



# **FIGHTING the FURY:**

---

## **Climate Change, Natural Disasters, and the Stewardship Ethic**

by

Marcy Murningham  
*INSPIRE Fellow*

Institute for Global Leadership, Tufts University

August 2008



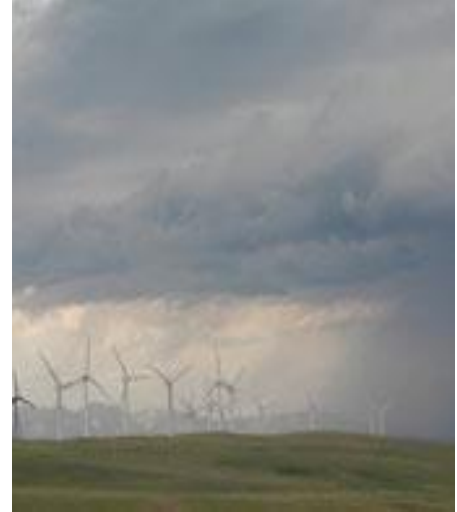
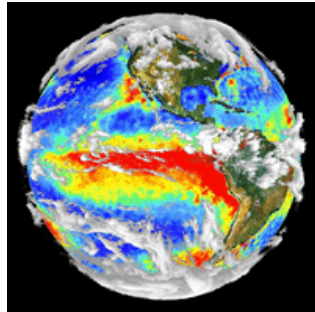
## CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>I. INTRODUCTION</b>	<b>1</b>
<b>THE COURAGE TO CHANGE THE THINGS WE CAN...</b>	<b>2</b>
<i>Fighting Nature's Fury in Asia</i>	4
<i>Fighting Nature's Fury in America</i>	7
<b>A PERSONAL &amp; PROFESSIONAL EPIPHANY</b>	<b>10</b>
<i>Beyond Harm's Way: Community Service &amp; Sustainability</i>	21
<i>The Way Ahead</i>	24
<b>II. THE POLICY CONTEXT: CONCERN &amp; CONSENSUS</b>	<b>25</b>
<b>THE URGENCY OF NOW</b>	<b>28</b>
<i>A Call to Action: A Multi-Sector Approach to Fighting the Fury</i>	31
<b>CLIMATE CHANGE, DISASTERS &amp; NATIONAL SECURITY</b>	<b>34</b>
<b>III. WHOSE RESPONSIBILITY? SHARING THE BURDEN</b>	<b>38</b>
<b>THE FEDERAL GOVERNMENT: DHS &amp; FEMA</b>	<b>39</b>
<i>The Politics of Domestic Relief</i>	39
<i>The Need for Wiser Policy: Prevention and Resilience</i>	43
<b>DEFENSE DEPARTMENT FRAME CHANGE</b>	<b>46</b>
<b>STATE AND LOCAL GOVERNMENT</b>	<b>49</b>
<i>Promises to Keep: NOLA, Katrina &amp; America's Broken Covenant</i>	51
<b>PROMOTING VOLUNTARY ACTION: TRANSFORMING THE CITIZEN CORPS</b>	<b>54</b>
<i>Reappropriating America's Civic Ideals</i>	58
<b>THE UN &amp; HUMANITARIAN AGENCIES</b>	<b>59</b>
<b>PRIVATE SECTOR ENGAGEMENT</b>	<b>62</b>
<i>Mapping Private Sector Engagement</i>	67
<i>The Media: Beyond Advance Warnings and Relief Coverage</i>	70
<i>Web 2.0 and Virtual Technology</i>	72
<i>Disaster Management and News Values</i>	74
<i>The Private Sector &amp; Climate Change: Expanding the Focus</i>	75
<b>FOUNDATIONS &amp; SOCIAL ENTREPRENEURS</b>	<b>76</b>
<i>Innovation for Impact: Social Entrepreneurs &amp; Disaster Management</i>	79
<b>IV. MEETING THE CHALLENGE: A THREE RING PLAN FOR IGL &amp; TUFTS</b>	<b>81</b>
<b>INDIVIDUAL</b>	<b>81</b>
<i>Mission: Civilian – Military Education</i>	82
<i>Mission: Experiential Learning</i>	82

<i>Mission: Sustainable Enterprise Entrepreneurs (SEE)</i>	83
<i>Mission: Knowledge Development &amp; Training</i>	83
<b>INSTITUTIONAL / PROFESSIONAL</b>	<b>84</b>
<i>Mission: Strengthen Communities of Practice</i>	84
<i>Mission: Building Benchmarks &amp; Metrics</i>	84
<i>Mission: DREAM: Disaster Resilience, Entertainment, And Media</i>	85
<b>COMMUNITIES</b>	<b>85</b>
<i>Mission: Partnerships for Sustainable Communities</i>	85

Photo credits: Hurricane Katrina, [www.noaa.gov](http://www.noaa.gov); Big Sur wildfire July 2008, New York Times, Peter DaSilva/European Pressphoto Agency; smoke from Big Sur wildfires, New York Times, Vern Fisher/The Monterey County Herald, via Associated Press; composite satellite image, XXXXX; Cyclone Nargis, National Geographic





## EXECUTIVE SUMMARY

*Fighting the Fury: Climate Change, Disasters, and the Stewardship Ethic* is a work-in-progress, an incomplete and ever-changing portrait of the current context of and concerns about disaster management, within the U.S. and internationally, due to catastrophic weather patterns caused by climate change. Because of the complexity of the phenomenon, it is a multi-sector analysis that identifies some of the major players and so-called “enabling platforms” and activities with respect to government, the military, the private sector, institutional investors and foundations, and social enterprise. It is not an analysis of the current field of humanitarian studies and practice. Rather, it examines private sector partnerships and leadership, both within the humanitarian community and those more anchored within corporate social responsibility and academe. It suggests how these partnerships might be strengthened and new ones created, while engaging, too, other actors such as the military, NGOs, and the media.

*Fighting the Fury* begins with a thumbnail sketch of recent catastrophes in China and Burma, as well devastation caused by as the Midwest flooding and California wildfires. It continues by sharing some of the key lessons I have learned about this vast and complex field, insights that illuminate policy and operational gaps as well as entrepreneurial opportunities that the Institute for Global Leadership, in partnership with other Tufts and external actors, might exploit. *Fighting the Fury* also describes the current debate linking climate change and natural disasters to national security, including its implications for U.S. armed forces.

*It is not an analysis of the current field of humanitarian studies and practice.* Rather, it examines existing practice and opportunities for cultivating private sector and civilian – military partnerships and leadership, opportunities that traverse the humanitarian community and the overlapping arenas of corporate and investor social responsibility, as well as academe. It suggests how these partnerships and leadership might be strengthened and new ones created, while engaging, too, other actors such as social entrepreneurs, foundations, and the media.

Moreover, this report summarizes current discussions about the limitations of the existing disaster mitigation / resilience apparatus, both within the United States and international; governmental and non-state; and, in doing so, provides insight into “opportunity gaps” that could be filled by innovative ideas, programs, and strategies. The report also advances more than two dozen program ideas, including initiatives that:

- **strengthen military – civilian education** while encouraging greater participation from the private and social sectors;
- **engage citizens more fully** through new initiatives as well as with existing planning groups and volunteer networks, in tandem with international, federal, state, and local emergency teams;
- **engage specific industries**—specifically the *media, real estate development / engineering / construction, pharmaceuticals and health, and utilities sectors*;
- **develop new industry-specific metrics** that supplement current reputable reporting platforms (such as the Global Reporting Initiative) that can help guide responsible corporate behavior on disaster matters;

- **cultivate pragmatic and flexible partnerships** with *responsible institutional investors, foundations, social entrepreneurs, and companies* (especially *defense contractors within the military industrial complex*), as well as with the *military*;
- **engage the media, including journalism and entertainment**, to encourage the incorporation of disaster management and food crisis issues into content and storylines, as well as public education;
- **fortify existing professional development, education and training programs**, in partnership with the *emergency management education system*, led by *FEMA*, including the development of curricular standards, education and training modules, and forms of assessment, while developing new knowledge and pedagogical approaches;
- **tap the power of Web 2.0, virtual software / gaming technology, and social networking** in service to disaster management and prevention, and identify areas showing promise for future work.

Specifically, *Fighting the Fury* proposes, for further reflection, discussion, and dialogue, more than 30 specific, feasible actions pertaining to **individuals, professional “communities of practice”, and community resilience** that are, I believe, consistent with the IGL mission, as well as that of the wider Tufts community. In this way, the series of recommendations and the spirit that animates them is all about **networks**: professional, volunteer, and digital. *It is about forming alliances and partnerships to build upon existing expertise and create new knowledge and methods for tackling a problem that will only get bigger and bigger.* It is, as the IGL motto says, all about thinking beyond boundaries, acting across borders and, I might add, ideologies and bureaucracies.

These proposals are iterative, and, no doubt, worthy of further debate based on the experience, preferences, and priorities of IGL and other Tufts departments. I welcome ideas, comments and views, as well as practical suggestions for moving forward. I also welcome this extraordinary interdisciplinary opportunity to blend science with social responsibility, help strengthen civil-military leadership education, harness the power of the media and Web 2.0, and cultivate community partnerships linking platforms and practices to shared purpose and prosperity as we confront Mother Nature’s fury throughout the 21<sup>st</sup> century.



## FIGHTING the FURY:

### CLIMATE CHANGE, NATURAL DISASTERS, AND THE STEWARDSHIP ETHIC

Marcy Murningham  
Institute for Global Leadership, Tufts University  
August 2008

We are now facing a planetary emergency. The planet has a fever. It's a challenge to the moral imagination of humankind to actually accept the reality of the situation we are now facing.

—Al Gore

## I. INTRODUCTION

While assembling this multi-sector portrait of disaster management and the special opportunity facing the Institute for Global Leadership to make a constructive contribution, Cyclone Nargis (3 May 2008) in Burma and the massive earthquake in China's Sichuan province (12 May 2008) served as horrifying backdrops. Later on, tornadoes ripped through America's heartland, followed by massive Cedar and Mississippi River flooding throughout the upper Midwest (15-19 June), killing dozens, causing entire towns to be evacuated, and leaving thousands of Americans dazed and confused as their worldly possessions emerged from the receding muddy waters, ravaged remnants of what used to be. And in late June, firefighters continued to battle more than 1,700 wildfires in Northern California, with no relief in sight and a season that promised to be hotter and drier than ever.

The two Asian catastrophes unfolded in all their misery, pathos, and complexity, victimizing those already under the boot of tyrannical regimes. One flew from above ground, the other burst forth from below. One breached a wall of isolation, the other opened channels to the world. One government left its victims helpless while humanitarian aid and the ships of foreign navies remained on helpless standby. The other government rushed to provide relief, yet gained new vulnerability as the tragedy opened the nation's heart to the world and mobilized its people to respond, too.

In the U.S., late spring brought us two major disasters (supplemented by many smaller ones), one made of water, the other made of fire. The Mississippi and Cedar Rivers flooded the Upper Midwest, and more than a seventeen hundred wildfires tore through Northern California. Indeed, within the first six months of 2008 the Federal Emergency Management Agency

(FEMA) had issued more than 3,200 emergency declarations affecting states throughout the country, following the protocol of presidential disaster designations. The new, improved FEMA – featuring reforms made after the debacle of Hurricanes Katrina and Rita – and the much maligned Army Corps of Engineers (largely staffed by civilians, and operating under Congressional authority) sprang into action, while the National Guard (California) and volunteers from all over, including those dispatched by the American Red Cross and AmeriCorps, reported for duty.

Yet many of these efforts were in vain, as the Western fires continued to burn and the levees continued to break—the latter a composite result of years of government and private sector neglect of the nation’s flood protection system, pork-barrel patronage of the Army Corps of Engineers, and arrogant refusal to do what needed to be done despite numerous reports, court cases, and evidence to the contrary.<sup>1</sup>

### THE COURAGE TO CHANGE THE THINGS WE CAN...

What these disasters did show, in terrifying detail, is that while nature’s fury can trump humankind’s security and well being, there are basic lessons we must learn as we go forward. First, we must expand our public agenda and address disaster risk reduction and preparedness, not as a separate realm of policy decision making, but integrated into policy deliberations, governance, and management operations. This applies across the board: to all levels of government; to institutions – public, private, and nonprofit – that affect so many parts of our lives; and to our individual families, networks, and circumstances. Building resilience and reducing our vulnerability to weather-related and other forms of natural disasters should become a way of life.

Two, we must learn, as we are in other facets of our public life, that there are no borders or ideological fault lines dividing those who are affected from those who are not, even as the bulk of suffering caused by natural disasters is endured by the very poor. All disasters are local: it matters not whether a nation is rich or poor, democratic or autocratic. Helping those who are in crisis is, first and foremost, a humanitarian task; the politics and strategic agendas need to take a back seat to the needs of human community.

Third, we must learn that with regard to catastrophic events, no group, no region, and no nation can go it alone. On the international plane, the coordination of relief activities between humanitarian groups, the military, and the private sector is recognized as a valuable weapon when fighting nature’s fury, and new partnerships are being cultivated. Similarly, with

<sup>1</sup> See Alex Prud’homme, “There Will Be Floods,” *The New York Times*, 27 February 2008, which can be viewed at <http://www.nytimes.com/2008/02/27/opinion/27prudhomme.html>. See also Adam Nossiter, “In Court Ruling on Floods, More Pain for New Orleans,” *New York Times*, 1 February 2008, at <http://www.nytimes.com/2008/02/01/us/01corps.html>; John Schwartz, “East St. Louis Levees Fail Test,” *New York Times*, 23 August 2007, at <http://www.nytimes.com/2007/08/23/us/23levees.html>; John Schwartz, “New Orleans Flood Plan Upgrade Urged,” *New York Times*, 23 August 2007, at <http://www.nytimes.com/2007/08/23/us/nationalspecial/23orleans.html>; Editorial, “New Orleans Still at Risk,” *New York Times*, 19 August 2007, at <http://www.nytimes.com/2007/08/19/opinion/19sun2.html>; John Schwartz, “Patchwork City: One Billion Dollars Later, a City Still at Risk,” *New York Times*, 17 August 2007; Editorial, “Reform for the Corps,” *New York Times*, 15 July 2007, at <http://www.nytimes.com/2007/07/15/opinion/15sun3.html>; John Schwartz, “Engineers Faulted on Hurricane System,” *New York Times*, 11 July 2007, at <http://www.nytimes.com/2007/07/11/us/nationalspecial/11corps.html>; John Schwartz, “Critics Say Levee Repairs Show Signs of Flaws,” *New York Times*, 7 May 2007, at <http://www.nytimes.com/2007/05/07/us/07levees.html>; Editorial, “Still Not Fixing the Army Corps,” *New York Times*, 19 March 2007, at <http://www.nytimes.com/2007/03/19/opinion/19mon3.html>; Leslie Eaton, “New Orleans Files Claim Against Corps for Billions,” *New York Times*, 3 March 2007, at <http://www.nytimes.com/2007/03/03/us/03orleans.html>; Cornelia Dean, “Corps Proposal for Gulf Draws Criticism from Scientists,” *New York Times*, 19 December 2006, at <http://www.nytimes.com/2006/12/19/science/earth/19coast.html>; John Schwartz, “Army Builders Accept Blame Over Flooding,” *New York Times*, 2 June 2006, at <http://www.nytimes.com/2006/06/02/us/nationalspecial/02corps.html>

regard to sovereignty, optimal structures for multi-lateral cooperation are still evolving, beyond the existing network non-constitutional actors such as the United Nations' programs and major players such as the International Federation of Red Cross / Red Crescent Societies, Doctors Without Borders, World Vision, Save the Children, Oxfam, and so on. The important leadership of the Association of Southeast Asian Nations (ASEAN) in working with the U.N. to help gain the trust of the Burmese junta during the aftermath of Cyclone Nargis is testimony to this. As figure 1 shows, this is made more significant by the fact that the vast majority of natural catastrophes occur in Asia. In 2007, for example, according to Swiss Re, 64 percent of fatalities caused by major catastrophes were in Asia, where 43.6 percent of worldwide catastrophes occurred.<sup>2</sup>

Worldwide Natural Catastrophes in 2007 by Region						
Region	Number	In %	Victims	In %	Insured loss (in USD m)	In %
North America	47	14.0%	983	4.6%	8,767	31.8%
Europe	35	10.4%	1,088	5.0%	12,431	45.1%
Asia	146	43.6%	13,748	63.8%	3,533	12.8%
South America	19	5.7%	1,216	5.6%	228	0.8%
Oceania/Australia	7	2.1%	303	1.4%	1,283	4.7%
Africa	32	9.6%	2,215	10.3%	46	0.2%
Oceans/Space	49	14.6%	2,000	9.3%	1,276	4.6%
<b>World total</b>	<b>335</b>	<b>100.0%</b>	<b>21,553</b>	<b>100.0%</b>	<b>27,564</b>	<b>100.0%</b>

Finally, we must learn that other non-state actors can make constructive contributions, particularly private sector entities and those occupying a space that commonly is called “social enterprise” —the various initiatives and projects utilizing a blend of private sector tools and models in pursuit of public service needs and opportunities. Included, too, is the important role that capital investors, particularly institutional investors, and especially endowments – that is, foundations, hospitals, colleges and universities, museums, advocacy organizations, and other nonprofit organizations having professionally managed financial assets – can make in helping to fortify resilience and risk reduction, in keeping with their role as fiduciaries.

