 census tracts for each of the 18 hazards identified in the National Risk Index and 1% of the high-risk census tracts in each state and territory. We recommend the following to ensure the designations are leveraged to the greatest extent possible:

It is likely that there will be several census tracts within the top 50 for each hazard that are located in the same municipality. Since planning tends to occur at the city or county level, identifying multiple tracts within the same municipal boundary will be redundant. We recommend assigning the highest ranked census tract within a municipality regarding a specific hazard as the CDRZ and eliminating the others within that municipality for consideration in this first round. This will ensure that only one CDRZ for a specific hazard will be designated within the city limits of a municipality.

Given that climate change is accelerating risk related to certain hazards and not others, we recommend designating census tracts with high risk for a non-climate related hazard (such as earthquake) that also have high risk for a climate change related hazard (such as coastal flooding) where possible. This can be especially helpful for designating the 1% of high hazard census tracts in each state and territory.

We recommend that FEMA work proactively with Tribal liaisons ahead of designations to ensure that there is a solid framework in place that is developed in partnership with Tribal governments. This may require that Tribal CDRZs are designated a few months after the initial set of CDRZs due to the tight timeline identified in the legislation. It is very important that the CDRZ designation process involves Tribal communities in a meaningful way, so we encourage FEMA to take the time necessary to ensure a successful designation process for Tribes.

For U.S. territories where some of the social resilience data used to designate CDRZs do not exist, FEMA should identify high hazard census tracts and partner with territorial governments to identify proxy indicators of social vulnerability. The current distribution across the U.S. has FEMA designating at least 1% of all high hazard census tracts as CDRZs, but FEMA can designate more than 1% if warranted. Given that the territories are all islands, and all territories had poverty rates higher than all fifty states as of 2022, both of which create additional resilience challenges, FEMA should designate 2% of the census tracts in all U.S. territories as CDRZs.

Communicating with CDRZ Communities

One of the challenges of the CDRZ initiative is that census tracts do not align with traditional jurisdictional boundaries in terms of planning and governance. As a result, communicating with municipal governments that have CDRZ designations within their boundaries will be both complex and necessary. The communications process should include reaching out to all local government bodies that are legally able to propose a project to build resilience in a CDRZ. That will mean at least two contacts per CDRZ given that most CDRZs will exist within separate city and county governments. Councils of Governments, Metropolitan Planning Organizations, and other regional planning entities should also be notified of any designations within their boundaries.

It will be important to share with local government entities the details about the CDRZ designation(s) within their boundaries. One possibility is a password protected website where

local governments can access information about the CDRZ in their community, including details on why it received a designation as a CDRZ, information about the initiative, and a list of trusted partners who have been vetted by FEMA to assist them in their resilience building work.

If possible, FEMA should communicate with jurisdictions that have CDRZ designations before making any formal public announcements so that local leaders know what is happening and can ask questions ahead of any public announcement.

Resilience or Mitigation Project Planning Assistance

A Navigator Network

The most useful and equitable way for FEMA to provide financial and technical assistance to benefit CDRZ communities is by working with partner agencies across the federal government to support a network of Navigator Organizations in all states and territories. A similar system would be developed with Tribal leaders to serve CDRZs designated on Tribal lands.

Navigators will work with CDRZs to understand where they are in the effort to build resilience (planning, project development, fundraising for a known project, etc.) and identify barriers to taking effective action (capacity limitations, lack of funding, etc.). Navigators will then help CDRZ communities connect to the resources they need to take their next step in building resilience.

Organizations that serve as navigators would need to show strong relationships with at least some of the communities that receive CDRZ designations in addition to expertise in resilience building. The relationship element is key. While the suggestion that for-profit consultants should be brought in to help these communities is well-intentioned, it does not reflect the reality that working with under-resourced communities is very different than working with well-resourced communities. Consultants generally work with communities that can afford to hire them, so they tend not to have deep experience working in more resource constrained environments. Therefore, while for-profit consulting firms can certainly have a role in helping CDRZ communities once funding is secured for a specific project, for-profit consultants should not serve as navigators unless they can show strong relationships with CDRZ communities in their state and demonstrate experience working with under-resourced communities.

Many CDRZ communities will need capacity assistance to engage with the assistance available through a Navigator Network, or any other technical support system developed to serve them, so FEMA should consider direct funding to communities that receive a CDRZ designation to support them in taking advantage of the opportunities afforded by the designation.

To support this Navigator Network, regional support teams are needed to curate information about new technical support, funding, and training programs emerging from federal agencies

and other organizations. These regional support teams can be started with regional representatives of the agencies that FEMA partners with in the CDRZ initiative.

Over time, states and territories with Navigator Organizations in place can develop Innovation Centers that provide more comprehensive services to all communities, with a special focus on CDRZs and other at-risk communities.

