



# NATURAL CAPITALISM SOLUTIONS

## E-LERT – VOLUME 9 (16 DECEMBER 2008)

### **Sustainability as an Economic Turnaround Strategy** (PAGE 2)

Paul Sheldon, Natural Capitalism's New Senior Consultant, outlines how implementing Natural Capitalism can get us out of the current economic crisis.

### **The State of Green Business: Sustainable Agriculture** (PAGE 3)

Jeff Hohensee, Natural Capitalism's CEO, looks at sustainable agriculture's affects on a healthy planet.

### **A Restorative Holiday Gift** (PAGE 4)

Give a restorative gift of Natural Capitalism.

### **Election Day** (PAGE 4)

Hunter Lovins' recaps about her personal experiences on election day.

### **President Obama: Here's How to Address Climate Change** (PAGE 6)

Natural Capitalism's plan outlining how President Obama can address climate change.

### **Solutions at the Speed of Business** (PAGE 7)

How Natural Capitalism's web-based tool for small businesses can affect the U.S. economy.

### **Presidio Corner: The Next Wave of Leaders** (PAGE 8)

Toby Russell, Hunter's Teaching Assistant at Presidio School of Management, shares insights on teaching sustainability to business school students.

### **Implementing Sustainability at Home** (PAGE 9)

Natural Capitalism's Research Director, Nick Sterling, outlines Natural Capitalism's work with Colorado's Governor's Energy Office in creating a sustainability plan for local cities.

### **On the Road with Hunter** (PAGE 10)

Follow Hunter on her continuing journey across three continents to create a sustainable world.

### **Recommended Readings** (PAGE 27)

Learn about a few of our favorite books of 2008.

### **In the Press and at the Podium** (PAGE 28)

This section includes some of the publications and speeches that staff of Natural Capitalism Solutions have done in 2008. It also highlights some of the awards and recognitions Hunter has received.

### **Upcoming Events** (PAGE 31)

Find out where NCS staff will be in the near future.



## **SUSTAINABILITY AS AN ECONOMIC TURNAROUND STRATEGY**

*Paul Sheldon, Natural Capitalism's New Senior Consultant, outlines how implementing Natural Capitalism can get us out of the current economic crisis.*

In the last two years Natural Capitalism Solutions has worked with corporations that collectively represent three percent of U.S. GDP. In good times we've helped communities and corporate America to integrate sustainability across the economy. The past six months have not been good times. An economic collapse, potentially larger than any in the history of the industrial world, now threatens all aspects of our way of life. We need to restart the economy, seemingly from scratch, and we need to do it fast. Patching up the crony capitalism of the last century will not solve the crisis. Only a boldly redesigned capitalism can deliver durable, competitive advantage and enduring prosperity.

Natural Capitalism Solutions is delivering the sustainable business practices and behavior that can transform the economy. Sustainability is a strategy to achieve durable competitive advantage in a stable economy. It is a turnaround strategy in a down economy and a survival strategy in a collapse.

Over the past 20 years, the field of sustainability has moved from a philosophy to a business imperative.

Ideas for creating a new, sustainable way of doing business have moved from theory to practice.

The publication of Natural Capitalism in 1999, led this transition. Since that time the principles of Natural Capitalism have matured through thoughtful application in communities, companies, and countries around the world and now offer the roadmap to the future for companies and economies of all sizes.

Natural Capitalism also solves such problems as the climate crisis, while providing new jobs and economic prosperity--dollars, wealth, money, and a healthy environment. If you'd like to help, give us a call at 303-554-0723 or drop an email to: [info@natcapsolutions.org](mailto:info@natcapsolutions.org)



## **THE STATE OF GREEN BUSINESS: SUSTAINABLE AGRICULTURE**

*Jeff Hohensee, Natural Capitalism's CEO, looks at sustainable agriculture's affects on a healthy planet.*

Sustainable agriculture may be the key sustainability challenge of the next generation. Over the years, Natural Capitalism Solutions has worked with clients in all parts of the food supply value chain: growers, food producers, retailers, marketing companies, and consumers. In the past year we have been taking a close look at agriculture.

Fixing our agricultural systems can address most of the world's pressing sustainability problems.

The fix, however, has to be applied in a systemic fashion. Simply converting to organics will not produce a sustainable agricultural system. Industrial organic farms release excess nitrogen and topsoil at a pace similar to conventional industrial farming. Even more insidious, to avoid the three transition years required by U.S. Department of Agriculture (USDA) organic standards, some entrepreneurs are looking at initiating farming on wild grasslands, then claiming that their crops are organic from year one.

Natural Capitalism Solutions helps companies move beyond organics to focus on the health of farm systems. This is key to long-term sustainability and minimizes the demand for fossil-fuel inputs. Such a system uses manures and legumes as primary nitrogen sources to build soil fertility, build organic matter, improves soil nutrient availability, retains water, retain and nurtures sufficient microorganisms, stabilizes and builds topsoil, reduces tillage, rotates crops, and promotes crop diversity. In short, healthy farm systems require healthy soil. Healthy soil requires healthy farm practices. Healthy farm practices promote healthy communities and are the cornerstone of an agricultural system necessary to sustain the world.



## **A RESTORATIVE GIFT**

*Give a restorative gift of Natural Capitalism.*

Stressed about what to buy someone who has everything and really does not need one more consumer item? Please consider making a donation to Natural Capitalism Solutions in their honor.

A gift to Natural Capitalism Solutions will honor your loved ones by:

- Enabling cities and local communities to strengthen their economy to become truly restorative.
- Help large and small companies, nations and economies implement more sustainable practices.
- Convert Natural Capitalism Solutions' knowledge and expertise into interactive Web-based learning tools.

[Click here](#) to make your tax deductible holiday gift today:

We will send a holiday card signed by our President, Hunter Lovins, to the recipient, or to you, as you indicate.

## **ELECTION DAY**

*Hunter Lovins' recaps about her personal experiences on election day.*

I voted early, as I left Colorado on election day to travel with Jeff Hohensee to San Diego for a day's consulting with a client. This was, of course, the day America held its breath. Our colleague Gil Friend, of Natural Logic, who was working with us, kept us up to the minute with the vote-tracking websites--but the truth was that all day, nobody knew.

The returns started to emerge as we sat down to supper with the client. The first returns split between Vermont for Obama and Kentucky for McCain. As dinner unfolded, the returns continued in. The outcome remained close.

We wound up supper, and Jeff and I repaired to the bar at the Embassy Suites with a student from Presidio to watch the rest. Mindful of Carl Rove's comment that it would go for McCain in the wee hours of the night, I was quite convinced that despite the positive nature that seemed to be emerging, the election would still be stolen. So the simultaneous closing of the West Coast polls and CNN calling the election for Obama came as an utter stunner.

Sitting in this now hugely raucous bar, I found tears rolling down my face. I simply hadn't realized how much I cared. Then the realization grew just how much of an historic moment this was.

We celebrated a bit and then I went upstairs to write to my students at Presidio.

In my hotel room that night, something that had lain dormant in me for a very long time welled up and I wept again . . . for a long time. I remembered working in the 50s on fair housing issues, in the 60s for civil rights, remembered working with those who were on the Quebec to Guantanamo peace march in 1963. I remembered my father who mentored Martin King, I remembered working in the 70s for farm worker rights with Cesar Chavez, and I remembered all those who have died for that night.