Yet, gaps in the geopolitical / strategic system remain, and need to be addressed. Most of us, individually, are not really prepared, should catastrophe strike. The same is true for nations. Despite the valiant efforts of those within the “emergency management industrial complex” – and this segment of the professional population is larger than I thought, and growing rapidly – to educate and inform, we continue to behave as if nothing really bad will happen. We even find ourselves suffering from occasional “disaster fatigue” —that is, no longer paying attention when news coverage of a specific incident goes

**Figure .** Source: “Natural Catastrophes and Man-Made Disasters in 2007: High Losses in Europe,” *sigma*, No. 1 / 2008, a publication of Swiss Reinsurance Company, Economic Research & Consulting

<sup>2</sup> Swiss Re, *sigma*, “National catastrophes and man-made disasters in 2007,” No. 1, 2008, page 8. Available for download at <http://www.swissre.com/sigma>

beyond a few days. This problem, described a bit later, concerns many journalists who live in affected areas such as New Orleans, where stories about Katrina find fewer outlets and go unnoticed by a population more concerned about the cost of living, loss of economic security, and personal vulnerability to economic and cultural changes rather than weather patterns. But the gaps remain, and provide insight into the nature of the challenges which lie ahead.

---

## FIGHTING NATURE'S FURY IN ASIA

The Burma catastrophe demonstrated the impotence of UN Resolution 1674, the so-called “responsibility to protect” doctrine, which established a norm of contingent sovereignty in cases of gross human abuse and suffering. Not long after the cyclone, the French foreign minister invoked the “responsibility to protect” doctrine by calling for a UN resolution to force the junta to accept humanitarian aid; his proposal ignited a firestorm and was opposed by the Security Council, including – in one of history’s regrettable contradictions – South Africa, itself the beneficiary of just such calls for UN support.<sup>3</sup>

China’s government was impotent, too, in the face of nature’s fury, even as it displayed far greater willingness to accept international offers of help and work with an international coalition effort. Images of Chinese soldiers aimlessly moving rocks near flattened areas revealed no apparent training or readiness in emergency management.<sup>4</sup> There were no hotlines, no information clearinghouses, no system for identifying the dead and missing, no accurate body counts. Yet, disparate parts of society were brought together along with the Chinese diaspora to support the victims – as of 1 June more than \$5.3 billion in relief money and services had been donated – and, in so doing, reweave the fragile threads of what Westerners call civil society.

Meanwhile, the world watched and mourned as this vortex of death and destruction, of human suffering and resolute courage, of implacable evil displayed by the Burmese junta, of desperate efforts made by the Chinese army and civilians to claw through rocks and boulders and save those who disappeared or were crushed to death as the earth moved—as the hours became days and then weeks and now months.

In the beginning, international aid organizations mobilized quickly, yet were blocked by Burma’s military government to allow them inside. Only those already in-country (such as the Unicef, the World Food Programme, Doctors Without Borders, Oxfam, Save the Children) were able to help alleviate the suffering in Rangoon and the obliterated Irrawaddy Delta region, the nation’s “rice bowl” and one of the least developed regions in Southeast Asia. In the end, six weeks later, an estimated 138,000 people were dead or missing, most killed in the first tidal surge, the survivors struggling with skyrocketing prices for food and fuel while their government told them to resume their lives, after proving unwilling and incapable of helping on its own. By early June, access to the delta remained restricted, although the military government gradually and grudgingly

---

<sup>3</sup> At the 2005 World Summit in New York, the 192 U.N. member states unanimously approved a new international doctrine known as “the responsibility to protect” (often abbreviated R2P). When a government violates its fundamental obligations, either by committing mass atrocities against its people or allowing such atrocities to be committed, the international community may intervene to save lives. The doctrine was codified in Resolution 1674, adopted by the UN Security Council on 28 April 2006.

<sup>4</sup> Weeks later, Western analysts concurred that China’s military was not up to the task. See Jake Hooker, “Memo from Beijing: Quake Revealed Deficiencies of China’s Military,” *New York Times*, 2 July 2008, at <http://www.nytimes.com/2008/07/02/world/asia/02china.html>

granted visas to some foreign aid workers, a challenge to the patience of Western donors and an affront to the very idea of human compassion.<sup>5</sup>

Whether they know it or not, the American people provided Burma with roughly \$37.1 million in emergency assistance to help meet the needs of one million Burmese: \$26.7 million through the U.S. Agency for International Development (USAID), and \$7.5 million from the Defense Department. The money, according to USAID, was distributed to thirteen UN and NGO partners working throughout Burma in ten different “sectors” concentrating on food assistance, health, shelter, water and sanitation, and hygiene.<sup>6</sup>

As for the military, the *USS Essex* and three support ships in the Bay of Bengal, with thousands of Marines and sailors on board who were prepared to provide relief assistance, tried fifteen times to deliver aid, yet the ruling junta continued to refuse them entry. Finally, and tragically, the four ships, along with twenty-two helicopters and four amphibious landing craft steamed away on 5 June, a month later. “Should the Burmese rulers have a change of heart and request our full assistance for their suffering people,” said Admiral Timothy Keating, Commander of the US Pacific Command, “we are prepared to help.”<sup>7</sup> As it turned out, even though large-scale international aid was slow to arrive, the Burmese people rallied to help themselves, while the bigger response was held up at the borders.

In China, the earthquake killed an estimated 70,000 (with 18,800 more missing and thought to be dead), and five million remain homeless, yet there were signs of hope among the ruins. Grief-stricken parents who lost their children in schools whose floors collapsed like pancakes publicly decried government corruption, even though the state-run media remained silent on the reasons for these poorly built structures. Not unexpectedly, the police cracked down on the parent protesters, while the world watched, helpless. So far, officials have done little to soothe parental concerns about the shoddy school construction leading to the sudden death of their loved ones, which clouded the celebratory Olympic spirit and served as a reminder of the huge gap between Olympian design quality and provincial building durability. To Westerners, how China rebuilds remains somewhat of an enigma, an area worth pursuing for EPIIC and other IGL programs. For the moment, survivors in Sichuan Province dwell in spontaneous settlements, within tents, housing trailers, and homemade shacks built by those who refuse to leave their beloved land.

Yet despite China’s authoritarian treatment of its people, censorship in the state-owned media, and status as one of many countries with known earthquake vulnerability and government, there was an unusual level of openness. We heard a great deal more about the travesty than ever before, communicated both within China and to the outside world. Speaking at a

---

<sup>5</sup> In May, the Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP) issued a report highlighting key lessons drawn from experience for aid workers responding to Cyclone Nargis. While recognizing “the constraints of the operating environment,” these lessons were divided into operational and technical categories. The report can be downloaded by visiting <http://www.alnap.org/publications/pdfs/ALNAPLessonsCycloneNargis.pdf>

<sup>6</sup> See “USG Continues to Provide Assistance to Burma Cyclone Victims,” news release, 5 June 2008. Obtained from USAID website at <http://www.usaid.gov/press/releases/2008/pr080605.html> Further information on U.S. assistance to Burma can be viewed at [www.usaid.gov/location/asia/countries/burma/cyclone\\_nargis](http://www.usaid.gov/location/asia/countries/burma/cyclone_nargis)

<sup>7</sup> In a Defense Department briefing held 28 May 2008, Adm. Keating summarized his attempts to provide relief aid, which included a visit with Burmese officials on 11 May, accompanied by the head of USAID and a regional US deputy assistant secretary of state. He also provided an update on China, wherein U.S. relief supplies were flown in close to the earthquake’s epicenter, and he remained in communication with senior military officials. Admiral Keating’s Pentagon remarks can be downloaded at <http://www.pacom.mil/speeches/sst2008/080528-keating-burma-china.pdf>

Department of Defense (DoD) briefing on U.S. efforts to provide aid to Burma and China, Admiral Keating commented on this relative transparency. “China’s reaction here in the aftermath of this earthquake is different than China’s reaction has been to other natural disasters in China,” he said, referring to the hotline the Secretary of Defense allowed him to use to communicate with Chinese officials. “It was quite easy to set up the connection. They were quite willing to accept the phone call.” The U.S. flew several planes carrying aid, including supplies provided by FEMA along with members of the Los Angeles Fire Department urban rescue team. “The materials we have offered China, they have accepted. One of the things that the Chinese tell us they need is tents,” the Admiral told the Pentagon group. “So we sent a load of a several hundred tents.”<sup>8</sup>

Meanwhile, on the ground, correspondents dispatched to collect pre-Summer Olympics human interest stories found themselves in the midst of worst kind of human interest tragedy, their roles as journalist and eyewitness participant slammed together in the midst of nature’s fury. The role of the press regarding natural catastrophes – particularly the bookends of prevention and recovery – is another area ripe for development, and one in which IGL can play a constructive role, through its convening, student supervision, and instructional activities.

Deborah Fallows, Senior Research Fellow at the Pew Research Center’s Project on the Internet and American Public Life, provided this first-hand report on media coverage of the earthquake, from her home in Beijing:

On Monday, May 12, at 2:28 pm, I was working at my desk on the 21st floor of the apartment building where we live in Beijing. Like many other people at that moment, I suddenly felt dizzy and lightheaded. I gripped the edge of my desk, wondering if I might faint. Then the curtain pulls began to sway, and the walls began to creak. After years of living through earthquakes in Japan, I recognized the signs. After a minute or so it was over.

Within about 15 minutes, my search for "earthquake China" on Google was producing results. Reuters showed up first, reporting a website announcement from the U.S. Geological Survey that there had been an earthquake in Sichuan Province, about 1000 miles southwest of Beijing. One of China's most popular English blogs, Danwei.org, weighed in at 2:47 pm, with a short report and including a link to Twitter, which was beginning to come alive with comments and messages from all over China. There was nothing on the TV, and there wouldn't be for about four more hours.

I have been tracking the earthquake story on TV and on the internet for more than four days now, and here are some of the things I saw:

**Day One:** Chinese TV has little more than a few fact-based reports about the earthquake. Mostly, it's business as usual. The internet is exploding with news and information and also with reporting and personal comments in the hyperactive Chinese blogosphere, Twitter, and all the instant messaging services in China.

By the second day, Fallows wrote that reporters had descended as far as they could into the earthquake zone, doing spot reporting and interviews. By Day Three, “TV pieces become more heavily produced, and they begin to include solemn background music, as well as announcements posted in black and white coloring. Talk shows emerge with experts and officials....The internet gets out information on donations as well as quacky theories on whether animal behavior can predict earthquakes. Everyone agrees that the government is moving forward with "unprecedented transparency" in media coverage.” By Day Four, “TV pieces take on distinct, strong tones of nationalistic pride. Flanks of soldiers in army fatigues run in formation through rubble streets, clamber over landslides, portage boats, jump out of helicopters.

Medical staff in white uniforms; rescue squadrons in florescent orange; parades of ambulances. Legions more of soldiers carry the injured piggy-back style or swaddle babies in their arms. There is footage of cranes, steam shovels, and people digging by hand through impossible mountains of debris. Also, there is seemingly no censorship on Chinese TV; the faces in all these productions tell everything. The soldiers are young; the grief is raw; the eyes are desperate.

<sup>8</sup> Keating DoD briefing, 28 May 2008.

Chinese TV viewers are used to melodrama, but it's hard not to be overwhelmed by the scale and the personal toll. In one scene, a camera peers into a small crevice left between two collapsed floors of a building. You see the eyes and face of a young teen-age girl trapped there. You see she is waving her hand at the rescuers, and she calls out "I'm happy. I'm happy. Tell my mother not to worry!" Online, the internet reports dig deeper into seismology; questions of building standards; comparative (non)reporting of past earthquakes; special sites for personal messages; pleas for news of missing people; more information about donations and charities.

This story will continue for a long, long time.<sup>9</sup>

Accompanying the Chinese government's immediate relief and recovery efforts (heartbreakingly ineffective, according to many reported instances), was an outpouring of help from civil, religious, social, and even business groups that could pose a future challenge to the authoritarian order. China mobile quickly reestablished mobile phone systems, and television networks were soon up and running as China's primary source for information and communication. At the local level, the Chinese virtues of social harmony, order, discipline, and cohesion were on display, long after the media focus turned away. As for the media, notes Fallows, "Chinese TV has filled the vacuum left by the end of riveting earthquake news with repetitive docu-dramas and plaintive reenactments, gala concerts, fund-raisers, and readings of personal stories to weeping studio audiences. All these productions are many steps removed from the plodding, dirty, smelly, real chores of putting lives together again in the villages. The world isn't watching anymore."<sup>10</sup>

Many onlookers believe that this burst of philanthropic activity and even corporate social responsibility might prove to be a turning point for Chinese society, but who are we to say? At the very least, the Sichuan quake, like Cyclone Nargis, provided Westerners with greater insight into our own vulnerability closer to home, and the devastating human consequences of not paying heed, ahead of time.

---

## FIGHTING NATURE'S FURY IN AMERICA

Here at home, beginning at the end of May a series of heavy rainstorms exceeding historical levels pounded the upper Midwest, triggering flash floods and ruining homes, millions of acres of corn and soybean crops, and roadways. Iowa's Cedar and the Mississippi River continued to wash over the patchwork of sand levees along its shores, and took a long time to recede, leaving tons of garbage and toxic water behind. The federal government calls it the worst disaster it has faced since Hurricane Katrina. Iowa was hit the hardest with approximately three-quarters of the state flooded and estimates of at least \$1 billion in damage. While the full extent and severity of the damage will not be known for some time, there were 24 deaths and 35,000 people displaced from their homes and farms, unimaginable emotional and physical distress, and decimation of entire communities. The flooding also pushed corn prices to near record highs, which affected food prices and the production of corn-reliant biofuels. It also served as a harbinger of similar damage should future development along vulnerable floodplains continue.

By mid-June, the Associated Press reported that the American Red Cross (ARC) had depleted its Disaster Relief funds, forcing it to borrow money to help the flood victims. The ARC's chief development officer told AP that "the balance for domestic

---

<sup>9</sup> Deborah Fallows, "Tracking China's Earthquake on TV and the Internet," Pew Internet & American Public Life Project, Washington, D.C., which can be viewed at <http://pewresearch.org/pubs/841/china-earthquake>

<sup>10</sup> See Deborah Fallows, "No Longer in the News, Earthquake Survivors Face a Painful Recovery," Pew Internet & American Public Life Project, Washington, D.C. The article can be viewed at <http://pewresearch.org/pubs/917/china-earthquake-survivors>

disaster relief efforts is zero,” and that it would need to borrow to keep workers and volunteers in the field helping those affected as the surge moves downriver to Missouri and Illinois. A few days later, the Lilly Endowment, one of the country’s largest foundations and based in Indianapolis, announced that it had awarded \$50 million in grants to three organizations for statewide flood and storm relief, including \$2.5 million for the Indiana chapter of the American Red Cross.<sup>11</sup> By the end of June, *The Chronicle of Philanthropy* reported that \$13.3 million had been raised, with \$10 million going to the ARC.<sup>12</sup> At that point, the Midwest flood response had cost the ARC about \$15 million and could go as high as \$40 million. Officials told AP that the Red Cross had 2,500 workers on the ground, 89 percent of them volunteers.<sup>13</sup>

As for FEMA, many Midwesterners gave the agency higher marks than were issued in the aftermath of Katrina. *The Christian Science Monitor* reported that even as FEMA received greater scrutiny, state and local responders were important, too; as initial responders, they had learned from the 1993 floods that devastated the region, catching many people off-guard, and were praised this time around for providing prompt, clear communication. Yet even as it is the first major post-Katrina disasters to give FEMA a chance to redeem itself, the recovery operation is another thing. “You saw a response that was much better [than in '93], and an immediate recovery phase that was improved,” said Larry Larson, executive director of the Association of State Floodplain Managers. “Now we’re into long-term recovery and mitigation, and that jury is still out.”<sup>14</sup>

*Back to basics: More human-generated greenhouse gas emissions (yes, I know about the cows) means warmer air. Warmer air means glaciers, ice caps, and ice sheets melt. Oceans then swell and coastlines retreat. More warm water means more water vapor, which has nowhere to go but up. When skies get swollen they eventually split open, and torrential rains have nowhere to fall but down, too rapidly to be absorbed by soggy ground. Eventually, the whole cycle begins anew.*

For about a month heavy rain fell down, and the likelihood of it happening again and again and again is very high. So, too, are the costs, as billions of dollars in losses mount, affecting individuals, families, communities, businesses, and the wider taxpaying public. We never learn: after the major 1993 flood affecting the same region, experts told us that it would happen again within the next few decades. For a few years, there were efforts to reduce exposure to similar flooding – home buyouts were a major tool used by government, for instance, to remove people from the floodplain – but soon these preventive steps disappeared, as massive rebuilding occurred on land that previously was underwater. Commercial interests trumped simple science, and the result was déjà vu, “all over again.”<sup>15</sup>

