



# GARRISON INSTITUTE

2013 CLIMATE, CITIES AND BEHAVIOR SYMPOSIUM: SYNTHESIS REPORT

## The Human Dimensions of Resilient and Sustainable Cities



Exploring strategies for working with people, organizations and social networks to forestall crises and enhance the ability of cities to bounce back from crises.

**2013 CLIMATE, CITIES AND BEHAVIOR SYMPOSIUM: SYNTHESIS REPORT**



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# Climate, Cities and Behavior

In March 2013 the Garrison Institute convened 100 city sustainability officers, researchers and others working on climate change and sustainability in communities across the country. The goal of this symposium was to ‘explore strategies for working with people, organizations and social networks to forestall crises and enhance the ability of cities to bounce back from crises.’ This report is the distillation of the learning that took place over the three-day meeting.

With action stalled on federal climate policy, most progress being made in addressing climate disruption is occurring at the local level. Additionally, when it comes to conveying the relevance of climate impacts, the public is most readily engaged at the local level where the implications and solutions take on personal relevance. As a result, it is essential that municipal leaders receive the support they need in conveying the benefits of adopting climate policies, as well as assistance in determining the most effective modes of engagement for their particular communities.

The 2013 Climate, Cities and Behavior Symposium helped meet these needs by focusing discussion on: resilience, diversity, communication and engagement at the intersection of climate change and sustainability.

These broad themes rest on a framework that regards human behaviors and social change as necessary and meaningful contributions to sustainability and climate change action plans at all levels. Technological fixes are not enough and there is no silver bullet.

Situating behavior change in larger movements for social change means we must expand the scope of communication and engagement to include diverse communities, and to do so with a positive vision for the future. From Charlotte, NC to Dearborn, MI, to Los Angeles, CA, the crucial lesson learned from the 2013 Climate, Cities and Behavior Symposium was simple: climate change is an opportunity to pro-develop our communities, to foster the social connectivity that will allow us not just to bounce back after crises, but to bounce forward, together.



This report synthesizes the presentations, discussions and written insights generated during the 2013 Climate, Cities and Behavior Symposium held March 13-15 at the Garrison Institute in Garrison, NY. The ideas presented herein arose from the community of symposium participants. The themes and bulleted points in this document are a synthesis of written and oral participant comments. We gratefully acknowledge the following cities and organizations whose representatives generated the materials that form this report:

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# Resilience: Bouncing Forward

*“Resilience is to recover, persist, and thrive amid disruption.”*

ANDREW ZOLLI, POPTECH

Resilience in the face of climate disruption has rapidly become a rallying call and a lightning rod for those working in communities. The notion of a resilient community helps reimagine a response to climate change, one that plays to a community’s strengths and looks to foster an ability to not just bounce-back after climate related stressors, but to grow stronger or bounce-forward. Bouncing back is problematic for vulnerable, marginalized communities. The challenge of resilience is to foster the social bonds that enable place-based communities to create vibrant neighborhoods for everyday living while also ensuring ready and equal resource access to prepare for and recover from disasters.

## CHALLENGES OF RESILIENCE

- Resilience is nearly synonymous with adaptation. Mitigation efforts should not be forgotten in this shift to intelligent adaptation or resiliency.
- There is a danger in ‘bouncing back’ if this means bouncing back to, or maintaining, an inequitable or unsustainable status quo.
- ‘Resilience’ is a smoke screen veiling the reality of entrenched, systemic policies that continue to negatively impact disadvantaged groups. Critical dialogue and policy are needed to address the legacy of inequality before focusing on resilience.
- Resilience is part denial; climate change deserves more than a cheery response.
- A clear connection between sustainability and resilience must be articulated to build on the work that has already been done on sustainability.

## INSIGHTS ON RESILIENCE

- Resilience is a process, not a plan. It is not about adapting, it is about creating adaptability.
- Volatility in general, and in weather patterns in particular, has become normal; this profound shift underlies much of the work to be done to foster resilient communities.
- Focusing on resilience means celebrating and building on what communities already have and what they already know. It’s about working through mid-level community institutions to support and deepen social networks and trust.
- Resilience is a skill with an individual component that includes mindfulness, observance and an ability to fail gracefully, and an organizational component that includes organizational design, structure and policies that foster social cohesion.