And so I wrote to my students: "Let us not blow it." I told them that we had awakened to a whole new day. In some ways nothing had changed, but in other ways, everything had changed, and so it is each morning. Will Semmes wrote to ask what I thought, and I replied: "It will neither be as bad as those who fear think nor as good as those who rejoice hope . . . Per usual. But regardless of what any of us think, it is an historic moment."

When the numbers come in, I suspect that it will have been the young people who created this extraordinary moment. Could be wrong, but that night looked like a universal rejection of the Rovian ugliness of last century's politics. It will be the future of the young people, even more than it is ours. They will need mentoring. When all that they want does not come as quickly as they want, they will need consoling, but most of all they need this chance.

"Dunno," I wrote. "There is a lot that will come clear in the days to come. I do know, tho, that there is a lot of work to do. And I owe Elliot Hoffman two bottles of very good whiskey."

As we near the close of this year, this extraordinary year, and face an uncertain future, it is incumbent on us all to bear in mind that democracy is not election night returns, it is what happens after that. It is the giving of one's heart and soul and time and god damn hard work. It is wrestling with the people we disagree with, but honor as fellow citizens, to create that better world. It is what each one of us does to confront the challenges facing us, to implement the solutions that we know are there, and to build that future that we want to leave to generations yet unborn.





## **PRESIDENT OBAMA: HERE'S HOW TO ADDRESS CLIMATE CHANGE**

*Natural Capitalism's plan outlining how President Obama can address climate change.*

Last year, Natural Capitalism Solutions' founder, Hunter Lovins, joined with the Executive Director of the President's Climate Action Project Bill Becker, Interface CEO Ray Anderson, former Senator Gary Hart, Educator David Orr and about a hundred other climate experts to produce the Presidential Climate Action Plan (PCAP). Hunter wrote the economic case for climate protection section, and served on the PCAP steering committee.

This aggressive, easy-to-implement plan provides ready-made actions that the incoming administration can implement immediately to reduce greenhouse gas emissions. Hundreds of suggestions are made in the plan, including:

Establish the goal of reducing America's greenhouse gas emissions 25 percent to 30 percent below 1990 levels by 2020.

Send Congress a cap-auction-invest bill that will reduce net U.S. greenhouse gas emissions at least 80 percent by mid-century with a carbon-trading system that auctions allowances "upstream" to the producers of coal, oil, and natural gas.

Set the goal to cut America's petroleum consumption in half by 2020.

Establish a CAF...--Corporate Average Fuel Economy--standard of 50 miles per gallon by 2025.

Dramatically increase the Department of Energy's (DOE) Weatherization Assistance Program (PCAP recommends \$1.4 billion annually) for low-income families to help insulate them from rising energy costs.

Direct the DOE to work with state regulators, national laboratories, the Federal Energy Regulatory Commission, and others to develop standards and plans for a "smart grid" transmission system.

You can download a synopsis of the full report [here](#) and Hunter's paper from [here](#).



## **SOLUTIONS AT THE SPEED OF BUSINESS**

*How Natural Capitalism's Web-based tool for small businesses can affect the U.S. economy.*

With the economy crumbling, small businesses need to implement cost-saving efficiency measures rapidly. It is the best investment they can make to stay in business. However, small businesses often don't have the knowledge, resources, or time to make their businesses sustainable.

Natural Capitalism Solutions and our partner, Cogbooks (an international provider of Web-based education), have been working around the clock to develop an on-line suite of services that will act like a consultant in a computer. This innovative tool includes:

- Comprehensive background information;
- Step-by-step action plans;
- Interactive tools and calculators;
- Video footage of sustainability leaders delivering targeted answers; and
- On-line discussion forums.

Solutions at the Speed of Business will guide businesspeople through material at their own pace. As the most comprehensive tool available on the market, it puts practical solutions in the hands of America's economic engine.

Helping small businesses is critical to the economic recovery. They represent about half the economy, create almost all new jobs and use 48 percent of all the electricity in the United States to produce more than 3,590 million metric tons of carbon emissions every year. Solutions at the Speed of Business will engage 50,000 businesses in the United States over the next three years. Cutting their carbon emissions by 20 percent will reduce almost 1.2 million metric tons of emissions annually.

The tool is due to be completed in Spring 2009--we'll let you know as soon as it is launched.



## **PRESIDIO CORNER: THE NEXT WAVE OF LEADERS**

*Toby Russell, Hunter's Teaching Assistant at Presidio School of Management, shares insights on teaching sustainability to business school students.*

Another semester has passed at Presidio School of Management in San Francisco and the next wave of sustainable leaders is about to graduate. Now with 300 students and 68 graduates, Presidio School of Management has established itself as the top sustainable business school in the country. Graduates are guiding sustainability work for such firms as VISA, Goodwill, Kaiser Permanente, Wells Fargo, Mattel, NBC, PG&E, as well as cities across the country, several universities, and corporations.

In addition to their well-established MBA program, the Presidio School of Management has successfully completed its sustainability certificate program for executives. This allows existing leaders in business to gain deep perspectives on what makes a business sustainable, as well as the practical skills to shift corporate culture, take realistic steps toward lasting change, win over skeptics, and apply sustainable principles to benefit both the bottom line and society.

Hunter Lovins and Natural Capitalism Solutions were instrumental in founding Presidio School of Management and we are very excited to be a continued part of its huge success. To learn more about Presidio and their Executive and MBA programs [click here](#).





## **IMPLEMENTING SUSTAINABILITY AT HOME**

*Natural Capitalism's Research Director, Nick Sterling, outlines Natural Capitalism's work with Colorado's Governor's Energy Office in creating a sustainability plan for local cities.*

Natural Capitalism Solutions expanded its work with local governments by enabling the state of Colorado's Governor's Energy Office (GEO) to create a workbook for local governments across Colorado. The workbook, built upon Natural Capitalism Solutions previous work with the Climate Protection Manual for Cities, walks local governments through 13 different key areas to implement effective sustainability initiatives and climate solutions. It highlights case studies of what other communities are doing and provides resources to help communities on their path towards sustainability.

Key areas include:

- Getting Started;
- Greening Government: Lead by Example;
- Residential Programs;
- Business Programs;
- Climate Protection;
- Utility Energy Programs;
- Water Resources and Conservation;
- Waste and Materials Management;
- Transportation;
- Education and Outreach;
- Model Ordinances and Codes;
- Financing Options; and
- GEO Programs.

Natural Capitalism Solutions is honored to work with the GEO to develop this practical, easy-to-use sustainability tool for cities across the Colorado. Colorado Governor Ritter was one of the first leaders to call for "unleashing the new energy economy," supporting business, residents, and municipalities in implementing climate protection.

We appreciate the opportunity to use the business case to make climate protection more effective and profitable.



## ON THE ROAD WITH HUNTER

June found me in New York City to help bestow on my long time friend, Dr. John Todd, the inaugural Buckminster Fuller Challenge Award. John's work deserves recognition for so many reasons: He and his wife his wife, Nancy Jack, founded the New Alchemy Institute (one of the first sustainability centers.) They created the concept of buildings that house, feed, and warm you as they treat their own waste--the basis for the Rocky Mountain Institute Building, and many others. John created the eco-machine, a standard for ecological treatment of sewage and ways to clean water. He won this award for a proposal to use similar approaches to transform devastated coal lands in Appalachia. His work was clearly the outstanding submission to the jury, on which I served, and the vote was unanimous. It was utterly wonderful to join John and Nancy, and dozens of other old friends at the gala celebration, then next day discuss this work with Amy Goodman (another hero of mine) on her show, Democracy Now.



