Climate Adaptation as an Evolutionary Process: A White Paper

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The Kresge Foundation
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Ron Brunner and John Nordgren[1]

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Introduction

As recently as five years ago, climate change adaptation was regarded as taboo – akin to giving up on the climate crisis. It is fair to say that the nascent field of climate change adaptation has since gained widespread acceptance. Despite continuing debate in the U.S., public and professional acceptance of the need to address the impacts of climate change proactively has been increasing. As recently as three years ago, few cases of applied climate adaptation could be found. Now many efforts are working more or less independently to develop strategies and practices that define climate adaptation and contribute to successful outcomes. Much of what this emerging community of practitioners is doing is new, even if it is based on established practices. It has been likened to building a bike while riding it.

In this larger context, The Kresge Foundation over the past three years has deliberately seeded a number of promising projects in climate adaptation. The Kresge portfolio is intentionally diverse, representing a variety of approaches, topics, strategies, geographic locations, and scales of operations. To expedite progress, this is a good time to bring together representatives of these and other adaptation projects, to assess how they have progressed, and to make that assessment available to the larger community. Together with Tonya Graham of the Geos Institute (a Kresge grantee) and Peter Szabo of Bloomingdale Management Advisors, we planned and convened a workshop in Portland, OR, early in February, 2012.   This white paper summarizes what we heard and learned at the workshop.

The 80 practitioners participating in the workshop represented organizations with more than 40 projects operating nearly all 50 states.[2] The projects represented were as diverse as their geographic spread. For example, some focused on climate adaptation in small communities, others on larger regions, and still others offered information resources or other tools for climate adaptation practitioners.   Some focused on helping natural systems, human systems, or both in adapting to climate change. Some addressed a single vulnerability, such as migration corridors or sea-level rise, while others took a more holistic approach to community resilience. Many but not all projects were grantees of The Kresge Foundation. The workshop was designed to (1) take stock of what has worked, what hasn't, and why; (2) compare future plans and needs; and (3) share some emerging tools and resources.[3]

Four breakout sessions gave groups of 11 or 12 practitioners each an opportunity to share and compare what they had learned and to consider the future plans and needs of their projects. We employed scribes to take notes in these sessions. For the fifth breakout session, practitioners self-

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[1] John Nordgren is Senior Program Officer, Environment Program, The Kresge Foundation. Ron Brunner is a consultant and Professor Emeritus, University of Colorado, Boulder. This white paper is based on the Kresge Grantees and Practitioners Workshop on Climate Change Adaptation that met February 7-9, 2012, at the Hotel Monaco in Portland, OR.

[2] Participants in the Portland workshop are listed in an attachment to this paper. The workshop and this paper would not have been possible without their open and dynamic engagement and many contributions.

[3] The four tools and resources featured were Arizona State University's Decision Theatre (http://dt.asu.edu/); the Climate Adaptation Knowledge Exchange or CAKE (www.cakex.org); the American Society of Adaptation Professionals (ASAP); and the ClimateAccess Network (http://www.climateaccess.org/). For more information on the workshop, including participant bios, their project summaries, and resources and agenda, see http://kresge.org/programs/environment/adaptation-climate-change/workshop2012.

organized into groups according to their priority opportunities for networking or collaboration across projects. Four major tools and resources were presented and discussed in plenary sessions interspersed among breakout sessions. In the opening plenary address, Ron Sims shared his insights as County Executive for King County, WA, a recognized pioneer in climate adaptation. In the closing plenary, a group of "listeners," as assigned, reported on their personal experience of the workshop. We concluded with comments from participants at large.

In the following pages, we attempt to distill the main findings and pull them together with examples. We have relied on our notes and the scribes' notes (sometimes quoted, often paraphrased), as well as our direct experience of the workshop.

Main Findings at a Glance

Looking back over the workshop, the individual and collective experiences of practitioners in climate adaptation can be characterized as an evolutionary process guided by a shared goal – *reducing the vulnerability of natural and human systems to climate change or increasing their resilience*.   The community understands the importance of taking action despite an incomplete understanding of what success in meeting our goal might mean. As we move through this evolutionary process together, it is critical to learn from this workshop and similar opportunities.

