

Resilient Communities for America

Federal Policy Initiative

*Recommendations to the President's Task Force
on Climate Preparedness and Resilience*

May 2014



ICLEI – Local Governments for Sustainability USA

Michael Schmitz, Executive Director

ICLEI-Local Governments for Sustainability is the leading organization of local governments dedicated to sustainability, resilience, and climate action, with more than 1,000 cities, towns, and counties around the globe. ICLEI provides cutting-edge resources and technical guidance to help local governments reach their goals, and connects leaders to share solutions and accelerate progress. Learn more at www.icleiusa.org.

National League of Cities

Clarence Anthony, Executive Director

The National League of Cities (NLC) is dedicated to helping city leaders build better communities. NLC is a resource and advocate for 19,000 cities, towns and villages, representing more than 218 million Americans.

World Wildlife Fund

Carter Roberts, President and CEO

The world's leading conservation organization, the World Wildlife Fund (WWF) works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally. To inspire cities to address the growing threat of climate change, the WWF is carrying out the Earth Hour City Challenge, a competition among cities to prepare for climate extremes and take steps to transition towards a 100% renewable energy future.

United States Green Building Council

Rick Fedrezzi, President and CEO

The U.S. Green Building Council (USGBC) is committed to a prosperous and sustainable future through cost-efficient and energy-saving green buildings. USGBC works toward its mission of market transformation through its LEED green building program, robust educational offerings, a nationwide network of chapters and affiliates, the annual Greenbuild International Conference & Expo, the Center for Green Schools and advocacy in support of public policy that encourages and enables green buildings and sustainable and resilient communities. USGBC is also playing a leading role to support a more resilient built environment through national advocacy efforts, groundbreaking research, new tools and resources, and dynamic partnerships.

Resilient Communities for America

Resilient Communities for America (RC4A) is a national campaign that is mobilizing hundreds of U.S. local elected officials who pledge to create more resilient cities, towns, and counties, built to overcome our nation's extreme weather, energy, and economic challenges. The campaign is a partnership between ICLEI, WWF, National League of Cities, US Green Building Council, and other leading organizations.

May 14th, 2014

Across America, local governments are taking strong actions to build safer communities that are better prepared for extreme weather and other challenges due to a changing climate. In our own communities, we are passionate about innovating in areas such as energy security, emergency management, and sustainable infrastructure to help us become more resilient to such threats while contributing to economic development and job creation. We are honored to have been chosen by the Obama Administration to serve on the President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, and believe the Task Force will make critical strides towards a new era of local-federal collaboration on this important issue.

Every day, we work with our elected official colleagues in local government to exchange good ideas and learn from one another. In order to be most effective, we wanted to hear from other mayors, councilmembers, and county officials to inform the recommendations we would bring to the President's Task Force. Composed of more than 170 leading local officials, the Resilient Communities for America campaign offers an ideal platform to engage our peers from around the nation on this important question: How can federal programs be modernized to best support local communities to become more resilient? The answers we received are summarized here, constituting a unique cross-section of insights from communities large and small, from the coasts to the heartland of our great nation. This report from Resilient Communities for America is as an important point of reference for Task Force members as we develop and deliver our recommendations to the President.

The President's Task Force has provided an invaluable opportunity for local, state, and tribal governments to collaborate with the federal government to identify a roadmap for reform. We greatly appreciate the leadership of both the Obama Administration and the many local officials who are striving to create better, safer, more sustainable places to live and work. We look forward to continuing to advance this collaboration as we move from recommendations to action in the months ahead.

Sincerely,



A handwritten signature in black ink, appearing to read "Mike Becker".

Mayor Becker
Salt Lake City, Utah
1st Vice President, NLC



A handwritten signature in black ink, appearing to read "Frank Cownie".

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Acknowledgement here does not necessarily constitute an endorsement of the RC4A Federal Policy Initiative recommendations by Advisory Committee members, survey participants, or those deserving of special thanks.

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Executive Summary

President Obama charged the State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience with developing recommendations on ways the federal government can remove barriers to resilient investments, modernize federal grant and loan programs to better support local efforts, and develop the information and tools needed to prepare for climate change.

Two-thirds of the local officials on the Task Force are ICLEI USA members and/or signatories to the Resilient Communities for America (RC4A) agreement, the nation's resilience leadership campaign driven by mayors, city councilmembers, and county officials. As a result, the Resilient Communities for America partners developed the Federal Policy Initiative to generate new insights on federal climate preparedness policy in the realms of disaster preparedness, built systems, natural resources/agriculture, and human health/community development. The goal of the initiative is to enable the participation of a broad group of local leaders in the Administration's climate change activities, and to enhance the overall outcomes of the Task Force.

The partners sought input from Resilient Communities for America Signatories, ICLEI USA members, and NLC members over several months. Through an online survey and several workshops, we received input from approximately 100 elected officials and staff members. The nine recommendations that follow summarize the results of this outreach effort and offer ways to modernize federal programs and resource offerings so they better support local preparedness and resilience to climate change and extreme weather.

1. Streamline Application Processes

- Enable more small and mid-sized communities to participate in federal programs through making application processes more straightforward by reducing paperwork and eligibility requirements.
- For applications that remain complex, build local capacity to participate.
- Provide additional application streamlining for communities that have completed a climate vulnerability assessment and preparedness plan.

2. Enhance Awareness of Resilience-Related Programs

- Develop a clearinghouse of federal resources related to resilience that is well publicized to local governments.

3. Incorporate Climate Preparedness into Existing Federal Programs

- Create requirements within existing programs, especially those related to emergency management and smart growth, which necessitate that local governments consider climate change preparedness.
- Provide clear guidance and training to communities on how to meet these new requirements related to climate preparedness and resilience.

4. Enhance Coordination between Federal Agencies

- Building on the Interagency Climate Adaptation Task Force established by President Obama, provide a system that allows federal agencies to closely coordinate on the delivery of resilience programs.
- Consider a flagship partnership program between key federal agencies responsible for climate preparedness and resilience activities modeled on the Sustainable Communities Partnership.
- As congressional support for action on resilience builds over time, the federal government should consider establishing a “Resilience Institute,” which would serve as an independent, non-partisan center for collaboration and capacity-building.