On the same trip I was thrilled to attend a reception honoring Nancy DuPree, considered by many to be the grand dame of Afghanistan. She first traveled to Afghanistan in the 1930s, met her archeologist husband, Louis, and has lived in Afghanistan or Pakistan ever since. The DuPree's books on Afghanistan, along with Jason Elliot's, *An Unexpected Light*, remain the best guides for that magical place. I remember well driving the road to Bamiyan reading her words that the trip is not for the faint of heart, or to be undertaken without a pair of well-equipped four-wheel drive vehicles. True story.

Nancy was instrumental in hiding the Bactrian treasure when it was clear that the Taliban were coming in. Several museum keepers were tortured to reveal its whereabouts and all denied knowing anything about it. About two years ago, Nancy judged that the situation was stable enough and revealed that the treasure was safely behind a walled up section of the Presidential Palace. Now touring through the United States, the Bactrian treasure is a fabulous legacy of a great people. Nancy, a wonderful bright-eyed woman of 80 plus years, remains in active service to her beloved country, creating traveling libraries to offer books and education to people in remote villages. As part of this, she has recently established the Louis and Nancy DuPree Library at the University of Kabul.

Next morning, the scramble was on to Burlington, Vermont, to join with Bill Becker for The American Response to Climate Change. Describing itself as the most important solutions-oriented climate gathering in the United States this summer, the conference featured many of the experts shaping national policy on climate. Given that Bill and I have both been involved in creating the Presidential

Climate Action Project, he as Executive Director, I on the steering committee, it seemed worth going along to see if this group intended to do in a couple days what it had taken over 100 of us the last two years to achieve.



The long drive from Vermont to Tupper Lake was one of the best parts of the trip. We headed west, crossing Lake Champlain on a ferry, watching the Green Mountains of Vermont recede into the warm summer afternoon, then cruised into the evening along tiny roads deep in the Adirondacks as the sun set amidst the New England farms and bald, glacier-scoured mountains. At one point, as both Bill and I were commiserating about life

on the road, we laughed and observed that it really could be worse: we get paid to do what most folks go on vacation to get.

The meeting turned out to be quite interesting, with such old friends as Dr. Tom Lovejoy, Dr Robert Socolow and Dr. John Holdren part of the stellar cast. Tom is one of the leading scientists tracking the loss of biodiversity from climate change. Rob is one of the authors of the famous wedges analysis of meeting the climate challenge with the diversity of ways to reduce carbon, making the problem considerably more manageable. John is one of the leading climate scientists in the world and a member of the U.N. Intergovernmental Panel on Climate Change (IPCC). If you want the straight science behind climate change, watch the seven-part You Tube videos (<http://www.youtube.com/watch?v=RKFJ-bdjUeg>) of John at the Kennedy School of Government. Carbon traders from London reported on the explosively growing carbon market--already almost \$80 billion and rapidly headed for a trillion.

The conference promised to draft memoranda for the new Administration on each of the four conference tracks--Buildings and Appliances; Power Generation; Carbon Finance; and Forestry/Land Use. Bill and I suggested that they use our PCAP work. The final Presidential Climate Action Project report, now available at [www.climateactionproject.com](http://www.climateactionproject.com), outlines what President-elect Obama can do in the first 100 days after the inauguration to implement climate protection aggressively and profitably.

On the other side, representatives from the pro-nuke industries pushed their own agenda, that American taxpayers shell out at least \$7 billion to subsidize so-called clean coal and even nuclear on the allegation that it is a clean technology. They neglected to mention that nuclear is quite carbon intensive when you count the energy it takes to run the whole fuel cycle, and the carbon released by all the concrete needed for nuclear plants. Nuclear, of course, has such other problems as being seriously uneconomical, proliferative of nuclear bombs around the world, and, oh yes, that unsolved issue of nuclear waste.

Not to be outdone, the clean coal boys want you and me and the rest of the American taxpayers to put at least a couple hundred billion if not \$500 billion into subsidizing what they euphemistically call clean coal--coal, of course, is not clean, whether you count the mines or the combustion. These guys want you and me to pay for a technology that has never been shown to work on a commercial scale on the allegation that because we have a lot of coal we have to burn it. As I sat in these meetings listening to these well prepared assaults on the American pocketbook, I stuck my hand up and said, "Excuse me, whose money are we speaking about here? If you're talking about my money, i.e., the taxpayers', I suggest we spend it first on the ways to meet our energy needs that are the cheapest, quickest, most benign, and create the most jobs, before falling back on expensive, dangerous, uneconomic technologies. You'll find that we have a lot of alternatives that would be a far better route." Many at the conference agreed and, much to the disgust of the lobbyists, the final document called for efficiency first, then renewables, with a focus on technologies that create green jobs.

Feeling we'd done a good couple days' work, I took some hours off to tour the magnificent Wild Center, at which the conference was held. The docents took me behind the displays to watch the otters that the center features pursue their finny supper through their habitat. If your travels ever find you in upstate New York, this is an environmental education center not to be missed.

Back home to prepare the curriculum for the inaugural Presidio MBA Executive Program, I diverted to up-state Michigan over the 4th of July to attend a rock-and-roll festival. Now, I'm not much a fan of rock-and-roll, but the folks from the Rothbury Festival invited a group of scientists, government officials and road-warriors like me to what they called the "Think Tank."



"Don't folk go to rock-and-roll festivals to NOT think?" I asked. Guess not. The organizers reckoned it would be fun to have folks like Dr. Steve Schneider, the Stanford scientist who first began raising concern about climate change back in the 1970s; my friend, Will Semmes Chief Deputy Director of the California Department of General Services; Nick and Helen Forester from E-town, the environmental radio show; and a whole host of others come together with the musicians, and discuss solutions to the climate and other problems in the world. They gave us the same passes as they gave the artists--with access everywhere, including the stages. Some of my students from Presidio came along to organize the fun, so at four in morning, I found myself partying on stage with the likes of Thievery Corporation, the Dave Matthews Band, Michael Franti of Spearhead, and a whole host of other groups I'd never even heard of. Guess it's a little harder now to argue when Jeff Hohensee calls me a rock star.



After some time at home to catch up on sleep, I flew to Dartmouth to speak at their summer leadership program. What a pleasure to revisit where I taught so many years before, to stay again in the delightful Hannover Inn, and to visit the campus where I first met my beloved friend, Dana Meadows.

Then west to San Francisco to welcome the inaugural cohort to the new Presidio Executive Program. I'd figured it would be a success if we attracted people with a pulse, so it was a great joy to find a room of high-caliber people. As Presidio graduates get out there in the world and make a difference, I remember when all this was just a gleam in the eye, when Natural Capitalism Solutions took the job as lead consultant putting Presidio together. It's a partnership that has only grown richer over the years as the school becomes recognized as the preeminent green MBA in the country.

That said, there are fast followers out there--the number of green MBAs now popping up numbers over 150. And hundreds of colleges are offering sustainability courses, so Presidio will keep innovating to stay on the cutting edge. This January Presidio will join Natural Capitalism to create a CogBook on sustainability 101, a tool we'll all be able to use to spread the word, and, in fall '09, we will offer a Masters in Public Administration.

As July waned, I headed for Scotland to keynote the World Renewable Energy Congress. As part of that, I helped my friend, Dr. Barbara Farhar, one of the eminent sociologists on energy policy, convene a day on gender and energy, focusing on how to meet the energy needs of developing countries. A great group of people from around the world, including the National Renewable Energy Lab, and various universities presented energy policies that will do a better job of bringing prosperity to India, Pakistan, China, and other developing countries.