*“The most important kind of resiliency we can focus on is social resiliency – to increase the capacity of our groups, communities and society to withstand.”*

BOB DOPPELT, THE RESOURCE INNOVATION GROUP



# Diversity: Legacy of Inequality

*“There is social and economic stratification. When disaster hits, it hits on this existing accretion of generations of this process.”*

MINDY FULLILOVE, COLUMBIA UNIVERSITY

The legacy of de jure inequality has translated into a de facto sorting of U.S. cities today. Place-based communities are most often socio-economically, racially and ethnically divided. Minorities and the poor continue to be marginalized from the mainstream of American society and are often the most vulnerable to climate related disaster. This reality has far reaching consequences in terms of preparing for climate change because the social fabric of these communities has been broken through generations of disenfranchisement and neglect. Building resilience in broken communities means committing to a long-term process of supporting civic infrastructure in neglected communities and rebuilding trust between government and communities.

*“We need to deal with issues of diversity and parity of power. People will not come together if they feel powerless in a group.”*

RONALD SHIFFMAN, PRATT INSTITUTE

## CHALLENGES AROUND INEQUALITY

- A community cannot be resilient if its basic needs are not met.
- American cities are largely sorted by race and class. The process that created these divisions was often violent and many continue to blame the victims.
- Continued crises have transformed many marginalized communities from a collective to an individual consciousness; this is opposed to resilience.
- There is much continued indifference and a failure to engage effectively with the most vulnerable and marginalized communities.
- Social injustice exacerbates vulnerability to climate change and climate change impacts exacerbate social injustice.

## INSIGHTS ON INEQUALITY

- The challenge of equity is inextricably linked to the challenge of climate change. Systemic conditions that create vulnerable communities must be acknowledged and addressed to create the grounds for resilience.
- Societies that cooperate do better in responding to catastrophes; it is against everyone’s interest to ignore some.
- Community building increases connectivity and democratizes solutions to social problems, including preparedness for climate change impacts.
- Sustainability officers who organize meetings must actively work to ensure that representatives from as many communities as possible are present. Look to mid-level organizations like banks or the Boys and Girls Clubs. This is a basic requirement to build trust and connect across geographic and social divisions.





# Communications: Language Ambiguity

The language around climate change adaptation and mitigation has morphed and expanded just as our understanding of the relationship between society and the challenge of climate change has. Over the past three years, 'resilience' has emerged as a buzzword in this field. We know we want communities to be 'resilient,' beyond that, the term is fraught with ambiguity. But this ambiguity can be used creatively if we allow resilience to lead us to foster pro-social and pro-environmental behaviors in diverse communities. Resilience does not have to be a technical term, but rather can signal actions that encourage neighbors to help neighbors and government at all levels to support community organizing that builds the fabric of communities, which is the bedrock of resilience.

*“Is resilience a process? Is it an attribute of systems? Is it a quality of individuals or units? Is it an outcome? Is it a language? Is it merely a metaphor? There’s always going to be that kind of indeterminacy.”*

CHARLES RUTHEISER, ANNIE E. CASEY FOUNDATION

## CHALLENGES AROUND LANGUAGE

- Resilience reads as complex, technical, academic. There’s no consensus on definition, so it is difficult to translate into mainstream, understandable messages. The challenge is to articulate resiliency in everyday terms.
- The terminology keeps changing: green- livable- sustainable- resilient. What do we gain in this process: new adopters, new policy or legislation, and what do we lose: authenticity, clarity, transparency.
- Community is a multifaceted term; it is not necessarily geographic, it does not necessarily equate to neighborhood.
- ‘Resilience’ and ‘sustainability’ are neutral terms that suggest maintaining the status-quo.

## INSIGHTS ON LANGUAGE

- Work with stakeholders to identify their concerns and the language they find meaningful. ‘Climate change,’ ‘resiliency,’ and ‘sustainability’ may not resonate but ‘preparedness,’ ‘severe weather,’ or ‘hazard mitigation’ may.
- Resilience can be an anchoring concept that brings together a wide variety of perspectives.
- Unlike sustainability and resilience, visionary terms like ‘thriving’ and ‘vibrant’ speak to the goal of bouncing-forward, not back.
- Rather than focus on definition, focus on characteristics of resilience: diversity, adaptive capacity, social cohesion, transparency.