5. Increase Flexibility of Federal Programs and Funding

- Develop more flexible programs that allow local governments to meet their unique needs and unlock innovation.
- Enable more innovation by encouraging local governments to try new technologies or strategies with pilot projects that measure and monitor outcomes, but do not overly penalize setbacks or “failure.”

6. Help Local Governments Replicate Proven Strategies

- Develop programs that help communities select and implement resilience strategies that are proven and can be adjusted to the local context.
- Provide associated guidance, technical assistance, and tools needed for implementation.

7. Support Regional Collaboration

- Design federal programs that encourage, support and strengthen regional collaboration among local governments.
- Incentivize regional collaboration in new and existing federal programs.

8. Meet the Demand for Green Infrastructure

- Prioritize green infrastructure in current federal funding streams for water-related management systems, such as flood management and stormwater management.
- Leverage other streams of federal funding not directly related to water management, such as transportation, hazard mitigation, and housing/community development to include more green infrastructure provisions and projects.

9. Protect and Enhance Municipal Financing Tools

- Preserve existing means for local governments to finance infrastructure improvements, such as the traditional tax exemption for municipal bonds.
- Work to remove existing barriers to local finance innovations, such as the current restrictions on PACE for the residential sector.
- Help local governments build the institutional capacity to employ innovative forms of financing that have not previously been applied to climate resilience or disaster risk reduction, such as value capture (i.e. tax increment financing), social impact bonds, and new insurance products.

Introduction

Resilient Communities for America Federal Policy Initiative

The Resilient Communities for America (RC4A) Federal Policy Initiative is a joint effort of ICLEI USA, National League of Cities (NLC), U.S. Green Building Council, and World Wildlife Fund to generate insights on federal climate preparedness policy. The goal of ICLEI USA and its partners — in collaboration with the President’s Task Force on Climate Preparedness and Resilience — is to enable the participation of a broad group of local leaders in the Administration’s climate change activities, and to enhance the overall outcomes of the President’s Task Force, which is charged with advising the President on ways the federal government can assist local efforts to address and prepare for the impacts of climate change. At the request of local elected officials serving on the President’s Task Force, ICLEI USA and its partners sought input from Resilient Communities for America Signatories, ICLEI USA members, and NLC members over several months. Through an online survey and several workshops, ICLEI received input from approximately 100 elected officials and staff members. The nine recommendations that follow summarize the results of this outreach effort and offer ways to modernize federal programs so they better support local preparedness and resiliency to climate change and extreme weather.

1. Streamline Application Processes
2. Enhance Awareness of Resilience Related Programs
3. Incorporate Climate Preparedness into Existing Programs
4. Enhance Coordination between Federal Agencies
5. Increase Flexibility of Federal Programs and Funding
6. Help Local Governments Replicate Proven Strategies
7. Support Regional Collaboration
8. Meet the Demand for Green Infrastructure
9. Protect and Enhance Municipal Financing Tools

Methods

ICLEI USA collected input via an online survey and two workshops. The survey collected feedback on federal programs that support climate resilience in the realms of disaster preparedness, built systems, natural resources/agriculture, and human health/community development. This survey sought to identify local governments' priorities for federal policy reform. Seventy-two local government representatives participated in the survey.

The partners also held a workshop at the NLC Congressional City Conference in Washington, DC on March 10, and at the Local Government Commission Ahwahnee Meeting for Local Elected Officials in Yosemite, California on March 15. These workshops allowed for more in depth discussion of reform priorities.

Based on the input received from local governments, ICLEI USA conducted further research and reached out to member cities to identify local examples that would further clarify the nature of suggested reforms. This data was distilled into the nine recommendations presented here, which will form the basis of RC4A federal policy activity going forward.

Recommendations

1. Streamline Application Processes

Problem:

Federal preparedness grants and programs application processes are challenging for local governments with limited organizational capacity and staff. Some local governments described having a staff person dedicated solely towards applying for federal resilience programs, while other said they were dissuaded from applying to federal programs in the first place due to concerns about onerous reporting requirements and complicated paperwork. Small and mid-sized communities find it challenging to have enough staff capacity and/or expertise to participate in federal grants or programs.

Forty-three percent of survey participants indicated that a resource-intensive application process is one of the main challenges associated with participating in federal programs related to resilience.

Example:

The Sonoma County Resource Conservation District worked with the U.S. Department of Agriculture Natural Resources Conservation Service to implement a stream bank stabilization project after a destructive 100-year flood event. This project, which was defined by rapid response, teamwork and cooperation, served as an example of the community's well-tuned capacity to leverage federal funds. Even for a community that has developed significant capacity around environmental initiatives, the process, nevertheless, required considerable staff time and expertise to respond, apply, document, and implement projects in addition to reporting and administering reimbursements. Many communities, particularly smaller ones, do not have the staff, capacity, and expertise to respond in this manner. Federal assistance to increase capacities, develop rapid response teams, and protocols is needed, especially in communities where capacity is an issue.

Federal Action Needed:

Federal program and grant application processes should be streamlined to enable communities of any size to apply and participate. More specifically, application paperwork and eligibility requirements

should match local governments' capacities. For programs where application processes remain complex and time intensive, agencies should consider building local capacity to effectively participate in such programs. For example, the federal government could develop opportunities for small communities to enter into collaborative agreements under the umbrella of non-governmental organizations that help enable the participation of small communities that are typically underserved by federal programs.

Furthermore, federal agencies should consider streamlining application processes for communities that have already completed a climate change vulnerability assessment and preparedness plan, which both serve as strong indicators of a community's readiness to effectively employ federal funding. This would also incentivize other local governments to complete such plans.

2. Increase Awareness of Resilience-Related Programs

Problem:

Many local governments, particularly from smaller communities, are not aware of federal resilience-related programs. ICLEI USA identified 47 federal programs that have climate change preparedness and disaster recovery elements (of an even larger number of programs available from federal agencies). However, many survey respondents were not aware of these federal programs, especially those respondents from smaller communities.