Many of the projects and organizations at the workshop have moved beyond an initial emphasis on downscaling climate change projections and incorporating them into plans. Now they face the task of implementing the plans made. This brings to the fore many human factors, including political, social, and economic issues that compound more familiar uncertainties about the timing and severity of local or regional climate impacts. Because of these uncertainties, progress depends on trial-and-error learning. Collectively, practitioners have been learning the politics of finding common ground, which are necessary to mobilize resources, including the political will to implement plans, and thereby to sustain progress toward our shared goal.

Looking ahead, we need to persist in maintaining a diversity of trials, evaluating what works and what does not, and adapting successful models through persistence, networking, and collaboration.

I. Progress

The participants' discussion during the closing plenary session encapsulated the workshop's spirit. One participant urged us to "be bold" in taking action in the face of uncertainty. Even if it does not work out, she said, we can learn from it; and once the models of success are out there, other people can adapt them. Citing Ron Sims' inspiring opening address, another participant also urged us to be bold and to have confidence in ourselves.   One of the seven listeners reported he was "blown away" by the consistency of what had turned up in taking stock of progress by the projects, especially the need to rely on personal engagement and relationships to advance adaptation. He concluded that "we know how to do this." Records from the workshop support these observations.

What Worked? The short answer is that practitioners acted pragmatically. To move ahead, project leaders found it necessary to use whatever resources and flexibility were available to meet the needs of local or regional communities in different and changing circumstances.   In particular, they learned to:

- Bring the right people to the table. They vary from place to place, but generally are people and groups who can make a difference in moving ahead. They include anyone who might help -- community members most vulnerable to climate change, often the disadvantaged, and local champions who have trust and connections in the community. They also include scientists,

lawyers, and other experts; local, state, and federal officials; people in business; and youth.

- Engage them "where they are, not where we are," as one participant put it. They may be most concerned about taxpayer savings, fiscal conservatism, etc., and indifferent or hostile to climate change. If so, postpone discussion of climate change at the outset, and instead "appeal to their direct experience" of climate change impacts. "Help them figure out what they can actually do" to adapt while addressing their priority concerns at the same time.

- Rely on maps, photos, and other means of visualization in communicating vulnerabilities and possibilities. Anecdotes and stories based on case studies also work in making the abstract concrete. Back these up with sound science as circumstances permit. It is not enough to demonstrate vulnerabilities; catalyzing action depends on specific means to reduce vulnerabilities to species, landscapes, human life and limb, buildings, and anything else we value with the community.

- Encourage collaboration within and across groups in finding common ground sufficient for a community to act on implementation. Among the means that have worked are advisory boards, steering committees, workshops, various kinds of networks, and mainstreaming climate change into the existing, on-going operations of communities or agencies. Collaboration often requires translating information across community groups, disciplines, agencies, and levels.

- Build personal relationships, credibility, and trust. This human capital is the foundation of effective communication and community action. It is not a given at the outset, but typically depends on a non-partisan, open, and transparent approach based on facts. Over time, it is the cumulative effect of incremental steps toward a long-term goal that succeed, as assessed by the partners involved. What may have been "we-they" at the outset becomes "we" partners.

The extent of convergence on these pragmatic practices is remarkable because the projects all began with different approaches at different times and places. Evidently, convergence on this pragmatic, sometimes opportunistic, engagement stems from a shared need to find common ground in each context to make progress. The long-term goal in each instance was often assumed and occasionally expressed, but not always as part of a climate adaptation strategy.

Nevertheless, judging from exceptions and qualifications, nothing works everywhere. For example, while an appeal to direct personal experience often works, there was a report of "a farmer [who] knows blueberry season starts earlier but [still believes] 'global warming is a government hoax.'" Evidently, "it is not a case of one size fits all." One breakout group reported "a tension between tailoring messages to local context and adhering to the meta-message" of climate science; they distinguished context-driven approaches from science-driven approaches. Another group reported that "There is no one best way to do it." For example, "when collaboration doesn't work, sometimes a lawsuit will work."

How Do You Know It Worked when it did? **(** Every project apparently did some evaluation, often informal, to explain its progress and justify new proposals for support if nothing else. While answers to the question of "what worked?" tended to converge, answers to "how do you know?" did not. Instead, this question turned up a variety of answers. Consider some examples paraphrased or quoted from the scribes' notes:

- From "our last big evaluation," a survey of information-resource users, one project concluded that "empirical data may never work to establish success metrics or define resiliency"; we may need to rely instead on what users used, qualitative observations and stories.

