



BLACKSTONE
RANCH INSTITUTE



BLACKSTONE RANCH INSTITUTE AT TEN YEARS
2006 - 2016

Seeding Collaboration and Innovation
in Environmental Sustainability

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in Environmental Sustainability

LETTER FROM THE FOUNDERS

When we started Blackstone Ranch Institute in early 2006, we wanted to use philanthropic seed grants as a way of catalyzing much needed action. There were too many problems in the world that were not being successfully addressed by conventional responses, so we wanted to find those who were pursuing creative, entrepreneurial approaches that would address long-standing problems in new ways and push some boundaries.

As philanthropists, we wanted to provide our grants to those who would leverage them in ways that attract further funding and generate impact on national and global levels. Many of the most demanding challenges of the world today require that scale of impact.

We have seen that by our willingness on many occasions to offer the first grant to new initiatives, we have been able to fill an important and powerful niche in the philanthropic world. If placed carefully and early, with a clear set of funding criteria and gifted grantees, relatively modest philanthropic investments can generate major impact. One of the most gratifying aspects of our work over the past decade is that we have been able to do all of this at a global scale for less than five million dollars.

We have been blessed with devoted and talented grantees. We want to thank them for helping us to realize our philanthropic mission. We hope that our collective example, as reflected in the narrative we offer here, will be an inspiration to others.

Sincerely yours,



Pat and Susan Black, *Founders*

Erie, Pennsylvania, March 2016

LETTER FROM THE EXECUTIVE DIRECTOR

The following narrative is the story of the first decade of Blackstone Ranch Institute, a philanthropic venture started and funded by Pat and Susan Black and their Black Family Foundation in Erie, Pennsylvania. It has been far more successful, and had far greater impact, than we ever imagined when we took our first steps back in the spring of 2006.

Our goal was to catalyze action in environmental and sustainability work, and we discovered that the timing of such an undertaking was fortuitous. There were many people, businesses and organizations that were getting serious about developing more sustainable approaches to our collective use of natural resources and the ways in which we were designing our futures.

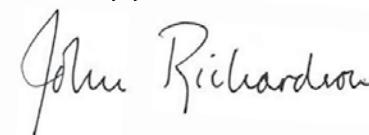
With a willingness to place confident bets on early stage ventures, very often before other philanthropic entities get involved, we have been able to catalyze a broad range of networks, campaigns, and organizational growth.

Working with the Blacks has been a deeply gratifying experience, one characterized by the creative freedom to build something that always feels fresh, open to change, and genuinely effective in our world. We have been able to operate without bureaucratic clutter, and make decisions quickly and with confidence.

One of the privileges of having been able to support so many worthy initiatives at such early stages in their development is being able to see how they evolve from so little to so much.

In the pages that follow, we have tried to offer a personal story that gives credit to the many individuals who have made our work in philanthropy such a success, and provide one important telling of how environmental change work is evolving these days. We hope you enjoy it.

Sincerely yours,



John Richardson, *Executive Director*

Taos, New Mexico, March 2016



Photo of Blackstone Ranch by William Davis

I. BEGINNINGS

The Blackstone Ranch Institute funded its first gathering in November 2006 in partnership with the Rocky Mountain Institute (RMI) in Boulder, Colorado. It remains to this day the most significant of all our grants because of the catalytic role it played in the development of the urban sustainability movement.

Michael Kinsley of RMI had been tracking the emergence of what he referred to at the time as ‘green czars,’ city officials who were adapting various ecological agendas to the urban-planning sphere. None of RMI’s funders at the time seemed interested in bringing these officials together nationally, and there were not really that many of them. Once Michael understood what role we wanted to play as funders, he suggested this might be a good way to start.

BRI was unknown at the time, but we saw the gathering as a good way to establish ourselves by funding something new, on the leading edge of systemic change, and with the potential to transform an early meeting of professionals into something that might become a national effort. While we are often remembered as the ones who orchestrated the convening, largely because we continued to fund new initiatives in urban sustainability, it was Michael Kinsley and RMI that had the foresight, had been tracking the emerging network, and facilitated the retreat. It became a model for how we could partner with a leading organization to launch something new and likely to have a major impact.

“A private foundation named the Blackstone Ranch Institute convened one of the first meetings of municipal staff working on these issues in 2006,” note the authors Sadhu Johnston, Julia Parzen, and Steve Nicholas of that meeting in their 2011 book *A Guide to Greening Cities*. “Green city leaders from Portland, Chicago, and other cities were able to share their experiences, eventually forming the Urban Sustainability Directors Network (USDN), which continues to meet and collaborate.”

“At the time,” wrote Steve Nicholas, who was then the sustainability director of Seattle, “we were part of a very small and largely invisible club—there were maybe a dozen or two of us across the country. Until the Blackstone Ranch Institute brought us together in 2006, we barely knew one another. The Urban Sustainability Director’s Network—which under the servant leadership of co-author Julia Parzen has quickly become a high-impact learning and doing community of sustainability directors from about 120 local governments throughout North America—was not even a glimmer in anybody’s eye.”

THE FIRST GRANT

“Until the Blackstone Ranch Institute brought us together in 2006, we barely knew one another. The Urban Sustainability Director’s Network—which under the servant leadership of co-author Julia Parzen has quickly become a high-impact learning and doing community of sustainability directors from about 120 local governments throughout North America—was not even a glimmer in anybody’s eye.”

—Steve Nicholas, from *Guide to Greening Cities*

At the time, the scattered officials in cities around the country were working on plans to make cities more sustainable. They focused on making buildings more energy efficient, on introducing hybrid and early electric vehicles into city transportation fleets, and on encouraging city inhabitants to lead more ecologically responsible lives by using public transportation, conserving water, or switching to renewable energy in their homes. But many of those early sustainability directors were in marginal or advisory capacities in their municipal governments. A few had supportive mayors who recognized the importance of the work they were doing. The urban sustainability movement that we now know was in an embryonic form, and that gathering in Boulder led to and became a key part of a cascade of developments that has moved various urban sustainability agendas closer to the center of city planning around North America and the world.

Now, in early 2016, the network is one of the most dynamic in a growing global galaxy of efforts to make cities more ecologically responsible in their use of resources, more habitable for their residents, and better able to keep pace with the rapid developments in technology and social media that are changing the way we live.

"I can call 120 different cities in North America and get a return call that day," notes Sadhu Johnston, co-founder of USDN, in a book about pioneering networks titled *Connecting to Change the World* that was published in 2014. "I have access to leaders in each of those cities. I can get on our website and ask a question and get multiple responses. We all have access to each other and to information. This is a game changer for how we do our work."

MIDWIFING THE NEW CULTURE

Pat and Susan Black founded Blackstone Ranch Institute in early 2006. Pat is a venture capitalist and philanthropist from Erie, Pennsylvania. His biodiesel plant on Lake Erie has been a pioneering company in the transition away from fossil fuels. Both Pat and Susan have had an abiding interest in transformative change.

At that time, we formed a small planning team. Within the first year, we had developed a mission statement and cultivated a way of operating that has guided us solidly ever since. Over time, the wisdom of a number of the insights and operational prescriptions that emerged from the work of the planning team would prove critical in defining not just how we operated but who we became.

When things started, we had little more than intent and an idea. We knew that we wanted things to develop organically, and we knew that we wanted to provide seed money and serve as a catalyst for meaningful action in response to global environmental challenges. We started with no immediate or fixed idea of how that objective would be realized or what form it would take.

Those of us who worked with Pat to develop the early vision brought with us our own set of attributes and assumptions. But none of us were specialists in any environmental domain, although some of us had experience working internationally or with nonprofit organizations. Because of this lack of expertise, we were able to proceed with what one early colleague referred to as 'beginner's mind.' We were excited to be able to create something that was, to us, new and open to possibility, and which honored Pat's intent.

Our understanding of the world's environmental challenges at the time was that they were universal enough in their impact that everyone was affected in one way or another. They were also daunting enough in their implications that broad, holistic change was going to require the contributions of every social sector. It was clear that environmental work was no longer the domain of a minority of activists and early adopters, and that the challenges transcended the limitations of political partisanship, socioeconomic class, and professional affiliation.

Much had happened by the time we started in 2006 to develop an agenda aimed at creating the social and technological basis for a different kind of society, one that would manage resources more sustainably and build an ecological ethos into the fabric of human society. Early Blackstone advisor Oriane Lee Johnston said of our work that we were "midwifing the new culture," a phrase that aptly describes the efforts of all whom we have funded.

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THE BROADER CONTEXT

By the time we launched the institute in 2006, a number of developments in previous decades had provided a context for the work we would support. While public concern for the environment as a priority has fluctuated over the years, and developments have followed a zigzag course rather than a steady trend, awareness of environmental challenges has increased among virtually all social sectors and is now perhaps higher than ever. The past decade has been an opportune time to influence the birth of a wide variety of meaningful initiatives.

In 1972, the Club of Rome commissioned what became the *Limits to Growth* study. Written by Donella Meadows and colleagues, the study was based on computer-generated scenarios. It advanced the notion that continued global economic growth patterns of the time would lead to resource depletion and potential economic and social collapse sometime during the 21st century unless steps were taken to restrain such growth. The report was controversial, and criticized by those who found its conclusions too apocalyptic or speculative, but it has continued to serve as a reference point for many over the years. Contemporary assessments of the scenarios generated by the original study suggest that many of its warnings were quite prescient.

Twenty years later, in 1992, the United Nations Conference on Environment and Development (UNCED), generally referred to as the Rio Conference, was the first global conference for heads of state that focused on the relationship between economic and social development and the environment. It produced Agenda 21, which established sustainable development as an operational paradigm and global environmental agenda for the next twenty years. A number of global conferences followed in the years to come, including a succession of climate change conferences and Rio 2012. These gatherings have drawn not just heads of state but a diversity of civil society organizations trying to get support for their concerns from national governments and heads of state. Such gatherings—which often highlight disagreements between cultures and governments, as well as the more subtle points of agreement—have become major reference points for many engaged in the work of environmental change.

Shortly after we started the institute, United Nations demographic projections revealed that for the first time in history a majority of humanity now lives in cities. “In 2008, for the first time, more than half of the world’s population will be living in urban areas,” according to the *2007 State of the World’s Population* report by the UN Fund for Population Activities (UNFPA). “By 2030, towns and cities will be home to almost 5 billion people. The urban populations of Africa and Asia will double in less than a generation. This unprecedented shift could enhance development and promote sustainability—or it could deepen poverty and accelerate environmental degradation.”

At about the same time, the Millennium Ecosystem Assessment revealed the extent to which human beings impact the world’s ecosystems. The assessment was a global initiative that engaged more than 1,300 experts, and had a major impact on how many institutions understand the world.

“Humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fiber, and energy,” note the authors in their summary of key findings. “These changes have helped to improve the lives of billions, but at the same time they have weakened nature’s ability to deliver other key services such as purification of air and water, protection from disasters, and the provision of medicines.

“The pressure on ecosystems will increase globally in coming decades unless human attitudes and actions change. Better protection of natural assets will require coordinated efforts across all sections of governments, businesses, and international institutions. The productivity of ecosystems depends on policy choices on investment, trade, subsidy, taxation, and regulation, among others.”

Now climate change, debated about for decades, has moved to the foreground as a major cause for concern, a phenomenon the impact of which is quickly moving from a distant hypothetical to a daily reality for increasing numbers of people. It also has become a unifying umbrella and an enabling platform for a diversity of priorities on the environmental change agenda that have been with us for years. Concerns about climate change have escalated in the minds of many and provided a holistic context in which to connect the dots between disciplines and objectives that have often existed quite separately from one another. Most of the actions taken under the climate change umbrella possess their own intrinsic imperatives.

Societal factors, too, have had a major impact on how people organize themselves, and how information is exchanged, in ways that have had a determining influence on how environmental challenges are addressed. Those born in the decades immediately following World War II may be the first generation to have a general appreciation for environmental concerns as social and political issues. Many are now in positions of executive leadership in society and have enough knowledge to appreciate the nature and magnitude of the challenges. The founding of BRI also coincided with the advent of social media, which has given organizations and individual citizens ways to transform local or personal concerns into regional or global efforts within months. New initiatives can be scaled up rapidly to have a broad impact that might have taken years to realize a few decades ago, or not have happened at all.

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— Millennium Ecosystem Assessment

CONVENING FOR SOCIAL CHANGE

Pat and Susan initially wanted to host groups in the environmental change and human potential movements at their ranch property in Taos, New Mexico, and use it as a headquarters for the institute. Given some of our experiences with conferences and other gatherings that produce much talk and little action, we decided that if we were going to use philanthropic funds to bring people together, they were going to be people who would use the gathering as an initial step toward meaningful action. The institute was designed from the start to be results oriented.

Over time, we would come to see these early gatherings as major philanthropic leverage points, at which relatively modest grants could catalyze the development of new networks, campaigns and organizations that would go on to have impact at national or global levels.

Thousands of conferences and seminars every year are devoted to building network connections, raising money, exchanging information, and educating particular constituencies. Many of those conferences play an important role in maintaining a healthy ecosystem of dedicated organizations and philanthropists but are not themselves intended to launch particular initiatives that will need management and funding over time. In 2011, we asked Susan Reeve, who had managed special projects for the National Geographic Society and worked on an initiative that we had funded, to conduct an informal web search to see how many conferences were actually designed to be action oriented or with particular results in mind. She found very few.

We have come to understand convening as initiation points at which people who might not otherwise know one another or work together must come together to launch a new initiative. Almost all new social change efforts start this way. Over time, we would come to see these early gatherings as major philanthropic leverage points, at which relatively modest grants could catalyze the development of new networks, campaigns and organizations that would go on to have impact at national or global levels. This understanding has helped us see our role as one of funding leverage points and transformative moments, not organizations or particular issue areas.

Convening means more to us now than it did when we started in 2006, partly due to the development of social media. We have expanded our understanding to include online collaboration and other forms of ongoing joint efforts. This has given us increased flexibility in the range of leverage points we can support without abandoning our original commitment to support early-stage collaboration focused on action.

The role Blackstone Ranch Institute plays, then, is more profound than simply providing financial underwriting for a work session. That financial support is unquestionably valuable, particularly for bringing together group members scattered about. But the contribution carries with it a potent message and the most precious of opportunities—a chance to bring something to life.

"The message is validation. For those putting time and passion on the line, knowing that someone external from the organization, and more than a peer, believes enough in the group's vision to provide such a gift, and is allowing them to contribute as they long to do, is genuinely uplifting and highly motivating.

"In addition to intrinsic confidence, you make possible invaluable face time. As with any crucible, it's the mixing and intermingling that forms something new. That time together forges bonds, and allows a shared vision to at last coalesce into something real and true. It allowed us to bring our organization to life.

"Very few provide such critical help when it's most needed, when an organization is struggling to define itself, and when the risk of imploding or being brought down by external forces is exceedingly high."

Joanne Marino, Slow Money



II. OUR PHILANTHROPIC APPROACH

THE FUNDING CHALLENGE

A number of people in the nonprofit world have come to the conclusion in recent years that most funders do not support real innovation but prefer more established and perhaps more predictable efforts. For that reason, many promising new prospects never get off the ground.

One who has understood this dynamic is Kenny Ausubel, co-founder and CEO of Bioneers and an early Blackstone partner and grantee. “As a long time entrepreneur who has worked in both the profit and social profit sectors,” he wrote to us in 2007, “I am perennially aghast at the missed opportunities in the social profit sector that result from the bureaucratic dysfunction of funding infrastructures and systems. Windows open and windows close. Opportunities may often be fleeting. Being able to take quick advantage of these kinds of moments is often the critical difference.”

The tendency in the funding world to avoid risk has developed at a time of great innovation in much of the nonprofit world, when more social sectors are applying new ways of doing things and are enabled by the transformational powers of social media.

“Over the last decade, many funders have lost their appetite for experimentation and risk, even as they trumpet their desire to make big bets,” wrote Gabriel Kasper and Justin Marcoux of the Monitor Institute in an article in the *Stanford Social Innovation Review*, published in the spring of 2014. “The strategic philanthropy movement has swept across the field and helped funders align their programs and grant making with carefully designed theories of change to produce clear and quantifiable results. But the pendulum may now be swinging too far, to a place where foundations are willing to support only safe, established programs. Funders are often treating grantees as mere subcontractors, paid to execute pre-designated plans and outcomes.

“Over the past few years,” they continue, “a small group of funders have begun to return to their roots by deliberately reintroducing innovation into their philanthropic processes and portfolios.

“Funding innovation,” they further note, “starts with a fundamental shift in mindset. Innovation funders intentionally trade off probability of success in return for greater potential impact. Instead of just supporting proven, incremental solutions, they focus on *transformation*—investing in approaches that may have a higher risk of failure, but the potential to be lasting and truly game changing if they succeed.”

“I am perennially aghast at the missed opportunities in the social profit sector that result from the bureaucratic dysfunction of funding infrastructures and systems. Windows open and windows close. Opportunities may often be fleeting. Being able to take quick advantage of these kinds of moments is often the critical difference.”

—Kenny Ausubel, Bioneers

OUR RESPONSE TO THE FUNDING CHALLENGE

The shift in mindset is one that we have cherished and is at the core of our philanthropic identity. It has also provided a context within the philanthropic world for how we have developed our operational protocols and operating assumptions over the years. Those protocols have evolved organically from experience, and constitute our response to the challenge of being more flexible, and more responsive to the opportunity of the moment. They can be summarized as follows:

- We are more entrepreneurial than prescriptive in our approach, and tend to trust the unpredictable dynamics of creative change, particularly in the formative stages.
- Along with our interest in encouraging an entrepreneurial approach to social change, we support efforts that are innovative in the sense that they offer new ways of approaching established challenges.
- We have developed our universe of grantees one relationship at a time.
- We have remained small, with little bureaucracy to distract us from focusing on the relationships with our grantees. We work with them to tailor our moment of engagement to the unique dynamic of their emerging initiative.
- We have learned that it is particularly important at the birth of a new initiative to respond to the uniqueness of the moment and not to compromise early growth with too much standardizing process.
- We are not attached to any particular set of issues, and we do not attempt to prescribe outcomes. We can thus be comfortable with a variety of developments that might follow the award of an early grant, and we can do so without worrying about whether or not they conform to a preselected template of acceptable issues or themes.
- As new concerns supplant existing ones, we continue to stay current without having to change anything in our basic mission or operating style.
- By being willing to move quickly at the moment of inception—or at an early breakout moment or turning point in the life of a new initiative—we maximize the potential range of outcomes. Those that may be important but do not fulfill the expectations of funders who put emphasis on more specific results may still constitute significant progress and therefore be worthy of our support.

- Because early amounts of investments in the kinds of initiatives we support are generally modest, we often reach the point of an acceptable return on our investment early in the development of an initiative. Any future, larger advances thus represent huge gains relative to our initial investment.
- We understand that our role would mean little and might not even be possible if there were not larger, more institutionalized funders who provide sustained funding over a period of years to the new initiatives we have helped get started.

Our criteria for funding grant proposals reflect our broader operational protocols, and are designed to insure that the initiatives we fund realize not just our philanthropic ambitions but also those of the grantee. They are as follows:

1. We like to fund early in the lifecycle of a new initiative, at a time when our support will play a catalytic role in bringing new ideas and aspirations to life.
2. We look for proposals that are oriented toward actions that come from cross-sector collaborations and make a significant contribution to environmental and social progress.
3. We sponsor efforts that already have future funding identified, and that will have high impact and broad national or international scale.
4. We support local geographical initiatives that by virtue of design or the quality of participating individuals will have regional, national or international impact.
5. We respond best to precise proposals of no more than five pages that outline a plan of action and offer an explanation of how it relates to our organizational mission. If the proposal is accepted, we will provide funding promptly.
6. We do not support proposals for gatherings that are simply devoted to an exchange of information or networking.
7. Since we fund leverage points rather than focus on issues areas or particular organizations, we do not respond favorably to those who want us to be annual funders.
8. We do not accept unsolicited proposals, so please inquire first if you have something that may work for us.

BLACKSTONE RANCH INSTITUTE FUNDING CRITERIA

FROM OUR PARTNERS

"The Blackstone Ranch Institute is forging a new path that blends the successful angel investment strategies employed by Silicon Valley venture capitalists with the best ideas from the environmental community. You have used modest amounts of money to seed great ideas at early stages of development, which you then leverage. The results are proving very successful indeed. Your flexibility and adroitness allow you to outmaneuver and eclipse more established market players."

Jared Blumenfeld, 2007

"My view about Blackstone is that their flexibility and ability to remain as a small institution allows them to be a little ahead of the curve, so they need to continue to stay ahead of the curve."

Jared was asked whether he thought it might be easier for us to select a few areas to focus on, with the goal of building a network to support those areas over time. "Yes," he answered, "but the only trouble with that is you pigeonhole yourselves, and you take away some of your flexibility. ... It may be that you've said you're just going to do stem-cell research and biological diversity, but what you really need to be doing is food policy, because that's what's coming down the pipe, and that's what everyone says you should be doing. So then you say, 'Well, my God, we can't give up our core of biodiversity and stem cell, so let's just wait this one out.' I think the answer to your question is yes, it does make it easier. I'm not sure that that's necessarily a good thing."

**Jared Blumenfeld, administrator for EPA Pacific Southwest Region (Region 9),
from interview with BRI advisor Ron Hubert, 2009**

"When we first came to you, all we had was an idea. Blackstone's early support for the climate/forests idea helped to precipitate a vast wave of organizational, scientific, and programmatic activity that has culminated in placing it at the top of the international agenda.

"As the earliest mover, Blackstone took the biggest chance, but, at the same time, generated the most leverage. When the discussion began with Blackstone, the later chain of events was only imagined, and the large institutional players had not yet indicated any interest. While in retrospect, the funds from Blackstone could be considered to be quite modest, the truth of the matter is that the Blackstone funds were vital, breathing life into an idea when they were most needed.

"The speed with which progress has been made is remarkable. If real estate is about location, location, location, then smart philanthropy is about leverage, leverage, leverage."

Jan Hartke, partnership director of the Clinton Foundation, 2011

"We are deeply grateful to the Blackstone Ranch Institute for their timely support to GCC in April 2008. It was that support at that specific time that has allowed us to continue working together as a collective. Had that support not been forthcoming at that time, it is probable that GCC operations would have been suspended and perhaps terminated. As it is, we have been able to build on that support by developing the necessary infrastructure to attract other funders and thereby continue our collective efforts on behalf of accelerating the adoption of sustainability practices locally and statewide."

Carol Misseldine, director of Green Cities California, 2008

III. THE INITIATIVES

A decade after BRI started its philanthropic work, the range of participants and individual efforts in environmental change work had become very broad and included almost every social and economic sector. The totality of initiatives that we have helped launch offers a meaningful snapshot of just how diverse environmental change work is and what contemporary environmentalism actually looks like.

"All these collaborative efforts are in their infancy. As more people realize that the core challenges of the Big Three global systems (energy and transportation, food and water, and material waste and toxicity) cannot be solved in isolation, these collaborations will spread and become more sophisticated, as people and groups combine systems thinking and skills in collaborating across boundaries. We are just starting to appreciate the level of collaborative systems thinking skills that will be needed, but there is no doubt this is where real leverage for the future lies."

—Peter Senge, *The Necessary Revolution: How Individuals and Organizations are Working Together to Create a Sustainable World*

The constantly evolving mosaic of initiatives we have supported has touched on urban sustainability, the evolution of renewable energy, the rights of nature, the development of local, organic agriculture, the early development of environmental medicine, architectural and product design, ecosystem protection, land-use practices in the American West, the future of transportation, the creation of new networks, and the cultivation of new leaders.