*“This is a messy space.  
We don’t need to be caught up in the definition of resilience.”*

MISSY STULTS, UNIVERSITY OF MICHIGAN



# Communications: Positive Vision

Addressing climate change is a daunting task; the societal shift that is needed can seem unattainable, especially given the lack of federal involvement. However, serious action is happening in many communities throughout the country. Staying positive and focusing on the co-benefits of action are critical to success with any communications or engagement strategy. Building more vibrant, livable, resilient communities is in everyone's best interest- and it can be fun. Communities that are emboldened to think through how sustainability plans can make a positive impact everyday are communities that will stay engaged and provide positive stories that get others on board.

*“Emphasizing the benefits of climate action in addressing existing community challenges is critical.”*

CARA PIKE, SOCIAL CAPITAL PROJECT, THE RESOURCE INNOVATION GROUP

## CHALLENGES AROUND VISION

- The implicit assumption in many climate change communications strategies is that other people do not want a better world.
- There is an ongoing failure to deliver a positive vision of a resilient and sustainable future; sustainability has been linked with deprivation and lack.
- Too much energy is spent around the negativity of climate skeptics.
- There is a balance to strike between offering a positive vision for the future and avoiding hubris in its dissemination or seeming rigidity.

## INSIGHTS AROUND VISION

- People join movements that they feel good about.
- The way to create significant leaps is to co-create a positive future. Every community can create a vision of their particular positive future.
- Show the drop filling the bucket, not a drop in a bucket.
- Talk openly and often about examples of success.

*“Create a party, not a Party.”*

TINA ROSENBERG, AUTHOR OF *JOIN THE CLUB*



# Communications: Diverse Audiences

Cities are comprised of diverse audiences and sustainability planning must reach out to all resident groups if it is to be effective. While it seems obvious, the way to communicate with communities is to go to them and listen first. Working from within communities is critical, whether through community leaders or by doing the long-term work of becoming a community member, it is the only appropriate way to understand the assets and needs of diverse groups. A hierarchical, one-way approach to sustainability planning and communication does not build resilient communities.

*“There is grief, anger and fear about what is going on in our urban centers. How can we show our most disadvantaged communities some love – to acknowledge the past and help move forward?”*

ALICE KENNEDY, CITY OF BALTIMORE, MD

## CHALLENGES OF DIVERSE AUDIENCES

- Preaching to the choir is not enough. The same groups are consistently left out of the sustainability conversation.
- The power of social capital and indigenous leadership is not new. The question is how to harvest it for climate change when other basic needs of families and communities take precedence.
- Talking in terms of ‘them’ creates barriers to communication and engagement.
- Getting the message right is difficult. Information does not equal action.
- It has proved very hard to get the wealthiest households to change their consumption patterns.

## INSIGHTS ON DIVERSE AUDIENCES

- Identify stakeholder groups who are not part of the conversation and deliberately work to bring them into conversation through community leaders and institutions.
- Find and focus on commonalities between groups and between community interests and government interests. Use these to build dialogue and trust.
- Move from talking about reaction to crises to talking about community assets and capabilities.
- Real communication requires relationship and understanding people’s experience, beliefs, and barriers to action.
- Think and talk in terms of ‘we.’

*“Before you go in to a community to make your pitch, attend five meetings where you say nothing. Help them set up and put away the chairs. Become part of the community before you talk.”*

JOANN JORDAN, CITY OF SEATTLE, WA



# Engagement: Stakeholders

*“If you’re not at the table, you’re probably on the menu.”*

EDDIE BAUTISTA, NYC ENVIRONMENTAL JUSTICE ALLIANCE

Engagement of all stakeholders is the key critical component in creating resilient, sustainable communities. Without stakeholder engagement, communities will not be able to prepare for or recover from disasters. In many cases, enabling community engagement means supporting the work of community organizing. At the very least, every sustainability officer must ensure that representatives from as many stakeholder groups and locales as possible are present and participating in discussions that effect their communities. It is not enough to continue preaching to the choir of environmentally concerned residents and organizations, reaching beyond these individuals and groups to less common allies is necessary.