Example:

The Database of State Incentives for Renewables & Efficiency (DSIRE) is a good example of a clearinghouse that has played a critical role in increasing local government awareness of renewable energy programs and funds. DSIRE is a comprehensive source of information on state, local, utility, and federal incentives that promote renewable energy and energy efficiency. The website gets approximately 200,000 visitors every month. The North Carolina Solar Center at North Carolina State University maintains the database with support from the Interstate Renewable Energy Council, Inc. and funding from U.S. Department of Energy (DOE). The database has become a critical source of information, not only for local governments, but also the renewable industry. It provides timely information in a user-friendly format that can be searched by eligible sector, geographic location, technology, and incentive/policy type. This model could be replicated in the climate resilience field.

Federal Action Needed:

The federal government should consider developing a clearinghouse of federal resources related to resilience that is well publicized to local governments. Thirty percent of survey participants indicated that an online clearinghouse that acts as a “one-stop shop” for federal resilience information, tools, and data would be most useful to community climate change preparedness and disaster recovery activities. The ideal tool would have the option to search programs by geographic locations, type of programs, and type of support. The tool should also have current application documents. In implementing such a recommendation, the federal government should also consider coordinating the clearinghouse with non-governmental organizations, research institutions, and universities that are providers of climate preparedness resources and organizations that can help inform local governments about the tool.

3. Incorporate Climate Change Considerations into Existing Programs

Problem:

Many federal programs lack provisions for considering climate change-related vulnerabilities and preparedness. While consideration of climate change risks should become part of standard practice for all federal agencies and for all federal investments, survey respondents described this as a key priority for Federal Emergency Management Agency (FEMA) programs, such as Flood Hazard Mapping and Hazard Mitigation Planning, and some Environmental Protection Agency (EPA) programs, such as the Smart Growth Program.

Examples:

Hazard Mitigation Planning

Climate change impacts include natural hazards, such as flooding, wildfires, or heat waves, which are projected to become more severe and/or more frequent. Local and State Hazard Mitigation Planning, as required by FEMA for access to some non-emergency disaster assistance, provides an opportunity for communities to proactively develop risk reduction strategies for climate-related hazards. Currently, FEMA guidance does not require that local hazard mitigation plans consider climate change, but does provide it as an option to help communities develop a better understanding of how risks are changing over time (FEMA, 2013). Communities across the country are embarking on an emerging practice of either merging their climate adaptation plans and hazard mitigation plans, or including climate change considerations in their hazard mitigation plan.¹ Through this practice, communities are building greater resilience as they are developing risk reduction strategies not only based on historical events, but also based on the consideration of how climate affects the severity, frequency, and geography of hazards now and in the decades to come. Nevertheless, adoption of this practice will likely remain limited unless FEMA makes climate change considerations mandatory rather than optional in the hazard mitigation plan and provides step by step guidance, technical support, and training in order to achieve such a requirement.

¹ Examples include Baltimore, MD; Barnstable County, MA; Berkeley, CA; Santa Cruz, CA; San Diego County, CA; Monterey County, CA, Lewes, DE.

California Strategic Growth Council

The California Strategic Growth Council (SGC) consists of state agency secretaries from various departments and coordinates activities that support sustainable communities, emphasizing strong economies, social equity and environmental stewardship. SGC has a grant program for local and regional governments called the Sustainable Communities Planning Grant and Incentives Program where the principal goal is the development and implementation of plans that lead to significant reductions in greenhouse gas emissions. The grant application requires that applicants consider and apply the best practices of climate change vulnerability assessment, resilience planning, and adaptation to the effects of climate change on the project. This is a good model for incorporating climate preparedness and resilience into a program that is primarily focused on smart growth and greenhouse gas emissions reductions.

Federal Action Needed:

The federal government should create requirements within existing programs, especially those related to emergency management and smart growth, which encourage local governments to consider climate change impacts and long-term preparedness. At the same time, federal agencies should provide clear guidance and training to communities on how they can meet new requirements related to climate preparedness and resiliency.

4. Enhance Coordination between Federal Agencies

Problem:

Coordination between federal agencies providing funding and programs related to climate preparedness and resilience was identified as a key area for improvement. Survey respondents rated the lack of coordination between federal programs as among the top three challenges they have faced when using these federal programs. For example, many local officials commented that piecing together funding from various federal sources that have different requirements and priorities is especially challenging. Better coordination will increase the efficiency and effectiveness of federal funding.

Example:

The U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) Partnership for Sustainable Communities is a good example of federal agency coordination. The interagency partnership is guided by six principles of livability, which provide a framework for the agencies' funding programs, policies, and legislative proposals. The partnership has increased awareness of how the issues of transportation, economic development, and environmental quality are interrelated and how coordinated federal funding can maximize project outcomes.

The South Lincoln Redevelopment project in Denver, Colorado is an example where the Partnership for Sustainable Communities enhanced community resilience. Using a coordinated approach with grants from the three agencies, the city was able to transform 270 public housing units on 17.5 acres into a transit-oriented community that includes an integrated system of green spaces and parks to better manage stormwater; incorporates community gardens to improve residents' access to healthy food; and has revitalized the community through the cleanup of contaminated brownfield sites.

Federal Action Needed:

Building on the Interagency Climate Adaptation Task Force established by President Obama, the federal government should provide a system that allows federal agencies to closely coordinate on the delivery of resilience programs. It is especially important to enhance federal coordination around programmatic priorities and program delivery, to improve and accelerate the process of identifying local needs,

coordinating priorities for funding allocation, soliciting funding requests, and delivering resources. Federal agencies should also consider one or more flagship partnerships between key federal agencies responsible for climate preparedness and resilience activities modeled on the Sustainable Communities Partnership.

As congressional support for action on resilience builds over time, the federal government should consider establishing a “Resilience Institute,” which would serve as an independent, non-partisan center for collaboration and capacity-building, much as the US Institute of Peace does in the foreign affairs arena. Such an institute could offer expertise and a network of relationships in work directly with local communities, with a close connection to federal government, but a degree of independence that would allow it to streamline assistance and circumvent political and bureaucratic obstacles.