This policy amnesia – combined with scientific and mathematical illiteracy, farm subsidies that undermine crop rotation (thus affecting soil absorption), unfettered capitalism that promotes residential and commercial development along floodplains, and the disappearance of vegetative buffers and wetlands, which served as protective sponges – served as a painful reminder

<sup>11</sup> “Lilly Endowment Gives \$50 Million for Indiana Flood Relief,” *Chronicle of Philanthropy*, 23 June 2008, at <http://philanthropy.com/news>

<sup>12</sup> See Cassie J. Moore, “Donations for Midwest Floods Reach \$13.3 Million,” *The Chronicle of Philanthropy*, 25 June 2008, which can be viewed at <http://philanthropy.com/news/updates/index.php?id=5046>

<sup>13</sup> Amy Lorenzen, “American Red Cross: Disaster funds are depleted,” Associated Press, 17 June 2008, at <http://www.chicagotribune.com/topic/sns-ap-midwest-flooding-red-cross,0,2796658.story>

<sup>14</sup> Amanda Paulson, “After This Flood, FEMA Earns Praise,” *The Christian Science Monitor*, 2 July 2008, at <http://www.csmonitor.com/2008/0702/p01s06-usgn.html>

<sup>15</sup> See Charles Perrow, *The Next Catastrophe: Reducing Our Vulnerabilities to Natural, Industrial, and Terrorist Disasters* (Princeton, N.J.: Princeton University Press, 2007), 19. See also “Unlearned Lessons from 1993,” *New York Times*, 23 June 2008, at <http://topics.blogs.nytimes.com/tag/floods/?scp=1b&sq=Midwest+floods&st=nyt>



that the weather was less of a factor than the actions of human beings. Another human element in the Great Flood of 2008 is the decline in so-called “stream monitoring,” a federally-funded network of 7,400 gauges that helps signal flood alerts, a terrible example, like bridge maintenance, of what happens when public infrastructure investment dwindles and inadequate land use management prevails, due to the chronic failures of public leadership and political will.<sup>16</sup>

### INSERT Americans for Smart Natural Catastrophe Policy

Even as the struggle against floodwaters wore on, officials in the West were worried about the advent of fire season. Outbreaks have occurred earlier this year, with a round of fires in Northern California destroying dozens of homes. The worsening of a persistent drought in California and elsewhere, coupled with budget restrictions, rising cost of fuel, and the need to hire new firefighters raised doubts about the region’s ability to fight the sort of widespread blazes that devastated California last year. Early outbreaks – by 22 June hundreds of wildfires sparked by lightning tore across the heart of wine country and remote forests in Northern California, scorching tens of thousands of acres – prompted Governor Arnold Schwarzenegger to note that, “The normal fire seasons, the way we have known it in the past, is pretty much gone.”<sup>17</sup>

By the end of the June, more than a thousand fires were in full fury, and on Saturday 28 June President Bush determined that a state of emergency exists in six counties in Northern California, prompting FEMA to issue an emergency declaration—number 3,287 for the year.<sup>18</sup> On 2 July, Governor Schwarzenegger called in 200 National Guard soldiers to help ground workers -- some 18,900 in total, including 4,000 firefighters from 41 states – for the first time in 31 years; they were to receive fire training from the state’s Department of Forestry and Fire Protection (CalFIRE).<sup>19</sup> By then, the number of fires had jumped to more than 1,700, causing mandatory evacuation of Big Sur and threatening the Sequoia National Forest. Compounding the problem was a statewide drought causing tinder-like trees and brush, along with the revelation by climate scientists that climate change is causing extreme heat in California for decades to come.

Despite these outbreaks and the prospect of their continuance, federal and state fire officials, along with local departments, are constrained more than ever before, which also means less field training and monitoring of conditions. The U.S. Forest Service has proposed cutting back state grants for training and personnel in its 2009 budget, according to a *New York Times* report. Compounding the problem is the construction of new homes in fire-prone areas, which are unlikely to be saved when a major blaze occurs.<sup>20</sup>

So the beat – and the heat – goes on, and the summer had barely begun.

## A PERSONAL & PROFESSIONAL EPIPHANY

<sup>16</sup> See especially John Schwartz, “Experts See Peril in Reduced Monitoring of the Nation’s Streams and Rivers,” *New York Times*, 11 April 2006. A link to this article, and ongoing information about the flooding and its connection to climate change, can be viewed at Andrew Rivkin’s blog Dot Earth, “Flooding, Monitoring, Warming, Building” for the *New York Times*, at <http://dotearth.blogs.nytimes.com/2008/06/16/flooding-monitoring-warming-building/index.html?ref=us>

<sup>17</sup> Jesse McKinley, “Firefighters Start to Gain in Northern California,” *New York Times*, 24 June 2008.

<sup>18</sup> Go to <http://www.fema.gov/news/event.fema?id=10207>

<sup>19</sup> Go to [http://www.fire.ca.gov/index\\_incidents.php](http://www.fire.ca.gov/index_incidents.php)

<sup>20</sup> See Randal C. Archibold and Kirk Johnson, “Anxiety Grows in West Over Firefighting Efforts,” *New York Times*, 19 June 2008, viewed at <http://www.nytimes.com/2008/06/19/us/19fire.html?pagewanted=1&r=1> .

This report stems from nagging thoughts that began late in the summer of 2007, having finished an article on climate change and the role of business, which left a lasting and disturbing impression.<sup>21</sup> Since 1983 I have been actively engaged in the corporate social responsibility (CSR) and socially responsible investing (SRI) “movements” as a manager, consultant, academic, and activist. While much has happened to bring these fields from the margin to the mainstream – even as much work remains to make capitalism better balance private prosperity and the public interest – I began to wonder. In the face of catastrophes, what difference does it make whether or not the roles of board chairman and CEO are separate; executive pay packages are more reasonable; shareholders are active and engaged; companies reduce their carbon footprint and increase “green sustainability;” or are fair, accurate, and transparent in their reporting; that they assure the highest consumer product quality and safety; monitor their supply chain to assure compliance with fair labor and environmental standards; treat their employees with fairness and decency; or engage in corporate philanthropy, when nature’s fury can flatten or flood whole regions, leaving death and destruction as a calling card, Just. Like. That.

I began to think that, while important, it seemed these preoccupations were off the mark because they failed to address the very real, immediate, and grave threats to human community posed by climate change, manifest in severe weather events. Last year, the Intergovernmental Panel on Climate Change (IPCC) provided a series of reports forecasting climate changes the lie ahead.<sup>22</sup> The one that struck me the most was this: As greenhouse gas emissions continue and the earth gets warmer, sea levels will rise, *which means that storm surges will rise, too*. Since then, a study undertaken by Australian and US climate researchers suggest that sea levels are rising faster than climate models previously predicted by the IPCC. After correcting for error, a review of millions of measurements of upper-ocean warming taken over the past forty years show that sea levels rose 2 inches from 1951 to 2003, *about fifty percent more than earlier estimates*.<sup>23</sup>

In June, the U.S. Climate Change Science Program (CCSP), on behalf of the National Science and Technology Council, transmitted to the President and Congress its synthesis of research on the impact of climate change on extreme weather patterns in North America. Echoing the findings of the IPCC, *Weather and Climate Extremes in a Changing Climate, Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands* forecasts more drenching rains, more frequent droughts of greater severity (especially in the Southwest), intense heat waves, and stronger hurricanes. The strongest cold season storms are expected to be more frequent, with stronger winds and more extreme wave heights. The report calls for immediate action in curbing CO<sub>2</sub> emissions and developing better resilience to extreme weather impacts.<sup>24</sup>

---

<sup>21</sup> Marcy Murningham, “Scrubbing the Sky: Climate Change and the Productive Center,” *New England Journal of Public Policy* Vol. 21 (July 2007).

<sup>22</sup> For copies of the report series, go to the website for the International Panel on Climate Change, <http://www.ipcc.ch/>

<sup>23</sup> Andrew Revkin, “Sea Levels Rose Faster Than Estimated,” *New York Times*, 19 June 2008. Revkin’s news brief refers to an article in *Nature* magazine submitted by Catia M. Domingues, John A. Church, Neil J. White, Peter J. Gleckler, Susan E. Wijffels, Paul M. Barker and Jeff R. Dunn, “Improved estimates of upper-ocean warming and multi-decadal sea-level rise,” which found that previously estimated rates of ocean heat and thermal expansion for the 1990s were biased by instrumental errors. See <http://www.nature.com/nature/journal/v453/n7198/full/nature07080.html>.

<sup>24</sup> CCSP, 2008: *Weather and Climate Extremes in a Changing Climate. Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Thomas R. Karl, Gerald A. Meehl, Christopher D. Miller, Susan J. Hassol, Anne M. Waple, and William L. Murray (eds.)]. Department of Commerce, NOAA’s National Climatic Data Center, Washington, D.C., June 2008. The report can be downloaded at <http://downloads.climate.gov/sap/sap3-3/Brochure-CCSP-3-3.pdf>

I began to wonder, *Why is it that we still have a post-Katrina situation in the Gulf States region that, three years later, seems not to have significantly changed from when the levees broke? Why do we have no better protections or preventions than before, not only in New Orleans, but throughout the country? And why, with a few notable exceptions, does no one talk about it, especially within the CSR / SRI communities so dedicated to making the world a better place?*

In fact, in addition to Katrina, why are not they – **why are not we** – talking about other disasters, such as the Banda Aceh tsunami of December, 2004, or myriad disasters occurring during 2005, the peak year for devastation, or any thereafter? What about the hurricanes that pounded Mexico and Jamaica (Hurricane Dean), Honduras and Nicaragua (Hurricane Felix) in 2007? Then there is Cyclone Sidr, which ripped through Bangladesh last November, killing 3,000 and leaving many more homeless. Within the U.S., what about the bridge collapse in Minneapolis last August, or the two dozen wildfires blazing through Southern California last October? Or the tornados and floods that wreaked havoc this spring in the Midwest and Northwest, affecting large portions of Kansas, Iowa, and Illinois?

Even worse, why are not they / **why are not we** talking about “slow onslaught” disasters such as the “silent tsunami” of the world food crisis, which also is impacted by climate change and aggravated by human intention? The U.N. estimates that about 850 million people in the world suffer from hunger; of these, 820 million live in poorer countries, which happen to be the same areas most affected by climate change. In recognition of this, the connection between climate change, food security, and bioenergy were addressed recently at a June Food Security Summit convened in Rome by the UN’s Food and Agriculture Organization.<sup>25</sup>

Cannot we remember the law of good intentions and unintended consequences, that one “solution” to climate change – the search for alternative fuel – can actually put millions of people at risk and contribute to widespread suffering? As many experts have argued in a message that needs to be embraced, the race to develop corn ethanol fuel has exacerbated the food crisis, revealing the “green” practice to be worse than the old one. Neither “clean” nor “green,” the biofuels craze has disrupted food and commodities markets and inflicted heavy penalties on poor consumers, according to C. Ford Runge and Benjamin Senauer, writing in their 28 May 2008 “author update” to their May/June 2007 essay on the topic in *Foreign Affairs*.<sup>26</sup> Moreover, reliance on corn for biofuel creates another dependency: instead of being at the mercy of OPEC, “We are holding ourselves hostage to the weather,” says John M. Reilly, a senior lecturer at MIT and ethanol expert. “Agricultural markets are subject to wide variability and big price spikes, just like oil markets.”<sup>27</sup>

<sup>25</sup> Meeting in Rome, the UN *High Level Conference on World Food Security: The Challenges of Climate Change and Bioenergy* followed a series of preparatory meetings involving experts and stakeholders. Further information on the background and proceedings, including access to .pdf versions of conference documents, can be viewed at <http://www.fao.org/foodclimate/hlc-home/en>

<sup>26</sup> They continue by stating, “In the year since the publication of our article, ‘How Biofuels Could Starve the Poor’ (May/June 2007), the average price of corn has increased by some 60 percent, soybeans by 76 percent, wheat by 54 percent, and rice by 104 percent. What at first seemed alarmist has turned out to be an underestimate of the effects of biofuels on both commodity prices and the natural environment. These price increases are substantial threats to the welfare of consumers, especially in poor developing countries facing food deficits. They are especially burdensome to the rural landless and the urban poor, who produce no food at all.” C. Ford Runge and Benjamin Senauer, “How Ethanol Fuels the Food Crisis,” *Foreign Affairs*, author update 28 May 2008, which can be viewed at <http://www.foreignaffairs.org/20080528faupdate87376/c-ford-runge-benjamin-senauer/how-ethanol-fuels-the-food-crisis.html> The original 2007 essay can be viewed at <http://www.foreignaffairs.org/20070501faessay86305/c-ford-runge-benjamin-senauer/how-biofuels-could-starve-the-poor.html>

<sup>27</sup> Jad Mouawad, “Weather Risk Clouds Promise of Biofuel,” *New York Times*, 1 July 2008, at [http://www.nytimes.com/2008/07/01/business/01weather.html?\\_r=1](http://www.nytimes.com/2008/07/01/business/01weather.html?_r=1)

Then there is the question of climate change and the spread of human and animal infectious diseases, particularly vector borne diseases such as West Nile, malaria, dengue, Avian influenza, and SARS. In mid-May, the American Institute of Biological Sciences (AIBS) devoted its annual meeting to the topic, *Climate, Environment, and Infectious Diseases*, the proceedings of which will be posted online at the end of June.<sup>28</sup> I already knew of some of this, thanks to the tireless efforts of Harvard Medical School's Dr. Paul Epstein, associate director of the Center for Health and the Global Environment.<sup>29</sup> Some years ago, I was a member of the Harvard Environmental Study Group, and recall vividly the unforgettable presentations he would make on the rise of infectious disease in plants, animals, and humans due to climate instability. They scared me then, but not enough to fully grasp the urgency of now.

I began to wonder, *In responding to climate change, why are we paying so much attention to long-term time horizons, such as those contained in the myriad carbon reduction / cap-and-trade proposals, and less attention to what forecasters are saying about catastrophic events likely to occur within the next few months or years?* Within the business sector, I began to wonder, *With the exception of high-profile philanthropic donations and, to a degree, community investors, why do companies and investors seem to be missing-in-action when an emergency strikes, or when reconstruction is underway, or – even better (or worse) – when efforts to build resilience BEFORE disaster occurs are taking place?* Most of us know that humanitarian and military resources are strapped, yet they continue to be called upon to provide aid and stabilize regions devastated by extreme weather events.

Why has not the private sector stepped up, too, particularly when so many of its assets are at risk due to displacement, destruction, or devastation? Indeed, why has not our own government stepped up to integrate climate change science into its domestic and international diplomacy and planning, and promote innovation and partnerships to deal with the threats to our way of life that emerge? Come to think of it, why has not it called upon us to make sacrifices and, like the Boy Scout motto *Be Prepared*<sup>30</sup>, provide incentives, resources, and instructions for doing so? Climate change and disaster management present challenges where we all can play a role, as long as we have the knowledge, capacity, and commitment to do so. More than providing relief, we are called by these tragedies to confront the horrific conditions under which so many of those who are affected live, the persistent social problems that existed before disaster struck, and the need for sustainable solutions rather than band-aids to rectify them. A national call to service for disaster risk reduction and prevention might yield surprising results, from all age groups and regions, because there is something for everyone to do.

These questions and more led me to explore the possibilities and opportunities for connecting the fiduciary obligation governing both corporations and investors to what could be termed the ultimate in risk management: disaster risk reduction and prevention, or “DRR / prevention”. I began to realize that issues such as board independence, CEO pay, shareholder activism, corporate social responsibility, and green management practices **do** have relevance to natural disaster resilience.

---

<sup>28</sup> Once posted, presentations from the meeting on infectious diseases can be viewed at the Media Library of the AIBS, at <http://www.aibs.org/media-library/>

<sup>29</sup> For more on Dr. Paul Epstein and the work of the Center for Health and the Global Environment, go to <http://chge.med.harvard.edu/index.html>

<sup>30</sup> Even the Boy Scouts were hit by calamity when, on 11 June, a tornado slammed into a leadership training camp in western Iowa, killing at least four people and injuring 40. The tornado touched down as eastern Iowa continued to struggle with flooding in several of its major cities, stretching its emergency response teams to the max. Associated Press, “4 Dead, 40 injured as tornado hits Boy Scout camp,” *New York Times*, 12 June 2008.

**Companies** that are well governed and managed, that take their civic responsibility seriously, tend to be transparent and accountable, have a wider sense of risk management (covering tangible and intangible assets), better early warning system, and contingency scenarios for changing environments. They tend to manage crisis well, while keeping their values and vision intact. They see the “big picture” throughout the value chain and recognize their interdependence with employees, consumers, shareholders, suppliers and distributors, host communities and other stakeholders. They know how to communicate with these various stakeholders, even engaging them in processes to achieve better performance. They also know how to communicate with government on matters ranging from regulation and oversight to broader policy making and implementation.