"I think that the Blackstone Ranch Institute has done an outstanding job of recognizing the need for a coherent mix of new networks and projects to help society deal with a changing energy supply and a warmer climate with more weather extremes," James Baker, a former chief administrator of the National Oceanic and Atmospheric Administration (NOAA), wrote in early 2012.

"No one of these issues can be dealt with by itself—the inevitable change to more green energy and active carbon markets, the need for sustainable resource management, living environments that reflect a lower carbon footprint, and city management to reflect these needs all must interact," Baker continued.

"Your mix of projects and networks reflects the multiple themes that must be dealt with simultaneously in this transition to a new and greener economy and societal infrastructure. With this mix and your work on education of future leaders, you're building the base that will protect society from the shocks of climate stress and will help society move through the transition."

By the beginning of 2016, we had provided early-stage grants to more than 70 initiatives. A small number were given to networking conferences early in our development as we explored the range of potential grantees, and we have given second-stage or bridge grants to a small number of those to which we gave an initial grant.



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CITIES

LABORATORIES FOR INNOVATION IN SUSTAINABILITY



The primary laboratory of the 21st century for advances in the technology and social organization of environmental work will be the cities of the world. That is where problems are concentrated but also where the concentration of talent, money, and political influence exists to influence major change. To this day, our most substantive philanthropic contribution has been to the development of networks and organizations that are among the leaders in the developing field of urban sustainability.

Green Cities California was the first initiative to emerge from the gathering of sustainability directors at the 2006 Boulder meeting. The California cities that participated in the meeting were among the early pioneers of urban sustainability, and we hoped that as a group they would serve as a national model. It was the first network for which we provided the initial funds, and for which we provided a bit of prodding and tactical advice. The formation of USDN (Urban Sustainability Directors Network) was still a few years away; and by then, other funders had committed to the field.

Participants from the California cities wanted funding to develop a statewide network that would unite the northern part of the state with the southern part and allow them to meet with each other every year. California cities were beginning to hire sustainability directors; but as was the case nationally, their work was often done in isolation from one another. There had been an earlier attempt by cities from California, Oregon, Washington, and British Columbia to form a West Coast network, but funding limitations hindered their ability to engage in active peer-to-peer exchanges, and the effort never matured.

The founding cities—a group that included San Francisco, San Jose, San Diego, Santa Monica, and Pasadena—established a system of membership dues and decided to develop the network as a vanguard, rather than a mass membership, organization. Doing so, they realized, would allow them to focus most of their attention on documenting and sharing best practices rather than on the mechanics of growing the network. They would use the membership dues to cover basic operating expenses, which included a director, and would raise philanthropic funds to work on special projects. It was a model that seemed realistic. Relying exclusively on annual proposals to foundations is never a sure bet.

Among their first actions was a campaign to ban single-use plastic bags from grocery stores, which a few municipalities had already accomplished with

EARLY NETWORKS

GREEN CITIES CALIFORNIA



local ordinances. But some municipalities that made the effort were sued for banning the bags without conducting a full environmental impact review (EIR). Since an EIR was prohibitively expensive for individual cities, particularly for the smaller cities, GCC commissioned a master environmental assessment (MEA) for California cities on the relative impacts of single-use paper bags, single-use plastic bags, and reusable bags. The assessment concluded, as expected, that reusable bags have far less of an environmental impact than either single-use plastic bags or single-use paper bags.

This was an early and catalytic move in what became a growing statewide campaign that led to a statewide ban on single-use plastic bags when Governor Jerry Brown signed Assembly Bill 270 into law in September 2014. By then, more than 120 local governments had passed ordinances with the assistance of GCC. The MEA that GCC had commissioned had provided a credible scientific basis for those ordinances. “This bill is a step in the right direction,” Brown said at the time. “It reduces the torrent of plastic polluting our beaches, parks and even the ocean itself. We’re the first to ban these bags, and we won’t be the last.”

By then, according to a 2015 list compiled by the National Conference of State Legislatures, there were a number of states that had also passed different kinds of laws aimed at restricting the use of plastic bags in grocery stores, including Hawaii, Delaware, Maine, New York, North Carolina, New Jersey and Puerto Rico. California was the only one that adopted a complete ban.

GCC ultimately stopped doing regular joint campaigns like the plastic bag ban. Its bigger role was as a nurturing ground for the development of a statewide network of sustainability efforts and, indirectly, on the national development of urban sustainability efforts. Their website, which has catalogued the variety of sustainability initiatives by member cities and provided examples of the ordinances they had passed to enact many of those initiatives, has been used nationally and internationally by cities that were setting up their own sustainability programs.

GCC experienced its first change of executive leadership in 2014 and is recognized as the most developed of the regional networks that evolved as part of USDN. Over the past few years, it has promoted the development of city climate action plans, a move that has put California cities ahead of most of the rest of the country. It has exercised influence on state climate policy in Sacramento and provided technical expertise and educational outreach to elected city and county officials in the early stages of the growing statewide

adoption of Community Choice Aggregation (CCA) as a legal basis for the development of municipal utilities that, over time, will expand the markets for renewable energy.

As the number of cities hiring sustainability directors grew, there was both need and opportunity to develop ancillary entities that would cultivate a broad field of practice.

When Steve Nicholas moved on to the Institute for Sustainable Communities (ISC) after several years as sustainability director of Seattle, he already saw the need for a mentoring academy in what had become a very complex working environment of policies, budgets, and jurisdictional domains. He wanted to use the power of peer learning to spur the development of the field. Steve had been among the most proactive of all the participants at the Boulder meeting in 2006, and he formed a small group of cities that had been at the meeting that began sharing experiences and comparing notes on regular conference calls. That nucleus played a big part in the formation of USDN.

By the time USDN had its first national gathering in Chicago in September 2009, the number of sustainability directors around the country had grown significantly since the meeting in Boulder. Many of them were from a younger generation of professionals who were taking the challenge of environmental and social sustainability both seriously and to new levels. The field has continued to grow since then. By 2015, there were as many as one thousand sustainability directors around the country, many more than the fewer than 150 cities that are among the vanguard that constitute the membership of USDN. There is also a growing galaxy of specialists in various issues areas, social media development, and various legal aspects of sustainability work.

Steve approached us for an initial grant to his newly formed Climate Leadership Academy, which is now called the Sustainable Communities Leadership Academy (SCLA) and is one of the Institute for Sustainable Community's leading programs. The day we approved the two-year grant to get them started, he was able to secure a larger grant from the Rockefeller Foundation and has since developed one of the leading urban sustainability educational academies in the country. It was an early example to us of how effective we could be as first funders in triggering the participation of larger funders, who often wait to see if an early initiative actually gets itself off the ground. From our initial grant and that of the Rockefeller Foundation, as well as an earlier

DEVELOPING A FIELD OF PRACTICE

SUSTAINABLE COMMUNITIES
LEADERSHIP ACADEMY
(SCLA)

PEER LEARNING GROUPS IN URBAN SUSTAINABILITY DIRECTORS NETWORK IN 2015

Bike Sharing
Biodiversity
Building Energy Strategies
Carbon Neutral Cities
Climate Change Preparedness
Climate Mitigation/Adaption Nexus
District/Neighborhood Scale Sustainability
Electric Vehicles
Equity & Access
Food Systems
Green Infrastructure
LED Street Lighting
Professional Development
Small Cities
Sustainable Behavior Change
Sustainable Consumption
Sustainable Economic Development
Sustainability Director Diversity
Sustainability Indicators
Urban Forestry
Urban Water Systems
Utility Data Access
Waste Diversion & Technologies

commitment of funds provided by ISC to support his salary and minimal staff, Steve has been able to attract grants from other foundations that have provided ongoing support to his urban sustainability work.

SCLA specializes in what Steve has referred to as “non-technical governance,” or the management of relationships between those who are doing the work. His academies have offered gatherings of a few days’ duration for interested cities; and from the start, they have been oriented toward the inclusion of other government departments and various civic partners who work on the urban-sustainability agenda. As of 2015, it was a national program with a budget of close to \$5 million and a dozen staff members around the country along with various consultants. Steve’s team also now manages the Housing and Urban Development (HUD) sustainable cities program, which by 2015 consisted of some 300 cities, 20 nonprofits, and 140 grantees.

**THE INCREASING NEED
FOR COLLABORATION
SUSTAINABLE COMMUNITIES
LEADERSHIP ACADEMY (SCLA)
AND CONSENSUS BUILDING
INSTITUTE (CBI)**

As the field of urban sustainability grew, we decided to continue responding to funding opportunities, even though other funders who were larger and more committed to long-term developments were now providing the support and often moving the agenda.

Things were changing quickly. Darryl Young of the Summit Foundation, now one of the leaders among the funding community doing this work, pointed out in a conversation in late 2014 that the field was growing beyond the days of individual campaigns like the GCC’s plastic bag ban. Cities were now adopting systemic standards that allowed them to track their performance on a number of sustainability goals. The field was not only developing, but there were enough people and institutions involved to merit some criteria for performance.

The STAR system, launched nationally in 2012, has been the most prominent. Developed over several years by ICLEI (the International Council for Local Environmental Initiatives) and the U.S. Green Building Council, it measures city progress by a community rating system that covers several areas, including the built environment, equity, health and safety, economy and jobs, and climate and energy.

Along with the need for data-driven measurement systems to offer coherence to a rapidly growing field of practice, there has been a parallel need to learn how to manage the complexity of urban environments. As more and more participate in the urban sustainability movement, and as municipal

areas grow and become increasingly complex conglomerations of multiple jurisdictional domains and overlapping authorities, the need for collaboration has increased. Steve Nicholas began hearing from a number of those participating in his academy workshops that they knew they needed to collaborate more but did not really know how. Much of this would come down to understanding the complexity of existing regulations and domains of jurisdictional authorities, and to basics such as memorandums of understanding and ways to reach compromise and agreement. This struck us as a development that would be essential to move things forward in a coordinated manner and minimize the potential for haphazard progress.

Steve had been meeting with the Consensus Building Institute (CBI) at the Massachusetts Institute of Technology with the aim of integrating their deep knowledge of how to orchestrate collaborative processes into his programs. CBI works with multiple parties that need to come to agreement on different issues, often over periods of many months, and has worked out a tested method for doing so over the past several years. We spent many months discussing how best to position a starter grant from us. By the time we offered the grant, Steve had developed an approach.

In their partnership with the HUD network of sustainable communities, social equity and environmental issues were the driving concerns. Collaboration was not a major priority, at least at the beginning. HUD included a demand that grantees build consortia of varied interests into the grant, in recognition of the need for elected officials, bureaucrats and those working with them to work together toward common ends. CBI was brought into the equation because of their expertise at the pivot point from planning to implementation of plans, which always involved collaboration between multiple partners. CBI offered some early clinics at selected SCLA gatherings, from which two cities—Knoxville and St. Louis—emerged as pilot projects for a collaborative process. We all wanted to make sure that the work would be done in cities other than San Francisco, Vancouver, or New York—that small group of cities already considered leaders in the field.

Knoxville and St. Louis had very different priorities for the plans they developed with the HUD grants. The Knoxville plan had been adopted by regional planning authorities, so Knoxville wanted some help in developing its relationships with those authorities. St. Louis, by contrast, wanted to hand more authority to its regional partners. Pat Field of CBI held a workshop with the Knoxville team and was able to provide them with a number of recommendations for how to proceed that would result in better Memo-



Participants at an ISC Resilient Redesign Workshop in Southeast Florida. Courtesy of ISC

randums of Understanding (MOUs) among participating partners, as well as other practical arrangements. Now three-hour collaboration clinics are part of the larger SCLA gatherings, at which city teams identify collaboration challenges and get feedback on how to respond to them.

INCUBATING NEW INITIATIVES ECODISTRICTS INCUBATOR

As the first few years passed, we became increasingly committed to supporting initiatives that would lead directly to action. When emergent initiatives that were multifaceted came our way, we wanted to find the action point that would translate aspirations into concrete achievements. We had also become attracted to the growing emphasis on innovation, more as a way to inspire further development rather than create something radically new.



In 2011, Rob Bennett of the Portland Sustainability Institute—which is now EcoDistricts—approached us with a request to help them extend the reach of their existing EcoDistricts initiative. First launched as a pilot program with the City of Portland, the Portland Development Commission, and Portland State University in 2009 to promote a new model of urban regeneration, the initiative emphasized equity, resilience, and climate protection. Rob was looking to introduce the model to other cities throughout North America. The EcoDistricts model provides an important scale for prototyping many of the approaches in building design, energy efficiency, transportation development, and waste management that are now at the core of urban sustainability work.

Rob and his team had started convening a national EcoDistricts Summit and wanted a complementary vehicle for turning ideas into actions that would change cities. One of those—the action point we ultimately funded—would become the EcoDistricts Incubator, a multi-day workshop with a selected group of cities in which they receive the help of varied experts in the field to develop their own district- and neighborhood-scale sustainability models and plans for execution. The concept made sense to us and seemed to provide a geographical model at the right scale for the rapidly multiplying strands of the urban sustainability movement.

City teams that present their plans at the incubator pay a fee to participate, which has given the initiative a degree of financial stability, but they have not been able to generate the kind of donor support to follow up with individual cities and provide ongoing mentoring and consulting. They have developed a parallel program called Target Cities which are chosen as pioneering prototypes and supported by some of the same funders who have

been supporting other parts of the urban sustainability field. Some of the cities that unveil their projects at the Incubator then become target cities and receive support through that program—among them Cambridge, Denver, and Detroit; others find their own ways.

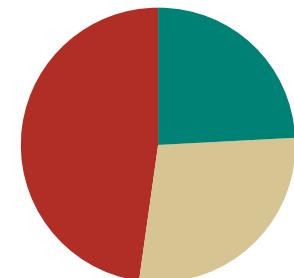
EcoDistricts as a whole has more than doubled in size since 2012, growing from an organization with four staff members to one with eleven, and a budget that has increased from \$700,000 to \$1.8 million. They now have well over 800 people who attend their annual gatherings and trainings. Demand for and participation in the incubator has grown. Rob notes that it has been “more successful than we ever imagined” as a place to launch new projects across the United States. It has become an essential umbrella for the rapidly diversifying neighborhood sustainability movement.

REVOLUTIONIZING THE BUILDING ENVIRONMENT ARCHITECTURE 2030 DISTRICTS

The building sector has been at the center of urban sustainability plans and their broad agendas to modernize cities, reduce the amount of energy consumed, upgrade a city's overall aesthetic, and provide anchors to urban districts that want to build out a green-development agenda. One of the most successful movements in this field has been Architecture 2030, founded by architect Ed Mazria in Santa Fe, New Mexico. Architecture 2030 is not a membership group; rather it initiates projects and programs, and sets standards and guiding principles for transforming to a sustainable built environment that the building community is free to adopt.

Ed was a pioneer in solar architecture back in the 1970s and, at the urging of some younger staff in his architecture practice, began to research carbon emissions in buildings in the early 2000s. In 2003, he published an article in *Metropolis*, a leading design magazine, making the case that buildings, not automobiles, were the largest emitters of greenhouse gases. The architectural community was not initially very receptive; they did not want to be seen as polluters. But because the article was the cover feature, it became prominent news.

Architecture 2030 was formed in 2006 and released building sector energy- and carbon-reduction targets; within a month of the release, the American Institute of Architects (AIA) adopted them. Soon after, the U.S. Green Building Council and Green Globes adopted them, as did the U.S. Conference of Mayors. The federal government also adopted them for new federal buildings and major renovations. At that point, the targets—more stringent and specific than the comprehensive LEED guidelines—became industry standards for the green-building movement.



U.S. ENERGY CONSUMPTION BY SECTOR

Buildings	47.6% (45.2 QBTu)
Transportation	28.1% (26.7 QBTu)
Industry	24.4% (23.2 QBTu)

Source: Architecture 2030

At the time, there was a growing public concern about carbon emissions, which many were coming to see as the main cause of global warming. Individual firms were signing on to the targets, and the State of California became the first state to adopt them. Many firms wanted to promote an energy- and emissions-reduction design ethic among employees as a way of getting them to be more ecologically responsible.

Architecture 2030's targets, which were incremental and were to be achieved by 2030, gave the professional design community something to work toward. Buildings also provided a tangible way of dealing with what to many seemed like an amorphous challenge, that of reducing carbon emissions coming from virtually every household, business, and motorized transportation device in the world. They provided enterprising and ecologically concerned architects and designers with a new set of worthy goals, which did not need government approval or support to implement.



In 2014, the International Union of Architects, consisting of professional organizations representing some 1.3 million architects around the world, adopted an Architecture 2030 initiative pledged to plan and design to meet low-carbon and carbon-neutral standards. Given the rapid growth of the human population and the prediction that an area equal to 60 percent of the current global building stock will be *added* by 2030 to accommodate that growth, the continuing adoption of the targets has the potential for a new design ethic with enormous implications for energy and emissions reductions in coming years.

Katie Hawthorne of Architecture 2030 approached us in the summer of 2013 with a request to support their Architecture 2030 Districts launch meeting in Pittsburgh in August of that year. A small group of cities wanted to start a movement to develop urban districts that would use the Architecture 2030 targets as a foundation to build out a broader agenda for building design and construction that would also promote the adoption of renewable energies and better management of water use. We were among a small group of funders that provided support to the gathering, which inspired architects

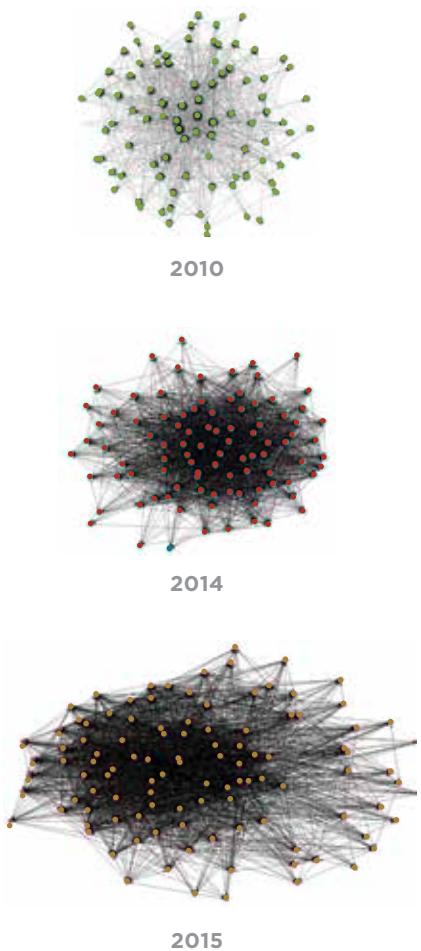
in other cities to develop their own 2030 Districts. The initial group of four cities that presented district plans at the launch soon doubled to eight, and has continued to grow to eleven today. By 2015, organizations in other countries were expressing interest in applying the 2030 District model, and the districts movement was presented at events in Paris at the COP 21 meeting in December. Ed sees the gathering in Pittsburgh as a pivotal moment when the growing adoption of reduction standards transformed into an urban movement.

By 2014, the Urban Sustainability Directors Network was a much larger and deeper network than it had been just a few years earlier, a reflection of the broader growth of urban sustainability work around the world. Nils Moe, the new director, notes that there were just 15 sustainability directors at the meeting in Boulder in 2006, and that now there are over 140 in the USDN network. It has moved from a network of peer sharing—information, experiences, and basic camaraderie—to one based on an alignment of priorities and collaboration in which regional networks work on projects together. The network now includes specialized secondary staff in their user groups in addition to the sustainability directors, which cover as many as 25 different topic areas in which they share information and work toward common goals. Over the past several years, they have funded close to 30 projects in the network through their innovation fund and continue to refine how they measure and report on their collective impact. Sustainability directors have become what Nils characterizes as the “gatekeepers for innovation in cities.”

An increasing number of other government and civic entities are interested in USDN’s ability to broker productive relationships and help implement various initiatives. They include the Council on Environmental Quality at the White House, NRDC, NOAA, DOE, IMT, ISC, Smart Cities, C40 and Greenbiz. USDN’s partnership with C40 in the formation of the Carbon Neutral Cities Alliance, an international group of vanguard cities, now makes them part of a global organization.

USDN, much like the broader field of urban sustainability, is what Nils Moe has called an “amazing amoeba that is shifting and evolving,” a state of fluidity that has contributed to the need to develop ways to gauge its impact, assess the current state of the urban sustainability field, and help cities plan for their long-term climate commitments. All of this will be needed to respond to what USDN co-founder Sadhu Johnston refers to as a “tsunami of change” that will be confronting cities in coming years.

USDN AND THE FUTURE OF CITIES URBAN SUSTAINABILITY DIRECTORS NETWORK



MAP OF ALL USDN CONNECTIONS

Source: USDN

ENERGY

THE KEY TO A MORE SUSTAINABLE FUTURE



The development of a new energy base for society is enormously complex and will take time to mature, but it is absolutely fundamental to any broad societal shift. It will be dependent upon new infrastructures and technologies that will have to be commercially viable and, ultimately, politically acceptable. In order to establish a significant space for renewables in the energy marketplace, technologies that use the new energy sources will have to be developed, distribution networks will have to evolve, regulations will have to be developed or changed, and major investors will have to have the confidence in the future of this complex set of equations in order to invest the kinds of money that are needed. Pat was already working on this with his biodiesel plant on Lake Erie when we started, but it also became an early area of interest for us at the institute.

When we started our philanthropic work, renewable energies were still highly speculative for most, and accounted for a very small percentage of national and global energy use. By 2015, more of society was taking them seriously, and in at least one case—that of solar energy—costs were coming down quickly and making it more competitive with fossil fuels.

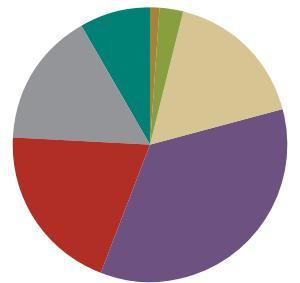
Soon after we started our work, we saw some innovative approaches that looked like they would be worth supporting, ones that were suggesting new ways of operating that over time had the potential to have wide impact and inspire a societal shift.

One of our first advisors, Paul Relis, was the founder of the Community Environmental Council (CEC) in Santa Barbara, California. The CEC emerged in the wake of the historic Santa Barbara oil spill in late January 1969. Reflecting the spirit of the times, it went on to establish one of the country's first municipal recycling programs, and over the years experimented with various community gardens intended to cultivate awareness of organic gardening.

But more than a quarter of a century later, by the end of the 1990s, the environmental narrative was shifting. Serious concerns about the effects of climate change were starting to orient the agendas of leading activists, and ultimately of a broad range of society's leaders. In a daring move, motivated by a desire to recalibrate its mission and stay contemporary with current challenges, the CEC liquidated its physical assets to establish a board-directed asset fund and decided to focus its programs on responding to the challenges of climate change in the Santa Barbara area.

EARLY MODELS

FOSSIL FREE BY '33 AND DREAMING NEW MEXICO



SANTA BARBARA COUNTY ENERGY ALLOCATION 2007

Waste-To-Energy	1.2%
Utility Renewables	2.9%
Building & Industrial Efficiency	16.8%
Transportation Improvements	35.2%
Wind Power	19.8%
Solar	15.8%
Ocean Power	8.3%

Source: *Fossil Free by 33 Blueprint 2007*

The CEC spent a few years drawing up a blueprint for how to shift Santa Barbara's economy away from fossil fuels toward renewable energies and developed a campaign around it called Fossil Free by 33. The campaign drew our interest because, to our knowledge at the time, it was one of the first—perhaps the first—effort to actually map out what such a transition would look like for a municipality. The implications of such an effort were that in the future, different regions would develop their own unique energy portfolios depending on the mix most relevant to their climate, needs, and available energy sources. It would be a future marked by the equivalent of designer energy portfolios that would move us to an age of greater diversity and, ultimately, greater degrees of local control over what those mixes would be.