*“There is no other path forward – we have to have collaborative governance.”*

MITCH SEARS, CITY OF DAVIS, CA

## CHALLENGES OF ENGAGING STAKEHOLDERS

- The one-size-fits-all, command-and-control approach does not work for sustainability and behavior change engagement.
- Shared accountability and shared responsibility are not yet the norm; there is a sense that the government should take care of this.
- Engagement is necessary but not sufficient. The broad middle must be activated to reach the top where policy and structural changes can be made.
- There is a risk of ‘green washing’ by not fully engaging communities; token engagement is not enough.

## INSIGHTS ON STAKEHOLDER ENGAGEMENT

- Communities are diverse and solutions must also be. Use stakeholder engagement to discover a community’s needs, drivers, and beliefs – not to tell them what they need.
- Positive peer pressure – the influence of people’s social networks- is a powerful motivator for change.
- Meet people where they are: culturally, emotionally, and intellectually.
- Identify and support key influencers to do the work with their communities.
- Younger generations can help bridge language gaps but there is a need to deliver support in multiple languages and through culturally appropriate means.



# Engagement: Problem of Immediacy

*“Focus on experiences, so people are in a setting where they can grasp the ideas of interdependency and reciprocity.”*

BOB DOPPELT, THE RESOURCE INNOVATION GROUP

Climate change has always suffered from its seeming lack of immediacy. That particular weather events are generally not publicly attributable to the changing climate only reinforces the sense that there is yet time to adapt. The scale of the response needed is impersonal and disengaging, especially in the face of immediate threats to security such as joblessness, poverty or mortgage arrears. By focusing the conversation on the everyday benefits of creating sustainable, resilient communities, short-term benefits can be highlighted alongside the long-term benefit of mitigating and adapting. By creating shared experiences that help to build communities, the distant issue of climate change can become the very present reality of creating more livable cities.

## CHALLENGES OF IMMEDIACY

- A slow moving crisis does not inspire community action the way major disasters, like hurricanes, do.
- Climate change cannot compete with immediate, basic, concerns of survival such as jobs, food, and housing.
- Disengagement stems from a lack of perceived threat – the problem of climate change continues to be diffuse and distant.
- There is a perceived risk in change, a ‘let sleeping dogs lie’ mentality, when inaction actually has the greater risk.

## INSIGHTS ON THE IMMEDIACY PROBLEM

- Create shared experiences.
- Quantify and focus on the co-benefits to action on sustainability and climate change.
- Talk about preparedness in the face of particular extreme weather events. These are immediate.
- Truly collaborative governance, not just inviting participation, engages people in co-creating healthier, more resilient, communities that affect their lives every day.

*“Participation leads to buy-in, ownership, and motivation.”*

JENNIFER HIRSCH, SUSTAINABILITY & DIVERSITY SPECIALIST, CHICAGO



# Engagement: Scarce Resources

Government, at all levels, does not provide resources enough to address climate change adequately. At the city level, this is partially remedied by rethinking resources to include communities. Working with communities to build resilience block by block is a long-term project, but one that will uncover community assets and allow for creative use of scarce government resources. By demonstrating the value of resilient communities, local business partners may be a means to increase resources for sustainability plans. In the long-run, government resources will need to be redirected to deepen community work- cataloguing and quantifying successful community projects will be necessary to make this case.

*“Community level organizations that already exist are a key. Give the money to communities to let them decide how to organize and create that social network.”*

ERIC KLINENBERG, NEW YORK UNIVERSITY

## CHALLENGES AROUND RESOURCES

- There is a wide gap between systems or technological efficiency, ease, cost and replicability and the hard work, long time scales, and flexibility needed in the process of community building.
- Funders do not want to support existing programs or initiatives that are working well. Generally, they want to fund something ‘new.’
- Too often the value of climate change action and community cohesion is not demonstrated to the business community.

## INSIGHTS ON SCARCE RESOURCES

- Community is a resource that boosts capacity in stretched institutions.
- Advocate for regulatory change and funding mechanisms that enable and support social networks to do good work.
- There are multiple adaptive uses for both physical and social infrastructure.
- Community groups enable resilient action when disaster hits while helping make communities more livable, and even fun, everyday.
- History repeatedly shows that civic infrastructure is a critical recovery strategy (LA '94, Katrina, Sandy); it must be a focus of funding.