Successful companies keep their competitive edge by nurturing talent and providing incentives and tools for innovation. They keep on the lookout for new opportunities and needs, and tackle problems systematically and creatively. Whether or not they brand themselves as socially responsible – this is a matter for debate – top firms aim high, and even as they vary industry by industry, push themselves to succeed when others fall behind.

**Investors** who are actively engaged as responsible equity owners and fiduciaries tend to recognize more sources of risk, and the range of policy options and strategies that help to reduce it. They tend to be engaged in corporate dialogue – or are represented by intermediaries who do so – so that their concerns are aired and answered. They possess both an ethical and empirical compass, and know that the two go hand in hand. They appreciate the importance of innovation and entrepreneurship so are open to so-called “alternative investments,” when balanced by greater prudence elsewhere in a portfolio. Because they are stewards over different kinds of asset classes, they are in a position to invest in critical economic and social infrastructure projects that help revitalize our urban and rural communities, while providing stable cash flows and immunizing themselves from the vicissitudes of the business cycle and global economy.

**Codes of conduct and reporting systems** – such as the UN’s Corporate Compact, or the Global Reporting Initiative – provide major platforms upon which the humanitarian and economic values of disaster management and sustainable development policies and practices could be conveyed, too, thus helping to generate data and establish normative criteria that can be used as benchmarks for improving practice.

The presence of important **intermediary groups focusing on environmental issues and sustainability** – such as Ceres, the Carbon Disclosure Project, the Investor Network on Climate Change, the Social Investment Forum, the Interfaith Center on Corporate Responsibility, the U.S. Climate Action Partnership – represent critical resources that can be mobilized to build knowledge and competence regarding disaster resilience, in partnership with humanitarian groups and the armed forces.

None of this has happened in a serious and sustained way, yet the “fiduciary dots” are there, waiting to be connected. I believe that IGL is well-poised to help make those connections, and I want to help it do so, the next stage in a journey I have

taken over the past few months into a realm about which I have known very little. I have learned a great deal during this exploration, and am eager to work with others, both in the field and newcomers.

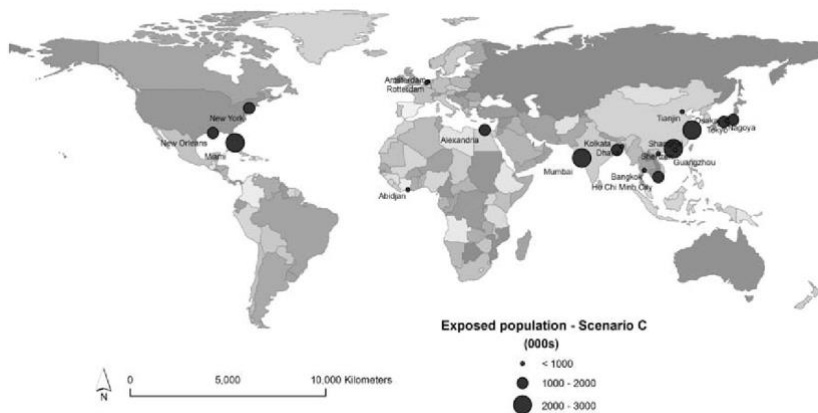
I have learned that the number of natural disasters worldwide has grown from an average of 150 a year in 1980 to more than 450 a year nowadays. I have learned about the massive financial losses that result – in addition to death, injury and disruption – and the innovative tactics taken by a handful of companies to reverse the tide. I have learned that most of the impact of natural disasters falls upon those least able to “bounce back,” as the parlance goes, and that many of these people live in large urban areas that are especially vulnerable to hazards, especially in coastal areas. This is an important fact that needs to be part of EPIIC’s “Megacities” theme for 2008-2009.

I have learned that climate change has triggered new issues for national security, and that both the intelligence and armed services communities are working to assess the risks and what should be done. In a first-ever U.S. government analysis

**Figure** Map showing the top 20 cities for exposed population, 2005. Source: [OECD](#)

released in late June, the National Intelligence Assessment (distinct from the better-known National Intelligence Estimate

because it is a more speculative document) looked at different possible scenarios for humanitarian disasters that would consume U.S. resources, and their implications for U.S. national security—“national security” is defined as including the U.S. “homeland,” a U.S. economic partner, or a U.S. ally. The Assessment report examined the impact on national geopolitical, military, economic power and social cohesion. Also under scrutiny are serious problems caused by global warming affecting agricultural production, water supplies, and forestry, as well as climate-induced tensions and domestic instability in some states (China, the Middle East, Africa, South and Southeast Asia), particularly over access to increasingly scarce water resource.<sup>31</sup> Generally, there is widespread agreement that the new administration and Congress needs to adopt preventive



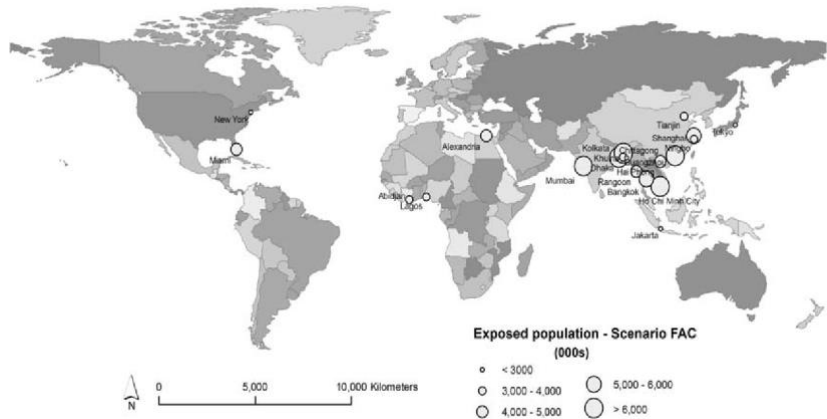
<sup>31</sup> In June the U.S. intelligence community completed a classified analysis of the national security implications of climate change, which was presented to Congress on 25 June 2008. Dr. Thomas Fingar, the deputy director of National Intelligence for Analysis and chairman of the National Intelligence Council presented an overview of the findings before the joint hearing of the House Select Committee on Energy Independence and Global Warming and the Intelligence Community Management Subcommittee, 110<sup>th</sup> Cong., 2<sup>nd</sup> sess. His testimony, “National Intelligence Assessment on the National Security Implications of Global Climate Change to 2030” can be downloaded at [http://www.dni.gov/testimonies/20080625\\_testimony.pdf](http://www.dni.gov/testimonies/20080625_testimony.pdf)

defense and peace building activities, and that environmental security issues such as climate change are a good place to start.<sup>32</sup>

I have learned that much of the death and destruction caused by natural disasters is the result of decisions made by human beings, and an absence of courage and wisdom. As renowned systems behavior expert Charles Perrow puts it, “Societies put their people in harm’s way [which] has been widening in recent years.”<sup>33</sup> Urbanization concentrates populations in the path of

nature’s wrath; so do population growth and migration to risky areas. Whereas some population density can be controlled, most of it cannot. As long as we allow short-sighted residential, commercial, and industrial development in flood- and fire-prone areas, or on unstable slopes vulnerable to earthquakes or heavy rains, or in areas where we have perversely tried to control river flow, we can expect to pay the price. In addition, as long as we base our policies on data that is woefully outdated, rather than on scientific evidence and risk-based projections, we can expect that price to soar. We cannot use buggy-whips to keep nature’s fury at bay. We need 21<sup>st</sup> century tools, instead. And we need to minimize the size of our vulnerable targets.

I have learned that there are many risk management firms that have emerged, with their highly sophisticated computer models informing us of the present danger[s]. This is a lucrative industry, and growing rapidly. Within academe, similar programs are popping up; one of the most reputable is the Wharton School’s Risk Management and Decision Processes Center, featuring the “catastrophic risk management” work of Wharton professor and Risk Center co-director Howard Kunreuther and others. This past March, the Risk Center issued a 416-page report called *Managing Large-Scale Risks in a New Era of Catastrophes: Insuring, Mitigating, and Financing Recovery from Natural Disasters in the United States*. The report is part of the “Extreme Events Project” at the Center, a joint venture with Georgia State University and the Insurance Information Institute. Their focus is on the development of economically sound policies and strategies for managing the risk and consequences of future disasters, particularly within hazard-prone areas. “Our nation is facing large-scale risks at an accelerating rhythm,” the authors warn, “and we are more vulnerable to catastrophic losses due to the increasing concentration of population and activities in high-risk coastal regions of the country. The question is not *whether* catastrophes will occur, but *when*, and *how frequently* they will strike, and the extent of damages they will cause.”<sup>34</sup> Figures



**Figure** Map showing the top 20 cities for exposed population 2070s. Note different scales in the key. Source: OECD.

<sup>32</sup> See testimony of Dr. Kent Hughes Butts, U.S. Army War College, before joint hearing of the House Select Committee on Energy Independence and Global Warming and the Intelligence Community Management Subcommittee, 110<sup>th</sup> Cong., 2<sup>nd</sup> sess., 25 June 2008 at <http://globalwarming.house.gov/tools/2q08materials/files/0070.pdf>

<sup>33</sup> Charles Perrow, *The Next Catastrophe: Reducing Our Vulnerabilities to Natural, Industrial, and Terrorist Disasters* (Princeton, N.J.: Princeton University Press, 2007), 14.

<sup>34</sup> The Risk Center’s mission is to further practical understanding of how to manage high-risk situations involving health, safety, and the environment in both the private and public sectors. For more than twenty years it has been at the forefront of research into the management

2 and 3 portrays the OECD’s calculations of these risks, in 2005 and by the 2070s. Figure 4 ranks the world’s cities regarding exposure, and potential losses incurred.

I have learned there are thousands of disaster management experts out there who share insights and expertise through a number of groups, associations, academic programs, and conferences. Among these venues are the World Conference on Disaster Management, the International Conference on School Safety, the International Conference on Flood Recovery Innovation and Response, the Asia Megacities Forum, or the World Urban Forum. I have learned that each year, on the second Wednesday in October, there is an “International Day for Disaster Reduction,” designated in 1989 by the UN General Assembly as a vehicle to promote a “global culture of natural disaster reduction, including disaster prevention, mitigation, and preparedness.”<sup>35</sup>

Rank	Country	Urban Agglomeration	Exposed Assets Current (\$ billion)	Exposed Assets 2070s (\$ billion)
1	USA	Miami	416.29	3,513.04
2	China	Guangzhou	84.17	3,357.72
3	USA	New York-Newark	320.20	2,147.35
4	India	Kolkata (Calcutta)	31.99	1,961.44
5	China	Shanghai	72.86	1,771.17
6	India	Mumbai	46.20	1,598.05
7	China	Tianjin	29.62	1,231.48
8	Japan	Tokyo	174.29	1,207.07
9	China	Hong Kong	35.94	1,163.89
10	Thailand	Bangkok	38.72	1,117.54

Figure 4 Top 10 cities with assets exposed to coastal flooding. Source: OECD, March 2008.

As with most professions, I also have learned that there is a special vocabulary with special meaning – words like “resilience,” “mitigate,” “vulnerability,” “risk reduction,” “adaptation,” “capacity,” “platform,” “Extinction Level Event,” which have separate usage depending on what is being conveyed and who is conveying it – upon which disaster experts rely, as well as donor agencies and humanitarian groups. There also is a huge difference between “disaster” and catastrophe,” just as there

of “low-probability/high-consequence events,” particularly those arising from the interdependencies between energy security and climate change. The Risk Center’s website is <http://grace.wharton.upenn.edu/risk/>

<sup>35</sup> Further information on the International Day for Disaster Reduction can be obtained by visiting the UN’s International Strategy for Disaster Reduction (ISDR) website at <http://www.unisdr.org/isdrindex.htm#>



is a huge difference between “emergency” and “disaster.” These differences require different forms of planning and responding, even as they are rooted in similar ideas and concepts about readiness and resilience.<sup>36</sup>

I have learned that there are professional tensions among those working in the overlapping fields of disaster risk reduction, humanitarian aid, emergency management, and business continuity. Within the United States, this tension begins at the top, for the Department of Homeland Security (DHS) remains a house divided with FEMA’s placement there, and runs through the ranks and regions. I have learned (no surprise) that DHS possesses a weak, understaffed system, overseeing twenty-two different agencies that generally work at cross purposes rather than as a unified team.

As for the cooperative relationship between DHS and its state and local partners, I have learned that sometimes it works very well and other times it does not work at all; unlike the Defense Department, our homeland security system is non-hierarchical: governors do not work for the president, and mayors do not work for governors. Thus it must rely on partnerships that recognize the independently-elected status of governors and mayors, as well as other stakeholders in the emergency management system, including the private sector and social enterprise. To sustain homeland security capabilities into the future, the next administration will need to concentrate on strengthening the policymaking and implementation process, while also making it more inclusive.<sup>37</sup>

With regard to the DHS mission, I have learned that fundamental disagreements persist over the meaning of “homeland security,” which primarily has been defined as terrorism—to the exclusion of natural disaster preparedness, or even other threats, such as industrial accidents or breakdowns in technology infrastructure. Similarly, many argue that “emergency management” is a better umbrella term, comprising “homeland security” and (to a lesser extent) “business continuity” (a term applied to nonprofit institutions, such as colleges and universities, as well as for-profit enterprise), which have implications for organizational behavior, resource allocation, education, and training.<sup>38</sup> Moreover, the definition of “catastrophic planning” differs between DHS and FEMA: DHS views the process as top-down, in keeping with its interpretation of “cooperation,” while FEMA views it as bottom-up.<sup>39</sup>

Some of these dichotomies exist within the humanitarian aid community, too. Internationally, I have learned that oftentimes there are tensions between the mission of humanitarian players and those of political and/or human rights advocates, which

---

<sup>36</sup> See especially Alexandra Galperin, *Discourses of Disasters, Discourses of Relief and DFID’s Humanitarian Aid Policy*. Working Paper No. 02-28, Development Studies Institute, London School of Economics and Political Science, April 2002. It can be viewed at <http://www.lse.ac.uk/collections/DESTIN/pdf/WP28.pdf>

<sup>37</sup> Paul N. Stockton and Patrick S. Roberts, “Findings from the Forum on *Homeland Security After the Bush Administration: Next Steps in Building Unity of Effort*,” *Homeland Security Affairs* (The Journal of the Naval Postgraduate School Center for Homeland Defense and Security), Vol. IV, Issue. 2, June 2008. Last February, Stanford’s Center for International Security and Cooperation hosted a forum for government and private sector leaders in homeland security. This article summarizes recommendations the next administration can take, including structural changes within DHS that would provide better integration across agency lines and transform state and local collaboration into a sustained, department wide priority. A .pdf copy can be downloaded at <http://www.hsaj.org/pages/volume4/issue2/pdfs/4.2.4.pdf>

<sup>38</sup> There is a fascinating conversation taking place among practitioners subscribed to the listserv hosted by FEMA’s Emergency Management Institute’s Higher Education unit, posted in FEMA’s *Daily Digest Bulletin*. Business continuity officers at various colleges and universities have proffered their opinions as to the interrelated aspects of emergency response, business continuity, safety and security, and recovery. One can subscribe by going to FEMA’s Emergency Management Institute at <http://training.fema.gov/>

<sup>39</sup> ‘FEMA Catastrophic Disaster Planning Initiative – EM Hi-Ed Conf. Session Report,’ excerpts from a presentation made by Michel S. Pawlowski, FEMA Headquarters; Carla Boyce and Dr. Jon Bushnell, Innovative Emergency Management; and Dr. Robert Smith, L-3 Communications at FEMA’s June Emergency Management Higher Education Conference, appearing in *FEMA Daily Digest Bulletin*, EMI Higher Education Activity Reports, 1 July 2008.

can translate into conflicts over managing relief and transitioning to sustainable development. Related to this are differences – if not downright distrust – between humanitarian organizations and the private sector, as well as military and peacekeepers / enforcers, in defining mission, providing field support and human resources, resolving conflicts, and executing operations.

Safety, security, risk management, stabilization, recovery, reconstruction are all part of a continuum, but are carried out by differently by professionals and volunteers with different backgrounds and experience. I have learned that most disaster emphasis is on emergency relief and immediate reconstruction rather than prevention—which takes one directly into the realm of sustainable development, considered a controversial and slippery slope by many in the humanitarian aid community. I have learned that this “silo” mentality of field operations and professional development needs to change, and that there is a need for integrated standards drawing upon the core knowledge and competencies of each.

But first, the groups need to interact with each other more, away from the fray, so as to understand each other better, develop new knowledge, perhaps even cultivate a mutual vocabulary, and build trust. Scientists, policy makers, social entrepreneurs, the media, academics, volunteers, and students need to be part of this wider conversation, too. The Internet and interactive websites offer great promise in this realm, providing platforms for so-called “liquid conversations” distributed across cyberspace.

I have learned that more than 100 U.S. colleges, universities, and training institutes operate about 150 programs offering degrees, diplomas, certificates, or graduate qualifications in disaster management.<sup>40</sup> There currently are more than 15,000 students in the emergency management (EM) educational system, one-half of them junior and seniors who are seeking degrees in the area and then expect to obtain employment in the private sector.