The next day, I presented the business case for climate protection, following the Scottish First Minister, Alex Salmond, who declared Scotland's goal of becoming the renewable energy capital Europe.



Then away I went with my friend, Dr. Jim Thompson, Managing Director of CogBooks, with whom Natural Capitalism is creating Solutions at the Speed of Business, the Web-based learning platform to enable small businesses to cut their carbon emissions profitably. The next four days we drove across Scotland, battling down the miles about how to describe to entrepreneurs, for whom cash is king, the benefits of comprehensive energy savings programs--they do require

an investment, but the savings over time are far larger than if you engage in cream-skimming of only doing low cost measures. We paused by ancient castles to write up our results, and recorded voice-overs for the manual between lonely

fog-horns in a bed and breakfast above the harbor where ferries sail for the Outer Hebrides. Mostly, as I travel the world, I see it from the back window of a cab, or as an airplane sails up into a cloud. Jim taught me a far more delightful way to get our work done, including a day spent on the Isle of Skye, home to my favorite Talisker whiskey. Walking the glowing emerald fields in rare sun, sitting by tiny stone crofts above the crashing sea, I reflected that this might not be such a bad place to retreat to and write. People lived here long before nuclear power, 747 airplanes or I-phones.

But always, the road rolls on. At months' end, I reluctantly left the long light of Scottish evenings, and headed south to London for meetings with the team preparing the London Olympics, and, much to my delight, with the young people running the Carbon Disclosure Project (CDP). This ambitious group took it on themselves to send out a survey to the Financial Times 500--the biggest companies on earth asking brashly, "What's your carbon footprint?" The first couple years nobody much answered; then suddenly 60 percent of the companies surveyed answered. Some, like Ford Motor Company, wrote whole carbon footprint reports. The next year 66 percent answered, and last year, well over 70 percent of the now FT 1800 companies replied to the survey.

Why on earth would these companies bother? For one thing, the CDP represents institutional investors with \$57 trillion in assets. Any company intending to go to the capital market place had better answer the survey. And under Sarbanes Oxley Act, the U.S. corporate ethics law, if as a manager you fail to disclose information to shareholders that could materially affect the value of your stock, you can be personally criminally liable. What's your carbon footprint?

The CDP asked if I would join their advisory board, something that honored me enormously. They were somewhat big-eyed at the realization that because they'd had the guts to step up and do what they have, they are now the dominant player in the carbon marketplace. They wondered if there was anybody bigger than them, and I answered, "I believe you boys are now the big dogs." They thought about that for a little while and then cowboyed up and acknowledged that they've got work to do. So this fall they teamed with Walmart to help Walmart suppliers, first in China and then around the planet, report their carbon footprint. People are always asking what can be done to get China into a climate protection regime--this just might be it. So cheers to the folks at CDP. They are changing the world.

Before leaving London, I spent a morning with the Wayne Visser from the Cambridge Program for Industry that has named me one of the 50 leading sustainability thinkers in the world for the work that I did in Natural Capitalism and Factor Four, the only double entries on that list. I filmed a description of the process of writing the books, Natural Capitalism Solutions' current work, and our thinking on the future of the sustainability program.

After London, it was back on a plane and bound for Colorado to join the Association for the Advancement of Sustainability in Higher Education board



retreat, then on to California for the second round of the Presidio Executive Certificate Program and the first round of the new semester of the MBA Program.

Then back across the puddle to Stockholm for the annual meeting of the Balaton Association. This group includes some of the world's leading thinkers on sustainability, who meet each year to consider the challenges facing the world and, in particular, how the discipline of systems thinking and systems dynamics, pioneered by Dana and Dennis Meadows, can help address these problems. It is an opportunity to see old friends, to make new ones, and, in a quiet, off-the-



record session, to let our hair down on the challenges we're facing and help each other. My friend, Dennis Meadows, made the point that those of us who go around the world giving talks about how there is still hope and time, saying that we can meet the challenges, but who know that we are lying to ourselves ought to have a conference and talk over that feeling. I replied, "I don't know that I'm lying. You'll be able to tell when I think it is too late because I will buy a really nice horse trailer with living quarters and a damn fast horse and go back to rodeoing. As long as I'm still riding airplanes you can know that I still think there is hope for the world."

But that means riding a lot of airplanes. Early September meant trekking on to Melbourne, Australia to keynote the Innofuture '08 conference--the Australian version of the TED (Technology, Entertainment, Design) conference. Large businesses, manufacturers, universities, industry consultants, CEOs, designers, and managers join to discuss innovation and challenges facing the world. As part of the exercise, I did a podcast on my keynote on the Business Case for Climate Protection for Telstra, Australia's national telephone company, which went out to the whole nation. It was a particular pleasure to share the podium after my keynote with Nathan Shedroff, one of our Presidio graduates, now Program Chair of the MBA in Design Strategy at the California College of the Arts. I wrote the foreword to his new book, *Design is the Problem, The Future of Design Must Be Sustainable*. It is a masterful synthesis of how the frameworks of sustainability can be implemented to help redesign how we make and deliver everything. I highly recommend it.

The ability of electronic media the conference featured to convey information and bring people together in new information society is truly amazing, but I also discovered its limitations. Informed that I had won the Sustainable Asset Management (SAM) Award, considered by the European financial community to be the Nobel of sustainability. I had to get from Melbourne to Switzerland, in considerably less time than we could figure out how to do it. Finally Nancy--my

ever-capable exec found a middle of the night routing through Singapore that deposited me, bleary-eyed in Zurich with just enough time to accept the award and give the requisite speech.

I climbed on the stage at the magnificent Swiss Re Schloss overlooking Lake Zurich and accepted a massive single crystal of quartz chunked from the Alps and a pin designating me as the Sustainability Pioneer in the name of everyone at Natural Capitalism Solutions. It was a particular honor because the Leadership in Business award was given to a friend, Yvon Chouinard, founder of Patagonia. We spent a lovely evening on a rooftop garden overlooking the city chatting about sustainability issues and talking with the various CEOs and Achim Steiner, the U.N. Under Secretary General, and Executive Director of the U.N. Environment Program. Those of you who have followed my writing for a while, know full well my distain for bureaucrats of the U.N. and I was prepared to be underwhelmed, so was entirely surprised to find that Achim is a diplomat of the finest sort--serious, committed, intelligent, and possessed of a keen understanding of the nature of the challenges, the limitations of his organization, but also the opportunities. For the first time I felt that there may be a glimmer of hope in that outfit.

Lovely as Zurich is, I was due in San Francisco next day to teach, so I flapped west hard as I could and scrambled to the Presidio Executive Program. After a day's teaching it was on to Hershey Pennsylvania (yes, the place does smell like chocolate) to keynote the Green Growth Conference. Grabbed a quick supper and headed for Chicago to speak next day at a luncheon for the U.S. Green Building Council.

Then it was back across the country to make Presidio's monthly open house at which I tell perspective students about why I choose--given that I can be and frequently am anywhere in the world--to come each month to teach at Presidio. It's because we're really moving the needle. Presidio students are now replacing me--they're heads of sustainability in businesses, in governments, and in civil society. They are implementing the material that Natural Capitalism has researched and that I speak about across the world. This effort to get more people out into the world implementing our ideas may turn out to be the most important work that I do.