We provided funding for an early regional gathering of municipal and renewable-energy leaders in the Santa Barbara and Los Angeles area in 2007 to consider their plan, on the hunch that this might be a model for others around California and, eventually, in other parts of the country. While that vision was not realized at the time—Paul later described the fossil-free effort as “huge and abstract,” more of an early, provocative idea rather than a plan that Santa Barbara was likely to adopt and implement—it was an early move in a new direction, a signal that more of this kind of thinking was emerging in various locales. The campaign was not without influence, however. Its successful effort to get Santa Barbara County to adopt Architecture 2030’s energy efficiency and carbon reduction standards for buildings prompted the State of California to adopt them statewide.

Soon after, we were part of a small group of funders that supported a new effort called Dreaming New Mexico, an ambitious and visionary attempt by the Bioneers to develop a comprehensive sustainable development plan for New Mexico, one of the poorest states in the country. Given Bioneers’ diverse national network, which had staged major conferences of leading environmentalists every year since the early 1990s, it looked as though it might be a model that would be adopted by groups in other states. Water, energy, and food were at the core of the effort, another attempt to sketch out a blueprint for sustainability that was localized in its orientation. The initiative finished as the first runner-up for the 2009 Buckminster Fuller Challenge award. The first gathering of a planned series took place in 2007 and was devoted to energy. While there were some provocative ideas, and a short-lived green cabinet was formed at the state level, the campaign was more educational in its impact than a successful prod toward major action. But it was another early move in a broader process that would be characterized by increasing degrees of resolve and action as the years progressed.

Forest Ethics approached us in 2009 with a request to support their corporate dialogues with some of the oil companies that were squeezing oil from Canada’s tar sands in Alberta province. The organization is a highly effective forest-protection nonprofit that emerged out of the struggles to protect the temperate rainforests of coastal British Columbia in Canada from logging interests in the 1990s.

The tar sands had existed for several decades as a source of oil, but there was revitalized effort by oil companies to exploit them in the early years of the new century as other sources of oil in the world were being depleted or became more difficult to extract. The environmental impact of the tar sands extraction has been huge. It has damaged the health of communities in the area and the fate of the boreal forests in which it is located. The Athabasca oil sands is located near one of the richest natural ecosystems in Canada, at the confluence of a number of major North American river systems.

We knew about the work Forest Ethics had done in getting a number of companies that marketed by mail-order catalogs to switch to renewable paper sources and away from harvesting lumber from boreal forests, and we had supported an earlier attempt of theirs to work with companies to reduce the enormous volume of junk mail that just about everyone in society finds objectionable. While that campaign ultimately failed because postal workers are paid in proportion to the volume of mail they process—a substantial portion of which is junk mail—we had seen how effective the organization had been at connecting disparate dots in a larger system to find the leverage points that would allow them to achieve ends that meshed with their mission to protect forests.

Along with the Rockefeller Brothers Fund, we were the only donor willing to support their corporate dialogs. Much of the action on tar sands from the environmental community had come in the form of opposition and protest. By the middle of the first decade of the 2000s, it had become a symbol of oil company excess and our societal dependence on fossil fuels, as well as a hot spot of conflict over climate change when the Keystone Pipeline became a major political issue. Forest Ethics, which like other activist conservation groups had become very skillful at protest and guerilla media campaigns, was also experienced at using such pressure to establish negotiating space with company leadership that would lead to a change in corporate practices. Their successful campaign aimed at catalog companies, which was covered respectfully by a variety of media outlets, was evidence.

CHANGING CORPORATE FUEL PROCUREMENT PRACTICES

FOREST ETHICS MARKETS
CAMPAIGN



Tar sands area in Alberta, Canada
BEFORE



Tar sands area in Alberta, Canada
AFTER

Courtesy of popularresistance.org

LOCAL CONTROL OVER PROCUREMENT AND DISTRIBUTION

LOCAL ENERGY AGGREGATION NETWORK (LEAN)

Over the next few years, we watched them evolve the initial campaign to force companies to clean up some of the environmental damage from tar sands extraction to a larger campaign to coax major companies whose national transportation networks were using tar sands oil to switch to cleaner energy sources. It was precisely this kind of maneuvering that would be required if the larger economy was going to transition away from heavily polluting energies like tar sands oil to cleaner energy sources and, ultimately, to renewable sources. This was what one part of the transition actually looked like.

In an August 2011 article in *Forbes* online, Amy Westervelt summarized the impact of that work. "So far," she wrote, "Forest Ethics has gotten 20 companies to commit, 12 of which (including Whole Foods, Walgreens, and Gap) have gone public with their commitment. ... Some of those companies came to Forest Ethics themselves, looking for help tackling the Tar Sands issue, and others were targeted by the organization. In either case, Forest Ethics works with these companies to find out which refineries their shipping vendors get fuel from, which of those are tar sands refineries, and where they can buy fuel instead if they want to avoid tar sands fuel."

"Some of those companies came to Forest Ethics themselves, looking for help tackling the Tar Sands issue, and others were targeted by the organization. In either case, Forest Ethics works with these companies to find out which refineries their shipping vendors get fuel from, which of those are tar sands refineries, and where they can buy fuel instead if they want to avoid tar sands fuel."

—Amy Westerveldt,
Forbes Online, August 2011

A couple of years later, at a 2013 summit for the newly created Women's Environmental and Climate Action Network (WECAN), near New York City, the Forest Ethics campaign was recognized as one of the most innovative attempts to move significant parts of the economy toward adoption of renewable energy. The Sierra Club, which had been leading a consortium of organizations in opposition to tar sands development and was initially not convinced of the prospects of corporate dialogues, agreed to put their much larger resources and muscle behind the campaign. But for a number of reasons—including shifting priorities within the Sierra Club—that support never lived up to its promise, and the campaign stalled.

Forest Ethics, like most highly active nonprofits, was by then devoted to new campaigns and obligated by the changing focus of various funders. But they continue to work to influence other companies to join the campaign, and in the summer of 2015 both Coke and Pepsi joined the effort to eliminate from their large vehicle fleets high-carbon fuels like those from the tar sands. By inspiring some of the largest brands in the world to shift their procurement away from tar sands gas and diesel, the campaign had seriously threatened the reliability of the largest market for tar sands oil in the United States. The Forest Ethics campaign was one of several factors that prompted the government of Alberta to become the first major oil-producing jurisdiction to adopt a price on carbon and establish an emissions limit.

While media attention to the evolving technology of producing renewable energy has increased in recent years, far less attention has been paid to the importance of developing distribution systems for that energy. Without ways to distribute renewable energies to customers, the market will have no way of growing. The Forest Ethics campaign, aimed at encouraging major companies to shift their purchase preferences toward cleaner energy, was one way to prod things in a different direction. There were also a small and slowly growing number of communities around the country that wanted to take control of their own energy markets.

A law called Community Choice Aggregation (CCA), originally implemented in Ohio in 2000, was one way for municipal utilities to establish their own purchasing agreements with energy producers and use the transmission systems of larger, investor-owned utility companies to supply their customers. CCA "allows for local government aggregation by cities, townships or counties, with 'opt-in' or 'opt-out' provisions for their consumers," explains a 2009 article by the Institute for Local Self-Reliance. "A large buying group may be able to get a better price for group members than you can get on your own."

It has become a key maneuver in an emerging movement to deregulate and decentralize the distribution of energy in the country. It challenges what many see as near monopoly control of energy by major utility companies, has the potential to accelerate the demand for renewable energies, and responds to concerns about the vulnerability of highly centralized energy distribution networks.

CCA's viability was showcased at the CEC's Fossil Free by 33 regional gathering in 2007 but was ultimately implemented by what became the Marin Energy Authority in Marin County, California. Charles McGlashan, a Marin County supervisor and husband of Carol Misseldine, the first executive director of Green Cities California, spearheaded a contentious and often difficult seven-year campaign to get voters in the county of Marin to support his effort to create a municipally owned utility. There was opposition from utility company supporters and skepticism from those who doubted that a local company could actually generate profits and be viable. But when the company was finally established and started operating in 2010, Marin Energy Authority became a pioneer and a national example in this small but emerging movement.

LEAN'S CALIFORNIA REACH 2015



Current Municipal Clients

Alameda County
City of Davis/Yolo County
City of Sunnyvale/Silicon Valley Partnership
Contra Costa County
County of Mendocino
Humboldt County
San Mateo County
Santa Barbara County

Operational CCAs/ LEAN Members

MCE Clean Energy
Sonoma Clean Power
Lancaster Choice Energy

Current Municipal Clients

South Bay Los Angeles Construction
San Luis Obispo County
Monterey Bay Community Power

THE SPREAD OF DISTRICT UTILITY ENERGY PROJECTS

ECODISTRICTS

When we asked Charles whether he thought there were enough similar efforts around the country to justify setting up a catalytic network that would spread the practice to other interested communities, he was already getting requests for advice from a couple of other states. One of the women who worked with him to establish the Marin Energy Authority, and was deeply committed to the CCA model, was Shawn Marshall. After we said we would be open to funding a national gathering to launch such an effort, she developed a relationship with the Galvin Electricity Initiative in Ohio. The initiative was founded by Bob Galvin, a former head of Motorola, who was convinced that the energy distribution system in the country needed some major changes—both to modernize it and to reduce the dangers of the kind of widespread systemic failure that occurred with the North eastern blackout of 2003. Galvin Electricity Initiative liked the idea of a new network enough to provide a couple of years worth of operating costs, and BRI provided funds for an initial gathering to form a network of renewable energy companies, investors, and some municipal authorities. Shawn and her team organized the first gathering of the Local Energy Aggregation Network—now called LEAN Energy—in January 2011. This was new terrain in the renewable energy world, so there was much that was uncertain and fluid at the time.

It turned out to be one of the most challenging of the new networks we had supported, largely because in most places there was no existing political support base or legal infrastructure to use as a starting point, and because battles with heavily financed and well-established utility companies and their political allies were a foregone conclusion. LEAN would have to build the network one municipality at a time. The organization decided to focus its early efforts on getting communities in California to adopt CCA as a way to establish the law's legitimacy, and they would use the example of Marin Energy Authority—now a viable business—as proof that the model could work. They faced the traditional challenges associated with developing a funding base and evolving various operating strategies, but over time other communities around the state started initiating exploratory efforts of their own. By 2015, close to 25 cities and counties in California were doing so.

While Marin Energy Authority—now Marin Clean Energy—was a pioneer in the successful development of localized energy utilities that opened a new pathway for procurement and distribution of renewable energies, by 2015 many other municipalities around the country were thinking along similar lines. EcoDistricts, which was working on many leading-edge practices in

urban sustainability, was getting requests from participating cities to provide help with the development of district utility projects—an incarnation of what we had seen earlier in the form of localized energy efforts like those in the LEAN network. There were already about 700 district energy projects around the country, though not many were designed with renewables or low-carbon fuel sources in mind. The model was gaining new ground as a number of cities implemented localized energy as an important component of their climate action strategies. EcoDistricts had the kind of national network and influence that would help spread their adoption on a national scale. We provided them with a first grant to start a district energy training program.

By 2014, almost a decade after we started our philanthropic work, renewable energies that had seemed peripheral to the major energy markets—and entailed considerable financial risk for investors when we started—began to achieve greater viability. “Things are moving so fast,” said Michael Picker, president of the California Public Utilities Commission, in an August 3, 2015, article by Rebecca Smith in *The Wall Street Journal*. “Every executive I talked with says there’s been more change in the past five to seven years than in the last 100 years. And it will accelerate now.”

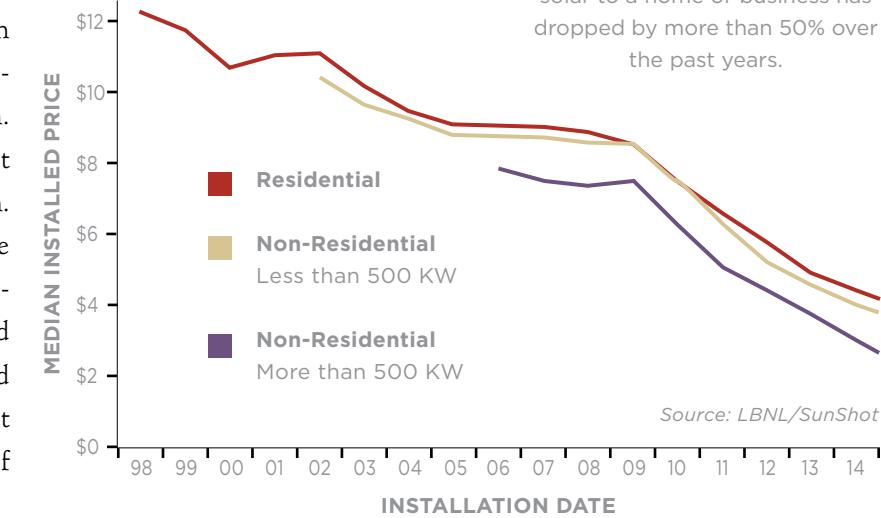
The Rocky Mountain Institute (RMI), with whom we had not had a partnership since the 2006 meeting in Boulder that led to the creation of USDN, approached us in 2014 with one idea that struck us as potentially transformative. The organization had been researching the technology and markets of renewable energy for years, and had recently seen that the cost of storage batteries for home and business use—the seminal piece of technology that would allow solar energy to be stored and used when the sun was not shining—was declining but that the costs of the battery system related to installation and housing were still prohibitively high. RMI had started to figure out ways to bring those costs down. This looked to us like one of those leverage points in the larger system of solar technology that could lead to a major breakthrough, and RMI had long ago proved that they were on the leading edge of energy innovation.

THE INCREASING VIABILITY OF RENEWABLES: THE ENERGY STORAGE CHALLENGE

ROCKY MOUNTAIN INSTITUTE

COST OF SOLAR MEDIAN INSTALLED PRICE

The average price of adding solar to a home or business has dropped by more than 50% over the past years.



"We discovered at the charrette and in conversations with folks in the industry that many utilities and customers don't understand the value of energy storage."

—Betsy After, RMI

We provided a first grant to bring together a group of new solar technology companies, utility companies, and larger interests, including Google, at an innovation hub in San Francisco in late 2014. RMI used our grant to attract further funding from an anonymous donor who had supported RMI on other initiatives and found this one particularly appealing, and the organization came out of the gathering with new initiatives.

"The Battery Balance of System charrette, funded by the Blackstone Ranch Institute, led to two new projects at RMI," wrote Betsy After of RMI's development office. "The first project is to develop an energy storage cost roadmap. At the charrette, industry participants agreed that we need to set low cost targets. Therefore, we are going to create a roadmap that will teach the industry how to achieve the low cost target. This has worked in other industries and we think it will be successful at helping drive down the cost of energy storage as well. A team from RMI is conducting research now and we will eventually turn it over to the National Renewable Energy Laboratory. The lab has already committed to taking charge of the effort eventually. They will be able to push energy storage companies to focus on reducing costs, which will help the industry as a whole grow."

"The second project is called Energy Storage 101. We discovered at the charrette and in conversations with folks in the industry that many utilities and customers don't understand the value of energy storage. They don't understand where and when storage should be installed, how it compares to conventional power plants like those for natural gas, and the benefits that energy storage confers on a home or business. Energy Storage 101 is a project to teach utilities and customers about the value of energy storage."

"In addition to these two projects, one unexpected outcome of the charrette was that the Electric Power Research Institute asked RMI to conduct similar events that include diverse stakeholders. The RMI team also recently engaged with the White House Department of Environmental Quality to investigate actions that can be taken at the federal level to help grow the energy storage industry."

By the middle of 2015, credible sources were predicting a huge increase in solar markets in coming years, and most had identified storage as a key. "Solar is at parity in more than half of all countries, and within two years will be at parity in around 80 percent of countries," notes Giles Parkinson in a March 3, 2015, article on Australia's Renew Economy website, which summarizes the findings from a report on global energy by Deutsche Bank.

"The case for solar will be boosted by the emergence of cost-competitive storage, which Deutsche describes as the "next killer app" because it will overcome difficulties in either accessing the grid or net metering policies."

Others supported such conclusions as well. The first two in a summary of five principle findings in Bloomberg New Energy Finance's *New Energy Outlook 2015* are that "the further decline in the cost of photovoltaic technology will drive a \$3.7 trillion surge in solar, both large-scale and small-scale" and that "some 2.2 trillion of this will go on rooftop and other local PV systems, handing consumers and businesses the ability to generate their own electricity, to store it using batteries and—in parts of the developing world—to access power for the first time."

One of the most alluring prospects for social change devotees is to get just the right people in the room to make some major systemic changes that will move an industry or sector ahead in some decisive and desired way. While the energy system seems almost too large, too diverse, and too tangled in regulatory minutiae for that sort of effort to be practical, it is certainly worth considering if the mix of people seems right.

Amy Larkin, who worked with major global companies as former head of *Greenpeace Solutions* and who had recently published *Environmental Debt*, a well-received and provocative book, requested a grant from BRI in 2013 to bring together a variety of energy company leaders, government regulators and nonprofits working on energy issues to identify leverage points where policy changes—in certain regulations, tax structures, or investment protocols—might be able to break some of the logjams that have held back what could be a more vigorous development of technologies and their markets.

Amy was a strategic partner of Resolve, a Washington, D.C.-based organization in existence for 30 years. The nonprofit specializes in bringing together various parties to resolve major social challenges that are often at odds with one another. Their early roster of participants was impressive, including a former CEO of Shell, representatives from other oil companies, renewable energy investors, and a variety of government and business leaders. The latter group included those from some of the iconic Silicon Valley companies that were putting some of their vast resources into renewable energy development.

THE SEARCH FOR SYSTEMIC LEVERAGE POINTS

RESOLVE

"One of renewable energy's biggest advantages, as an industry of the future, is its large reliance on decentralized operations, installation and distribution. But this model also makes renewables and efficiency more complicated to ramp up than building a new Hoover Dam or a big nuclear power plant. Decentralized energy means that many players, many financiers and many regulations must align before taking action."

—Amy Larkin, from her 2013 book *Environmental Debt*



Amy and Steve D'Esposito, the head of Resolve, had come to the conclusion that any way forward on a transition to an energy future beyond fossil fuels would need to involve oil companies, a recognition that seemed realistic but which a number of more traditional environmental activist groups would have found difficult to accept. Given our sense that all sectors of society must participate if we are going to start building a foundation for a new energy economy, this was actually a welcome approach.

We offered an initial grant as a challenge, which they were able to match a few months later in partnership with the Pembina Institute in Canada. Pembina, which had established itself several years earlier as a tar sands watchdog group, had grown into a think tank that often performed energy market analyses for some of those same companies. They would bring in Canadian participants, thus broadening the geographical scope of the initial idea.

We wanted to make sure that it would be a meeting not just to exchange ideas but one that generated useful initiatives that would matter. Amy and Steve D'Esposito, the head of Resolve, had come to the conclusion that any way forward on a transition to an energy future beyond fossil fuels would need to involve oil companies, a recognition that seemed realistic but which a number of more traditional environmental activist groups would have found difficult to accept. Given our sense that all sectors of society must participate if we are going to start building a foundation for a new energy economy, this was actually a welcome approach. The initiative was given the name Energy Shift.

When the initial group assembled in Banff, Canada, in January 2015, a number of the participants from the United States who would have brought real power and regulatory influence to the conversation—including those from Silicon Valley and the federal government—could not be there. What came out of it was not the systemic game changer we had initially hoped for but a cluster of worthwhile initiatives that Resolve committed to overseeing in the months ahead. These included an initiative with Shell on conversion of agricultural waste to energy, an effort to develop an energy calculator

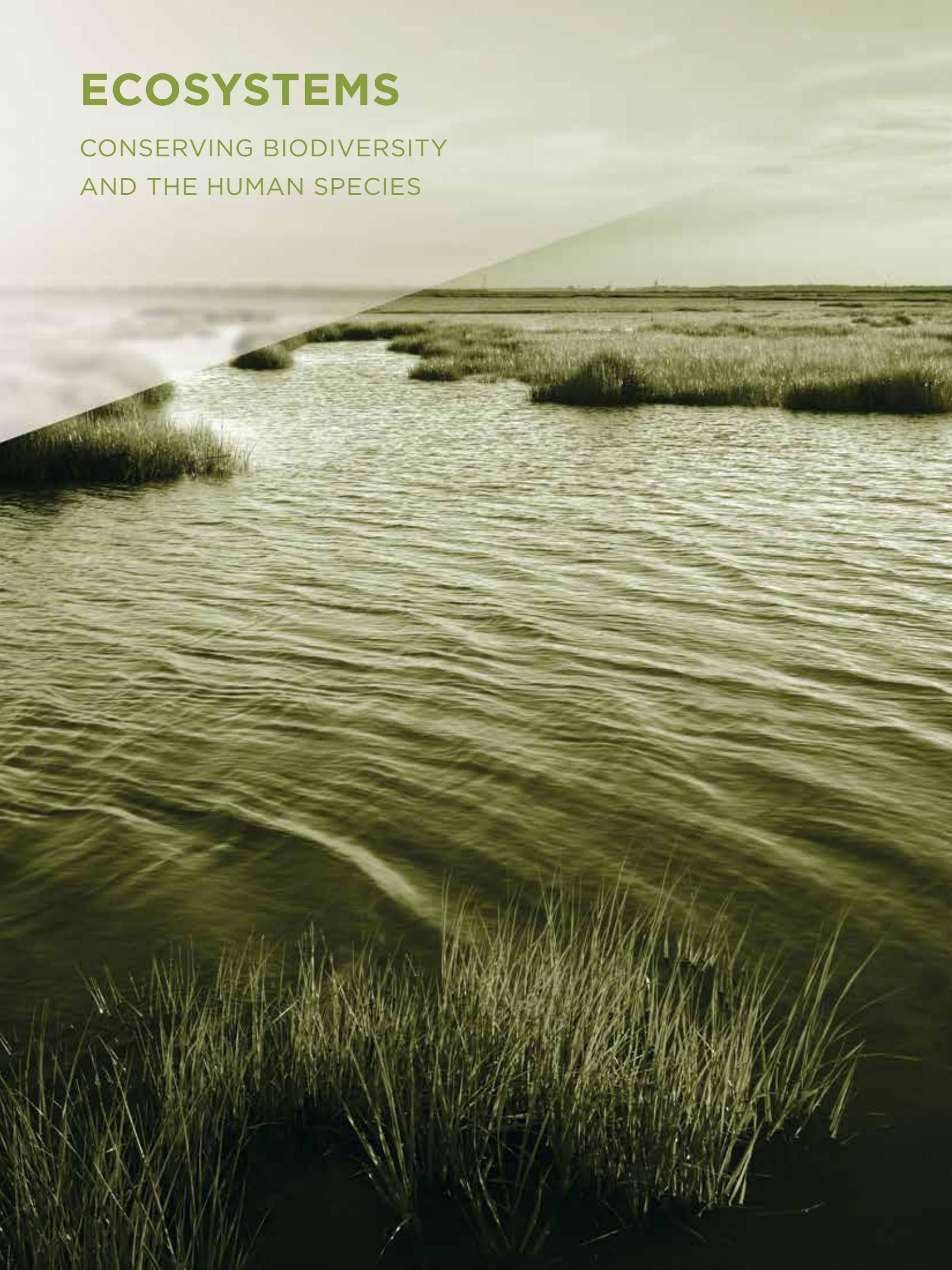
application that would function the way health monitoring software in smart phones does, a move to push for accelerated depreciation for green infrastructure, and an ambitious conversation about creating a prototype for a North American pathway beyond reliance on fossil fuels within coming decades.