I have learned that an important resource supporting this rapidly growing educational sector is the Emergency Management Institute (EMI) within FEMA. Housed within a former liberal arts college in Emmitsburg, Maryland, EMI provides numerous residential and distance learning courses, programs, and other educational activities. EMI shares the campus facilities and often collaborates with the U.S. Fire Administration (USFA) and National Fire Academy (NFA) on curricula and program development.<sup>41</sup> EMI’s Higher Education Program provides course syllabi and teaching materials to higher education institutions.<sup>42</sup> According to Dr. B. Wayne Blanchard, FEMA’s Higher Education Program Manager who created the Hi Ed program in 1994, “Emergency management education is a growth industry.”<sup>43</sup>

Speaking at a FEMA Region I Emergency Management Educational Forum, held at UMass Boston on 28 July 2008, Dr. Blanchard told attendees, “There are 22 completed upper division and graduate-level courses developed for the EM Hi-Ed Program since 1995. All 22 courses need revision and modernization, with three revision projects being scheduled for each

---

<sup>40</sup> FEMA’s Emergency Management Institute maintains a listing of these institutions, which can be viewed at <http://training.fema.gov/EMIWeb/edu/collegelist/>

<sup>41</sup> “A 55-Year Legacy of Training and Education in Emergency Management,” flyer describing the history of the Emergency Management Institute, available at [http://training.fema.gov/EMI\\_history.doc](http://training.fema.gov/EMI_history.doc)

<sup>42</sup> The forerunner of the Emergency Management Institute was the Civil Defense Staff College (CDSC), which was transferred to FEMA in 1979. The CDSC, founded in Battle Creek, Michigan in 1954, was a national adult residential training center within the Civil Defense Program. Further information on the myriad programs offered at EMI can be viewed at <http://training.fema.gov/>

<sup>43</sup> Information on the Higher Education Program can be obtained by visiting <http://training.fema.gov/EMIWeb/edu/>

year.” He also said that the Higher Education Program currently is developing fourteen new courses, and that EM practitioners are advocating for the development of seventeen more. Moreover, the College Course Development Project includes “micro-funding” for one or more “course treatments” on “Leadership in Emergency Management,” which involves drafting either a syllabus or a first course session that can be tailored by instructors to meet their various educational needs. Future plans include development of a graduate-level certificate program, something to which Tufts might make a constructive contribution.<sup>44</sup>

I have learned that there are many publications on the topic, mostly specialized journals and newsletters. I have learned that there is a wealth of free information available through numerous websites for public, private, and nongovernmental organizations, ranging from the federal government’s Department of Homeland Security / FEMA, the U.S. Fire Administration, the Centers for Disease Control, to countless domestic and international sources. Reports, fact sheets, health and safety tips, podcasts, email bulletins, press releases and summary updates, Google alerts designed to capture documents on relevant topics—all are accessible and easy to read, if only one has the interest, commitment, and time to ferret them out.

I have learned that there are a number of evaluation and assessment tools; a worldwide framework called the Hyogo Framework for Action, 2005 – 2015; and, in the U.S., FEMA’s recent announcement of the National Response Framework (NRF); yet no set of widely accepted or *industry-specific standards*, benchmarks, metrics, and best practices, or forms of monitoring and oversight.

I have benefited from thoughtful conversations with seasoned humanitarian practitioners who share my belief that more outreach needs to extend to newer actors, particularly within the private sector, media, and military. I have learned about the sprawling humanitarian aid community, comprising organizations both large and small, occupying what Kennedy School foreign policy sage Joe Nye dubs “islands of governance” within the realm of soft power. While I have yet to explore and fully understand the extraordinary resources based at Tufts, especially within the Feinstein International Center, I have learned that, since the era of Dr. Jean Mayer, Tufts has pioneered the field of humanitarian studies, in service to individual and community well-being.

I have just given a partial summary of countless insights and lessons, and they continue as I write. There is, however, one major pile of lessons that I have *relearned*, and is so important that it is worth repeating: Organizations are made with human hands, and as such, behave in idiosyncratic ways. They have their own rituals and traditions, their power struggles and dysfunctions, their ups and downs. Organizations are imperfect. Sometimes, they get the job done, but most of the time they do not work very well at all, especially if they are large complex systems with many constituencies.

Organizations also are tools, and often used to advance interests other than what their mandate implies. By nature, they thrive on the status quo, resist change, have relatively short-term time horizons, and are vulnerable to powerful economic and political interests. In this era of “flat hierarchies,” organizational governance and accountability are more widely dispersed. Thinking about the organizational response to disaster management thus becomes, to a large degree, a

---

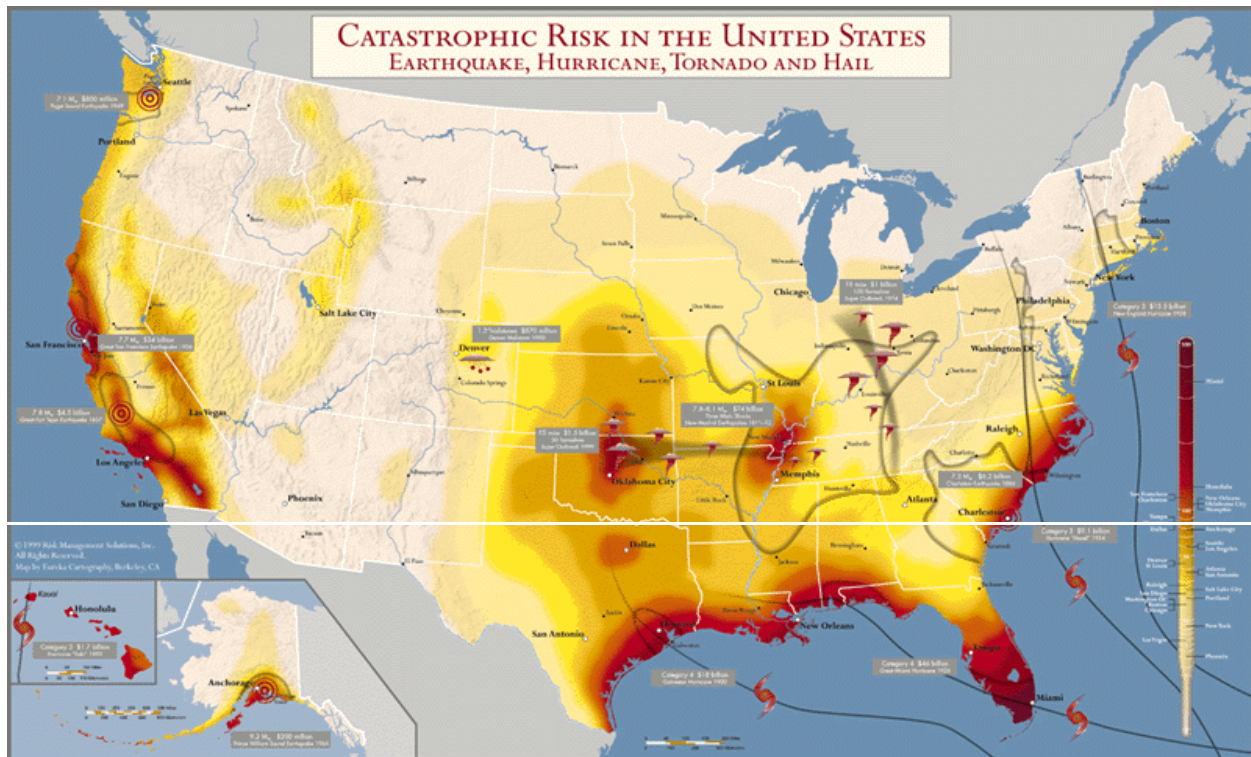
<sup>44</sup> “Emergency Management Education,” Remarks of Dr. B. Wayne Blanchard at *Building a Resilient Community: Preparedness Educational Forum, Grade School through Higher Education*, held at the University of Massachusetts, Boston on 28 July 2008.

speculative enterprise; what really counts are *interdependent multi-sector networks* that incorporate risk management, resilience, knowledge and competence, sustainability, and common sense into their core operations. We live in a world where natural disasters are going to increase, and we need to be more prepared and ready when they do. We also need to reduce our vulnerabilities, meaning that we need to confront deeply entrenched economic and political interests.

In the meantime, there is much to do across the sectors and many opportunities for individuals, practitioners, and communities to be proactive in disaster management and prevention. Confronting the threats posed by natural disaster in this new era of accelerating catastrophes challenges us to be more diligent and vigilant in how we manage risk, and how we take responsibility for protecting our lives and community well-being. In many respects, this involves mustering the courage to change the things we can and reappropriating our American tradition of active citizenship, both within and outside the United States.

### BEYOND HARM'S WAY: COMMUNITY SERVICE & SUSTAINABILITY

During years of teaching at Babson College (on philanthropy) and Harvard Divinity School (on the moral obligations of wealth



and

attendant responsibilities for capital investing and corporate governance and management), I used to talk with students about the decency, compassion, and goodness of the American people, about the American charitable impulse and tradition of philanthropy, which evolved from individual acts of charity to large, complex institutions leveraging their resources for improving the world.

My students would learn that the first American philanthropists were Indians, far more generous to the foreign settlers in fortifying them against nature's fury than the settlers were toward them. Yet my students also learned that this young nation gave enthusiastically and liberally for foreign relief. In the 1820s, volunteer committees arranged balls, fairs, auctions,

debating contests, and theatrical benefits to raise money for the cause of Greek independence, and brought a number of Greek war orphans to the U.S. for adoption. In 1832 the starving people of the Cape Verde Islands were provided a ship full of food, the product of donations from church parishioners in New England, Philadelphia, and New York. Another relief ship was sent by Bostonians to the Madeira Islands in 1843. The Irish famine of 1846-47 called forth perhaps the largest and most widely shared response of the American people, cutting across national and religious lines.<sup>45</sup>

My students would learn that this propensity of Americans to be readily optimistic, open and generous – arising from our deeply rooted shared sense of community, forming voluntary associations neither private nor public to get the job done – was characterized (unfairly) by Alexis de Tocqueville as a distinctly American trait. Tocqueville observed that the unfolding and unfinished project of democracy nurtures this sense of community, eliminating the barriers (at least some of them) of class and privilege, thus enabling good will toward all human kind. Students would be challenged to consider themselves as responsible citizens, and then put to work with nonprofit organizations addressing the problem of homelessness, a stubborn policy issue chosen because it represents a complex fusion of charitable and reform needs that defy easy solution. They would learn that institutions are made by humans, and are malleable—thus they can be brought into better alignment with our shared civic ideals, as long as the will and the vision are there—along with a sense of humility and humor.

I would lecture on the three philanthropic traditions: the *repair* tradition focusing on the alleviation of suffering; the *reform* tradition focusing on changing the circumstances that give rise to extant suffering; and the *quality of life* tradition geared toward patronage of education, culture, and the arts.

I would describe the preference of American organized philanthropy, bolstered by some of my Harvard mentors, for reform and renewal in its grantmaking. Similarly, my students would learn about how, as instruments distributing other people's money, foundations are – along with money managers and institutional investors – in a good position to foster innovation and entrepreneurship, integrating civic moral values with financial ones. They would hear from my friends and colleagues in the CSR / SRI field, including, at Harvard Divinity School, chief executives in the worlds of media and financial services. We would examine the various components of “morality and money”: corporate social responsibility and socially responsible investing; corporate governance and responsible ownership; philanthropy, both “venture” and plain; social enterprise and social entrepreneurship, a second-generation of the explosion in non-profit activity; community investing and development; and sustainable enterprise, an extension of concern about global warming and climate change.

But never once, throughout all these years when I had the opportunity to work on some of the most important issues in the CSR / SRI movement -- South Africa and divestiture; fair labor practices in Northern Ireland; sanctions and Burma; fair labor practices in the U.S.; environmental stewardship; responsible media and entertainment; corporate philanthropy; shareholder activism and corporate governance; responsible equity ownership and endowments – did I discuss the issue of disaster management and its relevance to our work. So I am just as guilty as my colleagues of limited vision, and now hope to change that, with humility, intelligence, and heart.

---

<sup>45</sup> Summarized from Robert Bremner, *American Philanthropy*, 2<sup>nd</sup> edition. The Chicago History of American Civilization (Chicago and London: University of Chicago Press 1988), 53-54.

Perhaps it is time for organized philanthropy to take a comprehensive look at the readiness and resilience of our communities, both with America and throughout the world, to withstand extreme weather events, instead of responding with charitable good works when disaster happens. Similarly, perhaps it is time for institutional investors to examine their risk management through the lens of climate change, something Ceres and the Investor Network on Climate Risk have done so well. In concert with military and private sector partners, there is much work to do.

In the meantime, the “urgency of now” beckons, particularly, here at home, as we confront the flooding throughout the upper Midwest, the tornados affecting every part of the country, the wildfires raging through the Western states, and the 2008 hurricane season, which the National Oceanic and Atmospheric Administration (NOAA) tells us with 65 percent probability will be above normal.<sup>46</sup>

Throughout the rest of the world, both developing and developed countries and their coastlines are vulnerable, too. A recent study for the Organization for Economic Co-operation and Development (OECD) estimates that coastal flooding currently exposes 40 million people (0.6 percent of the global population) to a 1 in 100 year major flooding event. As figures 2 and 3 demonstrate, this number is expected to jump threefold to 150 million people by the 2070s as a result of the combined forces of climate change (sea level rise and more storminess), subsidence, population growth, and urbanization. Exposure rises most rapidly in developing countries, as development moves increasingly into areas of high and rising flood and wind damage risk; generally speaking, developing countries are less protected from the impact of storms than richer ones, a tragic reality to which we bear witness all too often.

Yet the OECD authors caution that even if all cities are well protected against extreme events, large-scale city flooding may remain frequent at the global scale because so many cities are threatened.<sup>47</sup> Needed are comprehensive adaptation and mitigation strategies that minimize the likelihood of disaster, particularly in large cities that are the responsible for the majority of greenhouse gas emissions. Such options include a combination of more effective disaster management, more resilient infrastructure, smarter investment in protection measures, better land use planning, and targeted development and selective relocation away from current urban areas. These actions, of course, will take a lot of time and enormous reservoirs of leadership, commitment, and political will along with cooperative partnerships with multiple stakeholders.

In the meantime, we can begin this path by strengthening existing components of the disaster risk reduction and prevention “system,” forge new partnerships with newer sectors that have a critical stake, develop a better understanding of the multi-faceted nature of DRR / prevention and the food crisis, which includes socio-economic development, urbanization, population growth, land use, and changes in water supply and use; and recognize the institutional, structural, and behavioral barriers to implementation of wiser policies.

If not now, when?

---

<sup>46</sup> National Oceanic and Atmospheric Administration, “NOAA Predicts Near Normal or Above Normal Atlantic Hurricane Season,” news release, May 22, 2008. The NOAA’s Climate Prediction Center outlook can be viewed at <http://www.cpc.ncep.noaa.gov/products/outlooks/hurricane.shtml>

<sup>47</sup> R.J. Nicholls, S. Hanson, C. Herweijer, N. Patmore, S. Hallegatte, J. Corfee-Morlot, J. Chateau, R. Muir-Wood, *Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes: Exposure Estimates*. OECD Environment Working Papers No. 1. Paris: 31 March 2008 can be downloaded at <http://www.oecd.org/env/workingpapers>

---

## THE WAY AHEAD

*Fighting the Fury: Climate Change, Disasters, and the Stewardship Ethic* is a partial portrait of the current context of and concerns about disaster management, within the U.S. and internationally, due to catastrophic weather patterns caused by climate change. Because of the complexity of the phenomenon, it is a multi-sector analysis that identifies some of the major players and so-called “enabling platforms” and activities with respect to government, the military, the private sector, institutional investors and foundations, and social enterprise.

*It is not an analysis of the current field of humanitarian studies and practice.* I am a newcomer to this field, and do not presume, within six months’ time, to fully understand its structure, forms of organizational governance and behavior, and capabilities. Rather, I have chosen to examine existing practice and opportunities for cultivating private sector and civilian – military partnerships and leadership, traversing the humanitarian community and the overlapping arenas of corporate and investor social responsibility, as well as academe. It suggests how these partnerships and leadership might be strengthened and new ones created, while engaging, too, other actors such as social entrepreneurs, foundations, and the media.

In conducting research about this vast and complex field, I have amassed aforementioned insights that illuminate policy and operational gaps as well as entrepreneurial opportunities, which the Institute for Global Leadership, in partnership with other Tufts and external actors, might exploit. *Fighting the Fury* also describes the current debate linking climate change and natural disasters to national security, including its implications for U.S. armed forces.