*“Crowd resourcing involves crowd funding and resource organizing.”*

CASSIE FLYNN, IOBY



# Symposium Presentations

Watch Symposium videos online [HERE](#)

**THINKING ABOUT RESILIENCE AS A WICKED PROBLEM: SOME IMPLICATIONS FOR URBAN PLANNING, SOCIAL POLICY AND CULTURAL PRACTICE** | *Charles Rutheiser, Annie E. Casey Foundation*

A critical challenge in communicating and implementing resilience thinking lies not only in defining resilience in a practical way, but in recognizing the kinds of problems that are associated with building or encouraging the resilience of particular kinds of social and spatial systems, such as communities and cities. The first part of this presentation sketches out the proposition that understanding resilience as a “wicked problem”—a kind of challenge that is resistant to definitive resolution using methods drawn from science and engineering owing to manifold complexity, context dependence and social fragmentation—might prove helpful in appreciating the opportunities, strengths and limitations of resilience thinking and action in the urban context where an “engineering resilience” frame is often the default setting. Seen from this perspective, resilience is not only a wicked problem, but a “wicked word.” The second part of the presentation moves from this rather abstract notion to the more concrete by showing how another widely-used wicked word—“community”—can provide us with clues about how resilience can be integrated more effectively in planning, policy, and common usage.

**RESILIENCE, ADAPTATION, AND VULNERABILITY: FROM THEORY TO OPERATION** | *Missy Stults, University of Michigan*

This presentation highlights differences that exist in key terms such as resilience, adaptation, vulnerability and adaptive capacity, followed by a discussion of how organizations are operationalizing these terms on the ground. By looking at the theoretical and the applied side of adaptation to climate change, we explore what is meant when we say things like resilience, adaptation, and vulnerability, and how we can best support on the ground efforts to prepare for climate change.

**REINVENTING OUR CITIES FROM THE BOTTOM UP** | *David Gershon, Empowerment Institute*

Community engagement is the “last mile” in the behavior change journey. For it to work everything preceding it must be in place. This includes a social innovation capable of achieving measurable and substantive behavior change; the ability to integrate existing programs and outreach efforts of various government agencies, community-based organizations and local businesses; a testable and repeatable strategy for engaging people to participate; a training capability that builds the capacity of staff and volunteers to deliver the social innovation so it can be replicated; a scaling strategy with metrics for measuring success; and a mechanism for social learning so all these elements can be iterated upon based on feedback. This is the next frontier in community engagement and its success will require a transformation in thinking and skills from traditional information campaigns which research shows at best raise awareness but do little to achieve actual behavior change. With the future of humankind on the line because of climate change, the fact that cities generate 70% of the planet’s carbon emissions with citizens’ energy use to power their homes and cars representing 50 to 90% of these emissions, and that residents are the most at risk to climate-related disasters, the time could not be riper for an upgrade in a city’s ability to engage its citizens. This workshop length presentation offers a vision, successful case studies, and the strategies and tools to enable this operating system upgrade for cities. Specifically it will help you learn how to design a community engagement strategy that opens hearts and minds to change; empowers residents to adopt low carbon/resource-efficient lifestyles; strengthens individual and collective disaster-resiliency; increases neighbor social capital and livability; and includes the entire community in a whole system solution that drives change from both the demand-side (consumers/voters) and supply-side (policy change, technology adoption and market development).

**DISASTER IN THE CONTEXT OF UNMITIGATED DISASTER**

| *Mindy Fullilove, New York State Psychiatric Institute and Columbia University*

The study of resilience is concerned with the ability to recover function after a disturbance. It is generally recognized that the ability to recover is not infinite and depends on initial conditions of the material that is stressed. I propose to set initial conditions for community recovery from climate change with the creation of the US Constitution, which enshrined that provision that slaves be counted as 3/5's of a person, making racism the "DNA of the nation." The recent expression of this DNA in policies of serial forced displacement and mass incarceration have, it has been argued, created a voracious machine of community destruction that is widening its reach from the initial victims in the African American community to much wider segments of the US population. This machine can push the ecosystem towards a permanent state of criminal enterprise hyperviolence, such as that seen in some parts of Mexico and Italy. It is likely that remedies to climate change will be driven by this powerful social system, but other alternatives exist and should be pursued.