Steve formed a project team and added an energy sector transformation initiative to Resolve's existing portfolio of initiatives. This was perhaps the most important outcome, because it would provide continuity and managerial expertise to an ongoing effort to come up with projects and continue the search for the leverage points to which the initial proposal pointed. We had learned that getting too attached to particular outcomes of initiatives that were launching themselves was usually a road to disappointment; it was far more productive to be flexible and work creatively with whatever emerged. The results, in such cases, were often better than could have been foreseen at the start.

Almost a year after the original meeting, Energy Shift was having difficulty raising funds for the initiative. It didn't fit easily into the silos of most funders. But as new money pours into energy innovation, Resolve will continue to fundraise for Energy Shift.

ECOSYSTEMS

CONSERVING BIODIVERSITY AND THE HUMAN SPECIES



At the beginning of the 21st century, scientists and environmentalists began to pay more attention to the understanding of ecosystems and ecosystem services, a marriage of systemic thinking and ecology that works to understand the relationship between the basic elements of nature—air, water, soil, forests, etc.—and human beings. While the focus on cities and energy, two fundamentals of environmental work today, is largely about human beings and their world, the focus on ecosystems broadens the parameters to include all life on the planet. For us, this dimension has been essential to our holistic approach.

In what constitutes a conceptual advance in the understanding of nature and our relationship to it, it is the *interaction* between the human species and nature that is the focus rather than a more traditional view of nature as something that is outside or separate from the human domain. While nature is still regarded by many as a support system or supply depot for human beings, value is being placed on the myriad things nature does, without which humanity could not exist.

"An ecosystem is a dynamic complex of plant, animal and microorganism communities and the nonliving environment, interacting as a functional unit," note the authors of the *Millennium Ecosystem Assessment*. "Humans are an integral part of ecosystems."

"Ecosystem services are the benefits people obtain from the ecosystems," the authors continue. "These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions of life on Earth."

A number of ecological pragmatists are convinced that unless some way is found to put a value on the protection of those services—specifically a monetary value—there would be no way to protect them from further degradation as humanity continues to plunder the planet to satisfy its needs. "Even today's technology and knowledge can reduce considerably the human impact on ecosystems," the assessment notes elsewhere. "They are unlikely to be deployed fully, however, until ecosystem services cease to be perceived as free and limitless, and their full value is taken into account."



THE ROLE OF GLOBAL BUSINESS AS STEWARDS OF THE LAND

WORLD RESOURCES INSTITUTE
BUSINESS-ECOYSTEM
LEADERSHIP GROUP



When asked why these companies were starting to embrace ecosystem protection, Craig answered that they all realized that we were entering an age of resource scarcity, and if they did not do something to preserve the lands they were exploiting, they would someday be out of business.

The first organizational partner to introduce us to the world of ecosystem services was the World Resources Institute (WRI), a leading global environmental think tank that works with businesses and governments to educate them about the environment and encourage them to develop more ecologically responsible practices. One of our early advisors and a member of the BRI planning team, Phillip Gibbs, introduced us to WRI and would later introduce us to the National Geographic Society. Both would prove to be productive and congenial relationships.

WRI had been working on the development of an ecosystem services review to offer businesses as a way to monitor their relationship with the environment, particularly on lands that they worked. Craig Hanson, who had worked with McKinsey prior to coming to WRI, was coordinating the production of the review and an initial assembly of interested businesses. WRI had put its own resources into building early relationships with the companies and finalizing the review. Craig wanted to launch the effort by bringing the group together in early 2008 but needed funding to take that first step. BRI provided the first philanthropic grant to what WRI was calling ‘The Business-Ecosystem Leadership Group,’ a small group that included Coca-Cola Bottling Division, Syngenta, Plum Creek, John Deere, and Staples.

WRI operates on a global level, and works with wealthy companies, so if it develops a successful program it can usually secure funding. But it was no different than other organizations for which the greatest challenge was to secure the first investment—often in the tens of thousands of dollars—to get something new off the ground. It was what Craig referred to as “our most precious resource.” Once we provided that early grant, and the founding companies had a chance to meet, things started to move. The plan was for the companies to provide membership dues to keep WRI involved as a consultant, and the companies would be the ones to reach out to other companies to build the network.

At the time, there was still a widespread consensus among many—one that was based on much evidence—that large corporations cared little about protecting the environment. But that was beginning to change. Just as Amy Larkin had come to see the necessity of oil company involvement in large-scale transformation of the energy landscape, there were those who saw global companies as critical to reversing the exploitative trends that had pushed virtually all environmental indicators into the danger zone. When asked why these companies were starting to embrace ecosystem protec-

tion, Craig answered that they all realized that we were entering an age of resource scarcity, and if they did not do something to preserve the lands they were exploiting, they would someday be out of business.

Within months of that first meeting, the International Finance Corporation (IFC) integrated elements of the ecosystem services review into its sustainability framework and performance standards for its loan applications. The IFC, a member of World Bank Group, provides loans to lending institutions in countries around the world that finance new ventures by companies and entrepreneurs. The IFC offered loans amounting to \$7.6 billion in fiscal year 2014.

The Business-Ecosystem Leadership Group also inspired the formation of a similar group among businesses in Brazil (of which Walmart was a member), which used the WRI model. As the program developed, company leaders in each main sector (minerals, timber, water, etc.) would approach professional associations and suppliers in an effort to work out ways to value an ecosystem service that was essential to their work. The idea was to build the network one success at a time.

While WRI has not monitored the adoption of the review in any systematic way, Craig indicated in a 2014 conversation that by then, they knew of about 300 companies that used the review in their management protocol, and a parallel galaxy of consulting firms and smaller companies had also picked up on it. This was a big step toward integrating an ethic of stewardship into corporate behavior, which would be one of the ways to get large economic forces to alter their behavior toward the environment in the years ahead. It was an early example to us of how our grants could help catalyze action that would quickly go to scale and have major global impact.

A few years later, in 2012, WRI launched another ecosystem initiative to which we provided a first grant. It was intended to sell municipalities in North America on the value of developing watersheds as an ecologically and economically better way to preserve freshwater systems for their citizens than spending large amounts of money on water treatment plants.

WRI leveraged initial funding from BRI to develop a collaboration with Earth Economics and the Manomet Center for Conservation Sciences to synthesize the work of 56 experts with experience in source water protection across the American landscape. Their work resulted in the publication of a resource guide that makes the business case and lays out the scientific



PROTECTING NATURAL WATERSHEDS FOR MUNICIPALITIES

WORLD RESOURCES INSTITUTE
WATERSHED INVESTMENT
INITIATIVE

underpinnings for making smart investments in freshwater ecosystems. It is recognized as the most comprehensive and instructive publication on the subject to date.

"Now is a critical moment facing water resource managers and beneficiaries nationwide," notes the report, titled *Natural Infrastructure: Investing in Forested Landscapes for Source Water Protection in the United States*. "Much of America's aging built infrastructure for drinking water is nearing the end of its useful life (American Society of Civil Engineers 2013). Yet funds for investment in water infrastructure are drying up in an era of fiscal austerity. As utility rates for drinking water are increasing faster than inflation and household incomes (Harris 2012), the need is clear for lower cost, integrated solutions to meet water infrastructure demands of the 21st century."

"Promising efforts across the country have secured natural infrastructure for water management objectives through a variety of means—from land acquisition, zoning ordinances, and conservation easements to catastrophic wildfire risk mitigation and payments to private landowners for best management practices."

Todd Gartner, who wrote much of the review and is building the campaign for WRI, has made presentations on the initiative at leading conferences and has been an advisor on water infrastructure investments. The effort has evolved into a global consortium of natural infrastructure champions among government agencies, water utilities, conservation groups, and the private sector. Among them are the United Nations Environment Program (UNEP), the Nature Conservancy, American Water Works Association, the International Union for Conservation of Nature, and multinational corporations such as Nestlé and AB InBev.

**THE CHANGING
LANDSCAPES OF THE
AMERICAN WEST**
DIABLO TRUST, CENTER
FOR COLLABORATIVE
CONSERVATION, AND
WESTERN LANDOWNERS
ALLIANCE

Another group that was developing an interest in the role of ecosystems was a group of ranchers in the American West. We had spent a few years on the lookout for initiatives that would address the challenges of ecologically responsible land management in Western states. The American West was one of the last places in the world with large properties that provided open living space for other species, but much of it was degraded or reduced to agricultural monocultures because of prevailing land management practices.

A small but growing number of ranchers, some with vast properties, were devoted to practices that cultivate rather than detract from the biodiversity

that is inherent on their lands. We were introduced to the Diablo Trust in northern Arizona in 2009 by an early advisor, Ron Hubert of Northern Arizona University. Diablo Trust is the nonprofit arm of two large family-owned ranches and federal land near Flagstaff that has been pioneering sustainable ranching practices for several years. The owners are among a number of ranch owners throughout the West who have been looking for ways to be better stewards of their lands and manage them more successfully. Frustrated by the challenging economics of privately owned ranching operations in an age of agribusiness, and more often than not by the endless complexities of federal regulation, they were looking for ways to diversify their means of generating revenue from their properties.

The monetization of ecosystem services appealed to those who cared about their land and were intrigued by the notion that they might receive financial compensation for the services that their properties often provided to nearby communities and visitors—such as clean water, pollination, natural beauty, and for some, hunting and fishing. Small groups of academics were starting to work on the development of economic models for putting a price on such precious commodities, often with great difficulty in finding ways that would be convincing to investors or municipalities.

Gary Nabhan, a highly regarded academic, writer, and ethnobotanist working out of the University of Arizona, was part of a nucleus of academics, ranchers, and land management specialists who were trying to build support for an ecosystems approach. He had been among the first to start writing about the value of ecosystem services in the late 1990s. He pointed out that the best-managed lands in the West were not necessarily federal lands anymore but large, landscape-scale properties that were privately owned. He and Derrick Widmark of Diablo Trust requested a grant to fund a small gathering of ranchers in Phoenix in early 2010 with the intent to catalyze a movement of early adopters among some of the ranching networks they knew. We provided the grant because we saw this at the time as a new way forward for ecologically responsible ranching in the West.

The group in Phoenix consisted of academics and ranchers, but none of the investors who would ultimately have to decide whether the finance models were trustworthy enough for real investment were present. At that time there were very few investors, even among those concerned with conservation in the West, who saw any financial advantage to investing in ecosystem services. Important concerns were raised, but little in the way of tangible action emerged from that particular gathering. Without money to invest in



ecosystem services, they would remain an enticing idea but not much of a reality. The gathering did inspire a follow-up at the Center for Collaborative Conservation at the Colorado State University in Fort Collins, which was organized by participants at the Phoenix meeting.

"Your initial meeting definitely laid the groundwork for our workshop last week by providing an intellectual foundation and the motivation to continue pursuing the development of environmental markets," wrote Robin Reid, director of the center, in a 2011 letter to BRI.

"At your meeting in Phoenix, I understand that you emphasized the need to make sure to pursue potential buyers of ecosystem services on ranch-lands, and thus we designed our workshop to emphasize that aspect. These are still very early days for environmental markets for ranchers, but it is meetings like these that push front-running initiatives forward and allow all those working in this area to leverage the work of others."

As we discovered in other instances, our model of placing early bets on provocative innovations made an impression as well, which in some cases was as important as the initiative we were funding.

"At your meeting in Phoenix, I understand that you emphasized the need to make sure to pursue potential buyers of ecosystem services on ranch-lands, and thus we designed our workshop to emphasize that aspect. These are still very early days for environmental markets for ranchers, but it is meetings like these that push front-running initiatives forward and allow all those working in this area to leverage the work of others."

—Robin Reid,
Center for Collaborative Conservation

While we were intrigued by the ecosystems effort, and wanted to be able to catalyze something that would change land management practices in the West, that moment was still elusive. Something was emerging, but it seemed clear that much more work was to be done to provide a convincing model for investment in ranchers' efforts to market ecosystem services.

By then, there were a number of ranching alliances forming in the West, largely to provide ranchers with a way forward independent of the federal government and larger, corporate entities that controlled so much of the nation's agricultural system. We had come to the conclusion that the Amer-

ican West was a jigsaw puzzle of largely parochial interests, of people who were committed to their particular lands. Many ranchers had neither the time nor the perspective to consider involvement in large, regional associations, the benefit of which to them might not be initially clear. But our involvement to date had given us a vision of an archipelago of ranches in the west that could collectively change the way land was managed—to everyone's benefit.

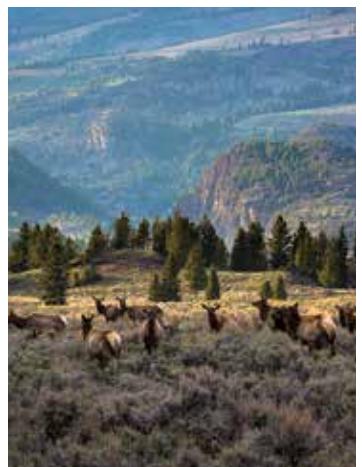
One organization that was working on assembling that archipelago was the Wildlands Network, which was stitching together a Western network of wildlife corridors for various species, including some that were endangered. They were advocates of wolf protection, which often put them at odds with ranchers who saw the wolf as a danger to their cattle. Board member Michael Soulé, a pioneer of conservation biology, was working with Paul Vahldiek, a Texas attorney and owner of the High Lonesome Ranch near Grand Junction, Colorado—a property measuring almost 440 square miles. Paul was interested in conservation and biodiversity and wanted to develop practices that would honor those interests. He and a small group of like-minded ranchers and conservationists were working with Kenyon Fields, a conservation ecologist on contract with the Wildlands Network to bring together ranchers who might be part of a network that would be receptive to protecting endangered species, among other goals. The group that Kenyon was assembling included some of the largest landowners in the West; due to the very high level of interest on the part of the landowners, they eventually decided to form a 501(c)(3) that would be separate from the Wildlands Network. The members of the founding group owned outright, or controlled grazing leases on, close to 10 million acres.

Richard Pritzlaff of the Biophilia Foundation—who had been part of the group at the first ecosystems gathering in Phoenix, as well as the follow-up workshop at the Center for Collaborative Conservation—had introduced us to Monique DiGiorgio. Monique, who is now executive director of the Chama Peak Land Alliance in northern New Mexico, was at the time a consultant to the alliance and was also working with Kenyon to build the new network of Western ranch owners. She quickly saw the similarity between the vision we had and the vision behind Kenyon's work. When she introduced us to Kenyon, it was immediately clear that he was organizing the kind of network we were hoping to find. At one of their early, formative

WESTERN LANDOWNERS ALLIANCE REGION



Source: Western Landowners Alliance



meetings in late summer of 2012 at Ted Turner's Vermejo Park Ranch on the eastern edge of the New Mexico–Colorado border, we offered a challenge grant on the condition that it be matched with enough money from participating ranchers to fund the nonprofit's launch. A number of them were still cautious and wanted to see how things would develop. The challenge was met by the following morning, and the Western Landowners Alliance (WLA) was officially named. A start-up board of directors was selected, with Kenyon Fields as interim executive director.

The WLA evolved rapidly after that and was the only network made up of ranchers, intended to work *for* ranchers. Its geographical scope of interest is the entirety of grazing country in the West, from the eastern Sierras to the Front Range of the Rockies. Its mission is to develop holistic and ecologically responsible management practices without sacrificing the financial viability of the properties. Since many of them were very large, there would be opportunities to cultivate healthy wetlands and other supportive habitats for a variety of flora and fauna and to promote a degree of biodiversity that was disappearing on many ranches in the West. They were getting a good reception from politicians and a number of prominent funders—including the Walton family and the Moore Foundation—that appreciated their independence from environmental groups and agricultural interests. Given their size, the prominence of several of their owners, and their dedication to conservation science (several of them had ongoing scientific research projects on their ranches), they would soon have a unique and influential voice in the continuously evolving conversations about land management.

By the summer of 2015, WLA was proactive in a number of areas. It was developing landowner state advocacy plans on water use, forming an energy council for ranchers dealing with oil and gas development, offering support for wildlife conservation and recovery efforts, launching an effort to improve tax structures in ways that better support land stewardship, and hosting various meetings, workshops and film projects on the science and practice of their work. In doing so, it was becoming an increasingly influential voice with public agencies, policy makers and partner organizations. WLA has filled an important niche in the emerging progressive networks of Western ranchers. It has added its landscape-scale properties to networks such as the Quivira Coalition, which has so effectively united a growing variety of ranch properties at more modest scale that are practicing sustainable management. Ultimately, they want to be in a position to influence how future buyers of Western lands manage them—thus responding to the initial challenge framed by the Diablo Trust and others we had met earlier.

Other lands in the West are also prime candidates for ecosystem work. In the summer of 2013, we were approached by Ernie Atencio of Land and Culture Consulting in Arroyo Hondo, New Mexico. Ernie was working with the Center for Whole Communities in Vermont on an initiative to convene a historic gathering that would bring together Native land trust leaders with the leadership of the Land Trust Alliance (LTA), the largest confederation of land trusts in the United States. The idea had come out of a study Ernie had done with Peter Forbes, the founder of the Center for Whole Communities. The study suggested that land trusts needed to be better partners to address local land and community issues, including working with native tribes. Native Americans control a huge amount of land in the greater United States, an estimated 2 billion acres. Few of those lands had ever been part of the larger land trust effort in the United States.

The convening was intended to start repairing decades of misunderstanding and mistrust between Native and largely Anglo land trusts, and to lay the groundwork for future collaboration. BRI provided a grant to bring Native American land trust leaders to that historic first gathering in California in early 2014, an event that was made possible with an initial grant from the Kalliopeia Foundation. The summit was a first step, and it resulted in greater recognition of Native land trusts and their importance in the greater national equation. The process yielded a few initial collaborations that strengthened the fledgling relationship.

A year and a half later, this little known dimension of the land trust community was featured as the cover article in the LTA magazine, *Saving Land*, along with a commentary from one Native conservationist about recovering from the historical trauma stemming from the loss of land and cultural identity. At the 2015 LTA national conference in Sacramento, local-tribe representatives gave a formal welcome and blessing at the opening, and several Native lands workshops and activities were featured, including a new film about collaboration with tribes.

Ernie, Peter, and members of the Native land trusts are planning additional work to develop consistent standards and practices for conventional land trusts to engage effectively with tribal communities and Native values.

THE INTEGRATION OF THE NATIONAL LAND TRUSTS

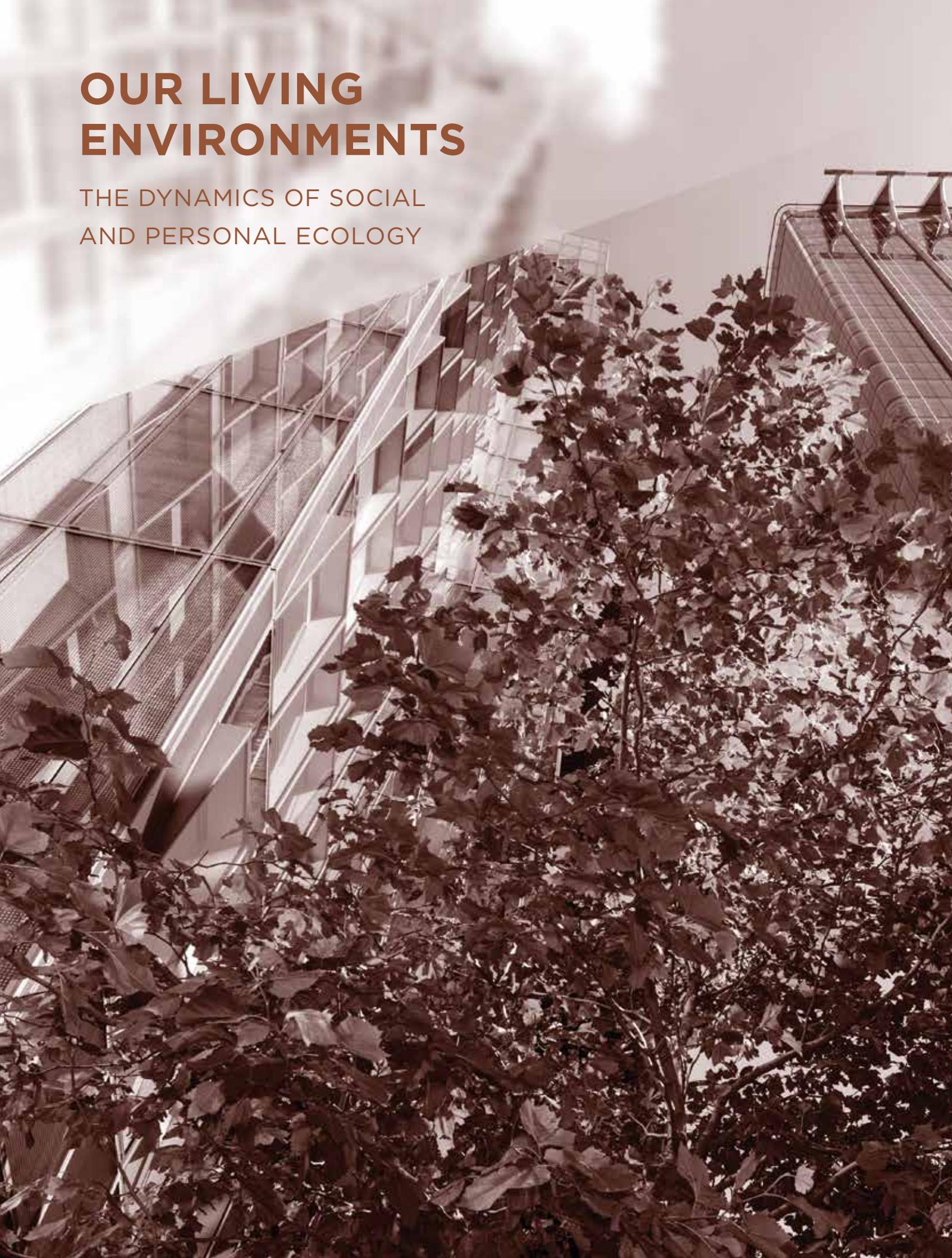
LAND AND CULTURE
CONSULTING AND CENTER
FOR WHOLE COMMUNITIES



Participants at Summit for Native and Anglo Land Trusts in Pescadero, California in May 2014. Courtesy of Ernie Atencio

OUR LIVING ENVIRONMENTS

THE DYNAMICS OF SOCIAL AND PERSONAL ECOLOGY



Along with cities, energy, and ecosystems, our more immediate environments have also been the focus of efforts to make our lives ecologically healthy and more responsible. Such environments encompass where we live, the products we consume, the foods we eat, and our personal health. We have invested strategic grants in these areas and consider the initiatives we have supported to be essential to the development of a new culture.

One of the most ambitious efforts to change the ways in which we relate to our inhabited environments has come from the Living Future Institute, which evolved out of the work being done by the Cascadia Region Green Building Council (CRGBC). When we started our philanthropic work, green building was an active trend in architecture. Earth ships and solar-powered homes that were pioneered in the 1970s were early realizations of ambitions to construct more ecologically friendly living spaces that used renewable energies.

We provided a grant to the CRGBC in 2008 to bring together municipal representatives in the Pacific Northwest region. CRGBC was a national leader in green building and wanted to consolidate regional green building practices and standards. We saw the potential for national influence. The recession hit soon after, which limited the government funding that might have supported many of their initiatives. But it was a meaningful step forward.