It also describes the current debate linking climate change and natural disasters to national security, including its implications for U.S. armed forces. It summarizes current discussions about the limitations of the existing disaster mitigation / resilience apparatus, both domestic and international, and in doing so provides insight into “opportunity gaps” that could be filled by innovative ideas, programs, and strategies, which:

- **strengthen military – civilian education** while encouraging greater participation from the private and social sectors;
- **engage citizens more fully** through new initiatives as well as with existing planning groups and volunteer networks, in tandem with international, federal, state, and local emergency teams;
- **engage specific industries**—specifically the media, real estate development / engineering / construction, pharmaceuticals and health, and utilities sectors;
- **develop new industry-specific metrics** that supplement current reputable reporting platforms (such as the Global Reporting Initiative) that can help guide responsible corporate behavior on disaster matters;
- **cultivate pragmatic and flexible partnerships** with responsible institutional investors, foundations and companies (including those within the military industrial complex), as well as with the military;
- **engage the media, including journalism and entertainment**, to encourage the incorporation of disaster management and food crisis issues into content and storylines, as well as public education;
- **fortify existing professional development, education and training programs**, including the development of curricular standards, education and training modules, and forms of assessment, while developing new knowledge and pedagogical approaches;
- **tap the power of Web 2.0 and social networking** in service to disaster management and prevention, and identify areas showing promise for future work.

Specifically, this analysis proposes, for further reflection, discussion, and dialogue, more than 30 feasible actions pertaining to **individuals**, professional “**communities of practice**,” and **community resilience** that are, I believe, consistent with the IGL

mission, as well as that of the wider Tufts community. In this way, the series of recommendations and the spirit that animates them is all about *networks*: professional, volunteer, and digital. It is about forming alliances and partnerships to build upon existing expertise and create new knowledge and methods for tackling a problem that will only get bigger and bigger. It is, as the IGL motto says, all about thinking beyond boundaries, acting across borders and, I might add, ideologies and bureaucracies.

These proposals are iterative, and, no doubt, worthy of further debate based on the experience, preferences, and priorities of IGL and other Tufts departments. I also welcome ideas, comments and views, as well as practical suggestions for moving forward. I welcome this extraordinary interdisciplinary opportunity to blend science with social responsibility, to help strengthen civil-military leadership education, harness the power of the media and Web 2.0, and cultivate community partnerships linking platforms and practices to shared purpose and prosperity.

## II. THE POLICY CONTEXT: CONCERN & CONSENSUS

Over the past few years, the reality of climate change has become widely accepted within the international community, even though debates continue over cause and consequence, as well as strategic response and time horizons. But the scientific debate is over, as is the presumption that taking action on climate change will jeopardize economic growth. Despite the virtual absence of climate change from the presidential campaign, a political consensus has rapidly evolved through all levels of government and across national borders that *something* must be done (even though there is no agreement on what that should be); that no single solution will make things better (even though some are favored more than others); that while the scale of the undertaking is daunting, there is room for everyone to take part, be it through reducing energy consumption or raising public awareness, through innovative technologies or public policy, all of which involve changes in behavior and a transformation of our energy system[s] (even though a call to sacrifice our massive levels of consumption has yet to occur).

Most, if not all, of the climate change policy debate concentrates on *broad, long-term* issues, such as the merits of various proposals for an international architecture of climate policy, or long-term targets (the year 2050 is a popular one, with 2025 running a close second) for reducing oil consumption and greenhouse gas (GHG) emissions. Calls for conservation and reducing carbon-footprints – e.g., using cloth tote bags instead of paper or plastic; changing over to compact fluorescent light bulbs; relying on public transportation; purchasing carbon offsets to make up for our daily dirty habits – are met with enthusiasm as we try to act as if these actions will make a material difference.

On the business side, robust competition is underway to discover newer, better, and more profitable forms of cap-and-trade schemes and energy, to feed our rapacious appetite for fossil fuels, despite the skyrocketing costs of gasoline and diesel oil. The private sector realizes that the climate change challenge poses more opportunities than risks; that “business as usual” means being outflanked by the competition; and – this is perhaps the most powerful incentive – there is money to be made by doing the right thing.

Missing, however, from the policy deliberations about carbon caps, the greening of business strategies, and advocacy concerns about sustainability is *how best to tackle the immediate implications and consequences of climate change*,



***manifest in the rise of natural disasters.*** Be they from above (meteorological events causing tropical storms, floods, and drought) or from below (geological events such as volcanoes, earthquakes, or landslides), disasters leave death, damage, and displacement in their wake. It is time for the business community and investors to recognize this, and, in so doing, join with humanitarian agencies and our military in getting involved constructively.

To date, most business participation in disaster activity has been in the form of aforementioned business continuity, but also philanthropy, providing goods and services in the immediate aftermath of a catastrophe. While laudable, there are many other roles the private sector can play in disaster *prevention*, including partnering with humanitarian organizations, other NGOs, and local communities that usually are the first responders.

Mobilizing private sector resources to help reduce the vulnerability of those affected by disasters is not just philanthropy or good public relations. ***It also is about the fiduciary obligation, about managing risk***—to capital and human assets; business supply chains; host communities where private sector investments exist; high-risk populations who are the most vulnerable; community development and well-being, which serve as markets for business activity; and for assuring that private sector investments and operations are not contributing to or exacerbating harmful conditions.

Both the core competencies and resources of business – which vary, of course, industry by industry – combined with asset management, knowledge, and skills of investors, can be directed to disaster prevention and management, consistent with institutional values and objectives.

Many large companies already do this -- indeed, many higher education institutions are doing so, as well – through their internal “business continuity” plans, which evolved from an earlier concentration on information technology disaster continuity plans. Typically, “business continuity management” includes functions related to risk evaluation and control; business impact analysis; strategic planning for business continuity and “recovery time”; emergency response and operations; awareness-building, education, and training; maintaining and running simulations of business continuity plans (the term used here is “exercise” rather than “simulations”); public relations and crisis coordination; and working with public authorities and NGOs. There are two main professional organizations in this nascent-yet-growing field: Disaster Recovery Institute International (DRII), and Business Continuity International (BCI), both of which provide professional development and training programs leading to certification.<sup>48</sup> They also participate in multi-organizational efforts to create universally acceptable Business Continuity guidelines.

Speaking at the mid-June World Conference on Disaster Management, the business continuity manager for Intel Corp. described their sophisticated system, which includes a “dizzily evolved ecosystem of disaster-planning teams,” with emergency response teams, emergency operations centers, issue-prevention management teams and crisis-management teams. The corporate emergency operations center meets virtually and is embedded within the company structure. The site emergency operations centers are responsible for managing their own operations and on-site issues during crises and during planning for emergencies. Intel activated this plan during the Chinese earthquake, which involved moving Intel operations

---

<sup>48</sup> More information on the Disaster Recovery Institute International can be obtained at <http://www.drii.org/DRII/>. For information on Business Continuity International, go to <http://www.businesscontinuityinternational.com>

temporarily to Malaysia and other parts of China so as to keep business running smoothly. Moreover, Intel set up a work-based shelter for earthquake victims and their families.<sup>49</sup>

Similar planning can be directed outward, to other stakeholders in host communities. This can occur in several ways: in partnership with other businesses, social enterprise, NGOs, humanitarian groups, international organizations, and government agencies; through coalitions with companies in similar industries or sectors (for example, with the media; real estate /construction; pharmaceuticals; financial services; utilities; firms within the “military industrial complex”; and so on); or independently, throughout a given company’s management operations and supply chains.

Connecting these “fiduciary dots” opens up a wealth of opportunities for collaborating with humanitarian organizations and other groups that have a vast reservoir of expertise and good will. But this means that climate change needs to be viewed through ***the urgency of now***—without losing sight of the vast and important array of sustainability actions with longer time horizons.

Within this interdependent global economic and ecosystem, there are a number of benefits to encouraging private sector resources to engage with disaster risk reduction. Chief among them is the promise of greater resilience and opportunity for those who are most vulnerable to when hazards turn into disasters. The values of innovation, transparency, cost-effectiveness, and accountability represented by successful private sector entities can be brought to bear to help locales develop risk reduction capacities, strategies, and practices that have the added benefit of improving sustainability. Doing this can help broaden the investment base while reducing the institutional divide between sustainable development and DRR, particularly if risk reduction and prevention strategies seek to integrate the UN Millennium Development Goals (MDG).<sup>50</sup>

Private sector engagement – particularly through the media industry, both “old” and “new” – with DRR / prevention also can help improve our understandings of natural disasters, and what prevention measures we can adopt to mitigate them. Through journalism and entertainment, digital interactive and moving image, the mainstream media also can facilitate fresh perspectives and proactive plans for attacking the consequences of climate change, beyond superficial ones. When catastrophes occur – as in this season’s coverage of the Burmese typhoon, the Chinese earthquake, the Midwest floods, and the Western fires – it can alert people about things they can do, taking greater personal responsibility to prevent or reduce their exposure to similar disasters. The media also can widen its lens, focusing on building resilience in recovery activity, as well as other sustainable enterprise development. As the *New York Times* does so well, the media also can illuminate shortcomings, public and private, and provide platforms for debating how to improve the policy climate, as well as the natural one. It can illuminate implementation gaps, too, because ultimately all policy pronouncements come down to day-to-day organizational and individual behavior.

<sup>49</sup> See Briony Smith, “Intel: Disasters can be ‘business as usual’ with enough planning,” *ComputerworldCanada*, 18 June 2008, at [http://computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=security&articleId=9100518&taxonomyId=17&intsrc=kc\\_top](http://computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=security&articleId=9100518&taxonomyId=17&intsrc=kc_top)

<sup>50</sup> There are eight Millennium Development Goals, which constitute a blueprint and target date of 2015 agreed to by all the world’s countries and development institutions. MDG include: eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases; ensure environmental sustainability; develop global partnership for development. Information on the MDS and progress made toward achieving them can be viewed at <http://www.un.org/millenniumgoals/>

With respect to international disasters, at the very least, the media can reduce misconceptions of populations affected by disasters, and the circumstances in which they live and seek to recover. It also can inform us about the important work of those “islands of governance” – the humanitarian aid community and other NGOs working on disaster resilience and relief – and where their efforts can be supplemented by private sector and citizen engagement. Finally, it can educate us about the immediacy of climate change, in addition to the longer-term consequences.

## THE URGENCY OF *NOW*

Put another way, the problem is not so much reducing carbon footprints as it is scrubbing the sky from their dirty tracks, and dealing with the consequences on the ground. Despite our best efforts, global warming is on automatic pilot: carbon emissions continue; are concentrated in an atmosphere whose carrying capacity is limited; and thus linger there for 100 years or more. Meanwhile, we have a situation where *existing* climate change has contributed to, if not caused, extreme fluctuations in weather patterns and an increasing pace of catastrophic events – hurricanes; floods; tsunamis; volcanic eruptions; forest fires; draught; the spread of infectious diseases; the “silent tsunami” of food shortages, if not downright famine – which pose a deadly danger to human and ecologic community.

While we have yet to figure out, before it is too late, how best to remove carbon build-up from the sky, we can do much more here on the ground about the immediate consequences: more frequent and deadly natural disasters. The “urgency of now” beckons, and the Institute for Global Leadership can respond by bridging the gaps among the humanitarian, military, and private sectors, forging new relationships and creating important opportunities for individual, institutional, and community action.

Different parts of the world tend to be more vulnerable to different types of natural disasters. For example, Central and South America are affected the most by tropical storms, floods, and volcanoes. Asia is impacted primarily by earthquakes, tropical storms, and floods. African countries are more susceptible to droughts, epidemics, and floods.<sup>51</sup>

Natural disasters affect the poor far more than everyone else, a reason, perhaps, why so little seems to be done. The United Nations Development Program (UNDP) considers poverty a major element in vulnerability to natural disasters.<sup>52</sup> According to the World Bank, **97 percent of deaths caused by natural disasters occur in developing countries**; those who are the most exposed to hazards are likely to be those who are most vulnerable to their effects.<sup>53</sup> In building disaster resilience, the challenge is not only to help poor people recover from a catastrophe, but cultivate longer-term, locally grown solutions that help assure continued sustainability.

**ADD 2007 FIGURES from SWISS RE** The disaster costs are staggering: financial losses were nearly \$350 billion in 2004 and 2005, while the economic and social losses from such events are growing. In the decade 1984-1993, 1.6 billion people were

<sup>51</sup> Alyson Warhurst, *Disaster Prevention: A Role for Business?* An exploration of the business case for reducing natural disaster risk in developing countries and for establishing networks of disaster prevention partnerships. A study commissioned by the Provention Consortium. Geneva: Provention Consortium, 2006, p. 4.

<sup>52</sup> See *Reducing Disaster Risk: A challenge for Development*. New York: UNDP, 2004.

<sup>53</sup> See *Disaster Risk Management Series – Working Paper 1: Doing more for those made homeless by natural disasters*. Washington D.C.: World Bank, 2001.

affected by natural disasters, compared to 2.6 billion during the next decade, 1994-2003. In constant dollars, disaster costs between 1990 and 1999 were more than 15 times higher (\$652 billion in material losses) than they were between 1950 and 1959 (\$38 billion at 1998 value).<sup>54</sup> According to reinsurance giant Munich Re, financial losses from natural disasters in 2004 were more than twice the 2003 level, at \$145 billion. However, the highest costs were in 2005, with losses reaching \$210 billion.<sup>55</sup> In 2007, total losses from natural disasters were \$75 billion.<sup>56</sup>

Indeed, *New York Times* op-ed columnist Charles M. Blow recently surmised that disaster costs could become unbearable. He cites figures from the World Health Organization's Center for Research on the Epidemiology of Disasters revealing that, within the past 30 years, there have been more than four times as many weather-related disasters than in the past 75 years, with the U.S. experiencing more of those disasters than any other country. Ten of the 30 costliest American hurricanes have struck since 2000, which includes adjusting the costs of inflation and rising costs of construction.<sup>57</sup>

The first of June marks the beginning of the U.S. hurricane season, which traditionally lasts for six months. According to experts at the Tropical Meteorology Project at Colorado State University, which has forecast hurricanes for the past 25 years, the U.S. Atlantic basin likely will experience a well-above average hurricane season, with 15 named storms forming there between 1 June and 30 November. Eight of these storms are predicted to become hurricanes, and of those eight, four are expected to develop into intense or major hurricanes (Saffir/Simpson category 3-4-5) with sustained winds of 111 mph. or greater.<sup>58</sup> The CSU forecasters expect a "very active" hurricane season, but "not as active as the 2004 and 2005 season." Meanwhile, the National Oceanic and Atmospheric Administration (NOAA) – which, for some reason, is located within the U.S. Department of Commerce – issued their report, While predicting hurricanes is, as best, an imperfect science with most people agreeing that their primary value lies with raising public awareness about the upcoming season. "It's a lot like Groundhog Day – and the results are worth just about as much," the *New York Times* reports.<sup>59</sup>

In the face of this, the insurance industry recognizes that its old models do not work, so is working to reconcile its *retrospective* risk models with the *proscriptive* ones used by hurricane experts and climatologists. The resulting so called "catastrophe models" forecast higher risks across the board, with rising costs as losses increase. For example, Swiss Re projects an average increase in losses from 16 to 68 percent from European winter storms between 1975 and 2085.<sup>60</sup> The Association of British Insurers (ABI) estimates an increase of hurricane and tropical cyclone losses of up to \$27 billion *in an*

<sup>54</sup> See World Bank, *Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank Assistance for Natural Disasters*. Washington D.C.: World Bank, 2006.

<sup>55</sup> See *Topics Geo — Annual review: Natural catastrophes 2005*. Munich Re, 2006.

<sup>56</sup> See *Topics Geo — Annual review: Natural catastrophes 2005*. Munich Re, 2006 and *Annual review: Natural catastrophes 2006*. Munich Re, 2007.

<sup>57</sup> Charles M. Blow, "Farewell, Fair Weather," *New York Times*, May 31, 2008. For information on the Centre for Research on the Epidemiology of Disasters, go to <http://www.cred.be>/CRED promotes research, training, and information dissemination on disasters, with a special focus on public health, epidemiology, structural and socio-economic aspects. It aims to enhance the effectiveness of developing countries' disaster management capabilities as well as fostering policy-oriented research.

<sup>58</sup> Colorado State University, "'Well Above-Average' Hurricane Season Forecast for 2008" appearing in *ScienceDaily*, which can be viewed at <http://www.sciencedaily.com/releases/2008/04/080409133718.htm> Further information on CSU's work can be viewed at <http://hurricane.atmos.colostate.edu/>.

<sup>59</sup> Associated Press, "Hurricane season outlooks of little use," *New York Times*, June 1, 2008, <http://www.nytimes.com/aponline/us/AP-Hurricane-Forecasts.html?scp=1&sq=hurricane+forecast&st=nyt>.