**STAKEHOLDER ATTITUDES ON SUSTAINABILITY AND RESILIENCY** | *Robin Leichenko, Rutgers University*

Sustainability and climate planning efforts are underway around the country and building public support for these efforts is a common challenge. This presentation explores what we can learn from planning efforts in New Jersey on how to successfully engage stakeholders in local resiliency efforts.

**FAITH-BASED ORGANIZATIONS AND THE RELIGIOUS ENVIRONMENTAL MOVEMENT: OPPORTUNITIES FOR COLLABORATION AND ENGAGEMENT** | *Dina Biscotti, University of California, Davis*

This presentation provides a framework for thinking about models and outcomes of community engagement for behavior change and sustainable community-building. Case studies of climate action partnerships in different geographic regions reveal a variety of ways in which local government can work together with faith-based and community-based organizations to develop.

**THE WATERFRONT JUSTICE PROJECT: ADAPTATION AND RESILIENCY IMPERATIVES FOR INDUSTRIAL WATERFRONTS** | *Eddie Bautista, NYC Environmental Justice Alliance*

The New York City Environmental Justice Alliance's (NYC-EJA's) Waterfront Justice Project is NYC's first citywide grassroots community resiliency campaign. The Project is a research and advocacy project designed to reform the City's waterfront policies to reduce cumulative health exposure risks posed by climate change. In NYC, there are concentrations of polluting industrial facilities in low-income waterfront communities of color designated as Significant Maritime and Industrial Areas (or SMIA's). In 2010, NYC-EJA discovered that all six of the City's SMIA's are in storm surge zones—and that the City of New York hadn't analyzed the public health exposure risks associated with clusters of heavy industrial uses in such vulnerable locations. The Project promotes climate adaptation and community resiliency strategies in industrial waterfront communities by analyzing environmental indicators and data documenting storm surge projections, pollution, and demographic and socioeconomic vulnerabilities. This research has galvanized industrial waterfront communities to advocate that the City's Coastal Zone Management Plan and other regulatory structures work with vulnerable industries and community-based organizations to identify technical/financial resources and strategies to implement "best management practices" for climate adaptation interventions that yield healthier and more sustainable/resilient waterfronts.

**PUBLIC OPINION ON SUSTAINABILITY AND RESILIENCY** | *Geoff Feinberg, Yale Project on Climate Change Communication*

What does the public understand about sustainability and climate issues? What are the distinctions and areas of overlap across these two related areas? What does the public understand about the need for resiliency at a local level? This presentation will explore these questions drawing on the Yale Project for Climate Communication's current work.



**HOLISTIC APPROACHES FOR ACHIEVING LOCAL CLIMATE ACTION PLANS** | *Max Wei, Lawrence Berkeley National Laboratory*

Cities and citizens, due to their large carbon footprint, provide a key leverage point for addressing the climate change issue. But even though more than 100 local climate action plans have been developed in California alone over the past few years, they often lack implementation strategies and face stiff headwinds in community awareness and acceptance, much less financing. Fundamentally, this is a systems problem spanning multiple issues and perspectives: people's attitudes and behaviors, how people view and use energy, technology choices and cost considerations, existing policies and incentives, market acceptance, and larger social contexts such as norms and values. State and local approaches tend to focus on technology-based solutions and policy adoption but generally lack strategies that comprehend human and social factors that can either drive or hinder technology and policy adoption. This talk explores various themes and frameworks for system approaches drawing upon both energy and non-energy examples, describes some innovative programs and case studies in the energy efficiency space, and finally raises some issues from the research and quantification standpoint.

**FORGING CITY-COMMUNITY PARTNERSHIPS FOR CLIMATE ACTION – LESSONS FROM THE SOCIAL SCIENCES AND CHICAGO** | *Jennifer Hirsch, Northwestern University*

This presentation explores the framework of “collaborative governance” for thinking about models and outcomes of community engagement for behavior change and sustainable community-building. Case studies of climate action partnerships reveal a variety of ways in which local government can work together with communities to develop and implement projects that simultaneously advance regional and community goals.