5. Support Regional Collaboration

Problem:

The impacts of climate change cross local jurisdictional boundaries, often affecting many communities in a region, and one jurisdiction's response to climate change and extreme weather could significantly affect its neighboring communities. Moreover, scientific and technical assessments can be expensive and funding them at a regional scale is often more feasible and effective compared to each local jurisdiction trying to fund individual studies. Many survey respondents and workshops participants identified regional collaboration as an effective way to tackle some of the challenges related to climate preparedness and resilience. Local communities are determining how they can work together within complex legal and political landscapes; enhanced federal support would help them achieve even more and spur other communities to form regional partnerships.

Examples:

San Diego Climate Collaborative

Through partnerships between local agencies, non-profit organizations, research institutions, and the San Diego Foundation, the San Diego region has developed a replicable model for regional collaboration on climate change. Local jurisdictions in the San Diego region began working collaboratively to plan for climate change in 2009, with the preparation of GHG inventories for every community in the region and the development of the Sea Level Rise Adaptation Strategy for San Diego Bay. With support from the San Diego Foundation's Climate Initiative and ICLEI USA, the adaptation strategy was developed with the five cities on San Diego Bay, as well as the Port of San Diego and San Diego International Airport, which both own and manage considerable amounts of land around the Bay. Since then, regional collaboration on preparedness has expanded to include more communities in the region. In 2012, the San Diego Regional Climate Collaborative was launched as a network for public agencies that serve the San Diego region to share expertise, leverage resources, and advance comprehensive solutions to climate challenges. In 2014, ICLEI USA began working with San Diego County, local jurisdictions, fire protection districts and water districts to update the County Multi-Jurisdictional Hazard Mitigation Plan to include climate change risks. This sustained regional collaboration has enabled local jurisdictions to achieve more with less, while creating a mechanism for effective engagement with State agencies and federal entities such as the US Navy and US Fish and Wildlife Service.

Southeast Florida Regional Climate Change Compact

Following the 2009 Southeast Florida Climate Leadership Summit, elected officials from the four counties that comprise the Southeast Florida region, Broward, Miami-Dade, Monroe, and Palm Beach, signed a compact that made a commitment to address climate change in the region. The four counties now collaborate on State and Federal climate policy advocacy, development of technical tools, and implementation of the Southeast Florida Regional Climate Action Plan. To date, the compact has completed the following projects:

- A baseline greenhouse gas emissions inventory for Southeast Florida,
- A unified sea level rise projection for use in planning by Compact members,
- Inundation mapping and a vulnerability assessment of areas at risk from sea level rise, and
- The passage of a state bill recognizing and defining “Adaptation Action Area “ as an optional Comprehensive Plan designation.

Federal Action Needed:

Where possible, the federal government should design federal programs that support and strengthen regional collaboration. For example, the Sustainable Communities Partnership program significantly advanced regional sustainability planning efforts by providing funding to regional planning organizations. Federal agencies should also consider adding incentives in their programs for jurisdictions that are working in a collaborative model.

6. Increase the Flexibility of Federal Programs and Funding

Problem:

Many federal programs lack sufficient flexibility to allow local governments to meet their unique local needs and innovate in project design and delivery. Local officials find restrictive eligibility requirements and very narrowly defined uses for funds particularly challenging. Projects are sometimes dropped or defunded due to technicalities or misaligned priorities. New and creative solutions will be needed to address unprecedented climate-related challenges and local governments are often best positioned to be creative and meet local needs.

Example:

The Department of Energy (DOE) Rooftop Solar Challenge has been successful in supporting local innovation. The challenge is organized around three clear goals: reducing soft costs, streamlining processes, and supporting collaboration. With these goals in mind, multi-stakeholder teams have developed unique projects that reflect local needs. For example, some teams developed model codes while others developed educational curriculum. By creating a federal program that encourages varied project delivery methods, teams develop projects that fit the goals of the program while also meeting local needs in new and innovative ways. Furthermore, the program does not set rigid parameters of success and failure with the understanding that short-term pain and failure can be part of the innovation process. The program also creates a learning community of similar-minded challenge teams and facilitates dialogue and resource sharing among these teams, further enabling project innovation.

Federal Action Needed:

Federal agencies should consider developing more flexible programs and funding that allow local governments to meet their unique needs and unlock innovation. To better support innovation and local solutions, the federal government should make funding criteria less narrowly defined. Furthermore, federal programs should allow for local-decision making regarding fund allocation and project selection, especially in cities and regions that have established successful resilience decision-making structures. Federal programs should also enable more innovation by encouraging cities to test new technologies or strategies with pilot projects that measure and monitor outcomes, but do not overly penalize “failure” as some experimentation and learning is necessary in this field.

7. Help Local Governments Replicate Proven Strategies

Problem:

While some local governments are interested and able to develop innovative projects and strategies, many others are looking for “off-the-shelf” strategies and processes that are proven and can be adjusted to their local context. In order to be efficient with limited resources, local governments highly value learning from their counterparts to replicate the latest project innovations.

Examples:

DOE Solar Outreach Partnership (SolarOPs)

Funded by the Department of Energy SunShot Initiative, the Solar Outreach Partnership (SolarOPs) supports the advancement of solar energy on the local level by providing best practices, resources, and technical assistance to local governments. SolarOPs achieves its goals through a mix of educational workshops, peer-to-peer sharing opportunities, research-based reports, and online resources. The International City/County Management Association (ICMA) and ICLEI USA lead teams that conduct outreach, share best practices, and help replicate proven strategies with thousands of local governments across the nation. For example, SolarOPs provided technical assistance to the Blue Ridge Sustainability Institute (BRSI) for the design of Solarize Asheville, modeled off the successful group purchasing program first developed in Portland, OR. The goal of the Solarize Asheville program was a city-wide group purchasing of solar PV to reduce the cost to homeowners and to streamline the process through financing, education, and outreach. Solarize Asheville had over 360 homeowners sign up and contracted 51 PV systems. A program similar to SolarOps related to climate preparedness and resilience strategies could be immensely helpful in transferring and replicating successful practices to other communities where most appropriate.