We started to develop a relationship with Jason McLennan, the head of CRGBC, who was cultivating a reputation as one of the leading green architects in the country. His vision for a comprehensive approach to building would not only encompass the building itself—its materials and its use of energy—but its impact on the surrounding environment. This ultimately took the form of the Living Building Challenge, which the CRGBC launched and which was adopted by both the U.S. and Canadian Green Building Councils. The challenge was based on 20 imperatives that covered water and energy use, the building's impact on human and environmental health, the sourcing of the building materials, social justice implications, and the natural aesthetics of a building and its surrounding land. The most rigorous and comprehensive of all the green building standard regimes, it has been evolving steadily since it was introduced, as more organizations and businesses take on the challenge.

The Living Building Challenge became the central dynamic of the Living Future Institute, which Jason created a few years after our grant to CRGBC.

BUILDINGS AS LIVING ENVIRONMENTS LIVING FUTURE INSTITUTE



Courtesy of Living Futures Institute

By then he was working on the integration of the CRGBC, the remains of the Natural Step network in North America, Ecotone Publishing, and the new building challenge—all under one organizational umbrella. At the time, a number of organizations and businesses were putting resources into developing social media platforms that would allow them to build communities of interest and practice around them, grow their networks and spread their message. We offered a grant in 2011 to help them develop their social media platform.

As we would in other cases, we saw the support of social media development as a key leverage point in the early development of an organization or growing network. Jason now refers to our grant at that time as catalytic, “a strategic bit of funding at the right time.” Others were also providing funds at a time of early growth, so we were part of a small group of funders who saw the potential of his work.

By 2015, the institute staff had increased from the dozen people who worked with him when we provided the grant to more than thirty; the number of active projects had increased from about 50 to 260; and they were a \$4 million-a-year operation. They were also branching out. They launched the Living Product Challenge in April 2015, building upon the central tenets of the building challenge by developing production standards for material products that would be “nontoxic, transparent, ecologically regenerative, and socially equitable.”

They were encouraging people to move beyond just shrinking their environmental footprint by actively contributing to positive developments by planting trees and gardens—regarded as net positives for the environment. They were also developing affordable housing pilot projects to apply the Living Building Challenge beyond the early adopters, who were often affluent leaders in the environmental domain.

**SUSTAINABLE
PRODUCTION AND
CONSUMPTION**
SUSTAINABLE PURCHASING
LEADERSHIP COUNCIL

The work of the Living Future Institute is part of a growing interest in changing the way industrial products and our most intimate living environments are designed. Many were inspired by the 2002 publication of a book called Cradle to Cradle, by Michael Braungart and William McDonough, in which the authors—a chemist and an architect—offered a variety of examples of how products and living environments could be built to be ecologically safe and cost efficient. We knew this would be one of the most challenging, and most essential, frontiers of environmental change work in coming decades.

One of the most compelling efforts toward this end is the Sustainable Purchasing Leadership Council (SPLC). After a couple of years of internal development, the council held its official national launch at its annual summit in Washington, D.C., in May 2014. The council, led by sustainability strategist and social entrepreneur Jason Pearson, was created by a founding circle that includes global companies, government agencies, civic associations, and nonprofit organizations, and now has a membership that represents the broad sweep of production and purchasing sectors. Their stated objective is to “establish widely accepted purchasing standards that will drive market transformation toward sustainability along entire supply chains of purchased goods and services.”

By 2014, the council had 90 organizations and businesses participating on its various technical advisory teams. The council was in the process of developing for members standards and guidance that were aimed at reforming the core of our industrial economy, a critical step if society is going to transform itself into an ecologically more benevolent state.

BRI provided them with their first philanthropic grant, which was used to invite public advocacy and environmental organizations to the 2014 summit. SPLC included the World Wildlife Fund, the Forest Stewardship Council, and the World Resources Institute—each of which has global networks and reputations as standard bearers for ecologically responsible practices. By then the council had already developed a system for collecting membership dues.

Following the national launch in May, the council formalized its structure and practice standards. In early 2015, it released Guidance for Leadership in Sustainable Purchasing, a 200-page handbook to guide strategic action by purchasers. Member companies piloted the handbook over the following six months. Over time, SPLC will refine and further develop those standards, offer a rating system for participating members, and develop ways to measure impact and social change.

The council actively engages both purchasers and suppliers to build the markets of the future. A key part of their vision is to take purchasing practices beyond the limited domains of individual businesses and organizations—the famous triple bottom line—in a collective effort to change entire economic sectors. They envision harnessing the power and innovation capacity of economic markets to advance a future that is truly environmentally, socially, and economically sustainable.

**SUSTAINABLE PURCHASING
LEADERSHIP COUNCIL
FOUNDING CIRCLE**

Aflac
American University
Apex Clean Energy
Arizona State university
Bloomberg
Caesars Entertainment
California Department of General Services
CIPS Sustainability Index
City of Portland, OR
City of San Francisco, CA
Dell
Domtar
EcoLab
Emory University
FairTrade USA
FedEx
Goodyear
GreenCircle Certified
JC Penny
King County, WA
Lockheed Martin
Michigan Department of Environmental Quality
Michigan Department of Technology, Management & Budget
Minnesota Materials Management Division
Minnesota Pollution Control Agency
Office Depot
Portland Community College
Province of Nova Scotia
SciQuest
SCS Global Services
Social Hotspots Database Project
The CarbonNeutral Company
The District of Columbia
UL Environment
US Department of Agriculture
US Department of Energy
US Environmental Protection Agency
Waste Management

**THE DEVELOPMENT
OF ENVIRONMENTAL
MEDICINE**
**CENTER FOR INTEGRATIVE
MEDICINE AT THE UNIVERSITY
OF ARIZONA**

*"In the interest of well-being,
I advise you to guard against
nature deficit disorder by
letting nature into your
awareness as often as you
can, any way you can. Watch
the ever-changing shapes of
clouds, admire trees, listen to
the wind, look at the moon, at
birds, at mountains. And when
you do, be aware that you
are part of nature, connected
through it to something
much larger than yourself
that transcends and will
survive you."*

—Andrew Weil, MD

As we developed our eclectic and holistic approach to our philanthropic work, we were able to see that virtually every sector of society was in some way embracing the challenge to better understand its relationship to natural environments and advance the adoption of ecologically responsible practices. One of the most intriguing areas, one that has not traditionally been seen as a domain of environmental change work, is that of public health. Over the years, the impact of pollution and stress on human health has received attention but more often than not as a social justice issue or a challenge to stop the source of pollution. Doctors themselves have not often been educated to fully understand the impact on individual health from environmental factors in ways that will make them more effective.

Dr. Andrew Weil, who founded the Arizona Center for Integrative Medicine at The University of Arizona in 1994, had been thinking about how to more fully integrate an understanding of the environment's impact on individual health among health care practitioners when we met him in 2008. Andrew is a renowned pioneer in integrative medicine, which brings together the best of the world's different healing systems in a practice that focuses on mind, body, and spirit. His many books over the years have taught millions of readers in North America about ways to stay healthy that do not always depend on institutionalized medical treatment. The center has been at the heart of a movement to change the overall practice of medicine. Health care practitioners, he has realized, are potentially powerful social change agents.



"The Center was built," according to its website, "upon the premise that the best way to change a field is to educate the most gifted professionals and place them in settings where they can, in turn, teach others."

Sensing that there was a new frontier in the field of medicine, we offered the center a first grant to develop an educational module with which to teach health practitioners about the negative effects of various environmental influences—including widespread pollution in the air and water, the coming effects of changes in the weather associated with climate change, and the food we eat. By 2015, the center had established an educational module for its new students.

"Your original gift in 2009 allowed us to bring together a group of experts to strategize and develop an action plan to educate health professionals about environmental influences on individual and global health," wrote the center's director, Dr. Victoria Maizes, in a June 2015 letter. "You then helped us create and deliver an educational module on environmental health. We now have an Environmental Health and Medicine program available for medical schools, nursing schools, and residencies. The module for health professional training has reached thousands of health care providers."

BRI provided the center with a successor grant in 2015 that would help it develop the environmental medicine component of a broad effort to involve the public called the Integrative Health Self-Care programs. We saw a chance to follow our earlier support for the education of health care professionals with support for a next level of development that would allow the center to use what they had learned from development of the online module for environmental medicine to help individuals be more effective guardians of their own health.

The twelve-week program will use an interactive online format to educate individuals around the world on the health benefits of getting adequate sleep, regular physical activity, and good nutrition, as well as having healthy relationships with others, protecting oneself against stress, developing a sense of spirituality, and maintaining a balance with the environment around us. It will be a primary part of The 100 Million Healthier Lives Campaign that is supported by more than 500 organizations, including the Robert Wood Johnson Foundation, the Bill and Melinda Gates Foundation and the MacArthur Foundation.



*"We now have an
Environmental Health
and Medicine program
available for medical schools,
nursing schools, and
residencies. The module for
health professional training
has reached thousands
of health care providers."*

—Dr. Victoria Maizes

OUR FOOD SYSTEMS

Over the past decade the sustainable food movement has evolved rapidly, connecting a new generation of local organic farmers with communities and restaurants all over the country. They have made it a point of pride to source locally and in ways that are ecologically sustainable.

SLOW MONEY

Slow Money, a decentralized movement that started in 2009, was an early mover in the effort to connect local farmers with investment capital. Like many others at the time, we had noted the early emergence of local, organic farms in communities around the country. Slow Money had identified the key to expanding the growth of those local food movements. “A new generation of entrepreneurs is starting to rebuild local food systems,” they note on their website, “and the capital available to them is insufficient.”

At that time, Slow Money had more than 1,000 attendees at their first two national gatherings from more than 30 states and six countries and had raised \$2.5 million to invest in local food initiatives.



Blackstone Ranch Institute provided a grant in early 2011 to bring together 25 of their best leaders to consider ways to consolidate a national leadership structure without losing the spontaneity and local sovereignty of a decentralized, largely self-organizing network. We saw this as an important early growth point for the network, one that would help them develop a deliberate national leadership presence in what had been a highly decentralized movement. While the gathering was not decisive, it was an important early step toward the development of Slow Money as a national movement.

Since then, the network has continued to grow and has an impressive list of hundreds of individuals who have invested in the effort. By 2015, they were in 46 states and had raised \$40 million since 2010 to support more than 400 small food enterprises around the country.

COMMUNITY TABLE AT BABSON COLLEGE

We also provided a grant in 2013 to the Lewis Institute at Babson College for the development of their innovative Uncommon Table as a way to incubate entrepreneurial food system initiatives by their students, alumni, and a variety of groups interested in sustainable food systems. Babson, which for years has been rated nationally as the best business school in the country for entrepreneurship, fosters a social change ethic among its students and has embedded concerns for sustainability in many of its educational offerings.

Lewis Institute has used the tradition of the common table, which brings together students and various organizations, businesses, and potential investors as a way to help transform the ideas generated in an academic environment into real projects and businesses. Students present ventures they are working on, receive advice from experienced professionals, and often leave with new connections and understanding that moves them closer to realization of their ambitions. A number of their students are food entrepreneurs. Cheryl Kiser, the director of the institute, and Rachel Greenberger, who runs their Food Sol program, requested a grant to help them launch similar efforts in other institutions of higher education.

Rachel Greenberger has noted that what the table format offers is the kind of conversation that now exists in the online world, and that this is how people actually learn—through the informal and probing exchange of ideas and information between those with new ambition and those with experience, connections, and resources. Ultimately, it is a vehicle for challenging the status quo and coming up with innovative business ventures in a dynamic sector that has both commercial promise and social value. It has become a popular model in the Boston and New York areas among food entrepreneurs, companies, academics, and consultants.

They used our grant to take the initiative beyond their world in Boston to introduce it to a small group of other universities interested in doing something similar. The most successful was at New York University’s food studies program. There are also now community tables in Rhode Island on a regular basis, and conversations aimed at their development in Vermont. The community table is a model that Cheryl and Rachel hope will also spread to others in the business and organizational worlds.



Meeting of an Uncommon Table at Lewis Institute at Babson College. Courtesy of Lewis Institute

INDIGENOUS FARM PROJECT

In the summer of 2012, we funded a farming project among Native American communities in eastern California that was initiated by Region 9 of the Environmental Protection Agency. Jared Blumenfeld, the director, had taken a train tour of San Joaquin Valley native communities and was moved by the depth of poverty that he saw. Traditional farming practices were disappearing, and there were many health problems, including high rates of diabetes, related to poor diets. He formed a partnership with a collection of young farming advocates from a group of organizations that included Future Farmers, Planting Justice, and the Greenhorns.

We knew when we provided the grant that much of the challenge of this initiative would be to establish trust with Native American groups that had a long history of being disappointed by the limited commitments of outsiders who came with promises of help. It would be similar to the challenges faced by the organizers of the Native Land Trust initiative and was about building trust.

Jared had previously worked with Amy Franceschini of Futurefarmers, which planted a modern-day version of World War II victory gardens in San Francisco when he was head of the city's Department of the Environment. He asked us if we would provide a seed grant to start similar garden projects among some of the native communities he had seen. He thought at the time that he could use his network of EPA representatives on tribal lands in the West to spread the practice.

At the time, there was an emerging group of young Native American community activists interested in reviving agriculture in their communities that was part of the broader national trend supporting local food initiatives. Anya Kamenskaya of the Greenhorns, an organization of young farmers who were encouraging their peers to become farmers as a way of restoring community food systems and local ecologies, went to work in the Owens Valley in eastern California to start a pilot garden project with the Big Pine Paiute tribe. Owens Valley is a focal point for the region's Native American communities.

We knew when we provided the grant that much of the challenge of this initiative would be to establish trust with Native American groups that had a long history of being disappointed by the limited commitments of outsiders who came with promises of help. It would be similar to the challenges faced by the organizers of the Native Land Trust initiative and was about building trust. The opportunity to extend the growing local food movement to Native communities, which carried the potential to improve overall health, was one that appealed to our objective of planting seeds in as many areas as possible—and in this case, to support communities in great need.

While Anya cultivated good relationships with those she worked with, the challenge of building a network of other tribal areas that would champion

her initial work was a big one. The EPA representatives on native lands were not able in the end to make her campaign the priority that was initially envisioned, and Native American communities were dealing with a variety of challenges—including a chronic lack of funding support for this sort of effort—that made it difficult to gain momentum.

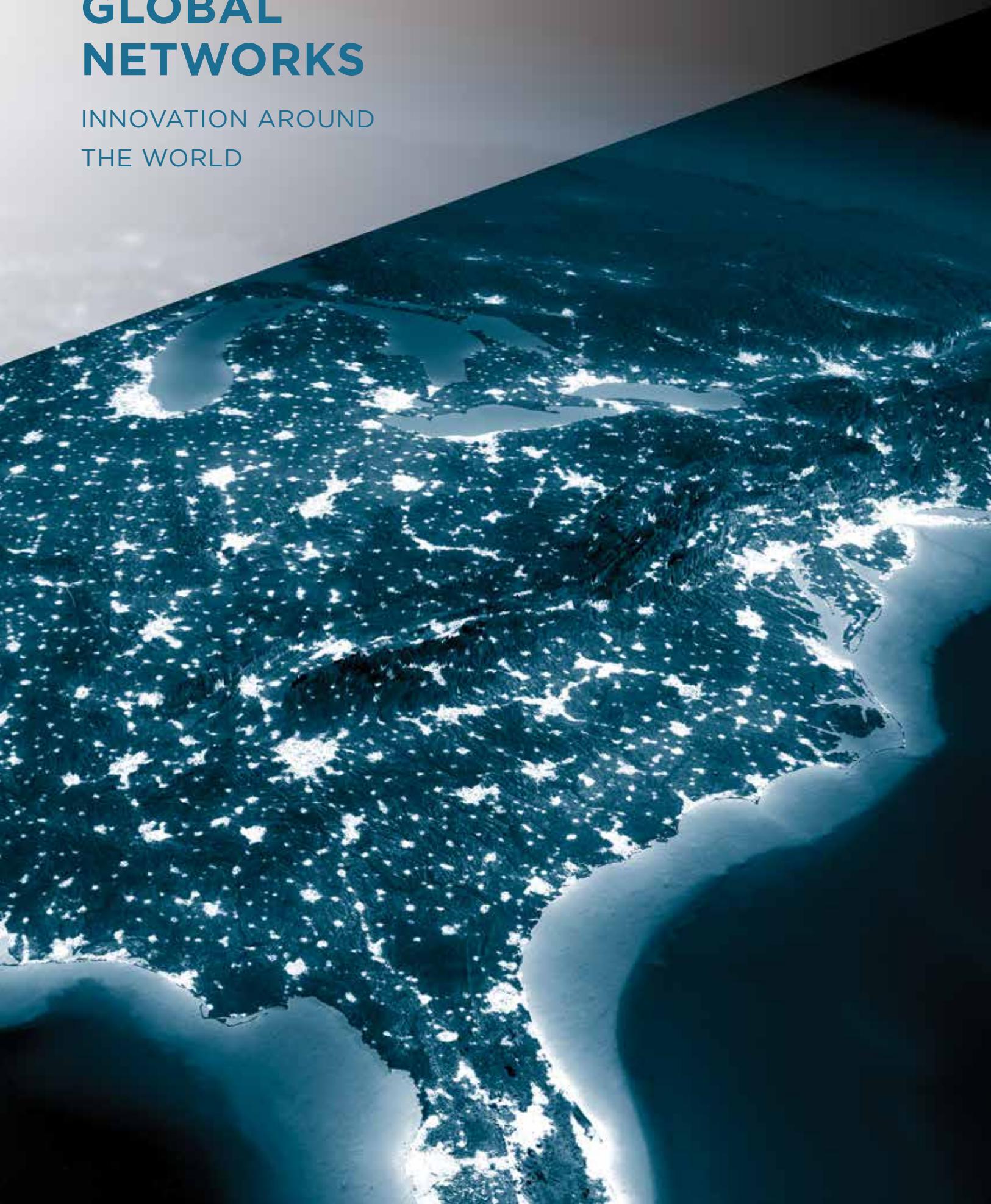
But the Big Pine Paiute tribe around Bishop did have some resources and was able to make this project a priority. Their work with Anya was progressing. By the middle of 2014, Anya was able to report that a group of 30 tribes from the region had recently come together and wanted to develop a three-year plan to build a coalition that would initiate similar projects in other places.



Garden Project of Big Pine Paiute Tribe in Owens Valley in eastern California. Courtesy of Future Farmers

GLOBAL NETWORKS

INNOVATION AROUND THE WORLD



When we first started offering grants, we wanted to concentrate on building a network of organizational partners in North America. We did not see ourselves as working globally. But the truth is that we were already funding initiatives that would have global impact by our second and third years. WRI's Business and Ecosystem Leadership Group was the first. As we developed relationships with those doing global work, we started looking for initiatives that would involve multiple countries and weave together multiple goals rather than focus our attention on individual projects. That is how we saw ourselves having broad-scale impact.

When Terry Garcia, then head of Mission Programs at National Geographic Society (NGS), approached us in 2007 about a new initiative called the Carbon Measurement Collaborative, we knew the impact would be global given the interests involved. James Baker, who had been administrator of the National Oceanic and Atmospheric Administration during the 1990s, was working with Gary Richards of the Australian government to form a global coalition of organizations to pair emerging carbon markets with forest protection and restoration. While early carbon markets have had checkered and often controversial histories, at the time there were a number of conservationists and scientists who saw a chance to achieve longstanding conservation goals by helping to develop early carbon markets.

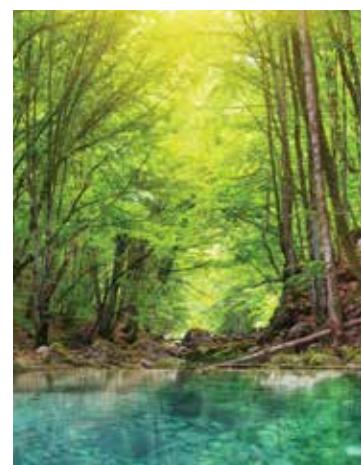
Jim and Gary were putting together climate scientists, major global conservation organizations, leading global satellite companies, and major global funders, such as the World Bank, to explore the possibilities. This was just the kind of cross-sector mix we looked to support. The idea was to map out the world's stores of carbon, beginning with forests.

Forests are valued for their ability to sequester carbon and prevent it from getting into the atmosphere—and were perhaps easiest to measure. The collaborative would then try to convince governments and owners of land that they could earn income either in carbon credits, by not cutting down forests, or from some of the international funds that existed to pay farmers, loggers, and governments not to cut. The hope was that this would be a model for new mapping systems of land use that could provide some baseline data for emerging carbon markets, and would result in the preservation of the world's forests.

When we were initially approached, Pat wondered why we were being asked to come up with the money for the first gathering, rather than

FOREST PROTECTION AND EARLY CARBON MARKETS

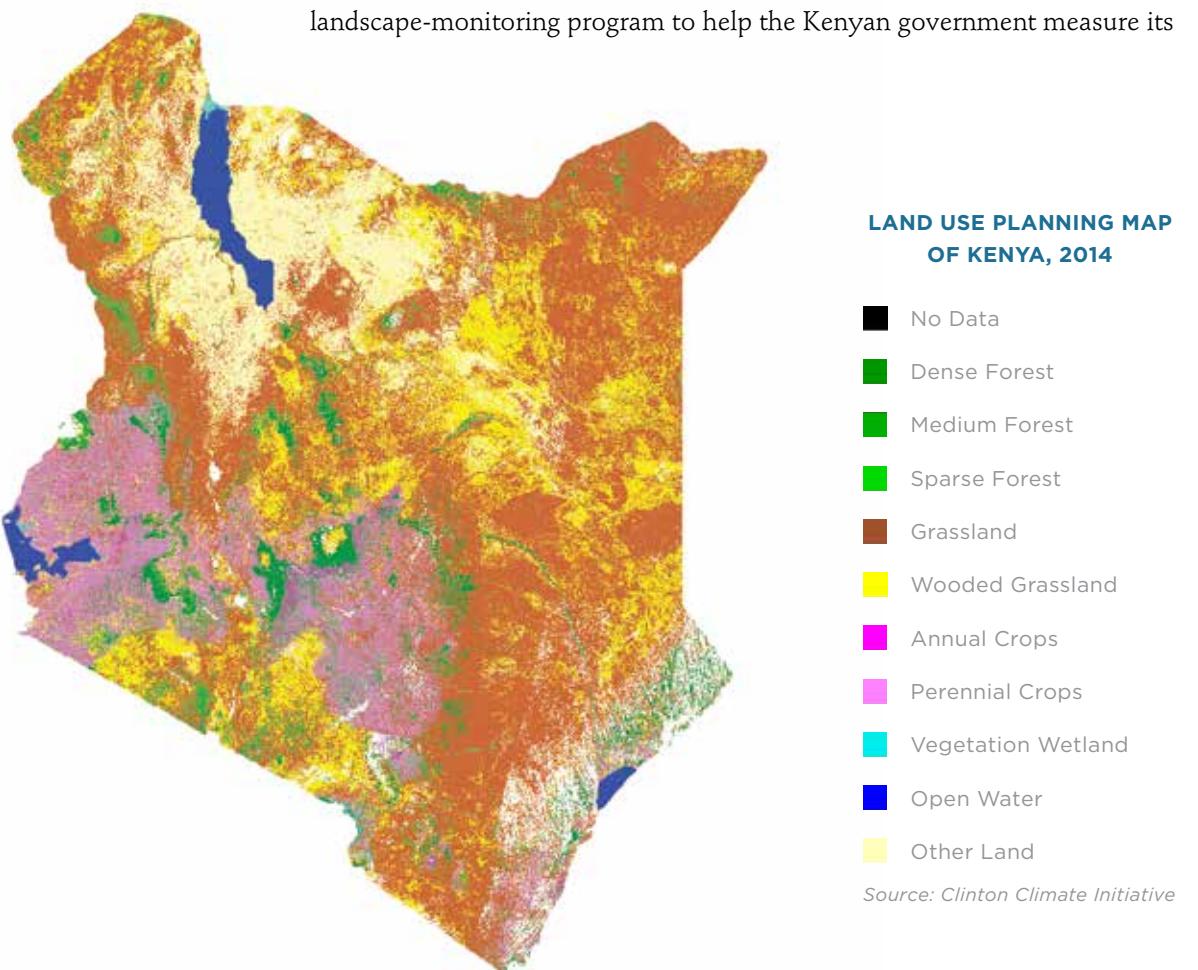
CARBON MEASUREMENT COLLABORATIVE



National Geographic Society or the Clinton Foundation, which were already involved and presumably had access to plenty of funds. Terry suggested that he could come up with the money for the gathering eventually, but given the size of the NGS bureaucracy, it could take months to do so. There was interest in the idea and momentum at the time, and he didn't want to miss the opportunity. And if BRI's objective was to play a catalytic role, here was a good opportunity.