Being in San Francisco I grabbed the chance to join colleagues (and 45,000 attendees) at Oracle Open World. They had asked one of our students to organize the green track for the convention, so I gave the keynote, moderated a panel, and participated in what was billed as "the Great Debate." It was good fun to join Randy Hayes, founder of Rain Forest Action Network and a fellow Dave Brower alum, and Adam Werbach, also a

graduate of Dave Brower and the youngest elected president of the Sierra Club, now head of Saatchi Saatchi Sustainability to take on corporate representatives from BMW, Figi water, Hewlett Packard and, strangely enough, my dear friend, Jim Hartzfeld from Interface. I'd queried the organizers, "Now, just how can I have a fight with Jim? He knows as much as I do about sustainability and has been implementing it for years." They reckoned I could find a way to have a fight with anybody. So the debate was on.

They were close to right. Things were pretty cozy--most of the corporates are with companies that are doing a good job building sustainability, particularly Interface--but then the guy from the bottled water company annoyed Adam Werbach enough that he launched into how hauling water in plastic bottles from the other side of the planet cannot be considered sustainable regardless of how many trees the company plants. The car guy said they were giving it their best to make more efficient cars, but that it would take several decades before anything useful emerged. That got me going, and pretty soon a good ol' y'all come fight was in full cry. The crowd loved it, Jim and I went off to have drinks with our students and hopefully we'll all be invited back to have even more interesting conversations next year.

From there I scampered south to San Jose to join fellow Sustainability Pioneer David Johnston on a panel at West Coast Green, the largest green building conference on the West Coast. At the same event the year before, with two minutes left in a session, the moderator asked four of us what we did to keep our lives sustainable. People went on at length about various daily practices of mediation or eating more vegetables. At the end of the line and out of time, I grinned at the crowd and said, "Whiskey and beef." It got a big laugh, so this year the organizers announced a session called "Whiskey and Beef," talking about how women in this movement find sustainability in their own lives.



Seemed pretty silly--no one I know doing this work lives anything remotely like a sustainable life. But I gathered a group of good gals who could have a fun conversation regardless, and if all degenerated could surround some whisky and beef.

Turned out it became the party of the convention. The Presidential suite at the Hilton filled to wiggle room only. I'd brought along a bottle of Scotland's finest, on the off chance that nobody else thought to. Can't say we learned anything about sustainability, but heck, having fun's got to be part of it, or I don't wanna be.

My keynote presentation next morning came way too early. The haze lightened significantly by the presence of Dr. David Suzuki, one of the true heroes of the

green movement. David spoke magnificently on what he has learned in his years as Canadian broadcast commentator, noted author, film-maker, and visionary in this field. Which made it much easier to slide into my remarks.

There ensued the inevitable meetings, book signings and lots of conversations in the halls. Will Semmes and I watched the Presidential debates, agreeing that McCain had made the better showing. I'd bet Elliot Hoffman a bottle of Scotch that McCain would win. He'd doubled it, so I was following things electoral with more interest than usual. Having been asked by both campaigns to advise them, and having sent both sides a boatload of papers (and not heard from either afterward) I figured either way, it'd be better than what we've got. Given that the issues we work on are neither right nor left, but are essential to building a future that will work, I'd agreed to help whichever candidate emerged.

Next morning brought the chance to chat with Al Gore, who was giving the closing keynote, so I hung around. He showed up with John Gage, a dear friend and now working with Al at Kleiner-Perkins. As Al spoke John and I huddled in the corner (having heard Al before) rapt with the idea of pulling together a group of thought leaders to talk about transforming our current unsustainable form of capitalism.

That thought assumed greater gravity as I flew on to Seattle to help a group of corporate leaders put together a positive scenario for 2050 under the auspices of the World' Business Council on Sustainable Development. As we met, the economy melted down before our eyes, and it became clear to all of us that something fundamentally different is needed. I phoned Jeff Hohensee back at Natural Capitalism Solutions and we agreed that it's time: we've got to quit talking about it and put forth our thesis that sustainability is a competitive advantage strategy in a normal economy, a turn-around strategy in a down economy and a survival strategy in a collapse.

But good ideas don't substitute for going down the road. From Seattle, it was on to Columbus, Ohio to speak at a green building conference, and seize the chance to confer with Dana Baumeister, co-founder with Janine Benyus of the Biomimicry Guild. This approach of asking how nature does business is a key part of transforming our economy.



Over a lovely evening with some of the activists in Ohio they promised me, that this time around, they were not going to let the election be stolen. I wished them the best, but remained reasonably sure that my whisky was safe.

Travel slacked and I grabbed a delightful couple of days at home--autumn in the Colorado Rockies is arguably the most wonderful place in the world to be. Then



it was back to San Francisco to teach, speak to the western office of the Environmental Protection Agency and hold another open house for both the Presidio Executive Program and the MBA program.

Then south to Savannah, Georgia to speak at Georgia Southern University. The good folks at the University took pity on this tired nomad and gave me a morning to wander the botanical gardens with a local guide, learning the southern Georgia's hardwood and long-leaf pine ecosystem. Then came the whirl-wind of meetings with faculty, departments, and students, and a big public speech. It was heartening to see the level of interest in cross-disciplinary, multi-disciplinary program combinations to enable their students to incorporate sustainability into their studies.

After a whole week at home, I returned California to wrap up the five-months of the Presidio Executive Program--woof, that went fast! Bidding farewell to the inaugural class, now busily organizing themselves to stay involved with the school and me, I flew back to Colorado to speak at a meeting in my own hometown of Longmont. A local group has decided to make Longmont what is called a transition town--a town implementing sustainability. They convened a festival celebrating local agriculture, energy efficiency, solar, and all of the other aspects of a more sustainable city, and asked me to keynote it. Couldn't say no to my home, though it meant getting up at 3:30 AM and flying into the dawn to get there.

Then on to Chicago to be inducted into the Environmental Hall of Fame. While there, I was able to meet with Tom Cushing of the Chicago Climate Exchange (CCX), of which Natural Capitalism was one of the inaugural members. CCX now has 440 members with collective carbon emissions over 600 million metric tons under trade--a larger trading regime than the mandatory European program. Total trades in 2008 will be over 100 million



metric tons, up from 25 million in 2007, a more than 400 percent increase. CCX is the world's largest and the United States' only voluntary cap-and-trade system, whose members are making real reductions in emissions. Their goal had been to cut emissions by four percent through 2006, but they actually reduced eight percent. CCX governs some 17 percent of U.S. stationary emissions, 20 percent of the power sector, and 20 percent of the Dow Jones industrials. The first trade under the New England Regional Greenhouse Gas Initiative was done on CCX, and in the week I was in Chicago, CCX also traded the first futures contract for federal allowances for whatever mandatory system is to be introduced. Richard Sandor is not content to rest on his laurels in the United States; he recently opened the Tianjin Climate Exchange in China, partnering with China National

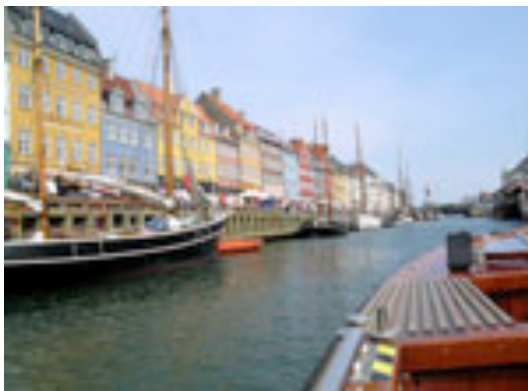
Petroleum Corporation. CCX also has created the India Climate Exchange with now 20 members gathering to establish targets for a private cap-and-trade system in India. You can see why I'm so pleased to be a part of this entrepreneurial solution.