FEMA Community Rating System

The National Flood Insurance Program’s Community Rating System (CRS) encourages communities to take actions that exceed minimum floodplain management requirements in exchange for reduced flood insurance premiums. The program provides communities with a menu of proven flood management strategies that they can choose from to increase their CRS rating and thus increase savings and community resiliency.

The CRS guidebook, also called the CRS Coordinators' Manual, is a rich source of information on flood mitigation strategies, but it is currently a PDF document with over 600 pages. The CRS guidebook could be even more effective as an educational and planning resource if there was also an accompanying easy-to-use web-based tool to help communities select a mix of activities for CRS credit. It should also be noted that in many areas, flood insurance subsidies and regulations artificially depress premiums, thereby sending market signals that discourage flood risk mitigation and preparedness. The CRS would function more effectively if the incentive discounts were deducted from premiums that more closely reflect actual risk.

Federal Action Needed:

Federal agencies should enhance programs that help communities select and implement resilience strategies that are proven and can be adjusted to the local context. Local actions can be scaled by documenting best practices and delivering associated case studies, guidance documents, tools, and technical assistance needed for implementation, potentially through third-party service providers with the appropriate expertise, such as NGOs and universities.

8. Meet the Demand for Green Infrastructure

Problem:

Upgrading our nation's aging urban water infrastructure is critical to dealing with a changing climate, which will likely bring more extreme rainfall events, coastal flooding, and drought, depending on the region. Many local government officials expressed a desire to upgrade their water management systems (including stormwater, wastewater, flood management, and potable water) to include more natural features, such as bioswales, rain gardens, habitat restoration, and green roofs--commonly referred to as "green infrastructure." Green infrastructure improvements can provide multiple benefits, including providing habitat, reducing the urban heat island effect, improving air quality, reducing energy costs, and revitalizing neighborhoods. Given that the federal government is a major source of funding for, and regulation of, these systems, federal reforms in this issue area would be especially impactful.

Example:

Oak Park, Illinois

In response to basement flooding caused by more frequent and more intense storms over the last several years, Oak Park, Illinois, undertook a sewer system survey and is considering how to incorporate various water retention and reuse methods, such as permeable pavement, bioswales, engineered wetlands, and native plantings into new streetscapes. One completed project includes underground storage to capture rainwater for later use in maintaining streetscape plantings. With support from the Illinois Environmental Protection Agency, Oak Park created a Green Alleys program with projects now under design and expected to be completed in 2014. Finally, Oak Park created a residential Sewer Backup Prevention Grant and is seeking funding to enhance the program with offers of grants/rebates for rain harvesting and rain garden materials and plants.

Federal Action Needed:

The federal government should prioritize green infrastructure in current federal funding streams for water-related management systems, such as flood management and stormwater management, as a means to address climate change. In addition, other streams of federal funding not directly related to water management, such as transportation, hazard mitigation, and housing/community development should be leveraged to include green infrastructure provisions and projects.

9. Protect and Enhance Municipal Financing Tools

Problem:

Securing funding is often the greatest barrier that local governments face when trying to undertake climate preparedness and resilience measures. With the acute need for infrastructure investment to protect against extreme weather and build resilience, tax-exempt bonds are one of the primary tools local governments use to upgrade infrastructure. In fact, three-quarters of the nation's infrastructure is built by state and local governments and paid for with tax-exempt bonds.

74 percent of survey respondents selected financial assistance as the most useful way to improve federal programs. In a 2011 survey of local governments conducted by ICLEI and MIT, the top-ranked climate adaptation challenge (89 percent) was “securing funding.”

As the Administration and Congress look for revenue to reduce the deficit while maintaining adequate funding for programs, the federal income tax exemption provided to interest paid on state and municipal bonds is under threat. If the federal income tax exemption is capped or eliminated, states and localities will pay more to finance projects, leading to less infrastructure investment, fewer jobs, and greater burdens on citizens who will have to pay higher taxes and fees. Communities will be less able to invest in infrastructure projects that would prepare their community for the impacts of climate change. Moreover, existing financing tools alone are proving inadequate to fund needed infrastructure upgrades in cities and counties. Raising taxes to fund infrastructure improvements is often politically infeasible. Property Assessed Clean Energy (PACE) financing, which helps leverage private sector capital has not been fully deployed in the residential sector due to barriers from the Federal Housing Finance Agency (FHFA). In addition to using existing tools, local governments also need to be able to deploy new financing tools and frameworks that direct private sector capital towards achieving greater infrastructure resilience.

Examples:

Platte River Power Authority

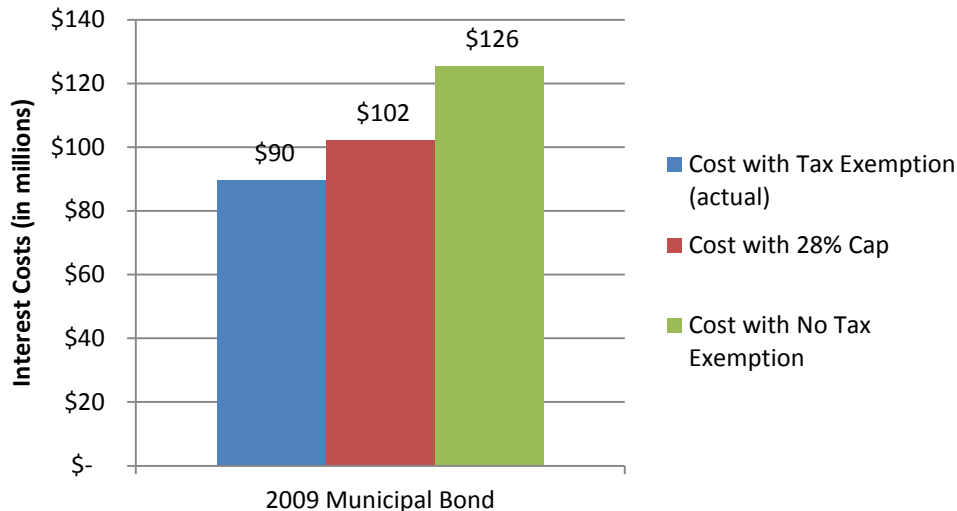
The Platte River Power Authority generates and provides electricity to its owner communities—Estes Park, Fort Collins, Longmont and Loveland, CO—for delivery to their utility customers. Since 2006, the Platte River Power Authority has been undertaking a transmission line project that will increase the reliability of electric service to the communities it serves. The Authority is constructing new transmission

lines for each community to add redundancy to the system, thereby strengthening the system in the event of an emergency, including extreme weather events.