- According to another information-resource provider, "there are indicators that you can look at to see if you are on the right track, e.g., in the coral reef world, if corals aren't happy they turn white." Begin observing as actions are taken; don't wait 20 years and hope it is working.

- For another project, "one way to measure success is when people start attending meetings and workshops who were never there before." Similarly, "sometimes somebody picking up your phone call is a success."

- Another project found success in "getting political folks in the room with scientific folks for workshops, etc." For example, "out of a couple of large regional workshops, they identified some very valuable springs and seeps that are vulnerable to climate change."

- That project also found success "not so much in a huge adaptation plan" but in the way managers were "incorporating climate change in the back of the mind" and then into "those smaller [day-to-day] decisions that add up."

- In a project providing legal resources, a practitioner noted that "Success for my group is a change in law." Another project operating at the state level is hoping for success in local implementation of changes in state regulations that it helped put in place.

- Finally, success in Louisiana was halting large-scale federal maladaptive practices and projects; one project had a role in persuading the Army Corps of Engineers' to de-authorize a planned levee. Similarly, "Success in Arizona is holding the line against moving backwards."

The first and last examples among others in the record indicate that the shared long-term goal is indeed reducing losses to climate change or increasing resilience. Taken together, the examples illustrate the variety of observations and criteria used to evaluate incremental steps toward the long-term goal in the absence of quantitative metrics. The criteria ranged from making contact with partners to blocking maladaptations that would have increased future vulnerabilities. The observations relevant to these "benchmark" or "milestone" criteria were consistently more qualitative than quantitative.

The examples shed more light on climate adaptation as an evolutionary process distributed among many projects that began with different approaches in different contexts. One participant described her information resource as "an evolving process; we need to keep making improvements and changes based on [user] needs and desires." Another described climate adaptation as "muddling through" and "coping and doing your best" because "no one is an expert." A third summed up the implications for evaluation: "Short-term, intermediate successes are valuable; with long-term goals, look at incremental steps along the way. When you achieve one, it's a success."

Why Did It Work when it did? The short answer is that projects succeeded in making incremental progress when and where they could adapt their limited resources to circumstances in a community, including the multiple interests and needs of community members. This did not always happen, as suggested by the challenges in the next section. Success also depended on circumstances beyond a project's resources and control. A number of practitioners agreed that "at the end of the day, [communities] need political will" to act.

Beyond a project team's own efforts, circumstances can often provide political will to act, most notably crises and emergencies from acute impact events. Hurricane Katrina and BP's oil spill in the Gulf were mentioned as examples of this reality. As one practitioner put it, "sometimes it takes the crisis: [something like] Katrina was known [in advance]; it was just a matter of time before that occurred."

Another reported that the "oil spill created an opportunity to build a 'restoration economy'… More natural disasters are coming. We are not tapping into 'climate change' at all" to motivate our partners. Still another observed that a crisis is often the "tipping point" for making "practitioners … willing to engage" in climate adaptation. In general, "extreme events in the next 10-20 years provide the opportunity to call [partners] to action." However, others were uncomfortable with a crises-driven or reactive approach to climate adaptation. In their view "adaptation by its nature is proactive."

Chronic impact events, which are characterized by less urgent circumstances than a sudden crisis, can motivate as well. For example, perennial water supply issues in the arid American West were described as a "lever" for adapting to climate change. Fear of legal liability motivated airport officials to address the effects of extreme weather events related to climate change. Similarly, federal and state mandates have helped motivate officials to consider climate change and collaboration on the ground in various places where projects are working. Some officials feel accountable for complying with mandates, and appreciate our help in doing so. However, "be careful what you wish for," cautioned one practitioner: "Mandates have led to massive resource expenditure, lawsuits, and potentially very little return on investment." Nevertheless, capitalizing on existing circumstances often allows a project to increase the return on investment of its own limited resources.

In addition to motivations, favorable circumstances may include latent resources waiting to be tapped, such as local knowledge. If tapped successfully, practitioners generally agreed, each incremental step ahead tends to generate more resources that enable more ambitious steps. In an early plenary session, Tonya Graham illustrated this point with the story of an aid worker In Vietnam. With only a small budget, he took on the massive problem of child malnutrition. In the beginning he hired a small group of village women to measure the height, weight, and other characteristics of poor children, and discovered a "bright spot": Some children were doing rather well, evidently because of a better way of feeding them through the course of a day. Showing others the better way, he eventually helped the Vietnamese improve the nutrition of more than two million children.[4] Tonya urged us to "find the bright spot" and "build on it."