Our hunch was that by funding the first meeting, we could further engage the involvement of organizations and funders that would identify enough funds to turn the idea into a global effort. Within several months of the inaugural meeting at National Geographic Society, the Rockefeller Foundation sponsored a workshop in Bellagio, Italy, then committed \$7 million for four years to the Clinton Climate Initiative (CCI) to start pilot projects in Kenya, Tanzania, Indonesia, Cambodia, and Guyana.

Over time, the Kenya program became one of the most successful of the pilot efforts, attracting the interest and financial support of the Australian government. CCI was funded by AUSAid to develop a \$12 million four-year landscape-monitoring program to help the Kenyan government measure its



greenhouse gas emissions, engage in land restoration, and manage its natural resources. The government was interested specifically in mapping the country's water supplies and croplands, as well as improving the productivity of their agricultural sector and flower markets, which earned them income from global markets. This was likely a more immediate interest than carbon emission reductions.

The Kenyan example is an important one. Global concerns in Europe, the United States, and in many global organizations were increasingly focused on the reduction of carbon emissions as a way to slow down global warming. But the actual means of achieving that end might well be things like land restoration and forest preservation, which were worth doing for their own sake and might be a higher priority for a given country than the goal of reduced carbon. The programs and technical means developed in Kenya would have broad applicability to such ends. The best programs would realize multiple goals.

The program in Guyana was backed by a five-year, \$250 million pledge from the Norwegian government through the UN-REDD Programme to pay the government to put strict and enforceable limits on deforestation. By 2014, half that amount had been allotted. Guyana, a small country, is almost completely covered by virgin rainforest. Its monitoring system allows verification of the limited logging that does take place, and the funds available for preventing carbon emissions are used for other low-carbon economic initiatives.

"The Low Carbon Development Strategy is proof that enlightened climate policy can go hand in hand with job creation, poverty alleviation, and economic sustainability," wrote President Bill Clinton in a December 20, 2011, letter to former President Bharrat Jagdeo. "This program's success in preserving 99.5 percent of Guyana's rainforests will leave a profound legacy for future generations. And by not just working with Norway, but investing your climate service funds back into Guyana's green economy, the impact of this partnership will continue to multiply." After he left office, President Jagdeo led an effort initiated by CCI and the International Union for Conservation of Nature and funded by Norway to visit other countries as an ambassador for the program to see if similar strategies could be developed elsewhere.

With support from Norway and the Rockefeller Foundation, CCI was also a key contributor to the development of Indonesia's first REDD+ project,

Many global organizations were increasingly focused on the reduction of carbon emissions as a way to slow down global warming. But the actual means of achieving that end might well be things like land restoration and forest preservation, which were worth doing for their own sake and might be a higher priority for a given country than the goal of reduced carbon.

which was the largest of the global programs issuing carbon credits. It made progress in the realization of social and environmental safeguards and established some community livelihood programs. But there were also countries among the initial group in which the initiative failed because it was not embraced by the governments. The project in Cambodia, one of the first four selected for pilot projects, did not work out. There were a few small projects in the beginning, but the government showed little interest and the program was halted. Similarly, it proved difficult to make progress in Tanzania.

By 2014, half a dozen years after the start of the program, the program in Kenya was attracting interest from the neighboring countries of Rwanda and Uganda. The German government helped start various restoration initiatives there and in Ethiopia with a grant to a group of global organizations including the Clinton Climate Initiative, WRI, IUCN, the Greenbelt Movement, and Conservation International. Conversations have also started in India about similar programs, but the Indian government is in a period of industrial growth and is not very receptive to entreaties by Western governments to reduce its fossil fuel consumption. There may be ways, however, to offset the use of fossil fuels by restoring land that sequesters carbon and gains the financial support of international conservation groups. Programs that offer such offsets as a way to compensate have received criticism from many in the environmental community who see such deals as a retreat from the real goal of reducing carbon emissions, but the success of various measurement programs and the strong interest on the part of developing countries has shown that this is an important way to meet the global challenge of climate change.

**FUNDING THE NEXT
DECades OF GREEN
INFRASTRUCTURE**
ACCELERATING RESILIENT
INVESTMENT IN SUSTAINABLE
ECONOMIES (ARISE)

By 2010, a number of global institutions were realizing that there would be a growing stream of green infrastructure projects coming to fruition in the years ahead. These would include renewable energy projects, sustainable infrastructure in cities, and responses to the extremes of climate change. Major global funding institutions—including the World Bank and the IMF, global investors and sovereign wealth funds, large global philanthropies such as the Rockefeller Foundation, and some of the global environmental organizations—wanted to know how to nurture new initiatives that started small and would need major financing further in their life cycles as they grew to scale. Nurturing small beginnings was not often a specialty of global financiers.

The Rockefeller Foundation held a meeting at its center in Bellagio on Lake Cuomo in Italy in early 2012 that included a number of such interests. David Jhirad—a professor at Johns Hopkins University, a consultant to and former employee of the Rockefeller Foundation, and friend of BRI since the Carbon Measurement Collaborative—facilitated the gathering. Participants were sensing a growing need for some global mechanism that would channel various forms of funding to this new galaxy of initiatives.

David and his colleagues developed the idea of a portfolio preparation facility, an entity that would align new projects with appropriate forms of blended financing that would include direct investment, commercial loans, and philanthropic grants. The Rockefeller Foundation had given him a grant to debut the idea at global forums, where it was well received. He and his organization, the Earth Council Alliance, approached us for a bridge grant that would allow him to further develop a group that would implement the model. The initiative was named Accelerating Resilient Investment in Sustainable Economies (ARISE). The timing was good, and the support of the Rockefeller Foundation gave it a lot of initial credibility. We were able to help David move from acceptance of the model to its early adoption. This was a funding mechanism that could yield benefits for years to come.

Within a few years, the financing model had been incorporated into the Rockefeller Foundation's 100 Resilient Cities program, a global effort to help cities manage the development of programs in response to the imperatives of climate change. The foundation would be a channel for substantial funding to cities, so the model gave them a mechanism for pairing it with the appropriate projects.

A couple of years later, the Rockefeller Foundation announced that it would put \$75 million into David's initiative to launch renewable energy projects in villages around India—and then, if successful, perhaps into Africa and other parts of Asia. The effort would employ the funding mechanism created by ARISE. David, who was originally from India, had a long-standing interest in the energy challenges of poorer countries like his own. He had been talking with us for a few years about the initiative, which he envisioned at the time as one that would leverage the existence of cell-phone towers running off biofuels in Indian villages. The towers would serve as anchors for further investment in renewable energies for surrounding communities that were not connected to national electricity grids.



BUILDING NEW GRASSROOTS NETWORKS OF AND FOR WOMEN

WOMEN'S EARTH AND CLIMATE
ACTION NETWORK (WECAN)

COUNTRIES PARTICIPATING IN WECAN INITIATIVES

Africa

Ethiopia
Kenya
Nigeria
Tanzania
Swaziland
Sudan
Uganda

Democratic Republic of Congo
Sierra Leone

Senegal
Morocco
Egypt
Algeria

Middle East

Pakistan
Palestine
Iraq
Tunisia
Syria
Jordan
Pakistan

Europe

Scotland
UK
Germany
Belarus
France
Ireland
Greece
Sweden
Switzerland
Moldova

In keeping with our sense that we had to seed initiatives at different scales and from different parts of the larger ecosystem of global organizations, we were also open to some of the pioneering attempts to give voice and resources to grassroots initiatives. It would be a way to empower activists and those who normally don't have much of a voice at the global level where many of the resources for environmental projects are allocated. And in many cases, grassroots mobilization is one of the only ways to draw attention to the environmentally damaging practices of many global companies and governments.

In the first half of 2013, Osprey Orielle Lake, co-founder and executive director of what became the Women's Earth and Climate Action Network (WECAN), asked if we would be one of a group of funders to support their global launch in the New York City area at the time of the UN General meetings in September. The group—which included Ted Turner Enterprises, the Christensen Fund, the Heinrich Boll Foundation, *Ms. Magazine*, and about 50 small donors—had already pledged support. We told her that a better role for us would be to provide a starter grant to whatever was going to turn their aspirations into actions on the ground. Rather than put money into the summit, which would cost as much as \$400,000 and for which they had already raised much of their goal, we provided them with a first grant to put together an online solutions forum. The forum was a popular idea, particularly among women in organizations in poorer countries who wanted help in putting together initiatives at the grassroots level.

What made WECAN stand out for us was that it was a new network run by and for women. More particularly, it was set up as a way to integrate grassroots women into larger global structures, to give them a seat at the table at UN forums and other international gatherings where decisions would be made about development plans in their communities and ways to allocate development resources in their regions. To our knowledge, there were a few other women's networks, but none with this particular focus. It added something of value to the larger equation. "We have a deep love for grassroots and indigenous communities," Osprey noted. "All these women were doing great things, but they were not connected and did not have access to each others' knowledge and experiences."

A couple of years after the first summit and the launch of their solutions forum, they had eight working groups. Their social media development for the online platform has enabled their network to grow quickly, which Osprey believes would not have happened without it.

The following year, we provided another grant to start a training program that evolved out of the solutions forum. Women in Africa and Latin America wanted some help learning how to build organizations, raise money, or learn about the latest scientific findings in agriculture, reforestation, renewable energy, or climate science. An initial group of 40 women from nine of the countries in the Middle East and North Africa region were part of five-week training programs hosted on WebEx. Experts on food, water, and energy issues participated. They also held a training exercise for pygmy women in the Itombwe rainforest, in the Democratic Republic of Congo, who wanted help protecting the forest. There, the military and local policemen joined the trainings. In Latin America, women's groups wanted to take part in climate negotiations and be better able to represent their interests. By late 2014, there were waiting lists for the training programs, which women had heard about through their own networks and of which they wanted to be a part.



COUNTRIES PARTICIPATING IN WECAN INITIATIVES (Continued)

Asia & Global Island Nations

India
Bangladesh
Maldives
Thailand
Indonesia
Solomon Islands
Marshall Islands
Philippines

Australia

The Americas
United States- OR, FL, TX, CO,
NY, HW, DE, WA, CA, AL, VA,
MN, IL, ND, NV, DC & others

Canada
Jamaica
Haiti
Ecuador
Colombia
Bolivia
Chile
Peru

Participants in WECAN Training
in Democratic Republic of Congo
in 2015. Courtesy of WECAN

ENSHRINING THE RIGHTS OF NATURE GLOBAL ALLIANCE FOR THE RIGHTS OF NATURE

Even though there has been progress in cultivating an ethic of better environmental stewardship among some companies, there are still many places in the world where extractive practices are threatening treasured enclaves of biodiversity. All too often, those who stand in the way and try to prevent companies from exploiting the resources have been indigenous groups with very little power or wealth. We had seen earlier, in a 2008 gathering of the Enduring Voices Project at National Geographic, which we funded along with others to help preserve indigenous languages, that ecological hot spots of high biodiversity were more often than not located in the same places as indigenous cultures. A number of environmental lawyers and indigenous leaders have come to the conclusion that the only way to protect many of these areas is to endow them with rights that can be protected in a court of law.



GLOBAL ALLIANCE FOR THE RIGHTS OF NATURE COUNTRIES OF OPERATION

Argentina
Australia
Bolivia
Brazil
Canada
Costa Rica
Ecuador
France
Germany
Guatemala
India
New Zealand
Nigeria
Paraguay
Peru
Scotland
South Africa
South Korea
Thailand
Turtle Island
Uganda
United Kingdom
United States
Venezuela

The Global Alliance for the Rights of Nature has been an effort to remedy that imbalance. Robin Milam, the American coordinator of the alliance, requested grant support in 2013 to bring a number of environmental lawyers, indigenous leaders, and environmentalists from different parts of the world to Quito, Ecuador, for a formal global launch of the alliance. When we provided the initial grant, she was able to secure a matching grant from Wallace Global Fund. She explained that this was a long-term endeavor, one that would play out over decades, and likened it to the century it took the United States to move from the Emancipation Proclamation during the Civil War to the civil rights legislation of the 1960s. Given the global threats to the remaining pockets of biodiversity, this seemed to us like something that needed to happen.

Ecuador had reworked its constitution, which now included language that granted rights to nature itself, rights that could be protected under national law. It was an early model for a movement that aimed to “constitutionalize” the rights of nature. The gathering was an opportunity to celebrate the achievements of the Ecuadorian constitutional process. It also provided an early moment of unity for what had been a largely decentralized emergence of rights-of-nature campaigns in a small but growing number of countries that include Australia, Switzerland, Canada, South Africa, India, Romania, Bolivia, Argentina, and the United States. Across the United States, dozens of communities from the northeast to California have implemented local community-rights laws that include rights of nature. It is a movement that transcends political values and ideology. The cities and townships in the United States that have embraced rights-of-nature legislation run the spectrum from conservative to progressive communities.

The meeting in Ecuador was devoted to advancing public awareness and moving the evolution of the legal basis for the movement ahead. It gave the first of these a huge boost by holding tribunals that focused attention on particular cases from around the world, including the recent BP oil spill in the Gulf of Mexico and the endangerment of the Great Barrier Reef by coal mines in Australia. These early tribunals were followed more recently by two prominent international rights-of-nature tribunals that were held against the backdrop of the UNFCCC climate talks in Lima in December 2014 and in Paris in December 2015, at which they examined over a dozen cases highlighting violations to the rights of nature around the world. In Paris, the tribunal was formalized as the International Tribunal for the Rights of Nature.

The meeting also helped launch a European Union citizen initiative process, which would require 1 million signatures from at least seven countries to get rights-of-nature discussions on the EU agenda. Having European civil society groups involved in the global campaign would add much credibility to it.

Following the gathering in Quito, the Ecuadorian government announced plans to open up a new part of the country for oil extraction, which is estimated to contain about 20 percent of the national oil supply. Ecuador is the smallest of the OPEC countries. A portion of it was in Yasuní National Park in the Amazon region, considered one of the most biologically diverse places in the world. Yasunidos, a group of indigenous leaders and environmental activists associated with the global alliance, opposed the decision and started a national campaign. The actions in Ecuador provide a microcosm of the ongoing struggles that will be faced by the alliance, as well as an early indication of how it responds.

In an article in the April 14, 2014, *Wall Street Journal*, Mercedes Alvaro reported that “A coalition opposed to new oil development in a national park in Ecuador’s Amazon rainforest say they have collected enough signatures to force a referendum on the activity, which experts say could set a precedent for future disputes between environmentalist, the government and industry ... [I]f a referendum is approved it could set a precedent for environmentalists to take on several other mining and oil projects in the country. Yasunidos have already said they plan to push for changes to Ecuador’s policies in the extractive industries.”

In the end, more than half of the 700,000 signatures collected were invalidated by the Ecuadorian electoral authority. The referendum was never held, and the Ecuadorian government has issued permits that could allow oil drilling to start sometime in 2016.

Robin Milam, the American coordinator of the alliance, explained that this was a long-term endeavor, one that would play out over decades, and likened it to the century it took the United States to move from the Emancipation Proclamation during the Civil War to the civil rights legislation of the 1960s. Given the global threats to the remaining pockets of biodiversity, this seemed to us like something that needed to happen.

PROTECTING THE WORLD'S OCEANS AND ISLANDS

It would be impossible to embrace the full range of environmental challenges without addressing the fate of the world's marine life and its oceans. Yet it has been difficult to find early-stage initiatives with the potential to be effective at a broad scale. National sovereignties extend 200 miles beyond national coastlines; beyond that, there is no established authority governing what human societies do to the world's oceans. Much important work has been done on setting aside coastal areas as marine sanctuaries, and on developing better plans for sustainable fisheries. And scientists have been steadily increasing our understanding of the rich, complex ocean ecosystems. But it has been difficult to put together global or even large regional networks with the ability to take on the challenge of the oceans as whole systems.

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GLOBAL ALERT SYSTEM FOR OCEAN TRASH

One initiative we supported with a couple of early grants in 2010 and 2011 was the Global Alert System for Ocean Trash, designed to address pollution in the oceans at a global scale. While the attempt ultimately failed, it was an original and highly ambitious attempt to work out a creative response to one of the world's most vexing challenges, and it got as far as the Clinton Global Initiative. Susan Reeve, a former director of special projects for National Geographic who managed their annual explorer symposium, worked with the Ocean Recovery Alliance to develop a way to monitor the flows of trash into the oceans from rivers and other waterways.

"Ocean Recovery Alliance is showing a demonstration of its new Global Alert platform at CGI, which was developed as a citizen science and river group tool designed to empower local communities to address the growing problem of trash flowing to the ocean through the world's rivers, lakes, streams and waterways," explained a press release that month in *Market-Watch*, an online publication.

"Global Alert's co-founder and Director of Partnerships, Susan Reeve, has assembled a strategic group of partners that have provided significant time and resources to the project since 2010. Blackstone Ranch Institute, a leader in supporting pioneers of environmental change, provided a grant for the program to develop the Global Alert interactive demonstration site being featured at CGI 2011 and at the Economist World Ocean Conference in 2012. The Global Alert demo site provides a glimpse of how community groups, local, national and international agencies can use the platform to see, share and solve the floating trash problem. Global Alert will shape the way that communities play an integral role in bettering their environments by inspiring cooperation, collaboration and solutions."

Susan ultimately abandoned the effort after she was unable to attract the degree of funding support she would need to build it out over the next few years. Without an organizational infrastructure of support around her, it proved too difficult for her to continue. But we have always wondered what might have happened if all the pieces had been in place at that time to realize the initiative's potential.



RENEWABLE ENERGY AND COASTAL CONSERVATION: EARTH COUNCIL ALLIANCE, SIDS DOCK, AND BLUE GUARDIANS

A few years later, in early 2015, we provided another grant to the Earth Council Alliance. ECA was the primary organizer for an effort to bring together private investors, global-satellite and information-system companies, major global conservation groups, and bilateral and multilateral donors to channel funds to renewable energy projects and ocean conservation initiatives in countries that were part of SIDS Dock, an association of 31 small-island developing states (SIDS) in the Caribbean, Pacific and Indian oceans. The association would receive its UN treaty status at a signing ceremony with the UN secretary-general at the convening of the UN General Assembly in September, allowing it to receive funds from UN member countries, including France, Norway, and Japan. The funding mechanism created by ARISE would be used to channel investment monies, loans and philanthropic grants to a wide variety of projects.

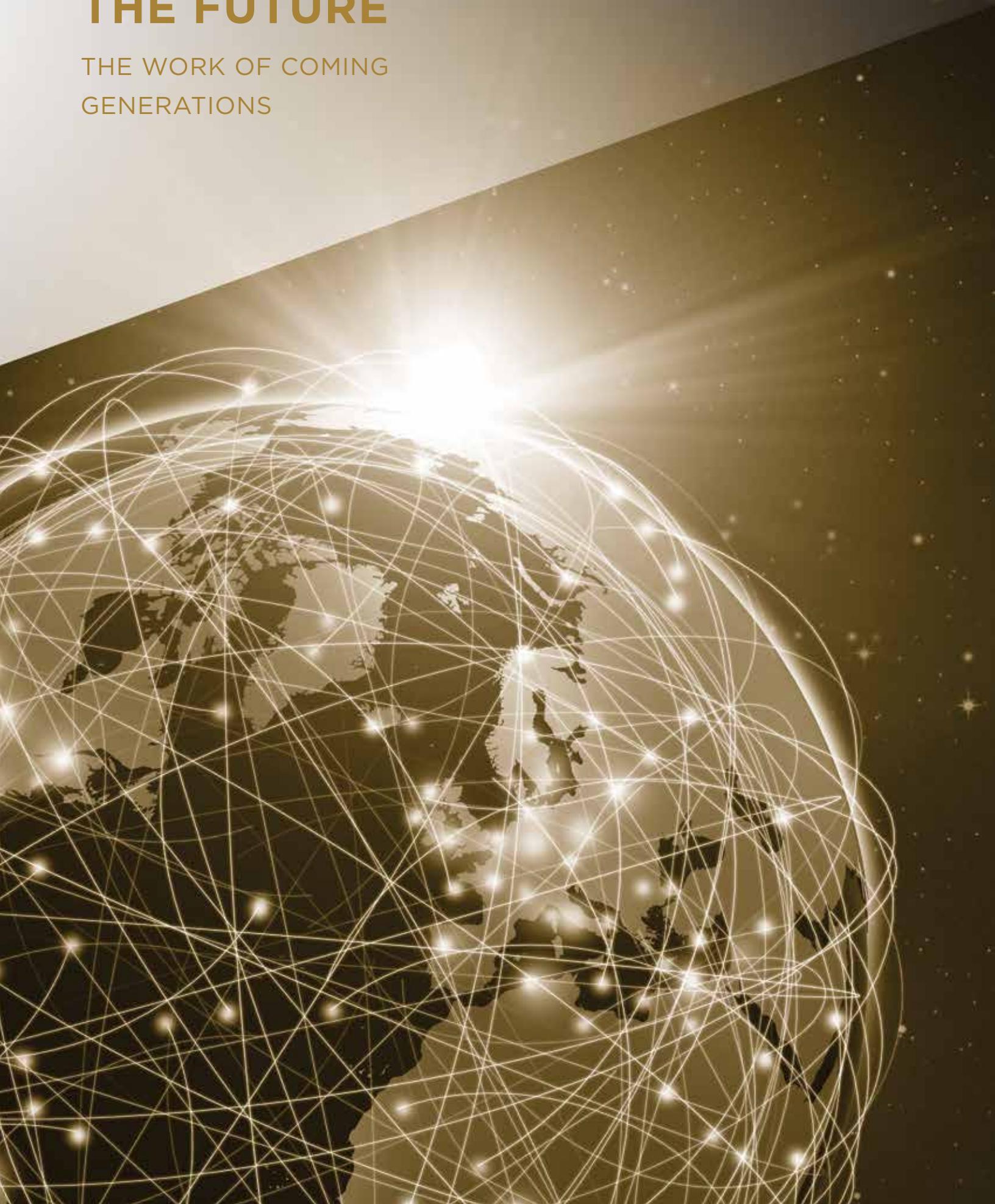
ECA used the grant to work with SIDS Dock to develop the Blue Guardians initiative, a coalition of organizations and businesses that includes the Clinton Climate Initiative, Digital Global, Esri, Global Environment Facility, Google Ocean, and the World Bank. The group has committed to raising \$100 million between 2016 and 2020 for renewable energy and climate resilience projects in the island nations that are members of SIDS Dock. The Blue Guardians initiative was formally launched at the UNFCCC Conference of Parties (COP 21 in Paris) in December 2015.