The Authority issued bonds on two occasions to fund construction costs. The first, in 2009, were tax-exempt municipal bonds for \$114.3 million at a rate of 4.54 percent for 20 years, with a tax-exempt interest cost of \$89.6 million. Had the tax-exempt municipal bonds been capped at 28 percent, the interest costs would have been \$102.1 million, an additional cost of \$12.5 million to the communities. Had the tax-exempt municipal bonds been eliminated, the interest cost would have been \$125.5 million, an additional cost of \$35.9 million to the communities.² A bond issued in 2012 would have similarly resulted in increased local costs if the tax exemption had been capped or eliminated.

With the tax exemption for municipal bonds in place, on behalf of local taxpayers, the Platte River Power Authority saved between \$16 and \$46 million on two bond issuances and was able to move forward as planned with this much needed infrastructure investment.

Interest Costs of Platte River Authority's Municipal Bonds with and without Tax Exemption



C-PACE Program, Connecticut

Connecticut's Clean Energy Finance and Investment Authority (CEFIA) works to transition clean energy programs away from government-funded grants, rebates, and other subsidies and towards deploying private capital. CEFIA offers a Commercial Property Assessed Clean Energy (C-PACE) program that helps

² Calculated using the [National League of Cities Municipal Bonds Interest Calculator](#)

commercial and industrial property-owners access affordable, long-term financing for energy upgrades to their buildings that are repaid through a benefit assessment on the property tax. Bridgeport, CT was the first municipality to opt-in the program in 2012, but since then 76 others have joined. As of late 2013, C-PACE has invested \$7 million in projects and has another \$13 million (100+ projects) in the pipeline (Guerster, 2013). Currently, this successful form of financing that leverages private sector capital is largely limited to the commercial sector due to FHFA restrictions.

Federal Action Needed:

First, the federal government should preserve existing means for local governments to finance infrastructure improvements, such as the traditional tax exemption for municipal bonds, which is critical for building local resilience capacity in infrastructure. Additionally, the federal government should work to remove existing barriers to local finance innovations. Of great interest to many local governments is the use of PACE financing, not only for clean energy upgrades for homes and businesses, but also resilience upgrades such as clean back-up power and flood proofing of a building's utilities. However, the FHFA has been a barrier to the deployment of this tool in the residential sector. The Administration should require FHFA to allow Fannie Mae and Freddie Mac to purchase residential mortgages with PACE assessments while also providing responsible underwriting standards for residential PACE assessments to minimize financial risks to mortgage holders.

Finally, the federal government should help local governments build the institutional capacity to employ innovative forms of financing that have not previously been applied to climate resilience or disaster risk reduction, such as value capture (i.e. tax increment financing), social impact bonds, and new insurance products.³

³ More information at "[Financing the Resilient City](#)," an ICLEI White Paper

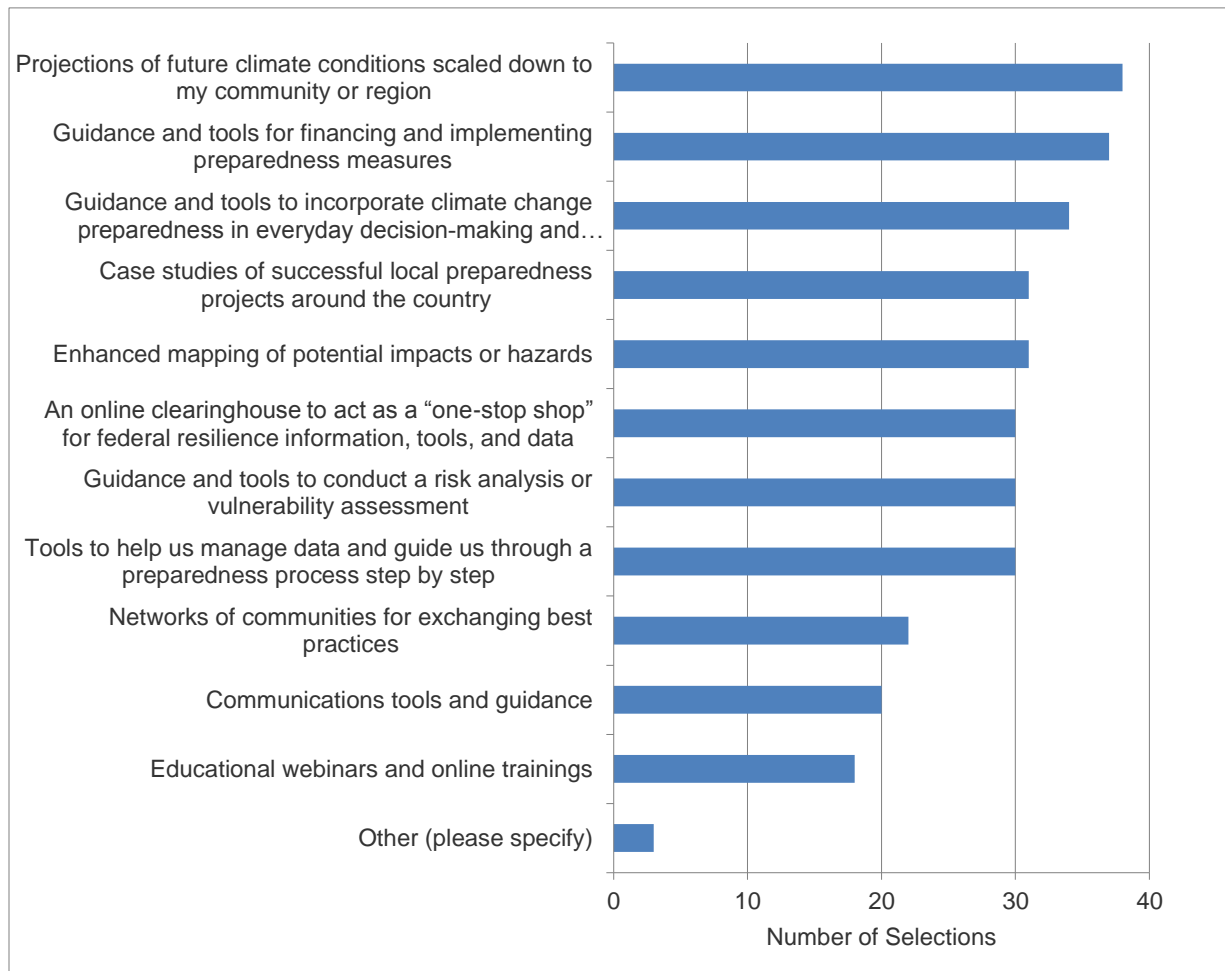
Appendix: Selected Quantitative Survey Results