Finally, one comment explained what works as *the creative integration of project efforts with specific local circumstances*: "Adaptation plans are best planned locally for what the specific community needs, not necessarily applying national or even regional plans to every community. We have to be incremental and creative and adaptive in our work to be successful." This comment reflects a general consensus among participants on what works.

II. Challenges

Practitioners offered few specific examples of what did *not* work in their past experience. However, they did identify an array of challenges they had encountered. The most formidable challenge was nationally-organized political opposition to climate adaptation. In particular, it was reported that "people are turning up at meetings and disrupting them" in a number of local communities. Apparently, participants did not consider disengaging from these communities. However, several tactics for dealing with disruption or opposition were tried or recommended:

- Rely on sequencing: "Build relationships with the right people, then take it public, rather than blowing the trumpets and beginning a public process right away. Find the local champions" first.

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[4] *The Vietnam Story*, narrated by Jerry Sternin, develops the important concept of "positive deviance." See http://www.positivedeviance.org/about_pd/Monique%20VIET%20NAM%20CHAPTER%20Oct%2017.pdf

- Similarly, beware of the "big regional planning process" that can easily become "a target for disruptions" by organized opposition. It is politically prudent to let sleeping dogs lie until we feel strong enough to wake them up.

- Build an open, inclusive alliance that benefits community members and engages them on their own terms. In Montana, one such alliance stymied a property-rights group by including influential ranchers in the community.

- "Talk about what is relevant to [the opposition]; don't try to shove climate-change science down their throats. Interaction should be a two-way street." Among the things relevant to them are taxpayer savings and fiscal conservatism, particularly in distressed economies.

The general strategy was strength through inclusiveness. As one practitioner advised, seek "strength in numbers, in the diversity of people coming to the table" including "groups who have a vested interest" that might be served by climate adaptation; and "be more engaged with one another…" But no strategy can guarantee a win-win outcome based on a consensus of all major interest groups. Sometimes to move ahead it is necessary to settle for a majority, with a minority of self-assessed losers. Unanimity is unworkable, equivalent to giving every person and group a veto over taking action.

The projects also encountered less organized opposition from people who preferred old ways to new. Indigenous people in the Mississippi Delta, for example, preferred to have more levees built to protect their way of life. One project's pragmatic response was to stay engaged while looking for a local champion, but meanwhile to work with more open partners, the Army Corps of the Engineers and the Louisiana governor's office, to block a levee that would increase vulnerabilities to climate change. One participant suggested bypassing "hard places" in favor of communities that are ready: "Recognize where places are not ready for planning…. have an informal conversation [but] recognize the limits" to what might be accomplished there. A different view was that "people matter more than the place" in some circumstances – people like "a trusted broker." Another comment implied waiting for a crisis to open up the situation: "People will sometimes willfully misunderstand… Maybe it's not correct to believe that we can educate our way out of this. Maybe people need to see their ideas fail."

In addition to opposition or indifference to climate adaptation, discussions in the breakout groups turned up other constraints on projects' ability to adapt to local needs and circumstances. The organizers took it for granted that limited funding is a pervasive and persistent constraint. (However, according to one workshop participant, too much funding after Hurricane Katrina exacerbated political divisions, and much of the funding was wasted without sound plans.) Our attempt to focus attention on other resources and other constraints turned up the following challenges to moving ahead.

- Established funding models were not always consistent with the nature of the problem. In some models, a successful proposal must promise measurable deliverables in a few years. But climate adaptation often requires more flexibility to respond to unforeseen problems and opportunities. And climate adaptation is a much longer-term process that engages many partners who share control over, and thus responsibility for, many interim outcomes along the way.

- Projects that overlap in a locale or region often operate as institutional "silos" despite similar goals. They tend to answer primarily to their separate sources of funding rather than to needs for progress in implementation on the ground, which typically include collaboration. Sometimes they speak with different voices, confusing or alienating the community. Sometimes they compete with each other for status, funding, and other resources.

- Communicating uncertainty about climate change risked "losing your audience." Also, it helped "opposition [that] has a clear message." Another view held that the "challenge is not uncertainty, but the public fixation with uncertainty, which leads to paralysis." We have "certainty that sea level is rising…there is actionable knowledge" to make the case for action to decision makers. Similarly, "scientific uncertainty is a misnomer. It's clear that sea level is rising and that temperature is increasing. We just don't know how much."