THE BLUE GUARDIANS

SIDS DOCK
Clinton Climate Initiative
Conservation International
Digital Globe
Earth Capital Partners
Esri
Global Island Partnership
Google Ocean
GRID-Arendal
Geographic Planning Collaborative (GPC)
Global Environment Facility
Mission Blue,
Ocean Foundation
The Nature Conservancy
Waitt Foundation

THE FUTURE

THE WORK OF COMING GENERATIONS



Much of the work Blackstone Ranch Institute had been supporting was based on relatively new approaches to a lot of familiar challenges—how to design cities, how to protect nature, how to do things in more sustainable ways. Perhaps the newest approach was the emerging ethic of working *with* rather than *against* nature. Based on the realization that nature will have to be a partner rather than an adversary or victim, it is becoming fundamental to a number of initiatives that are systemic in their design.

When the recession hit in 2008, National Geographic Society (NGS) lost some of the corporate sponsorships it had previously relied on for its most prestigious annual gathering, the Explorers Symposium. Every summer, explorers from around the world, old and new, gathered at NGS headquarters in Washington, D.C., to report on their work around the world. It was a week of PowerPoints and receptions, as well as a good way to get a look at the unusual variety of innovative projects that characterized the National Geographic world. When we were asked if we would be willing to fill in the gap created by the lost sponsorships, we suggested that our grant money be used to help stimulate innovative action from the explorers.

Phillip Gibbs, the BRI advisor who had introduced us to NGS and was working as a consultant to them at the time, saw an opportunity to use the sponsorship grant as a way to help transform the gathering from a largely passive show of explorers' work into a catalytic moment for new initiatives. The most interesting and innovative ideas were often the spontaneous, interactive ones that were not part of the official program. Phillip saw a chance to tap the creative interactions among explorers that happen in hallways and the cafeteria between and after their presentations. He suggested that a key requirement of the grant be that at least two explorers work together on the launch of a new initiative, thus encouraging a collaborative ethos among them. Part of our sponsorship grant was offered as a National Geographic–Blackstone Challenge grant, for which we made a three-year commitment (2009–2011). Proposals were solicited from attending explorers.

It soon became clear that the explorers who would be most interested in and benefit the most from the grants would be the emerging explorers, those whom NGS selected each year to be inducted into the broader community of explorers. They were younger and less established than the more renowned senior explorers, a group that included globally recognized figures such as Sylvia Earle, Bob Ballard, Wade Davis, Jared Diamond, and others.

CATALYZING THE NATIONAL GEOGRAPHIC EXPLORERS
NATIONAL GEOGRAPHIC–BLACKSTONE CHALLENGE GRANTS

The offer of a \$50,000 grant to the winning team and the backing of NGS, could be enormously helpful in its effort to attract attention and further funding. We had already given a separate grant to Alexandra Cousteau, granddaughter of iconic oceanographer Jacques Cousteau and an emerging explorer in 2008, to bring together an advisory group of water experts and conservationists for Blue Legacy, her international campaign on the conservation of fresh water. She went on to do a series of documentaries on global water issues for the Discovery Channel.



Installation of solar heaters and chargers at Khumbu Alpine Conservation Center on Mount Everest, Nepal before April 2015 earthquake. The building was partially destroyed, but has been rebuilt by local sherpas.

Photo courtesy of Anton Byers

We focused the grant on our mission parameters of environment and sustainability, which meant there would always be explorers doing work in archeology or certain areas of technological innovation who would not qualify. We received half a dozen proposals each year from different parts of the world. The projects were all innovative. They included an initiative to combine microbes from the arctic that functioned at extremely low temperatures into a biodigester process that converted household waste into useable fuel and made the process viable in cold climates; a solar-powered agricultural model in West Africa; and an initiative to restore alpine ecosystems in the Himalayas and Andes by fostering more ecologically responsible behaviors among the trekking community and the local communities that served them.

The biodigester initiative was conceived by emerging explorers Thomas Culhane and Katey Walter Anthony. It ultimately contributed to the further development of Solar Cities, an organization that Thomas had set up to spread the adoption of biodigester technology around the world. We provided a grant in 2013 that allowed Solar Cities to assemble a biodigester education team to offer demonstration projects to urban communities in different countries.

The challenge grant also contributed to conversations within NGS about how best to inculcate a culture of innovation and collaboration that would yield imaginative responses to the many global challenges that it had done such a good job of explaining to its extensive and diverse global audience. NGS was always looking for ways to encourage the diversity of scientists and explorers in its networks to come up with novel and meaningful ways to protect the world's natural endowment, and to develop technologies that were more sustainable, less harmful, and would advance the cause of scientific discovery and innovation.

After our three-year commitment came to an end, NGS wrapped BRI's grant program into the ongoing explorer program, which was one way to be more

inclusive than our criteria had allowed. We continued a conversation with them about how we could position another catalytic BRI grant that would help them further develop their efforts to stimulate innovation. We had several tentative conversations with them about our potential role, small as it would be; but beyond some general ideas, there was nothing that was yet coherent enough to work for either of us.

Within a couple of years, they were ready to offer some major challenge prizes to their diverse global community. "You will be pleased to know that the Explorers Challenge prize which you funded has given rise to a very robust prize competition program here at NGS," wrote Terry Garcia in an email letter to Pat in October 2014. "Your early support was absolutely critical to its success."

ASK NATURE

BIOMIMICRY INSTITUTE GLOBAL
DESIGN CHALLENGES

At the same time, the Biomimicry Institute was forming a relationship with National Geographic Society after their executive director, Bryony Schwan, had met Terry Garcia at a gathering of our early grantees at Cavallo Point Lodge in Sausalito, California, in December of 2009. The Biomimicry Institute emerged out of a growing movement of educators, scientists, and visionary environmentalists that had been activated by Janine Benyus's pioneering book on the subject in the 1990s. The Biomimicry Institute was designed as an educational nonprofit that would spread the biomimicry meme; it now generates substantive proof of its potential applicability through its design challenges.

They first devoted themselves to building a database of examples that ultimately took the form of *AskNature*, an extensive online catalogue of nature's varied and ingenious practices. At the time, there was a rapid increase in biomimicry patents and Google searches for "biologically inspired innovation." The institute was also getting requests from a small but growing number of teachers who needed content to teach biomimicry to their students.

As they developed the institute, Bryony and Megan Schuknecht, who managed education outreach and the design challenge, began to realize that until the ideas they were featuring on *AskNature* and in other venues were being applied to the actual design of products, biomimicry would not be able to change the way the world worked by producing better, more sustainable, and ecologically healthier products of all kinds. Then, and to a large extent now, "biomimicry is still in that sort of wonderful idea phase," Bryony noted in a 2014 interview.

In 2008, we helped bring the effort to life by providing a small grant to convene a gathering of biologists to plan the first challenge in what eventually evolved into the institute's student design challenge program. They initially partnered with *Ashoka Changemakers* to challenge those in their networks to come up with a form of green cement for the building trade. But they found out shortly after they started that renowned innovation funder Vinod Khosla was already working on it, and the initiative died. At that point they pivoted from the green cement challenge to a student design challenge, for which we provided a first grant. This was partly in response to a growing demand they were getting from students around the world for information on biomimicry.

COUNTRIES OF BIOMIMICRY DESIGN CHALLENGE WINNERS AND FINALISTS, 2011-2015

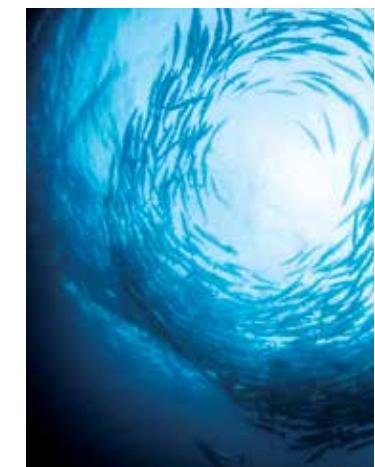
Belgium
Canada
Chile
Egypt
El Salvador
Italy
Iran
Lithuania
Mexico
Netherlands
Slovakia
South Africa
Sweden
Thailand
United States

Their first global student design challenge was focused on energy, for which they received more than 50 applications in 2011. They promoted it on their website, in their newsletter, and among their growing network. The first winners were announced in 2012. Over the next few years challenge winners were student groups from countries as diverse as Iran, Latvia, Egypt, Belgium, and Mexico. The challenge allowed them to reach students and teachers in universities in a way and in places that would never have been possible if they'd had to deal directly with academic bureaucracies. By then regional biomimicry networks were emerging in northeast Ohio, the Netherlands, and South Africa. Just a few years later, in 2015, with roughly thirty such networks around the world, nearly 2,000 people registered for the renamed Biomimicry Global Design Challenge, which was open to both students and professionals representing 72 countries.



In 2013, we offered the institute a third initiating grant to pair the student design challenge with Startup Nectar, a biomimicry incubator in the San Francisco Bay Area, and Forest Fractal. A team of five young Egyptian women and one man won first prize for their design of an irrigation system for Egyptian farmers, which they modeled on the hydraulic systems of a giraffe's neck and a camel's hump.

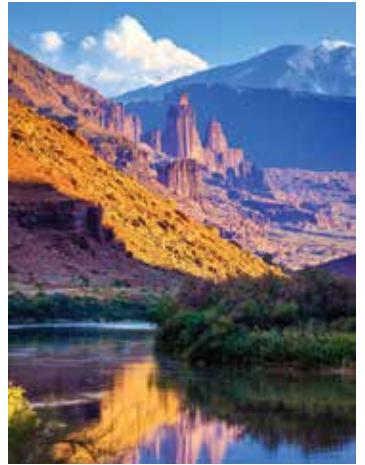
The grant helped to inaugurate a new operational paradigm for the Biomimicry Institute to push designs toward actual applications in the world. By 2015, the design challenge was at the core of the Biomimicry Institute's work in the world, and our initial support had come to an early stage of fruition. "I just wanted to let you know what a difference you and Blackstone are making by supporting the Biomimicry Institute," the new executive director, Beth Rattner, wrote in an email in early August. "You were one of the very first to see the promise of our Design Challenge, which started as a small competition for a couple of universities and is now a global platform for students and professionals alike. Last year we realized that we get amazing submissions, brilliant ideas that should go to market. Your early money allowed the competition to grow and now the Ray Anderson Foundation is supporting us with even more funds to help the finalists get to real prototypes that can become commercialized one day. The Challenge has grown from a way to teach biomimicry to a way to 'learn by doing' which results in real products and real services. We are finally poised to really start scaling."



REVITALIZING THE COLORADO RIVER BIOMIMICRY INSTITUTE AND NATIONAL GEOGRAPHIC SOCIETY

By 2014, the relationship between the Biomimicry Institute (now renamed Biomimicry 3.8 after the close to four billion years nature has spent refining its practices) and National Geographic Society had matured to the point where they were ready to collaborate. The content that the institute had been amassing would complement the already vast amount of information on the natural world that existed in National Geographic's various media platforms. BRI provided a planning grant to the two organizations to sketch out the mission and mechanics of a design challenge that built on the earlier National Geographic–Blackstone Challenge Grant program for the explorers.

The inaugural challenge would focus on the Colorado River system in the American West and fit into an existing campaign on the river that NGS was developing in its media worlds. The challenge would be deliberately open and was intended to solicit proposals that would offer biomimetic ways to regenerate the river system. It was particularly timely given the punishing effects that Western drought was having on farmers and on the state of



California. The partnership with NGS would help scale biomimicry to another level, giving it a global platform and credibility it had not yet enjoyed; ultimately, it would start to engage a greater variety of stakeholders that would include conservationists, government, engineers, and ranchers. It would give the emerging field of practice a chance to demonstrate ways in which its application would truly matter. It would also give NGS a flexible paradigm that would fit easily with a number of its existing initiatives and future ambitions.

The project was ultimately abandoned in late 2015 during a period of major management change at National Geographic Society. The institute and NGS continue to talk about areas for collaboration, particularly around AskNature, as NGS's immense photo library and community of explorers are eager to see their work in the natural world provide new guidance for design practitioners.

**THE CHALLENGE OF
SYSTEMIC CHANGE AND
FUTURE LEADERS**
ACADEMY FOR SYSTEMIC
CHANGE NEXT GENERATION
LEADERS

One of the pioneers of contemporary systems thinking, particularly as it applies to organizational learning and development, has been MIT scholar Peter Senge. His 1990 book, *The Fifth Discipline*, established a galaxy of insights, exercises, and metrics for how organizations could be more effective through a systemic understanding of their work. His 2010 book, *The Necessary Revolution*, summarized many of the challenges and opportunities at hand for developing more sustainable practices in managing our natural resources, and suggested ways of organizing society. It was an important book for us when we read it, enough to feature a quotation from it on our website.

When we had our first conversations in 2012 with Darcy Winslow, former sustainability director at Nike and a longtime collaborator of Peter's, we were hopeful that we could do something together. At the time, she was working with Peter and other colleagues as managing director of the Academy for Systemic Change, a projected ten-year effort to work with young social change leaders on ways to make their work in the world more systemic in its approach and hopefully more effective as a result. Peter and his colleagues had been offering seminars and retreats through their Society for Organizational Learning for several years by then. The academy was a response to the growing challenges posed by resource depletion, the effects of climate change, and social and economic systems that no longer seemed up to the job of meeting such challenges.

Peter and his colleagues had spent parts of the previous five years volunteering their time to lay the foundation for the academy's Next Generation Leaders launch in early 2015. We provided their first grant, which was quickly matched by a founding member and another foundation. This gave them enough money to gather twenty young leaders from different disciplines together at Devil's Thumb Ranch in central Colorado in January. Much of their initial work was spent building a community among the faculty and fellows. They introduced a variety of capacity building tools and frameworks, developed individual and collective learning journeys, and together designed the balance of their gatherings in 2015 in ways that would solidify the bonds between all members of the academy. Their ambition is to have successive cohorts of leaders mentor their successors, and in so doing develop an expanding community of social change work based on systemic approaches that could serve as a model for others. The potential for ripple effects seemed quite high.

In late 2015, we offered the academy another grant to help them develop in different parts of the world a system of hubs that would replicate and refine their approach and, ultimately, generate their own initiatives. The first three have emerged in China, British Columbia, and Mexico and cover a variety of areas that include education, business, food and agriculture, health care, sustainable building, and others that will emerge as the hubs evolve. The hubs will be unique to their particular societies and geographies but will continue to be part of the academy network. As the academy develops, other geographical hubs will likely emerge, giving it an increasingly global impact across a broad diversity of global systemic challenges.



- ACADEMY FOR SYSTEMIC
CHANGE AREAS OF INTEREST**
- Bike Sharing
 - Biodiversity
 - Building Energy Strategies
 - Carbon Neutral Cities
 - Climate Change Preparedness
 - Climate Mitigation/
Adaptation Nexus
 - District/Neighborhood
scale sustainability
 - Electric Vehicles
 - Equity & Access
 - Food Systems
 - Green Infrastructure
 - LED Street Lighting
 - Professional Development
 - Small Cities
 - Sustainable Behavior Change
 - Sustainable Consumption
 - Sustainable Economic
development
 - Sustainability Director
 - Diversity
 - Sustainability Indicators
 - Urban Forestry

Launch of Academy for Systemic Change at Devil's Thumb Ranch in central Colorado in January 2014. Courtesy of Academy for Systemic Change

MOVING AHEAD

PRESIDIO GRADUATE SCHOOL
ONLINE EDUCATION
PROGRAMS, SUSTAINABLE
PURCHASING LEADERSHIP
COUNCIL MEMBERSHIP
CHALLENGE, AND RMI URBAN
MOBILITY INITIATIVE

As we entered the first days of 2016, a few initiatives we had agreed to fund in the latter half of 2015 were scheduled to launch during the coming year. They represented efforts that would have been highly unlikely when we started a decade earlier because their times had not yet come. These efforts symbolized the advance of innovation that we continue to support. The Presidio Graduate School in San Francisco, which had matured from its beginnings in 2003 to become the leading business school in the country in sustainable management, was ready to take their educational degree programs online and expand their reach beyond their residency programs. Their decision to do so reflected the increasing availability of quality educational offerings in an online format—something we had seen a few years earlier when we funded the online environmental medicine module at the Center for Integrative Medicine. We provided them with an initial grant to launch the effort.

We also provided an initial grant to the Sustainable Purchasing Leadership Council—our second grant to them—to help them launch a challenge to their broad membership of purchasing businesses and organizations to act collectively in some carefully chosen areas that would serve as major leverage points for change in entire economic sectors. We saw this as a major developmental step for the organization, one that had the potential to increase their impact exponentially by moving from a focus on the behavior of individual member companies to collective action.

We provided yet another grant to the Rocky Mountain Institute to launch a daring initiative on urban mobility. The organization selected Denver and Austin as prototype cities in which they would work with varied interests to formulate new ways to manage the rapidly diversifying ways in which people move around—touching on the increasing viability of electric cars, rideshare services, bicycles, public transport, and the smart management of traffic flows. Those cities will become testing laboratories for similar mobility management efforts in many other cities in years to come.

As we look back on our first ten years, we derive great satisfaction from the realization that we have been able to help launch a number of new networks, campaigns, and organizational programs that have become foundations for important work on the frontiers of environmental sustainability work around the world—an abundant fulfillment of our initial intent to seed catalytic change.





IV. APPENDICES

INCEPTION GRANTS

These initiatives, for which we provided the initial philanthropic grant, or in a minority of cases, a very early stage grant that made it possible to move from conceptualization of a new initiative to action.

- Academy for Systemic Change
- ARISE (Accelerating Resilient Investment in Sustainable Economies)
- Battery Balance of Systems Charrette for Residential and Business Storage of Solar Energy
- Biomimicry Global Design Challenge Program
- Blue Guardians
- Business and Ecosystem Leadership Group
- Climate Change Solutions Trainings for Women
- EcoDistricts District Energy Academy
- EcoDistricts Incubator
- Energy Shift
- Environmental Medicine Module
- Global Carbon Measurement Collaborative
- Grasslands Carbon Working Group
- Green Cities California
- LEAN Energy
- National Geographic-Blackstone Innovation Challenge Grants
- National Indigenous Farm Project
- Online Solutions Forum (Women's Earth and Climate Action Network)
- Presidio Graduate School Online Education Program
- RMI Mobility Transformation Initiative
- Solar CITIES Biogas Education Team
- Sustainable Communities Leadership Academy
- Sustainable Purchasing Leadership Council Challenge Campaign
- Urban Sustainability Directors Network
- Watershed Investment Initiative
- Western Landowners Alliance

BLACKSTONE RANCH INSTITUTE FUNDED INITIATIVES 2006 - 2016

On the following pages is a complete list of all the gatherings and initiatives we have funded either as a first funder or group of early funders.

2006

ROCKY MOUNTAIN INSTITUTE URBAN SUSTAINABILITY DIRECTORS GATHERING

**Rocky Mountain Institute
NOVEMBER 2-3, 2006**

A group of 15 city sustainability directors met in a gathering organized by RMI. It led to the formation of both Green Cities California and the Urban Sustainability Directors Network.

2007

CALIFORNIA SUSTAINABILITY DIRECTORS AT GREENGULCH FARM

**California Urban Sustainability Directors
MAY 17-18, 2007**

This was the first follow up to the national meeting of sustainability directors in Boulder in 2006. Government environmental sustainability directors from 10 leading California cities met to develop a statewide agenda.

SPONSORSHIP OF HOLLYHOCK SOCIAL CHANGE INSTITUTE

**Hollyhock Social Change Institute
MAY 24-28, 2007**

An annual gathering of more than 100 environmental and social change leaders from British Columbia, Ontario, Washington, California and Hawaii met to refine skills and make new connections. Hollyhock is the leading experiential learning center in Canada.

SPONSORSHIP OF HOLLYHOCK SOCIAL VENTURE INSTITUTE

**Hollyhock Social Venture Institute
SEPTEMBER 5-9, 2007**

In an annual gathering, more than 100 emerging entrepreneurs, investors and social change activists from Canada and the United States met to merge their business ambitions with environmentally sound practices.

COMMUNITY ENVIRONMENTAL COUNCIL OF SANTA BARBARA: FOSSIL FREE BY '33 INITIATIVE

**Community Environmental Council
SEPTEMBER 20-22, 2007**

More than 20 representatives from local governments, academia and the environmental community in California reviewed a plan to develop a fossil free energy infrastructure for the Santa Barbara area. Many of the discussions were prescient forerunners of current discussions in various communities around the country.

FORMATION OF GREEN CITIES CALIFORNIA

**California Urban Sustainability Directors
OCTOBER 4-5, 2007**

In the follow up to the initial meeting at Green Gulch, vanguard California cities formalized their association as Green Cities California. It became the leading regional network in the Urban Sustainability Directors Network (USDN).

ANNUAL BIONEERS CONFERENCE

**Bioneers
OCTOBER 19, 2007**

In one of the leading annual gatherings in North America dedicated to environmental and sustainability work, leading innovators, educators, thinkers and civil society leaders came together to advance practical and visionary solutions to environmental challenges.

US MAYORS CLIMATE PROTECTION SUMMIT

NOVEMBER 1-2, 2007

More than 100 mayors met to promote solutions to global warming at local and national levels. They were among more than 660 mayors who had so far adopted the US Mayors Climate Protection Agreement of 2005, a commitment to significantly cut climate pollution in their cities.

CALIFORNIA-EUROPEAN DIALOG ON CLIMATE CHANGE

**Bren School of Environmental Science and Management and Trans-Atlantic Institute of Johns Hopkins University
NOVEMBER 13-15, 2007**

A small group of senior government representatives and members of the business and academic communities from Europe and California drafted an agreement on climate change action emphasizing local action and new energy models. It was distributed through the varied networks of participants.

FORMATION OF GLOBAL CARBON MEASUREMENT COLLABORATIVE

**National Geographic Society
NOVEMBER 28-29, 2007**

Leading global scientists and conservation organizations gathered at National Geographic to form an initiative with projects in Guyana, Kenya, Indonesia, Rwanda and Uganda aimed at mapping carbon stocks as a basis for forest preservation and reduction of carbon emissions. It is now an established global program.

THE BIONEERS: LAUNCH OF DREAMING NEW MEXICO

**Bioneers
WINTER 2007**

A diversity of civic organizations started work on a comprehensive, long-term sustainability plan for the state of New Mexico, one of the poorest in the United States. Early exchanges focused on food and farm policy. It was intended as a model for other states.

FOREST ETHICS DO-NOT MAIL CAMPAIGN: CORPORATE AND NON-PROFIT DIALOGS

**Forest Ethics
WINTER 2007**

An ambitious attempt to reduce the volume of junk mail followed the organization's earlier and highly successful campaign to get leading mail-order companies to switch to recycled paper.

CASCADIA REGION GREEN BUILDING COUNCIL REGIONAL GATHERING

**Cascadia Region Green Building Council
APRIL 10, 2008**

The Cascadia Region Green Building Council (CRBC) hosted two meetings in 2008 of municipal representatives in the Cascadia Region of the Pacific Northwest. Participants worked to consolidate rapidly developing green building practices in a regional approach intended to serve as a national model.

2008

GLOBAL MAPPING FOR LANGUAGES, CULTURES AND BIODIVERSITY

**National Geographic Society
FEBRUARY 21-22, 2008**

Participants from fields of geography, linguistics, conservation biology, bioinformatics and genetics met at National Geographic. They explored the connections between the global distribution of languages and patterns of biodiversity, and worked to involve indigenous communities in five global hotspots of biodiversity to save their languages.