<sup>60</sup> Swiss Re, *The Effects of Climate Change: Storm Damage in Europe on the Rise*. Report 6/06 2500en. Cited in Evan Mills, *From Risk to Opportunity: 2007 – Insurer Response to Climate Change*. (Boston, Mass.: Ceres, October 2007), 13-14.

average year in Europe, Japan, and the U.S., tied to calculations of a 67 percent increase in premiums.<sup>61</sup> ***The worst years would bring 2 to 3 additional “Hurricane Andrews” in the U.S.***<sup>62</sup>

Because of these enormous costs and losses, the insurance industry is by far the most actively engaged in disaster risk reduction efforts because they have learned that their policies are under-priced. It is returning to its roots, looking for ways to reduce risks rather than just cover losses. This risk-based approach involves, for example, discount incentives for construction code compliance, lower energy use such as XXXXX, and XXX

According to Dr. Evan Mills, commissioned by Ceres to update its periodic report on insurer responses to climate change, the Association of British Insurers and the European Insurance and Reinsurance Federation have called upon insurers to pursue climate change solutions more actively, to ensure the preservation of private insurance markets.<sup>63</sup> Even so, this represents a small fraction of all insurers, which primarily tend to be European. “Most insurers are behind the curve in developing forward-thinking products and services in response to climate change. Only about one in ten [in the Ceres study] are working in a visible way on contributing to understanding the mechanics and implications of climate change, with a similarly small proportion incorporating those considerations into asset management,” Mills writes.<sup>64</sup>

**Figure .** “Ceres and Heinz Center Launch Resilient Coasts Initiative – Broad coalition looking to reduce risk of climate change in coastal communities,” Ceres news release, Boston, 7 May 2008.

Nevertheless, some American firms are beginning to realize that coastal protection needs are rising along with sea levels. Inasmuch as half the U.S. population lives within 50 miles of a seacoast, in early May 2008 Ceres launched a national project called the “Resilient Coasts Initiative” in conjunction with the H. John Heinz III Center for Science, Economics and the Environment. Touted within this realm as a “first-of-its-kind collaboration of private and public sector groups,” the goal of the Resilient Coasts Initiative is “to find public policy and public market solutions to better protect coastal communities from rising sea levels and other potentially damaging consequences of climate change.”

Under the direction of Christophe A.G. Toulou at the Heinz Center, over the next 12 months key priorities for the Resilient Coasts Initiative are to identify policy and market-based solutions that may include initiatives to limit new development in the most vulnerable areas; strengthen and upgrade existing buildings to prevent further losses; and promote infrastructure investments that will help communities adapt to sea

<sup>61</sup> Association of British Insurers, “Financial Risks of Climate Change,” 2005. Cited in Evan Mills, *From Risk to Opportunity: 2007 – Insurer Response to Climate Change* (Boston, Mass.: Ceres, October 2007), 13-14.

<sup>62</sup> Mills, *From Risk to Opportunity*, 14.

<sup>63</sup> CEA: The European Insurance and Reinsurance Federation, *Reducing the Social and Economic Impact of Climate Change and Natural Catastrophes: Insurance Solutions and Public-Private Partnerships*. Brussels: CEA, July, 2007. Cited in Mills, *From Risk to Opportunity*, 7.

<sup>64</sup> Mills, *From Risk to Opportunity*, 8.

level rise. Working with Ceres in addition to the Heinz Endowments, which provided seed funding, are AIG, The Travelers Companies, Inc., the Alcoa Foundation, and the chief financial officer of Florida. World renowned Risk Management Solutions, Ltd. (RMS) also is contributing substantial technical expertise on climate-driven catastrophe and adaptation modeling.<sup>65</sup>

Measuring losses in financial terms provides, of course, only a partial picture of the tangible and intangible human, economic, cultural, political, national security, and spiritual costs emerging from weather catastrophes. After all, most financial estimates are based on the premise that property loss or loss of life and livelihood are insured, or that reconstruction costs can be estimated. In most cases, the true cost cannot be measured. So, too, are the longer term costs harder to calculate: almost three years after Katrina, where losses were estimated at \$1.25 billion, many houses in the Gulf Area are still boarded up, or uninhabitable, while people continue to live in “transitional” housing – such as Renaissance Village trailer park – and have been unable to return to normal lives.<sup>66</sup> In mid-June, FEMA announced a new policy for housing disaster victims, which was tested in the aftermath of recent torrential rains and flooding affecting areas of Iowa, Missouri, Illinois, and sea level; the policy is one of several reforms enacted by FEMA after Katrina, which include speedier and more transparent coordination with state and local officials. In late July,

---

#### A CALL TO ACTION: A MULTI-SECTOR APPROACH TO FIGHTING THE FURY

Some argue that the world would be better off dealing with these consequences of climate change – exacerbated by growing concentrations of people in urban settings – rather than just fighting the causes. In their view, we should fight hunger, storm damage, and disease, rather than spend billions trying to stabilize CO<sub>2</sub> emissions.<sup>67</sup> But fighting nature’s fury is not a zero-sum game. The UN estimates that if current global warming trends continue, the number of people at risk of hunger will increase from 777 million in 2020 to 885 million by 2080. Better irrigation systems, drought resistant crops, and more efficient food transport systems would help alleviate this, in addition to other strategies to lower GHG emissions, transition to clean energy, and improve land use management. But more needs to be done to confront the spectre of natural disasters, and join forces with those who have done so for decades.

Fighting nature’s fury requires a host of actions on many fronts with many actors, transcending borders and ideologies. So far, though, these actions have concentrated on the long term. With respect to climate change, over the past few years various forms of coordinated, collective action taken by policy makers, NGOs, companies, and their stakeholders have come

---

<sup>65</sup> Ceres, “Ceres and Heinz Center Launch Resilient Coasts Initiative,” news release, May 7, 2008. In addition to those mentioned, others attending the launch included representatives from Swiss Re, Lloyd’s of London, A.M. Best, Deutsche Asset Management, Citi Smith Barney, Calvert Group, Bonita Bay Group, Jonathan Rose Companies, the Nature Conservancy, RiskMetrics Group, MIT Sloan School of Management, US Business Center on Sustainable Development, National Oceanic and Atmospheric Administration, Maryland Insurance Administration, Coastal States Organization, Center for Clean Air Policy, and the Institute for Business and Home and Safety.

<sup>66</sup> Over the course of two years and nine months, FEMA housed roughly 9,000 families in trailer parks scattered across the Gulf region, with residents enduring cramped, inadequate, and often poisonous conditions. By the end of May, most of these parks had been closed, as families moved on into their own homes. Remaining behind were those exemplifying the social ills that existed before the storm: old, unhealthy, mentally challenged; addicted, illiterate, senile, reports the *New York Times*. See “FEMA Park Closures Test Recovery Process,” *The New York Times*, June 7, 2008, available at <http://www.nytimes.com/2008/06/07/us/07trailer.html?ref=nationalspecial>

<sup>67</sup> ‘Climate change: adapt to it, don't fight it’ in Telegraph.co.uk, posted on March 26, 2008; available at <http://www.telegraph.co.uk/earth/main.jhtml?xml=/earth/2008/03/26/eaclim126.xml>. Viewed on April 1, 2008 at University of Michigan Climate Change Consortium website: <http://esse.engin.umich.edu/cc/index.php>

into being—particularly ones involving corporations, who traditionally have been reluctant players. Indeed, with respect to environmental accountability, corporate shareholders activists, not corporate boards and executives, historically have been the leaders in persuading companies to reduce carbon emissions and adopt sustainable business practices, while maintaining transparency and accountability in their efforts to do so. However well intentioned, they have yet to manage the array of vulnerabilities and risks posed by insecure environments, due to destructive forces that already have been unleashed.

Indeed, as mentioned before, we need to refocus attention and implement constructive plans that address the *immediate consequences* of climate change. Even as news reports continually show tragic images of nature’s fury, with its attendant toll on humans and our habitat, we fail to grasp that what once was exceptional has now become routine, leaving us more vulnerable than ever to the ravages of disease, despair, and destruction. We fail to grasp how much damage already has been done, preventing us from addressing the deadly ripple effect moving silently throughout the world.

It should not take much moral imagination to grasp the reality of post-Katrina New Orleans, or food riots in Haiti and 33 other countries throughout Asia and Africa. Yet because of our inability or unwillingness to fully grasp these inconvenient truths, very little policy attention focuses on reducing our vulnerabilities; mitigating the starvation, suffering, and even the loss of life and property due to weather-related disasters; or doing the hard work of reconstruction and recovery – even prevention planning – in its wake. Political preferences and pressures play a prominent role in keeping us from adequately addressing the multifaceted dimensions of disasters. Local building and real estate interests resist strong building codes and zoning restrictions in desirable areas, and special interests (homeowners, businesses, farmers) press for subsidized insurance and relief even when they fail to protect themselves.<sup>68</sup>

Humanitarian groups make appeals to help cover their operating expenses, as well as provide immediate resources and funding for survivors. Questions about the division of responsibility between state and community-based actors lead to confusion over accountability and governance. The presence of newer actors – such as the military, religious groups, labor unions, and, in small part, business – threatens the power base of more established and prominent players, which in turn can lead to suspicion and mistrust. Finally, because so much of what is involved requires behavior change at the individual and institutional level – not an easy thing, given human nature’s tendencies – the policy debate tends to rely on abstractions and far-off deadlines and benchmarks, rather than doing the right things, *right now*.

Earthquakes, hurricanes, landslides, and cyclones are immune to calendars, procrastination, and human denial, as are wildfires, volcanoes, and drought. Relief operations – rather than preventive action, such as crop management, sustainable agriculture, green building practices and hurricane resistant construction, roadway safety, or disaster resilience, readiness or reconstruction operations – understandably grab our attention, with gut-wrenching drama and pathos. When catastrophe strikes, instant worldwide coverage follows, and we sit up and take notice, as with Cyclone Nargis in Burma or the earthquake in China. Our 24/7 media environment stimulates our senses, perhaps moving us to get involved, above and beyond what an affected region may request (or, as in the case of Burma, resist), or what local and international aid organizations are able to handle. Yet there are few outlets to channel our concerns in a constructive way, beyond contributing to major relief

---

<sup>68</sup> Charles Perrow, *The Next Catastrophe*, 66-67.

organizations or, in certain cases, special funds created to funnel resources to where they are needed. (Sidebar: As we have seen in the aftermath of the Burma and China disasters, social networking over the Internet has produced new models of aid, as word travels quickly and relief networks form overnight.)

But once things settle down, we avert our eyes and return to our cloth tote bags, shop for green products, and offset our carbon footprints. We should know better. We can do better. While political leaders fiddle, our ecosystem continues to burn, drown, or melt.

Some disasters catch us by surprise, while others should not. The science of climate change provides us with data and insight about many kinds of extreme weather events, including potential losses. There are now very reputable firms that specialize in catastrophe modeling (“cat modeling”), such as London-based Risk Management Solutions, which uses a multidisciplinary design to provide reliable information on exposure estimates due to risks posed by natural disasters, weather, terrorism, and infectious disease—including a database of high-resolution images of U.S. buildings.

In an article published in *Catastrophe Risk Management* last April, Dr. Celine Herweijer, principal scientist and director of RMS’ Climate Change Practice, highlighted findings from a report on *Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes: Exposure Estimates*. The report – commissioned by the Organization for Economic Co-operation and Development (OECD), and conducted by RMS, the University of Southampton/Tyndall Centre for Climate Change Research, and CIRED/Meteo-France – is the most extensive treatment of urban coastal flood exposure ever undertaken. As shown in Figure 4, the report ranks 130 key port cities worldwide by exposure to coastal flooding, both now and as projected for the 2070s, given the likely impact of climate change (sea level rise and storminess), natural and human induced land sinking, population growth, and urban economic growth. “A key objective was to identify the hotspots (or accumulations) of human and economic coastal flood exposure today and in the future, and thus pinpoint places in which investment in adequate flood defences, resilience and disaster preparedness is, and will become, most critical,” Herweijer says.

Because flood protection does not eliminate risk – as Hurricane Katrina tragically demonstrated – exposure becomes an important measure not only for the (re)insurance industries but also for policy makers. The OECD study estimates that as many as 150 million people in large port cities could be reliant on flood protection by 2070 – more than three times the current numbers – due to climate change, subsidence, and urban development. Roughly 9 percent of projected global GDP, or **\$35 trillion**, would be exposed by the 2070s. Climate change and subsidence contribute approximately a third of the increase in exposure,” she continues. “Socio-economic growth accounts for two thirds. This statistic brings home the crucial message that, without action today to ensure sustainable development, economic growth itself will strongly aggravate the impacts of climate change on coastal flood exposure.”<sup>69</sup>

That we fail to respond with preventive action, or plans for rehabilitation and reconstruction, is a failure of leadership and political will, not a failure of foresight.

<sup>69</sup> Celine Herweijer, “How Do Our Coastal Cities Fare under Rising Flood Risk?” *Catastrophe Risk Management*, April 2008. The article can be viewed at [http://www.rms.com/Publications/Cat\\_Risk\\_Management\\_April08\\_RMS.pdf](http://www.rms.com/Publications/Cat_Risk_Management_April08_RMS.pdf) The full OECD report, *Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes: Exposure Estimates*, can be downloaded at <http://www.oecd.org/env/workingpapers>



In addition to ignoring prevention, policy makers tend not to focus on reducing our vulnerabilities. These vulnerabilities, as risk expert Charles Perrow points out, are in large measure a function of the interrelated concentrations of *energy* (e.g., explosive and toxic substances; highly inflammable substances such as dry or diseased woods and brush; and dams); *populations* (usually in risky areas, often with large numbers of poor people as well as unnecessarily high concentrations of explosive and toxic substances, such as ruptured oil storage tanks in the case of Katrina); and *economic and political power* (e.g., within the electric power industry; the Internet; food production and supply chains). “The private sector contains some of the largest vulnerable concentrations with catastrophic potential... There is a sinister side to organizational failures...and where national safety is concerned, we should be especially concerned.”<sup>70</sup>

## CLIMATE CHANGE, DISASTERS & NATIONAL SECURITY

While civilians continue to muddle through those concerned about national and international security have gone on high alert. Disaster relief and rescue have taken on new complexity and meaning in an interdependent world order, and within the past year or so, the geo-strategic security risks posed by climate change have moved to the fore among many policymakers. Climate change’s fallout effect on political stability, public health, population movements, and a region’s ability to withstand violence and conflict raise questions about the role of diplomacy, open access to innovative and efficient technologies, the responsibilities of international institutions and the private sector, and the role and responsibilities of armed forces.<sup>71</sup>

Evidence of mounting concern about the relationship between climate change, peace, and security includes:

- a **joint hearing** held in June 2008 by the House Permanent Select Committee on Intelligence and the House Select Committee on Energy Independence and Global Warming regarding the national security implications of climate change. Chaired by Rep. Edward J. Markey, committee members heard and discussed the results of the **National Intelligence Assessment**, the first-ever U.S. government analysis of the security threats posed by global warming. Witnesses included Dr. Thomasingar, deputy director of National Intelligence for Analysis and chairman of the National Intelligence Council, and Rolf Mowatt-Larson, director, Intelligence and Counterintelligence, Department of Energy. Also testifying were Margaret Beckett, MP and former foreign minister of the United Kingdom; Vice Admiral Paul Gaffney, president, Monmouth University and former president, National Defense University; Dr. Kent Hughes Butts, professor of political-military strategy, Center for Strategic Leadership, U.S. Army War College; Marlo Lewis, senior fellow, Competitive Enterprise Institute; and Lee Lane, resident fellow, American Enterprise Institute.<sup>72</sup>...
- a **book called *Global Climate Change: National Security Implications*** published by the U.S. Army War College in May 2008, containing edited proceedings of a March 2007 colloquium on climate change and national security, convened by the Strategic Studies Institute and the Triangle Institute for Security Studies.<sup>73</sup>
- a **Senate bill** last year, requesting the **National Intelligence Estimate** to assess whether and how climate change might pose a security threat;
- a **debate** last year within the **U.N. Security Council** (initiated by the British government) over the threat to peace and security posed by climate change;

<sup>70</sup> Perrow, *Ibid*, 10.

<sup>71</sup> See especially Joshua Busby, *Climate Change and National Security: An Agenda for Action* (Washington, D.C.: Council on Foreign Relations, November 2007). It can be downloaded from [http://www.cfr.org/content/publications/attachments/Climate\\_Change\\_CSR32.pdf](http://www.cfr.org/content/publications/attachments/Climate_Change_CSR32.pdf) See also Joshua Busby, “Insecure About Climate Change,” *Washington Post*, March 22, 2008.