**RESILIENCE AND SUSTAINABILITY REQUIRE A SHIFT “FROM ME TO WE”** | *Bob Doppelt, The Resource Innovation Group*

The term “sustainability” is a normative concept that suggests the continuation of ecological, economic, cultural, political and other factors that society deems important to maintain over the long term. However, there will be no “sustainability” if global temperatures rise by 2C or more as now seems inevitable. To the contrary, continual crises management and triage to determine which functions to try to protect and which to abandon will likely be the norm. The amplified and new stresses created by rising temperatures will in most cases be successfully addressed only when individuals work for the good of the entire group (their community, nation, world) rather than for themselves at the expense of others. In other words, successful responses to climate disruption in built, economic, cultural and ecological systems will, at their core, require a shift from ‘Me’ focused to ‘We’ based thinking and acting. This requires extensive levels of social resilience. Social resilience—a fundamental shift From Me to We— can be thought of as the capacity for individuals to engage in and sustain positive interpersonal relationships that allow them to work constructively with others to withstand and recover from physical, economic, psycho-social, ecological and other stresses such as those posed by extreme weather events and other climate impacts. To be socially resilient people need to be exposed to and grasp the different experiences and needs of others. Respect for diverse perspectives, concern for the welfare of others, and inclusiveness are important because they signal reciprocity—i.e. by taking care of others your needs and those of your organization will also be met. The strength of these factors is dependent on both the personal characteristics of the individuals involved and the design of the social structures in which they interact. Thus, one of society’s most important goals now must be to develop mechanisms at the local, state, and national levels that foster and support social resilience—a shift From Me to We based thinking and acting. In this presentation Bob Doppelt shares two examples of projects intended to foster the development of ‘We’ oriented social resilience: The Resource Innovation Group’s Climate Futures Forums, and its recent assessment of the strengths, limitations, and potential of organizations making a moral call to action on climate disruption.

**CLIMATE AND COMMUNITY INNOVATION: CITY OF DAVIS** | *Mitch Sears, City of Davis, CA*

In the early 1970's, the Davis community responded to the global energy crisis by adopting a comprehensive set of innovative energy saving measures that was dubbed the "Davis Experiment" by an independent research group. The research group sought to share these advances with other communities and concluded in their report that "...the Davis experiment proves that citizens working through local government, really can have a substantial effect on a major international issue." Over the past 35 years, Davis has continuously strived to prove that point. A key, understated conclusion of the 1977 report was that citizen action was critical to success. In 2010, Davis adopted a systems based Climate Action and Adaptation Plan that identified direct community engagement as both a guiding principle and specific actionable objective. The City concluded that without an engaged community that is willing to take ownership of this critical issue, Davis is unlikely to meet its targets. This talk touches on the value of setting individual citizen GHG "budgets", establishing community wide household engagement goals, supporting aligned community organizations, and developing tools to help households succeed and see themselves as part of a community-wide solution.

**HARNESSING THE POWER OF PEERS FOR BEHAVIOR CHANGE** | *Tina Rosenberg, The New York Times Fixes column*

Peer pressure is usually thought of as a bad thing, but this presentation shows how it can be equally powerful when employed for good. People around the world have used positive peer pressure to bring about behavior change after more traditional attempts have failed. We can be healthier, more politically active and more environmentally responsible by tapping into the strongest of human motivations: our desire to belong to a group.

**DISASTER PREPAREDNESS AS A CATALYST FOR BUILDING COMMUNITY... BEFORE IT HAPPENS!** | *JoAnn Jordan, Seattle Office of Emergency Management*

Disaster resilient communities don't just happen. They are communities that work together and know each other on a daily basis, so that when a crisis or issue arises, they have the relationships in place to work together. Seattle Neighborhoods Actively Prepare (SNAP) is a program that harnesses relationships and connectivity and gives step-by-step actions people can take to help each other. The program has been evolving over the past 7 years with several lessons learned: 1) The program needs to be flexible and adaptable to meet the unique characteristics of the neighborhood. 2) The steps need to be simple, easy to remember and easy for neighbors to teach each other. 3) People need tools and reasons to meet neighbors they don't already know. These lessons learned can be adapted to any program intended to build community resilience. To apply these lessons, program managers must be as adaptable as the program itself, learn to welcome change and celebrate when the program goes in a direction you never intended!