While in Chicago, the Hall of Fame folk asked if I would speak to a couple hundred high school students from environmental clubs in public schools around Chicago who had also won awards. Having no idea what to say, I called Jeff Hohensee and said, "You've worked with kids, what do I tell 'em?" He suggested pointing out that while everyone will tell them that they are the leaders of the future, that's not true--they are leaders of today. If we're going to get out of this mess, they're the ones who will have to do it. The young people seemed to appreciate my comments, particularly that part.

Having a day before I had to head on east, I took a break from writing the Copenhagen speech to reconnect with some dear friends: Marvin Klein of PortionPac, and then Dr. Ron Nahser, the inaugural Provost at Presidio. They joined me for the Hall of Fame induction, then various meals and the chance to talk about our philosophies of change, about the role of business and education and about the unique nature of the City of Chicago. Both love the city and are great observers of its effort to become the greenest city in the nation. Ron and I even took the architectural boat tour, marveling at how a skyline defines a great city, and the historical evolution of ways efforts to create livable urban spaces.

From Chicago, it was on to Copenhagen, Denmark, to keynote the Nordic Council's Climate Solutions Summit. Created by Eric Rasmussen, the visionary publisher of Monday Morning, one of the largest local magazines in Denmark, the Council consists of Ministers from Nordic countries and CEOs of companies from around Europe who gather each year to consider what to do about climate.

My keynote describing the business case for climate protection was followed by speeches from the Prime Minister of Sweden and the Danish Energy Minister. The latter took some offense at my prediction that the Copenhagen Conference of Parties on climate protection to be held December 2009 will fail. I backed my assertion by betting her a bottle of whisky on the outcome. She agreed and our exchange made the front page of the paper next morning.



Sure hope I'm wrong, but the chances that the world's nations will agree to a uniform binding treaty with targets and timetables on anything like the aggressive schedule that is needed seems slim. What is needed is to return atmospheric concentration of CO<sub>2</sub> below 350 parts per million (ppm)-it is currently at 386 and rising. The very scary changes we already see--the rapid melt of the polar icecap, the spread northward of



diseases, and the increasingly violent nature of storms world-wide (2008 now appears to have been the most damaging year ever on record in the U.S.)--are precisely the results of climate change that the scientific models predicted wouldn't happen until CO2 concentrations hit at least 450 ppm.

The U.N.'s Intergovernmental Panel on Climate Change (IPCC) considered 450 ppm to be the "safe" model, while the Stern Report in the United Kingdom considered 550 ppm to be "safe." By "safe," they mean there is a 50-50 chance that we won't encounter catastrophe--not what you or I would consider safe. Scientists like Dr. Jim Hansen and many others now recognize that the level has to be considerable lower. Getting concentrations back to that level will take a monumental effort--far beyond anything the world has ever done.

Sir Terry Leahy, CEO of Tesco, the UK competitor to Walmart, put it this way,

"If we fail to mitigate climate change, the environmental, social and economic consequences will be stark and severe. There comes a moment when it is clear what you must do. I am determined that Tesco should be a leader in helping creating a low carbon economy. I do not underestimate the task--it is to take an economy where human comfort, activity, and growth are inextricably linked with emitting carbon and transform it into one which can thrive without depending on carbon. This is a monumental challenge--it requires a revolution in technology and a revolution in thinking. We are going to have to rethink the way we live and work."

There is, however, a very strong business case for doing just this, which is why in the U.S. companies and communities have been leading the way, even in the face of the dark political age we've suffered under. For example, 10 years ago, DuPont stated that they were going to cut their emissions 10 percent below their 1990 levels. They have already cut them by 80 percent for a savings of over \$2 billion each year--the same as DuPont's 2006 profit margin. This company is profitable because of its commitment to protecting the climate.

In fact, in the face of the greatest economic meltdown since the great depression, I don't think we have any choice. If we wish to protect the economy, we will protect the climate because investing in energy efficiency and renewable energy is the fastest way to grow jobs, cut costs, and create economic vitality and prosperity. There is nothing else we could invest in as a society that could give us as high or as rapid a rate of return.

This conclusion is now being verified by an avalanche of studies, including one commissioned by the Republican Governor of Florida whose Republican-led taskforce on climate change reported that a state cap-and-trade program that cut emissions 33 percent below Florida's 2005's rates would deliver \$28 billion in economic savings by 2025. Florida's energy security would be increased by reducing dependence on fossil fuels, while saving 54 billion gallons of petroleum.

A similar study from Arizona found that cutting carbon emission 60 percent below current levels would result in a \$5.5 billion savings and the creation of 285,000 jobs.

In California, the Republican Governor signed AB32, mandating a 30 percent reduction below business-as-usual greenhouse gas emissions by 2020, and 80 percent below 1990 levels by 2050. A recent study from the University of California showed that fully implementing AB32 will increase the gross state product by \$48 billion and create over 400,000 new jobs.

The 1,500 business leaders at the Copenhagen Summit found all that unobjectionable, but what they were really voracious to know was what I thought America was going to do now that Obama had been elected. I answered that I believe Obama will act to protect the climate. Some observers predict that there will be no significant climate legislation in 2009. I disagree for several reasons. One, companies and communities are calling for it. Over 900 mayors have committed to abide by the Kyoto Protocol. The 32 members of the U.S. Climate Action Partnership, including Alcoa, BP America, Caterpillar, Chrysler, DuPont, Duke Energy, Conoco-Phillips, Dow, various other utilities, GE, General Motors, Rio Tinto Mining Company, Siemens, Xerox, and others are calling for a cap on carbon emissions and a trading system like Chicago Climate Exchange. These are not insignificant companies.

For another, Mr. Obama has said that he will act. On 17 November, Governor Schwarzenegger hosted governors from 13 states, including Florida, and representatives from China, India, Mexico, Indonesia and Brazil to pledge to work together to combat global warming. Mr. Obama addressed the gathering by video, saying that when he took office, the United States will once again engage vigorously in international negotiations and will help lead the world toward global cooperation on climate change. He stated, "Now is the time to confront this challenge once and for all. Delay is no longer an option. Denial is no longer an acceptable response. The stakes are too high; the consequences too serious."

He's got that right, and the Presidential Climate Action Project report, of which Natural Capitalism Solutions wrote the lead chapter on the economic case for climate protection, offers him hundreds of measures that can be implemented agency by agency to protect the climate.

If you want a clue to what Administration action might include, read the publication, "Green Recovery," written by Obama advisor John Podesta. Or read the Obama/ Biden energy plan, which calls for creating five million new jobs by investing \$150 billion over the next 10 years in efficiency and renewables, to get 10 percent of electricity from renewables by 2012, and 25 percent by 2025. Al Gore, by the way, is calling for getting 100 percent of our electricity from renewables within 10 years. Obama and Biden call for weatherizing one million homes annually, getting a million plug-in hybrid cars on the road by 2015, implementing an economy-wide cap-and-trade program to reduce greenhouse

gas emissions 80 percent by 2050, and making the United States a leader on climate change.

How's that for a refreshing atmosphere of change?