Partnering with Civil Society

To develop and operate the Navigator network nationwide, FEMA, or another federal agency, should partner with a civic organization or collaboration of organizations. The selected partner should be required to develop this network in a collaborative way. This system will allow the federal government to do what it does best (develop tools and resources and provide funding) while leveraging the power of civic organizations (trusted relationships and established networks). This partner would support the Navigator Organizations and the regional support teams by coordinating and facilitating the network, while ensuring that it develops as a learning system.

The organization that partners with FEMA and other federal agencies to move this effort forward must have the greatest flexibility possible within the bounds of accountability and best practices. It may be that a non-profit is the best suited to the task, but FEMA currently is hobbled by clauses in the Stafford Act that make it very difficult for the agency to partner with nonprofits. We recommend that Congress revisit the Stafford Act language that interferes with FEMA's ability to partner with a wide range of civil society entities, including nonprofits.

The RFI identifies that FEMA can set aside funding for "financial and technical assistance." That funding needs to be flexible enough to allow FEMA to move forward with whatever organization develops the strongest proposal. If amending the Stafford Act is not possible in the timeline needed, FEMA can also partner with other agencies that have more flexible spending authorities to move a Navigator Network forward.

Finally, FEMA and other agencies should consider developing a way for local governments to identify in federal grant processes that a particular project will build resilience to a high or very high hazard in a CDRZ. This will allow FEMA to track how well resources reach these challenged communities as a result of their CDRZ designation.

Potential Unintended Consequences

If local leaders do not understand the CDRZ process, and what it means to have a designation within their municipal boundaries, this first round of CDRZ designations may generate fear of reduced property values, reduced local tax revenues, and an inability to recruit new businesses to the CDRZ area. That could turn into a backlash against the CDRZ initiative and reduce the support of congressional leaders.

These potential consequences may be averted by ensuring that local leaders understand the program before a CDRZ is designated inside their municipal boundaries. FEMA may also consider dropping the term "disaster" from the name so that these census tracts are designated as Community Resilience Zones.

Project Application and Certification Process and Other Investment Opportunities

FEMA has asked for ideas regarding how to determine whether a project is "within" or "primarily benefits" a CDRZ. We recommend FEMA consider the following criteria:

- The project addresses a high or very high risk as identified in the National Risk Index for the census tract.
- The project will positively impact at least 75% of the people who live within the CDRZ.
- The project was developed through a community-based process that centered the voices of the residents of that CDRZ.

While the certification process is not needed by local governments to apply for funding to move a project forward, it is critically important as it relates to new financing tools under development in the finance industry. This element can be phased in after the CDRZs are designated and a basic technical support system is put in place.

The IN-CORE Project holds great promise as the developer of an open-source product that can help communities identify effective resilience projects while also certifying the positive benefit of funding invested in a project to build climate resilience. This will be critical to the long-term success of efforts to connect innovative financing mechanisms to the communities that need help the most.

FEMA should also consider including metrics in any project certification process that encourage nature-based and/or socially equitable solutions. As a reference, FEMA may consider setting up a certification process in much the same way that LEED certification is done – on a project-by-project basis by third party reviewers.

Metrics

To gauge success and identify pivot points, it is important to track a set of meaningful metrics. However, we caution FEMA to be careful about identifying global metrics that apply to all CDRZs. Instead, each CDRZ should be assessed by the service providers who are assisting them to determine where the local government is in the resilience building process and what constitutes success moving to the next step in building resilience. Then CDRZs can be measured against those simple metrics, as well as potentially metrics related to local capacity building, community engagement, etc. In this way, communities that are just getting started with their

resilience building process will have their progress measured in a way that is appropriate given their baseline.

Catalyzing Additional Investment

If FEMA assists in the development of a Navigator Network, there are several ways this system could catalyze additional investment. The first is through investment mechanisms under development within the finance industry. Estimates of the amount of funding available for resilience investments are roughly $20 trillion. A Navigator Network will be able to ensure that CDRZ communities have access to these new financing mechanisms as they come online.

An effective Navigator Network that eventually builds out to a more robust network of Innovation Centers in all states and territories will draw philanthropic, corporate, and potentially state funding by providing a structure that invites additional investment. This will benefit CDRZ communities and other particularly at-risk communities as well as all communities looking to build climate resilience.

Potential Displacement

Potential displacement of residents due to resilience projects designed to benefit CDRZs is an important consideration. Decisions about resilience projects that displace some number of residents will be far better received if they result from a process that is community-based and has a high sense of community ownership. Special attention needs to be given to helping those displaced understand why and the dangers of staying in place. In all circumstances, funders of resilience projects should be required to make people whole if they have been displaced by the project.

In Closing

We recommend that FEMA work with other federal agencies and partner with a nationwide collaboration of civil society organizations to build a unified Navigator Network that serves all CDRZ communities. By building this structure with an intention for further development into an integrated system of climate resilience support services nationwide, FEMA will lay the groundwork for the robust system needed by local governments across the nation and move forward in meeting its strategic goal of a climate resilient nation.

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These comments are endorsed by the following organizations and individuals

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