Tools and Information

Question: What type of information or tools would be most useful to your climate change preparedness and disaster recovery activities? (Select all that apply)

Results: There are many information and tool needs among our local government survey respondents. However, the three highest rated needs were (1) downscaled climate change projections, (2) guidance and tools for financing and implementing preparedness measures, and (3) guidance and tools for mainstreaming climate change preparedness into everyday decision-making.

Information and tools that would be most useful to local climate change preparedness and disaster recovery

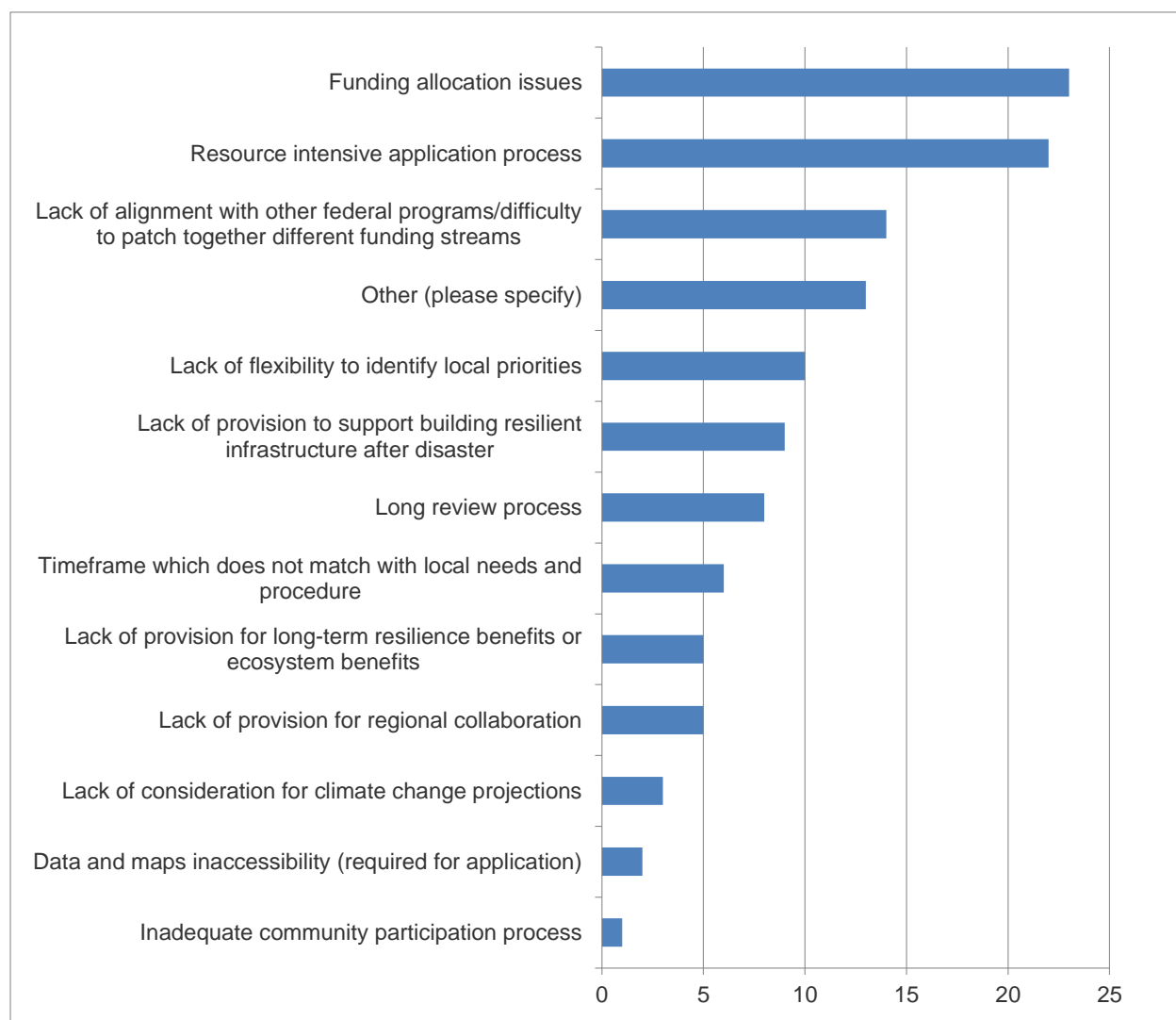


Challenges Associated with Federal Programs:

Question: What are the main challenges associated with federal public asset programs that support your community in climate change preparedness and disaster recovery? (You can choose up to three)

Results: The two most common challenges associated with public asset programs reported by our survey respondents were (1) funding allocation issues, and (2) resource intensive application process. Funding allocation issues includes meeting local needs in allocating funding. Funding is often structured in a way that is not meeting the priority needs of the community.

Challenges Associated with Federal Programs



Critical Federal Programs for Local Climate Preparedness and Disaster Recovery

Question: Which federal public asset programs have been critical for climate change preparedness and disaster recovery in your community?

Results: The top three programs selected as critical by the most survey participants were: (1) DOT TIGER Grants, (2) HUD Community Development Block Grants/ Entitlement Grants, and (3) HUD Sustainable Communities Regional Planning Grants.