And the states are moving ahead, regardless. In the fall of 2008, the Regional Greenhouse Gas Initiative in the New England states came into effect, requiring large utilities to bid to buy the right to emit carbon. California is creating a separate market for carbon under AB 32 and the Midwestern states have yet a third program underway. This means that companies will either have to operate under three separate sets of regulations or get a national climate regime in place.

But what may really be the game-changer is a little noticed court ruling, *Massachusetts v. EPA*, issued last spring. It appears that it might actually have some teeth in it.

The ruling states that under statutory mandate, the EPA must determine whether carbon is, in fact, a pollutant and if so, will it harm the American people? The Bush Administration had, of course, declined to make any such determination and said to states like Massachusetts and California that they could not regulate carbon because the feds had elected not to. In May, the Supreme Court held that EPA did have to make that determination. Despite the reign of terror they have been under, the diligent civil servants at EPA decided that if this were their job, they would darn well do it. Last summer they issued a preliminary ruling concluding that, well, yes, carbon is a pollutant and, indeed, yes, it increasing levels of it in the atmosphere represents an endangerment.

The U.S. Chamber of Commerce now has teams roaming the country giving speeches to local business groups claiming that doing anything about climate will bankrupt the economy, particularly if the EPA regulations come into force. I sat in one such meeting and was told that if I asked another question I would be forcibly removed from the room. Gosh . . . scare me, why don't you . . .

But it got me to thinking: if EPA is going to regulate any significant emission of carbon, even the most conservative of businesses would prefer to have a national cap-and-trade system rather than let EPA inquire into their carbon emissions on a day-to-day basis. Whichever way round you look at it, I believe we'll probably see a carbon regime emerge here in the United States prior to the run-up to the Copenhagen meeting in December '09.

The question then is, how much will that be a game changer in the International community? The corporate leaders assembled in Copenhagen cheered when I apologized for the last eight years lapse of American leadership, but declared, "We're back!" If, by the way, you wish to read the full paper that I presented in Copenhagen--it is now available on the Natural Capitalism Solutions Web site.

I concluded my remarks by quoting my friend Dr Steve Rayner of Oxford who observed that what we're really facing is something called a "wicked problem"--a multi-faceted problem in which no one facet can be solved in isolation. You can

only solve any of them by solving for all of them. It is a race to see which will melt first: the Arctic or the economy? We have to fundamentally transform the economy at the same time that we are solving the climate crisis. Yes, daunting...

But it might not be as hard as it initially seems. While meeting with a group of college students recently I observed, "Isn't it interesting that we now live in a socialist nation." One young man bristled and challenged, "What do you mean?" When I answered that the U.S. government had just bought the banks, he asked, aghast, "When did that happen?!" To which one of his teachers replied: "Two days ago." Fair enough, he's a marine biologist who spends his time paddling around coral reefs. But it is interesting to reflect on the speed and magnitude of changes going on all around us. As someone recently remarked, the Republicans are doing all the hard work for those who want to transform the economy: Spend \$700 billion, no problem. Nationalize the banks, sure. Massive government regulations, you bet.

To help the world reach an agreement at Copenhagen, however, we're got to solve yet another intractable problem. The real reason I think Copenhagen is likely to fail, is that international climate negotiations frame the issue as curtailment, which reads as denying the legitimate development aspirations of half the world's population who live on less than \$2 a day. My friend, Dr. Tariq Banuri, member of the Balaton Group and the new head of U.N. Department of Economics and Social Affairs is advancing the notion that we need to reframe the climate debate away from the top-down targets and timetables that aren't going to be met and that wouldn't be adequate if they were, to find a way to enable countries in the rest of the world to develop using the best of the low carbon technologies. In the paper I presented in Copenhagen, I outlined what Tariq is calling for and why this makes economic sense.

We stand at this unique moment in history where continuing with business as usual will drive us into a global depression and, very likely, the collapse of life as we know it. At the same time, we have all of the answers.

Check out a marvelous [You Tube video](#) featuring Eric Schmidt, the CEO of Google and one of Mr. Obama's economic advisors. It describes how the United States can solve every significant problem facing it for a sum of something like a trillion dollars, based on work done at Google. What tickles Mr. Schmidt is that this investment is less than U.S. energy businesses spend on energy now each year. And if the money is invested in efficiency and renewables, it would return over \$200 billion a year to our economy.

So, yes, "WE CAN!" We can unleash the greatest prosperity in the world for all of us--for all of the world's citizens and solve every aspect of this wicked problem. Then, perhaps, I'll have time to go back to rodeoing.

I left Copenhagen, feeling a new sense of hope. We were about an hour out, I'd settled in with a very nice glass of whiskey and some smoked salmon, when I felt a shuddering in the plane. The electronics when off--the TV screen in front of me

sparked dead and stayed dead. Almost immediately, the plane started to lose altitude, then banked left.

A stewardess walked by and I said, "Excuse me, what just happened?" She looked puzzled and said, "Nothing." "Uh, no," I insisted, "There is something wrong with the airplane." She still insisted that everything was fine.

But it clearly was not.

About a minute later the Captain called the purser to the cockpit. A few minutes later, the Purser came on the PA stating that there had been a technical problem and the plane was diverting to Trondheim, an airport in Norway.

Hmmm. I ate my smoked salmon, but decided not to drink the whiskey. If we had problems, I wanted to be reasonably sober. I put my shoes back on and waited.

In due course the captain came on and informed us that the right engine had flamed out. Not good. We were on a two-engine aircraft. When a two-engine bird loses one of 'em, the plane can flip if it isn't handled correctly, at which point you scatter.

But we had not flipped. That may have been the shudder I felt, but clearly the Captain and the avionics controlled it. We were still flying, so things were not dire.

But we still had to land.

The 20 minutes over the oily waters of the North Atlantic were long ones. As we neared Trondheim, clouds engulfed us--it was snowing.

Oh good . . . that means that the runway was icy and snowpacked. Since we didn't have the second engine for reverse thrust, life got very interesting. When the captain stood on the brakes, the airplane started sliding. It was a little dicey there for a while, but before the end of the runway we'd come to a blessed stop.

The ground crew did a magnificent job of bussing us all to a nearby hotel, where it turned out there was a convention of firefighters and ambulance people. If we had scattered, we couldn't have picked a better airport to do it at.

So I spent Thanksgiving Day in Norway. It was midnight before they found another airplane to bring in. At which point we found out the four-engine bird, while able to land, was too big to turn around on the Trondheim runway. It needed the entire strip to have a prayer of taking off and when we got to the very end, the strip was too narrow. A tractor spent an hour slipping on the ice trying to yank the plane around. At one in the morning, we got headed back west, the big engines roared and here I am.

The experience gave a whole new sense of the meaning to Thanksgiving. No doubt, the challenges facing us are enormous. But we're still here, still with the

opportunity each day to make a difference. I'm especially glad to be here, and even more grateful that you are here, as well.

Thank you for that. Thank you for being with us on this amazing journey, and for the support that you give to us at Natural Capitalism Solutions. It means more to me than you can know.

Thanks for being out there.



## RECOMMENDED READINGS

### **Thinking in Systems: A Primer**

by *Donella Meadows*

The late Donella Meadows, a pioneer of environmental and social analysis and the lead author of the international bestseller, *Limits to Growth*--the first book to show the consequences of unchecked growth on a finite planet, just released her final manuscript titled *Thinking in Systems*.

*Thinking in Systems* is a concise and crucial book offering insight on solving problems ranging from personal to global. Edited by the Sustainability Institute's Diana Wright, this essential primer brings systems thinking out of the realm of computers and equations and into the tangible world, showing readers how to develop the systems-thinking skills that thought leaders across the globe consider critical for 21st-century life.