**ACHIEVING SUSTAINABILITY THROUGH INFORMED COMMUNITY ENGAGEMENT** | *Nicole Storey, City of Charlotte, NC*

Strong and vibrant neighborhoods are key elements for prosperous, resilient and sustainable cities; but how do you evaluate the strength and vibrancy of neighborhoods in ways that are impactful, quantifiable, actionable and measurable at a neighborhood scale? Furthermore, how can this information be used to inspire positive behavior change? This presentation explores the processes and evaluation metrics for assessing and improving neighborhood resiliency through a number of key dimensions including social, physical, economic, safety, education and the environment. Topics include community engagement, partnership, data collection, programming, goal setting and lessons learned.

### **A SLICE OF THE PIE — PROFILING BEHAVIORAL OPPORTUNITIES IN YOUR CITY** | *Karen Ehrhardt-Martinez, The Garrison Institute*

A growing body of research has provided clear evidence of the large scale, energy and carbon reductions that could be achieved by shifting household practices and technology choices. Estimates of achievable savings have ranged from 20 to 30 percent in the short-to-medium term in the residential and personal transportation sectors alone. Nationally, the savings from such interventions would reduce total U.S. energy consumption by roughly 9% and cut carbon emissions by 7.4% (Dietz et al 2009, Laitner et al 2009). While such findings are useful, they are unable to identify city-specific opportunities that take unique local factors into account, such as local climatic conditions, the age and other characteristics of the local building stock, technology saturation, technology use patterns, and the lifestyles, attitudes and preferences of local populations. This presentation discusses collaborative work by the Garrison Institute and USDN to provide cities with a low-cost approach to assess the scale of city-specific savings opportunities and to document the sets of behaviors that are likely to result in the most savings.

### **CITIZEN-LED INNOVATION FOR STRONGER, MORE SUSTAINABLE NEIGHBORHOODS** | *Cassie Flynn, ioby*

ioby works to build stronger, more sustainable neighborhoods, block by block. Using a crowd-resourcing platform, ioby helps anyone with a good idea get the funding, volunteers and knowledge they need. ioby has supported hundreds of citizen-led projects, such as turning vacant lots into community gardens, creating solar farms out of rooftops, closing busy streets to become playgrounds and more. When hurricane Sandy hit, projects like these – and the networks of people around the projects – helped communities address the damage and begin to reimagine and create more resilient neighborhoods. This presentation explores ioby's recent report on citizen ideas for making more resilient communities and share ioby's experiences in helping innovators bring their ideas to life.

### **CREATING MORE CYCLISTS: A STRATEGY FOR ACCELERATING ADOPTION OF CYCLING FOR URBAN TRANSPORTATION** | *Michael Bennington, Toronto Cycling Think and Do Tank*

To date, attempts to encourage modal shift towards active transportation and cycling have focused on the construction of physical infrastructure such as separated bicycle lanes and bike parking. Due to fiscal restraint, as well as the slow pace of development of this infrastructure, cities like Toronto have lagged behind other urban centres which have fast tracked cycling infrastructure. In spite of this lack, Toronto has greatly increased its cycling population. In other locations, where physical infrastructure is excellent, city planners acknowledge that some demographic groups do not cycle, and are keen to use new tools to encourage them to do so. This presentation introduces a new, evidence-based “Tool Kit” for cycling adoption, based on a comprehensive review of the scholarly evidence as well as psychological theory. This adaptable model will ease application in different contexts, with varied target groups, different partners delivering the program, and diverse related barriers to cycling adoption. In addition, a new business strategy is being prepared for cycle shop owners, demonstrating the increased market share possible through mode shift, and adapting the tool kit for implementation by this sector.

### **COMPELLING AND REWARDING LOCAL LEADERSHIP** | *Keya Chatterjee, World Wildlife Fund*

WWF's Earth Hour City Challenge provides a model for how nonprofits and citizens can work with municipal leaders to build public support for climate action. Best practices will be shared from this create campaign that compels cities to race to the top in being the most prepared to deal with climate impacts and ensure local resiliency.

### **EPA TOOLS FOR RESILIENT COMMUNITIES** | *Megan Susman, U.S. Environmental Protection Agency*

This presentation highlights the tools EPA is developing to help communities prepare for and adapt to climate change in ways that bring multiple environmental, economic, and community benefits.

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