- Measuring progress in climate adaptation was a challenge. On the one hand, "operationalizing [costs and benefits] is so critical" to demonstrating progress. On the other, "it is hard to make the case for adaptation because it is hard to measure it; if it is successful, the metrics are not simple." The significance of water savings, for example, depends on the context. Standard measures are also problematic if "there is no one right way to adapt or to respond to climate change."

- Evaluating progress was often confused with measuring progress, which is not equivalent to it. As a process, climate adaptation is open-ended with no "end-point" to mark success or failure. Multi-valued interim outcomes are the result of multiple factors that interact. Thus it is difficult to attribute any one outcome to any one factor. Often success is "something that didn't happen;" it is not observable even if it can be estimated. For such reasons, "stories may mean more than the quantitative data." For practical purposes, "We know success when we see it." [5]

- Networking was another challenge. For example, there was "Too much information and diffuse information and a lack of guaranteed quality of information," noted one practitioner. For another, "too much information on the Web" means "reinventing the wheel." Several practitioners had been *un*aware of most of the work represented in the workshop. Another used this workshop to make long-delayed personal contacts in four similar organizations.

Finally, as we face such challenges, we should not confuse labels with progress toward the long-term goal. One practitioner noted that "Sometimes adaptation can be in name only, equivalent to rebranding." Others in a number of projects substituted other labels for "climate adaptation" to describe their work and to get on with it. Federal funds are available for climate adaptation, but are not necessarily labeled as such.[6] And migration from areas vulnerable to climate change is a step toward adaptation whether or not it is enough or understood or labeled as such.

III. Looking Ahead

Much has been accomplished in the past few years. But looking ahead, much more remains to be done. This includes building on what has worked, dealing with the challenges we face, and exploring relatively new territory in climate adaptation. In the fourth breakout session, project representatives compared their current plans and needs in groups, and then self-organized into new groups to discuss the main opportunities for networking and collaboration across projects. We expect some of those discussions are on-going and ultimately will bear fruit. Meanwhile, a number of the possibilities for

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[5] For more on this challenge, see Ronald D. Brunner, "Evaluating Progress in Adapting to Climate Change" (November 11, 2011), a revision of a paper presented at *Practical Solutions for a Warming World: AMS Conference on Climate Adaptation*, 18-20 July 2011, Asheville, NC. Copies are available from the author.

[6] For example, see Edward A. Thomas, Esq, et al., *The Patchwork Quilt: A Creative Strategy for Safe and Long Term Post-Disaster Rebuilding* (Natural Hazard Mitigation Association, June 2, 2011). http://xa.yimg.com/kq/groups/23535088/1306835394/name/Patchwork%20Quilt%20final%20for%20HUD-FEMA-SJ%20pdf%206-2-11.pdf. This updated guide to federal post-disaster resources was initiated in 1983.

working together were raised but not developed during the workshop. These might be organized and illustrated in three categories:

First, workshop participants were interested in organizing more workshops or conferences to mitigate institutional fragmentation, to make better use of resources represented by projects in this workshop and others like them, and to build a community providing mutual support. The underlying assumptions seemed to be that this would facilitate the flow of insights and information, supplement existing Web-based networks or stimulate new ones, and help to build a community of practitioners in climate adaptation. An annual workshop to follow-up this workshop was mentioned frequently, with The Kresge Foundation or the new American Society of Adaptation Professionals suggested as possible sponsors. Also mentioned were workshops to bring together projects that address climate impacts in the same region (e.g., the Pacific Northwest) and projects that work on a single climate impact (e.g., sea-level rise) in different locales and regions. Another suggestion was to bring together climate adaptation projects working on the ground with public officials and others working at the state and federal levels.

Second, workshop participants were interested in additional informational resources. These are typically impractical for an organization or community to compile on its own. Compilations of resources available in the following areas could assist many projects in improving and expanding their work on the ground:

- Economics, especially a compilation of methods to project the costs and benefits of action on a climate adaptation policy compared to inaction. Such projections are often necessary for local and state officials to buy into climate adaptation.

- Financial mechanisms, specifically a compilation of multiple sources for funding climate adaptation, including "private insurance, municipal bonds, state-level insurance, crop derivatives, flood insurance, FEMA, socially responsible investment" and business partners.