Hunter praised the book saying, "Thinking in Systems is required reading for anyone hoping to run a successful company, community, or country. Learning how to think in systems is now part of change-agent literacy. And this is the best book of its kind."

To purchase this book [click here](#).

### **Black Swan: The Impact of the Highly Improbable**

by *Nassim Nicholas Taleb*

Taleb was born in Lebanon in 1960, received an MBA from Wharton, a Ph.D. from the University of Paris, worked on Wall Street, became a professor at the University of Massachusetts, and is particularly interested in chance. In 2001, Taleb released "*Foiled by Randomness*," which argued that stock-market projections are worthless because people are actually clueless as to where prices are headed. After the stock-market crashes or does something unexpected, professionals impose retroactive narratives to distract others from their lack of knowledge.

In his novel, "*The Black Swan*," Taleb writes about the impact of the highly improbable and its influence on our lives. Major events like 9-11, the stock market crash, the worst wars, and the collapse of long-term capital Management are black swans because no one sees them coming; but in retrospect, people find a way to explain them. He distinguishes between a Mediocristan world of normal distribution with rare outliers, and an Extremistan world where outliers can dwarf previous and other observations, in order to urge the ideology to expect the unexpected and to maximize your exposure to positive Black Swans to bring about more success.

To purchase this book [click here](#).

## **IN THE PRESS AND ON THE PODIUM**

### **2008 Publications**

Hunter wrote and published the lead chapter of the President's Climate Action Plan: "The Economic Case for Climate Protection." To read this article [click here](#).

In 2008 interviews with Hunter Lovins were published in the following journals, newspapers, and magazines:

- Newsweek
- Sustainability: The Journal of Record
- Journal of Innovative Management
- American Way
- Worldwatch Institute State of the World 2008
- Mother Jones
- Radish Magazine
- Sustainable Industries International
- Business Week
- Green Technology Magazine
- Urban Land Magazine
- Central Florida Future Newspaper
- Kansas City Star Newspaper
- New America Media
- Naturally Successful, a DVD released by Arnold Creek
- Germany's Die Zeit
- Democracy Now
- Marketplace
- Telstra Australia
- Free Forum with Terry McNally
- Tomorrow Matters KRXA Radio
- Denmark's leading business newspaper and National TV
- Google Tech Talk on You Tube

Natural Capitalism Solutions' Research Director Nick Sterling, also was interviewed for The Wall Street Journal article about the best environmental options for grocery bags: "An Inconvenient Bag." To read this article [click here](#).

## 2008 Awards and Recognitions

Hunter was awarded the international Sustainability Pioneer Award sponsored by the Sustainable Asset Management (SAM) Group and the Sustainable Performance Group (SPG), both of Zurich, Switzerland. The award recognizes Hunter as a leader and pioneer in developing, promoting, and implementing the principles of sustainability in the private business sector. The European financial community considers this the Nobel of Sustainability. For more information about the award click [here](#).

One of Natural Capitalism Solutions largest clients, the Fort Carson Army Base received the Hero of Sustainability Award by the Alliance for Sustainable Colorado recognizing them for leading the way to a more sustainable future. Fort Carson has made incredible progress by accomplishing 45 percent water reduction, a new 12-acre solar photovoltaic array generating 3,200 megawatts of power annually, new facilities constructed to meet U.S. Green Building Council's LEED Silver criteria and solid waste reductions that saved the installation over half a million dollars in 2007. For more information on the award click [here](#).

In November 2008, Hunter was inducted into the Environmental Hall of Fame, a national organization that recognizes environmentalists committed to implementing solutions to help reduce global warming, energy costs, and pollution, and help increase energy independence. For more information click [here](#).

Newsweek termed Hunter Lovins as a green business icon.



## 2008 Speeches

Hunter Lovins

- Sun Microsystems "Un-Conference" in San Francisco, CA
- The Volvo Design Forum in Munich, Germany
- The "Focus the Nation" Kick off Panel in Orlando, FL
- University of Central Florida in Orlando, FL
- APQC Conference on Corporate Sustainability in Houston, TX
- URS Corporation in San Francisco, CA
- Xeriscape Conference in Albuquerque, NM
- Astra Enterprises in Kansas City, MO
- ACCP in St. Petersburg, FL
- "Green the North" Green Summit in Ontario, Canada
- Blue Planet Summit in Maui, HI
- The City of Palo Alto, CA
- Johnson and Johnson Sustainability Program in New Brunswick, NJ
- UC Berkley Executive Program
- The SBDC program for Green Businesses in San Francisco, CA
- Oklahoma State University in Norman, OK
- Oracle in New York, NY
- MWH Consulting's Workshop in New Orleans, LA
- Buckminster Fuller Award Ceremony in New York, NY
- Climate Action Conference in Tupper Lake, NY
- The Rothbury Music Festival in Michigan
- The Dartmouth ILEAD series in Hanover, NH
- Wingspread meetings on Presidential Climate Action Plan in Racine, WI
- The World Renewable Energy Conference in Glasgow, Scotland
- Accenture Women's Book Club
- Balaton Network Annual Gathering in Stockholm, Sweden
- Innofuture Conference in Melbourne, Australia
- SAM Pioneer Award Ceremony in Zurich, Switzerland
- Pennsylvania Green Growth Partnership in Hershey, PA
- USGBC Chicago Chapter Fundraiser
- Oracle Open World Conference in San Francisco, CA
- West Coast Green in San Jose, CA
- World Business Council on Sustainable Development in Seattle, WA
- 5th Annual Green Building Forum in Columbus, OH
- EPA California Region in San Francisco, CA
- UC Berkeley Haas School of Business
- Georgia Southern University in Statesborough, GA
- City of Longmont, CO
- The Global Summit in San Francisco, CA
- The Environmental Hall of Fame in Chicago, IL
- Nordic Climate Summit in Copenhagen, Denmark
- Green California Schools in Anaheim, CA
- California State University in Northridge, CA

Jeff Hohensee

- 2008 Sustainable Landscapers Conference in Logan, UT
- Fit for Life Workshop in Willard, WI
- Illinois Recycling Association in Arlington Heights, IL
- Utility Energy Learning Institute in Santa Fe, NM
- SERCAL Conference in Santa Rosa, CA
- Shadowcliff at Grand Lake, MI
- Sustainable Living Fair in Maui, HI
- Miami Green Inside and Out Symposium in Miami, FL
- RISE Conference in Washington D.C.
- RMEL Conference in Vail, CO
- American Association of Landscape Architects in Breckenridge, CO

Other

Brianna Buntje: City of Boulder Chamber of Commerce

Paul Sheldon: Sustainable Living Fair in Maui, HI

Toby Russell: 'Ten for Change' Small Business Program in Boulder, CO

## UPCOMING EVENTS

8 January	City of Golden	Golden, CO
23 January	US Voluntary Markets Conference	New York, NY
26 January	Western Fairs Association	Reno, NV
29 January	Dowling Co.'s Green Development Conference	Maui, HI
3 February	Urban Land Institute Retail Strategy conference	Beverly Hills, CA
17 February	Green Meetings Industry Council	Virtual Appearance
28 February	Pomona College Faculty Retreat	Ojai, CA
2 March	Financial Times Conference	New York, NY

Consider Supporting Natural Capitalism Solutions today:

<http://www.natcapsolutions.org/support.htm>