BIOLOGISTS AT THE DESIGN TABLE TRAINING

**Biomimicry Institute
MAY 31, 2008**

The Biomimicry Institute, a global leader in promoting the application of nature's design principles to architectural and manufacturing design processes, launched a series of gatherings for biologists, design professionals and practitioners in the pioneering field of green chemistry. This was the earliest incarnation of what evolved into a global student design challenge.

CHILDREN AND NATURE: NATIONAL GEOGRAPHIC PHOTO CAMP

**National Geographic Society
OCTOBER 8-12, 2008**

Approximately 20 youth worked with a small team of top National Geographic photographers to document nature's beauty in Taos, New Mexico. This was part of an annual series of photographic workshops for underserved communities around the world.

NATIONAL GREEN PLANS AT ANNUAL BIONEERS CONFERENCE

**Bioneers
OCTOBER 16-20, 2008**

At their annual conference, Bioneers offered professional intensives before and after the main conference on national green plans around the world. BRI was a special sponsor of the intensives and host of a panel on California's green cities initiatives.

ORION SOCIETY AT GHOST RANCH IN NEW MEXICO

**Orion Society
NOVEMBER 6-9, 2008**

A group of writers and environmental activists from Orion's grassroots network and literary magazine met to articulate a new vision for action on major environmental issues.

FOREST ETHICS DO NOT MAIL CAMPAIGN CORPORATE DIALOGS

**Forest Ethics
FALL 2008**

Forest Ethics continued its dialogs with mail order and catalog companies in an attempt to reduce the volume of junk mail in North America and give consumers discretionary control over the catalogs they receive. The campaign did not succeed in achieving its objectives, largely because the postal service workers were paid according to how much mail they processed.

FORMATION OF GRASSLANDS CARBON WORKING GROUP

**Holistic Management International
DECEMBER 1-5, 2008**

Holistic Management International, an organization that promotes sustainable land management practices in the American west, hosted a global working group of leading soil carbon and agricultural scientists, business representatives, policy experts and representatives from farmer's organizations to identify how management practices that might increase the capacity of grasslands soil to sequester carbon. The group subsequently developed an affiliation with the United Nations Food and Agriculture Organization (FAO).

2009

DREAMING NEW MEXICO: FORMATION OF GREEN JOBS COLLABORATIVE IN THE AGE OF RENEWABLES

**Bioneers
JANUARY 21-22, 2009**

As part of the Bioneers Dreaming New Mexico, a group of civic leaders in New Mexico formed the Green Collaborative, which was dedicated to developing green jobs and renewable energy in the state. It was designed to work closely with the governor's Green Cabinet, and had representation from the state university and college systems, organized labor, industry and the environmental community.

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FORMATION OF NATIONAL BUSINESS AND ECOSYSTEM LEADERSHIP GROUP

World Resources Institute
FEBRUARY 11-12, 2009

The World Resources Institute hosted an initial gathering of managers from a small group of Fortune 500 companies dedicated to developing better practices as stewards of the lands they owned or leased. The group included Staples, John Deere, Plum Creek, Coca Cola's bottling company, Syngenta North America and Eko Asset Management Partners. By 2015 more than 300 members and associated organizations were doing ecosystem services reviews and a similar group had started in Brazil.

SPONSORSHIP OF NATIONAL GEOGRAPHIC SOCIETY EXPLORERS SYMPOSIUM AND ANNOUNCEMENT OF FIRST NATIONAL GEOGRAPHIC-BLACKSTONE INNOVATION CHALLENGE GRANT

National Geographic Society
JUNE 8-12, 2009

This was the first in a three-year series of symposium sponsorships and accompanying challenge grants to the organization's younger explorers. The grants were awarded to teams of at least two explorers who collaborated on innovative ways of responding to global environmental challenges. The program was started to encourage proactive collaboration among the explorers.

NATIONAL CIVIC ENGAGEMENT CAMPAIGN ON MITIGATION OF CLIMATE CHANGE

Seattle Office of Sustainability and Environment
SUMMER 2009

The Seattle Office of Sustainability and Environment initiated a national civic engagement campaign. It aimed to reduce the start-up costs for cities that wanted to develop similar campaigns by providing outreach campaign materials.

CLEANING UP CANADA'S TAR SANDS: STRATEGIC DIALOGS

Forest Ethics
FALL 2009

Forest Ethics launched a multi-faceted civic campaign to start cleaning up the Canadian Tar Sands. The aim was to encourage companies that fueled their national transport fleets with Tar Sands oil to switch to cleaner sources and start to mitigate the environmental damage to the geographical area around the Tar Sands.

CREATION OF SUSTAINABLE COMMUNITIES LEADERSHIP ACADEMY (SCLA)

Institute for Sustainable Communities
SEPTEMBER 21-23, 2009

The Institute for Sustainable Communities (ISC) launched a national leadership academy to provide mentoring to municipal leaders who wanted to develop environmental sustainability initiatives in their cities. The gatherings were pilots for what became the Sustainable Communities Leadership Academy, now a leading national program in urban sustainability.

FORMATION OF URBAN SUSTAINABILITY DIRECTORS NETWORK (USDN)

Urban Sustainability Directors Network
SEPTEMBER 24, 2009

A group of urban government sustainability directors and philanthropic partners launched a national network of 75 municipalities around the United States. USDN now has 150 member cities, has joined with C40 to work on global initiatives, and is one of the world's leading urban sustainability networks. USDN grew out of the 2006 gathering of urban sustainability directors sponsored by BRI and the Rocky Mountain Institute that was held in Boulder, Colorado.

FIRST NATIONAL GEOGRAPHIC-BLACKSTONE INNOVATION CHALLENGE GRANT: CONVERSION OF HOUSEHOLD WASTE INTO USABLE ENERGY

National Geographic Society
FALL 2009

The first National Geographic-Blackstone Innovation Challenge Grant went to an initiative aimed at introducing microbes that survive in the cold climates of the arctic region into biogas digestors that convert organic household waste into a usable fuel source. The objective was to develop a way to expand the adoption of the digestors from warm climates to more temperate regions. The grant recipients used the award to secure another grant to further develop their work.

ALEXANDRA COUSTEAU BLUE LEGACY CAMPAIGN

Blue Legacy
FALL 2009

Blue Legacy was an education campaign on global water resources launched by Alexandra Cousteau. A group of media experts and water conservationists met to plan the future of the campaign. Alexandra went on to develop several programs on global water issues for the Discovery Channel.

BIOMIMICRY DESIGN CHALLENGE

BIOMIMICRY INSTITUTE
FALL 2009

The Biomimicry Institute followed their earlier gathering 'Biologists at the Design Table Training' with a group of 20-25 leading experts in green building and design to identify the most important biomimetic design challenges. This was another important early step in the development of what is now a well-funded annual global design challenge.

ENVIRONMENTAL HEALTH CURRICULA FOR MEDICAL SCHOOLS

Center for Integrative Medicine at University of Arizona
OCTOBER 22, 2009

The Center for Integrative Medicine in Tucson, Arizona brought together participants from public health organizations, medical school administration and environmental groups to develop an educational module on the impact of the environment on patient health. It is now an established part of their larger program and has educated thousands of health care practitioners.

SUSTAINABLE COMMUNITIES LEADERSHIP ACADEMY: GREEN JOBS FOR CITIES

Institute for Sustainable Communities
MAY 24-26, 2010

This was an early gathering of the Sustainable Communities Leadership Academy. Representatives from 12 cities met to work on the creation of green jobs. The meeting was an important early step in developing the protocols for future SCLA gatherings.

SPONSORSHIP OF 2010 NATIONAL GEOGRAPHIC EXPLORERS SUMMIT

National Geographic Society
JUNE 7-11, 2010

The second of a three-year sponsorship of the explorers summit and offer of the second challenge grant to the most innovative collaboration between explorers.

2010

STEWARDSHIP OF ECOSYSTEM SERVICES IN THE AMERICAN WEST

Diablo Trust and University of Arizona Southwest Center
FEBRUARY 12-14, 2010

The Diablo Trust and University of Arizona Southwest Center brought together a small group of western ranching families, rural land trusts and rancher based coalitions to consider ways to market ecosystem services in ways that would preserve the financial and ecological integrity of western ranches.

DREAMING NEW MEXICO: NEW MEXICO FOOD SYSTEM SUMMIT

Bioneers
MARCH 10-11, 2010

In another phase of the Bioneers Dreaming New Mexico, participants worked on common strategies for expanding local food production and the cultivation of a wider collaboration among organic growers, farmers and food distribution systems.

2011

SLOW MONEY ALLIANCE NATIONAL LEADERSHIP FORMATION

Slow Money
FEBRUARY 3-4, 2011

The alliance brought together 25 local leaders from around the country to develop guidelines for national management of local chapters. It was the first deliberate attempt to develop a national leadership system designed to preserve the alliance's decentralized character but allow for national coordination. By 2015 Slow Money was in 46 states and had raised \$40 million since 2010 to support more than 400 small food enterprises around the country.

SPONSORSHIP OF 2011 NATIONAL GEOGRAPHIC EXPLORERS SYMPOSIUM

National Geographic Society
JUNE 20-24, 2011

This was the third and final year of sponsorship of the annual symposium and the announcement of the third National Geographic-Blackstone Innovation Challenge Grant.

DEVELOPMENT OF GLOBAL ALERT SYSTEM FOR OCEAN TRASH

Ocean Recovery Alliance
SEPTEMBER 22, 2011

A group of environmental scientists, futurists and design companies met to develop a software platform that would allow local communities around the globe to monitor and prevent the flow of trash from river systems into the world's oceans. Despite great potential, the initiative never fully realized itself.

LAUNCH OF ECODISTRICTS INCUBATOR

Portland Sustainability Institute
WINTER 2011

The Portland Sustainability Institute (now EcoDistricts) introduced a series of training workshops for cities around North America that wanted to create ecodistricts as a scale for urban sustainability initiatives.

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THIRD NATIONAL GEOGRAPHIC-BLACKSTONE INNOVATION CHALLENGE GRANT: SUSTAINABLE SMALLHOLDER AGRICULTURE IN SUB-SAHARAN AFRICA	NATIONAL INDIGENOUS FARM PROJECT	WATERSHED INVESTMENT INITIATIVE	2013	LAUNCH OF ONLINE SOLUTIONS FORUM AND NETWORK PLATFORM FOR WOMEN'S EARTH AND CLIMATE ACTION NETWORK (WE CAN)	REGIONAL ADOPTION OF FOOD SOL COMMUNITY TABLE
National Geographic Society WINTER 2011	Future Farmers SUMMER 2012	World Resources Institute WINTER 2012	LAUNCH OF BIOMIMICRY 3.8 STUDENT DESIGN CHALLENGE ACCELERATOR PROGRAM	WE CAN	Babson College Social Innovation Lab
<p>The three winners of the third and final National Geographic-Blackstone Innovation Challenge Grant developed a solar powered irrigation project for small farmers in Benin, West Africa. It was intended as a model for farmers in other parts of Africa. The challenge grant program provided early inspiration and a model for future challenge prize programs at National Geographic.</p>	<p>A small group of non-profit farming organizations and Region 9 of the EPA started a project to work with food justice and environmental groups on Native American reservations in the West to revive native agricultural practices by planting community gardens. The initiative started with tribes in eastern California. By 2014 there were as many as 30 tribes that were expressing interest in forming a coalition.</p>	<p>The World Resources Institute launched an effort to get municipalities around the United States to invest in local watersheds and green infrastructure as an alternative to expensive water treatment facilities. By 2015 they had built a growing network of national conservation groups and water utilities, and were starting to develop a global network.</p>	Biomimicry 3.8 SPRING 2013	WINTER 2013	<p>The Babson College Social Innovation Lab has brought together entrepreneurial students and supportive community members from business, government and civil society working on business and social ventures oriented toward sustainable food systems as a social challenge. Their goal was to spread the adoption of their model, Food Sol Community Table, to other institutions of higher education outside of their home in Boston. By 2015 the model continued to spread in the Boston area, and had been adopted in New York, Rhode Island and stimulated early interest in Vermont.</p>
DEVELOPMENT OF SOCIAL MEDIA NETWORK FOR LIVING BUILDING CHALLENGE	Wildlands Network AUGUST 29-30, 2012	FORMATION OF WESTERN LANDOWNERS ALLIANCE	CONTINUATION OF FOREST ETHICS CORPORATE DIALOGS ON CANADIAN TAR SANDS	SECOND ANNUAL NORTH AMERICAN ECODISTRICTS INCUBATOR	2014
Living Future Institute WINTER 2011	<p>The Western Landowners Alliance is a group of privately owned, large scale ranching properties in the American West that advances policies and practices that sustain working lands, connected landscapes and native species. When formed in 2012, the group had the participation of landowners in eleven states and on approximately 10 million acres of land. By 2015 they had become a leading voice in the movement toward ecologically responsible management of western lands.</p>	Forest Ethics WINTER 2012	<p>The campaign to get leading companies to switch from Tar Sands oil as a fuel source for their transportation fleets continued to evolve. At least 20 leading companies had altered their corporate fuel procurement policies. The campaign played a major role in getting the government of the Canadian province, Alberta, home of the Tar Sands, to put a price on carbon emissions in 2015.</p>	EcoDistricts MAY 29-31, 2013	GLOBAL ALLIANCE FOR THE RIGHTS OF NATURE 2014 CONFERENCE IN ECUADOR
<p>The Living Future Institute built a social media platform for their growing network and expanding adoption of green building standards embodied in the Living Building Challenge. The Institute is a global leader in advanced green building design, and has grown substantially since 2011.</p>	<p>The campaign to get leading companies to switch from Tar Sands oil as a fuel source for their transportation fleets continued to evolve. At least 20 leading companies had altered their corporate fuel procurement policies. The campaign played a major role in getting the government of the Canadian province, Alberta, home of the Tar Sands, to put a price on carbon emissions in 2015.</p>	ACCELERATING RESILIENT INVESTMENT IN SUSTAINABLE ECONOMIES (ARISE)	<p>This was the second annual gathering of the incubator. There were more than 50 leaders from 10 cities and associated industry leaders that gathered at the launch in 2012. By 2015 it was a leading North American laboratory for innovative urban sustainability initiatives.</p>	LEAN ENERGY SECOND NATIONAL STRATEGY RETREAT	Global Alliance for the Rights of Nature JANUARY 13-16, 2014
2012	ENVIRONMENTAL MEDICINE CHALLENGE GRANT	Center for Integrative Medicine at University of Arizona WINTER 2012	<p>The first national gathering of leading architects and other building professionals dedicated to the development of urban districts that would adopt Architecture 2030 targets for carbon emission reductions and energy use. There were four cities developing districts at the launch. By 2015 the initial group had grown to eleven, and was expected to continue growing in the future.</p>	THE ARCHITECTURE 2030 DISTRICTS SUMMIT	<p>The meeting in Quito, Ecuador was intended to consolidate an emerging movement in different countries (including Ecuador, South Africa, India, Australia, Nepal and the United States) aimed at endowing nature with rights that can be defended in a court of law against resource extraction practices that are damaging to the environment and local communities. The meeting catalyzed a civic campaign in Europe, and an International Tribunal for the Rights of Nature was formalized against the backdrop of global climate talks in Paris in late 2015.</p>
FORMATION OF LOCAL ENERGY AGGREGATION NETWORK (LEAN)	LEAN Energy FEBRUARY 9-11, 2012	Earth Council Alliance WINTER 2012	<p>Solar CITIES is a new non-profit organization dedicated to the introduction of small-scale biodigester technology to urban leaders in developing countries. The gathering brought together leading experts in biodigester technology from Israel, Palestine (West Bank), Egypt, Italy, India, Kenya, Portugal and the United States to form a core group of educators for the initiative.</p>	FORMATION OF GLOBAL BIOGAS EDUCATION TEAM	
<p>Utility and government representatives, energy experts, clean energy advocates, environmentalists and energy investors launched a network dedicated to adoption of a new energy procurement model that allows local governments to create their own energy companies and buy energy for their constituents. A primary goal was to increase the procurement of clean energy. The network started in California.</p>	<p>The program was intended to stimulate innovative projects by alumnae of the Center for Integrative Medicine to advance the work started with their environmental education module. The first effort ran into administrative difficulties, and the program was discontinued.</p>	<p>ARISE is a new global finance model designed to develop blended financing approaches combining direct investment, loans and philanthropic grants to new green infrastructure initiatives around the world. With early support from the Rockefeller Foundation, a number of leading global environmental and investment groups have begun to adopt the finance model to channel millions of dollars. It has been used by the Rockefeller Foundation to support projects in its 100 Resilient Cities program, and to support adoption of renewable energy in villages in India.</p>			

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<p>GLOBAL CLIMATE CHANGE SOLUTIONS TRAININGS FOR WOMEN WE CAN SPRING 2014</p> <p>The Women's Earth and Climate Action Network (WE CAN) is building upon the successful launch of its online solutions forum by starting a series of online trainings. An initial group consisted of 40 women from nine countries in the Middle East and North Africa, and by late 2014 there were waiting lists for the training programs.</p> <p>NATIVE LAND SUMMIT Center for Whole Communities and Land and Culture Consulting MAY 20-22, 2014</p> <p>The Center for Whole Communities and Land and Culture Consulting convened an historic gathering of national and Native land trust leaders to begin a collaborative process of integrating parts of the more than two billion acres of Native lands into the broader land trust effort in North America. Initial steps were being taken by late 2015.</p> <p>SUSTAINABLE PURCHASING LEADERSHIP COUNCIL 2014 ANNUAL MEETING Sustainable Purchasing Leadership Council MAY 20-21, 2014</p> <p>The Sustainable Purchasing Leadership Council (SPLC) recently launched an initiative to support production and purchasing practices that accelerate the transition to a sustainable future. Membership includes dozens of leading corporate businesses, universities, government agencies and civic organizations. The annual meeting was held to start work on the development of professional production and purchasing standards and assemble technical working groups.</p>	<p>RESTORING THE COLORADO RIVER BASIN Biomimicry 3.8 and National Geographic Society AUGUST 13-15, 2014</p> <p>Biomimicry 3.8 (formerly the Biomimicry Institute) and National Geographic held a planning meeting to form an ongoing collaborative relationship. Their first collective effort was to focus on ways to restore the Colorado River Basin. Major management changes at National Geographic in 2015 shifted organizational priorities and ended the collaboration on the Colorado River initiative, but the two organizations continue to talk about ways to work together in the future.</p> <p>COLLABORATING FOR RESILIENCY IN NORTH AMERICAN CITIES Sustainable Communities Leadership Academy and Consensus Building Institute of MIT OCTOBER 14-16, 2014</p> <p>The Sustainable Communities Leadership Academy (SCLA) and the Consensus Building Institute (ISCI) launched an 18-month project to help cities and their regions work more effectively across agencies, sectors and jurisdictions. They selected St. Louis and Knoxville as the two pilot cities. Trainings on collaboration skills and strategies are now a fundamental part of SCLA's ongoing work with cities.</p>	<p>BATTERY BALANCE OF SYSTEM CHARRETTE FOR RESIDENTIAL AND BUSINESS STORAGE OF SOLAR ENERGY Rocky Mountain Institute NOVEMBER 12, 2014</p> <p>The Rocky Mountain Institute (RMI) brought together leaders from battery manufacturers, solar companies, the Department of Energy, and utilities to catalyze work on reducing costs associated with production of solar photovoltaic modules. While the cost of the batteries was already dropping dramatically, the costs of permitting, installation and inspection were still high. By late 2015 RMI was working with a number of partners on the initiative.</p>	<p>LAUNCH OF ACADEMY FOR SYSTEMIC CHANGE Academy for Systemic Change JANUARY 26-30, 2015</p> <p>Twenty young leaders from around the world met with Academy mentors to start developing an ongoing collaborative network to educate future leaders and initiate collaborative action. Their range of interest is broad, covering food and agriculture, education, sustainable cities and communities, marine ecosystems and fisheries, tropical rain forests, fresh water, and business and finance.</p> <p>CLIMATE RESILIENCE FOR ISLAND NATIONS, COASTAL COMMUNITIES AND OCEAN ECOSYSTEMS: FORMATION OF BLUE GUARDIANS Earth Council Alliance FALL 2015</p> <p>The Earth Council Alliance (ECA) put together a team of leading ocean and environmental organizations, satellite and global information companies, and investors to channel millions of dollars to renewable energy and ocean conservation projects in the more than 30 nations that are part of SIDS Dock, an alliance of leading island nations that is part of the United Nations.</p> <p>MOBILITY TRANSFORMATION PROGRAM Rocky Mountain Institute WINTER 2015</p> <p>RMI brought together innovation leaders in urban transportation to develop a national strategy to integrate the emerging diversity of transportation options in cities that includes automobile travel, public transport, ride sharing, bicycle paths, and smart management. Denver and Austin were selected as the pilot cities. Lessons learned from those two cities will be widely disseminated to other cities around the world.</p>	<p>FORMATION OF DISTRICT ENERGY ACADEMY EcoDistricts WINTER 2015</p> <p>EcoDistricts will start offering programs for its national network on the development of district energy initiatives as a way to advance to adoption of renewable energies. There are currently about 700 district energy utilities around the country, but few offer renewable energy to their customers.</p> <p>ENVIRONMENTAL MEDICINE MODULE FOR 100 MILLION HEALTHIER LIVES CAMPAIGN Center for Integrative Medicine at University of Arizona WINTER 2015</p> <p>The Center for Integrative Medicine at the University of Arizona will develop the environmental medicine component of a larger online program in integrative medicine that is part of a recently launched effort by leading philanthropists and organizations to educate citizens around the world to be more proactive in the cultivation of personal health. It will move the focus of attention from health care practitioners to citizens.</p>	<p>LAUNCH OF SUSTAINABLE PURCHASING LEADERSHIP COUNCIL CHALLENGE CAMPAIGN Sustainable Purchasing Leadership Council FALL 2016</p> <p>The SPLC is launching a challenge to all of its members to collaborate on selected initiatives. It moves the focus from the individual behavior of member organizations and companies to collective action.</p> <p>LAUNCH OF PRESIDIO GRADUATE SCHOOL ONLINE EDUCATION PROGRAMS IN SUSTAINABLE MANAGEMENT Presidio Graduate School FALL 2016</p> <p>Since the founding of the school in 2003, Presidio has graduated over 800 alumnae in its MBA, MPA, Dual Degree and professional development programs. Now it is ready to expand its global reach by offering those programs online to those who cannot travel to the San Francisco Bay Area to be part of its residency programs.</p>
<p>2015</p> <p>ENERGY SHIFT Resolve JANUARY 11-13, 2015</p> <p>Resolve, an organization that specializes in unlocking intractable policy logjams, brought together a group of representatives from leading energy and extractive sector companies, technology companies, investors, entrepreneurs and environmental non-profits to identify systemic leverage points that would accelerate the adoption of renewable energy. Several innovative initiatives came out of the gathering, but the larger goal of systemic change has not yet been achieved. The initiative continues to be managed by Resolve, which is trying to attract donor support for its continuation.</p>					

INSTITUTE PARTNERS

Blackstone Ranch Institute has built working relationships with a variety of the leading organizations in North America, a number of which are pioneering important environmental change around the world. We regard the organizations to which we have given financial and logistical support as partners of the institute.

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Ecodistricts
Forest Ethics
Future Farmers
Global Alliance for the Rights of Nature
Global Philanthropy Partnership
Green Cities California
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LEAN Energy
Living Futures Institute
National Geographic Society
Ocean Recovery Alliance
Orion Society
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Resolve
Rocky Mountain Institute
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Seattle Office of Sustainability and Environment
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Solar CITIES
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