- Insurance, especially "third-party research, consulting, and fact sheets on the insurance costs of climate change. This research should be amenable to place-based advocacy (local/regional statistics).   Currently, the market is not valuing risk accurately."

- Legal assistance, especially on what *can* be done. "People don't know what they can do within legal constraints. They are afraid of being sued. It only takes one angry property owner. Federal government doesn't necessarily help, especially for regulatory decisions."

- Politics, especially a compilation of information to match the resources and erroneous rhetoric of nationally-organized opposition to local planning. These might include "templates/checklists for passing ordinances, fact sheets, talking points, [and other] resources" to support fact-based decision-making.

- "Mainstreaming," especially integrating climate-adaptation considerations into hazard mitigation plans and actions that already exist in many local governments. Such considerations could also be integrated into local business operations by including them as partners.

In addition, the use of stories was often advocated for a variety of reasons. One is to engage, motivate and inform people on the ground: "People remember stories." Others are to "magnify successes" and to "market the success of tools"; for "scaling up and out successful projects" and for "bringing media attention to success stories" in climate adaptation. Project leaders are best prepared to write their own case studies for other practitioners, subject to verification by independent third-parties.

Third, workshop participants were interested in exploring a variety of larger topics with potentially important but less immediate payoffs for moving ahead. One of them came in the form of a question often raised but seldom answered: "How do we define success in climate adaptation?" Similarly, "What is our positive, long-term vision?" Such a vision might displace the "gloom and doom" scenarios that have held back progress in climate-change adaptation and mitigation. Perhaps for similar reasons, there was also interest in "the big picture" and our "theories of change," Openness to different perspectives on these and other issues might address one participant's concern about premature closure: "There is tendency to work with the same types of people who work in the same way on the same things. Maybe that doesn't move the ball forward as much as we want. Maybe we need more collaboration with the private sector or people with different perspectives on these issues."

Conclusion

The closing plenary session underscored participants' needs for reassurance that we are all in this together, for confidence to act despite uncertainties, and for solidarity to persist in moving ahead toward the long-term goal. Thus what we feel may be just as important as what we know. *What we know* (or think we know) has been summarized in previous sections. The listeners, tasked to share summary observations, added highlights from their own experience of the workshop. Other participants then volunteered comments that emphasized *what we feel*, a theme that emerged in the later breakout sessions.

The first listener emphasized the importance of leadership, particularly leadership that reaches out to those parts of the private sector predisposed to advance climate adaptation. Another listener recommended a comprehensive view of our efforts in climate adaptation, one that includes our future as well as the past. She was impressed by the "trans-disciplinary sense of community" and "level of organization" we have achieved just in the last few years. For the future, another listener recommended recruiting more groups and additional voices to increase diversity in the climate-adaptation community. The final listener's report raised again that important question, "What constitutes success in climate adaptation?" She went on to suggest that we integrate our work in climate-change adaptation with climate-change mitigation.

Among those who volunteered comments, one practitioner reported that the workshop "validated" what he had been doing on the ground. He and others found "a support group" in other participants. Another observed that many workshop participants face "the same stressors" that she does. Still another affirmed that other workshop participants are struggling with "the same issues" he faces. The workshop raised more questions than he had asked before, and drew attention to the importance of working within the political structure. Another participant had been bogged down at home, and appreciated the workshop for opening up new possibilities. Another reported that she went from fatigue in the struggles at home to enthusiasm for the tasks ahead during the workshop. Several others commented on the wealth of additional resources represented in the room, with the implication that we have only just begun to tap it for our mutual benefit.

We affirm the need to work more strategically and intentionally to find common ground to make progress in a society with pluralistic interests and fragmented institutions, including many silos. The alternative is failure to integrate plans for climate adaptation with diverse community needs, leading to shelved plans, maladaptive actions or inaction, and future losses that might otherwise be avoided. Finding common ground is seldom easy, depending on the specializations we bring to climate adaptation. Some of us once felt secure in a single scientific discipline understood as rising above politics. Some of us once felt secure in a commitment to the environment as the single issue occupying high moral ground. Nevertheless, collectively we have been engaging potential partners where they are,

encouraging collaboration across diverse groups, and building personal relationships, trust, and credibility.