Federal Programs Selected as Critical for Local Climate Preparedness and Disaster Recovery (programs with fewer than 5 selections were omitted)

Federal Program	Number of selections
DOT TIGER Grants	16
HUD Community Development Block Grants /Entitlement Grants	15
HUD Sustainable Communities Regional Planning Grants	15
FEMA Hazard Mitigation Grant Program	13
FEMA National Flood Insurance Program	13
DOT Congestion Mitigation and Air Quality Improvement Programs	13
EPA The Partnership for Sustainable Communities	12
USDA Resource Conservation and Development Programs by Natural Resources Conservation Service	11
EPA Clean Water State Revolving Fund	10
DOT Critical Infrastructure Protection & Resilience Program (CIPR)	9
DOE State and Local Energy Assurance Planning	8
FEMA Fire Management Assistance Grant Program	8
FEMA Flood Mitigation Assistance Program	8
DOT Surface Transportation Program	8
EPA Smart Growth and Climate Change	8
FEMA Public Assistance Program	7
HUD Community Development Block Grants/States Program	7
DOI Conservation and Restoration Grant Programs by Fish and Wildlife Service	7
DOC Economic Adjustment Assistance Program	6
DOC Coastal Zone Management Program	6
USACE Flood Response and Post-Flood Response	6

DOE State and Regional Policy Assistance	6
DHHS Hazardous Waste Worker Health and Safety Training	6
FEMA Flood Community Assistance Program, State Support Services	6
FEMA Pre-Disaster Mitigation Program	6
DOT Transportation, Community, and System Preservation Program	6
USACE Bridge, Dams, Levees, Breakwaters, Jetties and Coastal Structures construction and maintenance programs	5
HUD Community Development Block Grants/Disaster Recovery Assistance	5
HUD HOME Investment Partnerships Program	5
DOI Conservation Programs by National Park Service	5

Federal Climate Change Preparedness and Disaster Recovery Programs in Greatest Need of Reform

Question: In your opinion, which federal public asset programs that support climate change preparedness and disaster recovery are most in need of reform? Choose up to three programs.

Results: Far fewer survey respondents had an opinion about which programs were in need of reform compared to which programs they believe to be critical to their community's climate preparedness efforts. Nevertheless, the top three programs in need of reform were: (1) FEMA Hazard Mitigation Grant Program, (2) FEMA Flood Insurance Program, and (3) HUD Community Development Block Grants/Entitlement Grants.

Federal Programs in Greatest Need in Reform (Programs with less than three selections were omitted)

Federal Program	Number of Selections
FEMA Hazard Mitigation Grant Program	6
FEMA National Flood Insurance Program	6
HUD Community Development Block Grants /Entitlement Grants	6
EPA Smart Growth and Climate Change	5
DOT TIGER Grants	4
EPA The Partnership for Sustainable Communities	4
HUD Community Development Block Grants/States Program	3
HUD Sustainable Communities Regional Planning Grants	3

Deeper Dive on FEMA Hazard Mitigation Grant Program

Question: What are the main challenges associated with this particular program? (You can choose up to three)

Results: Survey responses did not coalesce around one or two challenges, but rather survey respondents selected very diverse set of challenges they encountered with the program.

Challenges	Number of Selections
Lack of provision to support building resilient infrastructure after disaster	2
Timeframe which does not match with local needs and procedure	1
Long review process	1
Funding allocation issues	1
Resource intensive application process	1
Lack of provision for long-term resilience benefits or ecosystem benefits	1
Lack of alignment with other federal programs/ difficulty to patch together different funding streams	1
Lack of flexibility to identify local priorities	1
Lack of consideration for climate change projections	1

Question: What type(s) of support/incentives would be useful to improve this program to better promote long-term resilience to climate change? (Select all that apply)

Results: Financial assistance is the most preferred way to improve this program, however survey respondents also ranked technical assistance and reduced paperwork highly.

Support/Incentives	Number of Selections
Financial assistance (Grant, Tax Incentives/Rebates, Low-cost loans, Lower state/local match, etc.)	4
Technical assistance, training, and community engagement toolkit for city staff	3
Reduced paperwork or/and faster process for applications with climate resiliency provision	3

Deeper Dive on HUD Community Development Block Grants/ Entitlement Grants

Question: What are the main challenges associated with this particular program? (You can choose up to three)

Results: The two challenges that survey respondents selected most often were funding allocation issues and lack of flexibility to identify local priorities.

Challenge	Number of Selections
Funding allocation issues	3
Timeframe which does not match with local needs and procedure	1
Lack of provision to support building resilient infrastructure after disaster	1
Lack of flexibility to identify local priorities	2
Lack of alignment with other federal programs/ difficulty to patch together different funding streams	1
Lack of consideration for climate change projections	1
Other (please specify)	1

Question: What type(s) of support/incentives would be useful to improve this program to better promote long-term resilience to climate change? (Select all that apply)

Results: Survey respondents selected reduced paperwork and/or a faster process most often, but technical assistance and financial assistance were also ranked highly.

Support/Incentives	Number of Selections
Financial assistance (Grant, Tax Incentives/Rebates, Low-cost loans, Lower state/local match, etc.)	3
Technical assistance, training, and community engagement toolkit for city staff	2
Reduced paperwork or/and faster process for applications with climate resiliency provision	4

Most useful support/incentives to improve programs to better promote long-term resilience to climate change

Question: What type(s) of support/incentives would be useful to improve this program to better promote long-term resilience to climate change? (Select all that apply)

Results: Although it is important to look at exactly which recommended support/incentive corresponds to each program as we did with FEMA Hazard Mitigation Program Grants and HUD Community Development Block Grants, in aggregate, we can see that the most commonly selected type of support or incentive is financial in nature, followed by technical assistance/training and process/application improvements.

Type of Support/Incentives	Number of Selections
Financial assistance (Grant, Tax Incentives/Rebates, Low-cost loans, Lower state/local match, etc.)	52
Technical assistance, training, and community engagement toolkit for city staff	35
Reduced paperwork or/and faster process for applications with climate resiliency provision	29

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