In short, we have been learning about the tactics for finding common ground by practicing them. Learning often loosens bonds to older ways of thinking and doing, generating some discomfort in the process. Any discomfort can be alleviated by organizing ourselves to create new relationships and to accelerate progress in reducing losses or increasing resilience to climate change. This opportunity is based on what we have discovered more or less independently: a shared long-term goal, even if it is not always made explicit; convergent expectations about what works (and what doesn't) in pursuit of that goal; and many additional resources available to share in support of each other as we pursue that goal. By adapting to a changing climate *and* to the interests of multiple groups whose support is necessary to implement our plans, we are also making a difference in protecting things each of us values in our natural and human environments. There are many steps yet to be taken on many paths. Taking those steps and finding those paths depends in large part on organizing, communicating, and collaborating.

Kresge Grantees and Practitioners Workshop
On Climate Change Adaptation

February 7-9, 2012, Portland, OR

Participants

Steve Adams	Institute for Sustainable Communities	Kate Meis	Local Government Commission
Arun Agrawal	University of Michigan	Rob Melnick	Arizona State University
Ben Alexander	Headwaters Economics	Eric Mielbrecht	EcoAdapt
Susan Antenen	Conservation Biology Institute	Louise Misztal	Sky Island Alliance
Vicki Arroyo	Georgetown University	Steve Nicholas	Institute for Sustainable Communities
Dominique Bachelet	Conservation Biology Institute	Malia Nobrega	University of Hawaii
Katherine Baer	American Rivers	John Nordgren	Kresge Foundation
Jessica Boehland	Kresge Foundation	Reed Noss	University of Central Florida
Cindy Brown	The Nature Conservancy	Julie O'Leary	Freshwater Future
Maria Brown	NOAA	Jennifer Pagach	CT Dept. of Energy & Env. Protection
Ron Brunner	Consultant to Kresge	Sascha Petersen	Adaptation International
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Molly Cross	Wildlife Conservation Society	Cara Pike	The Resource Innovation Group
Lois DeBacker	Kresge Foundation	Ray Rasker	Headwaters Economics
Bob Doppelt	The Resource Innovation Group	Kara Reeve	National Wildlife Federation
Melanie Emerson	Sky Islands Alliance	Duke Reiter	Arizona State University
Josh Foster	Oregon State University	Bruce Riordan	SF Bay Area Joint Policy Committee
Nancy Gilliam	Model Forest Policy Project	Jackie Sartoris	Manomet Center for Conservation Sciences
Bob Glazer	Florida Fish and Wildlife Commission	Chuck Savitt	Island Press
Tonya Graham	Geos Institute	Nathaniel Seavy	PRBO Conservation Science
Jessica Grannis	Georgetown University	Kristen Sheeran	EcoTrust
Gwen Griffith	Cumberland River Compact	Ron Sims	(Fmr.) Deputy Secretary, U.S. Dept. of HUD
Marcus Griswold	Maryland Dept. of Natural Resources	Minor Sinclair	Oxfam America
John Hagan	Manomet Center for Conservation Sciences	Ted Smith	University of MT/ Advisor to Kresge
Margy Hall	Model Forest Policy Project	Amy Snover	Climate Impacts Group
Kim Hall	The Nature Conservancy	Theo Spencer	Natural Resources Defense Council
Lara Hansen	EcoAdapt	Bruce Stein	National Wildlife Federation
Nicola Hedge	The San Diego Foundation	Peter Szabo	Bloomingdale Management Advisors
Jennie Hoffman	EcoAdapt	Gary Tabor	Center for Large Landscape Conservation
Fran Hunt	Sierra Club	Mandy Valentine	Kresge Foundation
Alicia Hwang	Geos Institute	Stacy Vynne	The Resource Innovation Group
Brian Jackson	Environmental Defense Fund	Eric Walberg	Manomet Center for Conservation Sciences
Mara Johnson	World Wildlife Fund	Jen Watkins	Conservation Northwest
Shawn Johnson	University of Montana	Wendy Wilson	River Network
Livia Kent	Island Press	Kimery Wiltshire	Carpe Diem West
Gayle Killam	River Network	Brooks Yeager	Clean Air-Cool Planet
Marni Koopman	Geos Institute	Emily Young	The San Diego Foundation
Maria Carmen Lemos	University of Michigan		
Frank Lowenstein	The Nature Conservancy		
Telley Madina	Oxfam America		
Adam Markham	Clean Air-Cool Planet		

Scribes:

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Sara Loreno	Portland State University
Nadia Jones	Portland State University
Ryan Tobias	Bus Project Foundation
Matt Wood	Portland State University