<sup>72</sup> Prepared witness statements can be accessed at [http://globalwarming.house.gov/pubs/pubs?id=0046#main\\_content](http://globalwarming.house.gov/pubs/pubs?id=0046#main_content)

<sup>73</sup> Carolyn Pumphrey, ed., *Global Climate Change: National Security Implications* (Carlisle, PA: U.S. Army War College, May 2008), available at <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=862> A videotape of the proceedings of this conference can be viewed at [www.tiss-nc-org](http://www.tiss-nc-org)

- a **joint report** released in 2007 by the **Center for Strategic and International Studies (CSIS)** and the **Center for a New American Security (CNAS)** that concluded, “We already know enough to appreciate that the cascading consequences of unchecked climate change are to include a range of security problems that will have dire global consequences”;<sup>74</sup>
- a **report** issued in 2007 by a **blue-ribbon panel of eleven retired U.S. generals and admirals**, which stated that projected climate change will add tensions even in stable parts of the world, and concluded that, “Climate change can act as a threat multiplier for instability in some of the most volatile regions of the world, and it presents significant national security challenges for the United States”.<sup>75</sup>

Interest in climate change as a national security matter goes back at least to the late 1970s, when the CIA commissioned a study to look into the security implications of climate change. In her introduction to the book, *Global Climate Change: National Security Implications*, Dr. Carolyn Pumphrey writes that the issue gained resonance in the late 1990s when the Senate Armed Services Committee declared that environmental destruction, including global warming, was “a growing national security threat.” In 1995, the International Panel on Climate Change (IPCC) was created in part to allay these fears. “And then, in 2003, the rather notorious report commissioned by the Pentagon, ‘An Abrupt Climate Change Scenario and its Implications for United States National Security,’ provided a worst-case scenario, which suggested that climate change might have a catastrophic impact, leading to rioting and nuclear war.”<sup>76</sup>

Nowadays, the idea that climate change can lead to disastrous scenarios is generally accepted, even without the prospect of nuclear war. The economic, governance, and technical ability of state actors to respond to disruptions in areas such as Africa, Asia, the Middle East, Pakistan, China, and even the United States carries with it implications for future political, economic, and diplomatic stability. This is true especially in poorer developing countries, where the relocation and migration of refugees affected by disaster pose tremendous challenges for host countries and urban areas, taxing their systems and organizational capabilities. Because this is new territory, there needs to be continued research to understand just what these implications might be. The science of modeling human behavior, as well as integrating social, economic (including infrastructure, agriculture, and manufacturing), military and political models, continues to evolve. This will help the policy process, as well as development of scenario exercises to gauge the effectiveness of prevention and mitigation strategies. Another area to be pursued by the National Intelligence Council is the geopolitics of climate change, and how that may shift the relationship between the major powers.<sup>77</sup>

According to the *National Intelligence Assessment on the National Security Implications of Global Climate Change to 2030* – which relied upon open source science, particularly the IPCC reports and other peer-reviewed scientific material -- thawing in and around Alaska, water shortages in the Southwest, and storm surges on the East and Gulf coasts will involve costly repairs, upgrades, and modifications. Longer summers will feature more wildfires. Current infrastructure design criteria and

<sup>74</sup> CSIS/CNAS, *The Age of Consequence: The Foreign Policy and National Security Implications of Global Climate Change*, November 2007, available at <http://www.cnas.org/climatechange>

<sup>75</sup> Military Advisory Board, *National Security and the Threat of Climate Change* (Washington, D.C.: CNA Corporation, April 2007); available at [http://securityandclimate.cna.org/report/SecurityandClimate\\_Final.pdf](http://securityandclimate.cna.org/report/SecurityandClimate_Final.pdf)

<sup>76</sup> Carolyn Pumphrey, “Introduction,” *Global Climate Change*, 1-2.

<sup>77</sup> Thomas Fingar, “National Intelligence Assessment on the National Security Implications of Global Climate Change to 2030,” Statement for the Record, 20. It can be downloaded at [http://www.dni.gov/testimonies/20080625\\_testimony.pdf](http://www.dni.gov/testimonies/20080625_testimony.pdf)

constructions codes may be inadequate for climate change, and exacerbate vulnerability to increasing storm intensity and flooding.

In his testimony, Dr. Thomas Fingar, deputy director of the National Intelligence for Analysis and chairman of the National Intelligence Council who was the lead witness before the joint House hearing in June, “A number of active coastal military installations in the continental United States are at a significant and increasing risk of damage, as a function of flooding from worsened storm surges in the near-term. In addition, two dozen nuclear facilities and numerous refineries along U.S. coastlines are at risk and may be severely impacted by storms.” On top of this, he continues, “the U.S. will need to anticipate and plan for growing immigration pressures” as people from low-elevation coastal zones, such as the Caribbean, decide to move to higher ground before it is too late.<sup>78</sup>

As climate change continues to spur humanitarian emergencies, the international system will become strained, which will challenge the U.S., as well as environmental and human rights NGOs, to respond. “The demands of these potential humanitarian responses may significantly tax U.S. military transportation and support force structures,” Fingar said, resulting in a “strained readiness posture and decreased strategic depth for combat operations.

The United States’ new military area of responsibility – Africa Command – is likely to face extensive and novel operational requirements. Sub Saharan African countries – if they are hard hit by climate impacts – will be more susceptible to worsening disease exposure. Food insecurity, for reasons both of shortages and affordability, will be a growing concern in Africa as well as other parts of the world. Without food aid, the region will likely face higher levels of instability—particularly violent ethnic clashes over land ownership.

To insert a sense of urgency into the debate and pressure international institutions and countries to adopt adaptation and mitigation strategies, environmental and human rights NGOs may press to broaden the definition of “refugee” to include environment or climate migrants. Such a change would have implications for the United States, other donors, and organizations like UNHCR to provide assistance to displaced populations similar to recent efforts to provide aid to internally displaced peoples. Elsewhere, developing countries – particularly major greenhouse gas emitters – may demand that the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) be amended to allow for the production and development of generic copies of green technologies, citing the precedent of HIV AIDS drugs. Indeed, last year the European Parliament asked for an examination of whether TRIPS presented a significant barrier to technology transfer.<sup>79</sup>

Echoing the theme that climate change may worsen existing tensions and help destabilize regions and communities, especially for fledgling democracies, “it is a worthy topic for intelligence community research, military planning, and interagency cooperation,” says Dr. Kent Hughes Butts, Professor of Political -Military Strategy, Center for Strategic Leadership at the U.S. Army War College. Butts views climate change through the lens of environmental security, and believes that greater efforts should be made to mitigate climate change effects before they lead to costly humanitarian crises, intrastate conflict, regional instability, or tensions between the major powers. Global climate change places additional demands upon the political system that many developing states cannot meet; resource scarcity, lack of safe water, reduced agricultural capacity, widespread disease, and poverty create underlying conditions that terrorists seek to exploit.<sup>80</sup>

<sup>78</sup> Ibid., 15-16.

<sup>79</sup> Ibid., 16-17.

<sup>80</sup> Testimony of Dr. Kent Hughes Butts, U.S. Army War College, before joint hearing of the House Select Committee on Energy Independence and Global Warming and the Intelligence Community Management Subcommittee, 110<sup>th</sup> Cong., 2<sup>nd</sup> sess., 25 June 2008 at <http://globalwarming.house.gov/tools/2q08materials/files/0070.pdf>

Elsewhere, Butts has argued for a proactive foreign policy that tackles climate change by identifying ways to build the capacity and legitimacy of other countries and regions so that their governments will be able to deal with the problems of climate change instability themselves, before they lead to destabilizing crises or the election of alternative voices such as Hamas or Hezbollah. This promotion of adaptation / mitigation programs, he says, can facilitate multilateral and other forms of cooperation, but also will require more finely-grained intelligence community research.

The Defense Department has recognized this through its 2005 issuance of the DoD Directive 3000.05, described shortly, which prioritized stability operations by U.S. military forces and encouraged fresh thinking about “preventive defense.” Climate change can be a platform for fostering this, through interagency cooperation – with the Department of State and USAID, for example – so that our military leaders learn how to help develop the resilience capacities of host nation militaries for supporting civil authority in addressing climate change issues. In addition to the military, Butts calls for the proactive application of other components of national power – economic, diplomatic, and informational – to effectively and creatively deal with the impact of global climate change.<sup>81</sup>

Similar points are made in *Global Climate Change: National Security Implications*, based on a colloquium held in March 2007 on the topic that was co-sponsored by the Strategic Studies Institute of the U.S. Army War College and the Triangle Institute for Security Studies (TISS), a consortium of Duke, University of North Carolina – Chapel Hill, and North Carolina State University.<sup>82</sup> *Global Climate Change* contains chapters that elaborate on seven interrelated themes, including defining the problem; human security; U.S. national defense; meeting the challenge; preparing for a changed environment; opportunities and obstacles for the military; and U.S. military planning for the future. Specific articles range from climate science and threat assessment, to water scarcity, public health, public diplomacy, the role of the corporation, and the struggle against extremist ideology. Several chapters concentrate on the role of the U.S. military not only in energy conservation but also through “Military Operations Other Than War (MOOTW),” including, in collaboration with civilian authorities, disaster response. The book concludes with the observation that the military will be one of many actors, playing either a leading or support role, which opens up opportunities for interagency coordination and mutual understanding of the civil-military framework.<sup>83</sup>

While definitions vary as to the meaning of “national security,” there is general agreement that climate change deserves serious consideration as an important part of it, and that it is not just a job for the military. As has been stated before, there are many opportunities for the different sectors to respond to the threats, particularly those that fall within the short-term, such as natural disasters. A multi-sector plan of attack holds the promise for not only building resilience and reducing risk, but also for providing us with “a healthier, cleaner environment, a more stable world community, better relationships with other countries, and greater national security.”<sup>84</sup>

### III. WHOSE RESPONSIBILITY? SHARING THE BURDEN

<sup>81</sup> Kent Hughes Butts, “Climate Change: Complicating the Struggle against Extremist Ideology,” in *Global Climate Change: National Security Implications*, ed. Carolyn Pumphrey, 127-141 (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, May 2008).

<sup>82</sup> The website for the Strategic Studies Institute is <http://www.strategicstudiesinstitute.army.mil/> Information for the Triangle Institute for Security Studies can be accessed at <http://www.pubpol.duke.edu/centers/tiss/>

<sup>83</sup> *Global Climate Change*.

<sup>84</sup> Carolyn Pumphrey, “Introduction,” *Global Climate Change*, 17.

In the end, policy pronouncements always come down to implementation, and the ability / capacity of institutions – particularly local institutions – to manage their responsibilities in ways that get the job done while permitting ongoing assessment and improvement. Because disasters, by definition, present disruptions in routine, an institution’s operational expertise needs to be resilient enough to withstand these disruptions without becoming paralyzed or contributing to further confusion and dysfunction. Natural (and human) disasters invite rescue, clean up, and recovery operations that require efficient mobilization of multiple resources in a limited amount of time. Contingency scenarios and plans need to be in place; designated chains of command must be understood and followed; agreed-upon “trigger” protocols should clearly signal when to initiate and when to wind down emergency operations; command posts and backup systems need to help assure rapid response and clear communication both on-site and elsewhere, should evacuation be required; and access to backup resources (such as power reserves, medical supplies, food and water, and so on) need to be assured.

Ideally, organizations have practiced their “disaster readiness” through simulations and exercises which reveal gaps in the system. So, too, have they rehearsed disciplined post-crisis reviews to determine what did and did not work, and what further improvements in operations, procedures, and resource should be made.<sup>85</sup>

As if these tasks were not daunting enough, disasters now involve (as previously stated) many newer agents – including the aforementioned military, religious / missionary, civil society groups, and private sector responders – with varying missions, objectives, personnel capabilities, and management systems. With many actors from many sectors descending upon the scene – that is, of course, unless they are prevented from doing so, as in Burma -- multiple pressures are created through overlapping responsibilities and tasks. This form of severe uncertainty and unpredictability usually expose organizational, political, and psychological vulnerabilities that affect leadership, judgment, and the institutional capacity to respond rapidly and well. Given the “parallel universe” phenomenon, not to mention preexisting suspicion, mistrust, or discord – these sensitivities become more acute.

## THE FEDERAL GOVERNMENT: DHS & FEMA

The primary responsibility for disaster management rests with government, as it should. Yet within the United States, we rightly have criticized our government for responding to disasters in uneven ways, and for being lax in building a culture of resilience and readiness. We should keep in mind, however, that there is no formal mandate for government to take on this obligation, and remember that a substantial federal role is only about 60 years old; the federal government was not much involved in natural disasters until the 1950s. FEMA was established as the primary agent in 1979, prompted in part by a devastating report on the fragmentation and politicization of the federal response that was issued by the National Governors Association in the late 1970s. This report, which coincided with a major reorganization initiative undertaken by President Jimmy Carter, contributed to Carter’s executive order merging the separate units into the Federal Emergency Management Agency.

<sup>85</sup> There is a vast and growing literature on institutional crisis management. See especially Perrow, *op cit.*; and Rolando M. Tomasini and Luk N. Van Wassenhove, *Managing Information in Humanitarian Crisis: The UNJLC Website. A Case Study for INSEAD* (Fontainebleau, France: INSEAD, 2005).

## THE POLITICS OF DOMESTIC RELIEF

Since its beginning, most of the disaster funding emanating from FEMA has paid for higher levees and dams as well as better warning systems and escape routes for evacuation, rather than reducing basic vulnerabilities or encouraging mitigation and resilience. The expenditure of vast sums of money on construction and reconstruction as well as insurance payments and direct aid, invites corruption and sets up a repetitive cycle of rewarding vulnerability, rather than reducing vulnerability through taking preemptive action. As Charles Perrow puts it, “FEMA is not responsible for addressing our issues of basic vulnerabilities. Unfortunately, no one is. The issue has not emerged, despite all the words spilled about Katrina and other natural disasters. Being basic, these vulnerabilities have a long time horizon and there is no natural constituency with electoral power that would publicize the dangers.

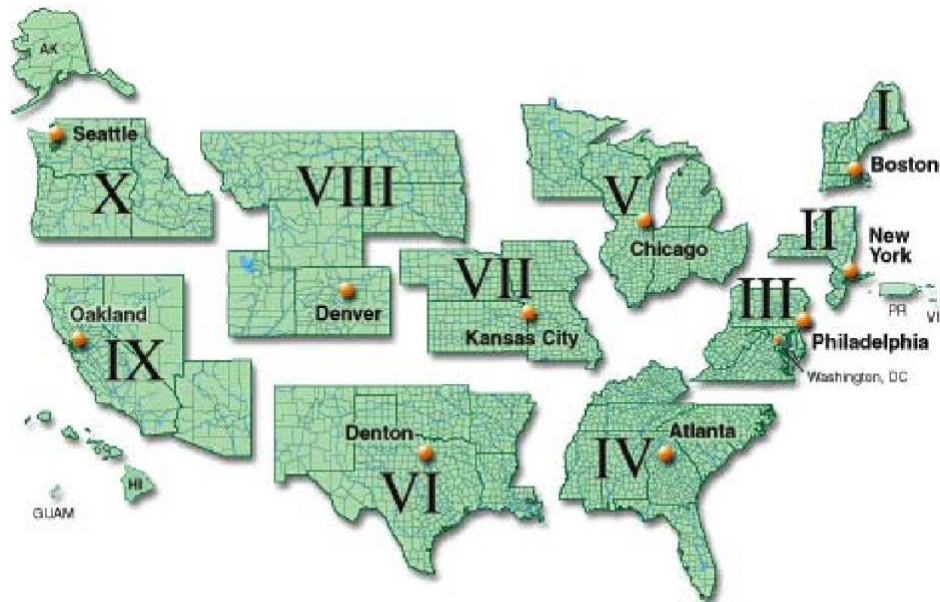
But what if FEMA were given a mandate to deal with settlement density, escape routes, building codes, and concentrations of hazardous materials in vulnerable sites? We would need a change in our mindset to make basic vulnerabilities such as the size of cities in risky areas and the amounts of hazardous materials in urban areas as high a priority as rescue and relief. But if a government agency had such a mandate (and had White House support), a government agency might be able to do it.

Governments have been successful at comparable missions; think of the Franklin D. Roosevelt administration responding to the Depression, the mobilization of the country in World War II, the Social Security program, or the John F. Kennedy administration’s drive to put a man on the moon in ten short years, under budget. Is it unthinkable that one of our political parties would put making America safe by reducing its vulnerabilities as its main goal?<sup>86</sup>

Perrow’s argument is compelling, but the political and organizational reality is quite different, mainly due to continued disagreement over FEMA’s primacy: should disaster risk reduction be separate from terrorist risk reduction, or should it be integrated with it? The answer to this question depends on who’s in charge: the organizational response has been to locate DRR responsibilities within the same organization responsible for terrorist threats, with billions of funding dollars distributed accordingly.

The ongoing tension within the Federal Emergency Management Agency (FEMA), driven by the priorities of the Department of Homeland Security (DHS), has hampered FEMA’s effectiveness regarding natural disasters, even as the federal government, in the name of “national security,” seeks to usurp the primacy of state and local responders. The DHS emphasis is on terrorism-related

events, not natural disasters, which dilutes FEMA and frustrates state and local responders who most affected. The bungled federal response to Hurricane Katrina lends credence to this view. Complicating the problem is the 2007 enactment of a law



<sup>86</sup> Perrow, “The Government Response: The First FEMA,” Chapter 3 in *The Next Catastrophe*, 43-67.

granting the President authority to federalize the National Guard without gubernatorial consent, which some view as the usurpation of the Tenth Amendment and an unjustified expansion of presidential powers.<sup>87</sup>

Meanwhile, there are few checks and balances in how the government intervenes when a natural disaster occurs, and politicians are not shy about seeking Presidential emergency declarations to get the money flowing. Many believe that one could argue credibly that government contributes to a “moral hazard” problem by not requiring individuals, businesses, and communities to take out insurance, reduce their risk exposure, or modify risky behavior—such as building homes in flood- or fire-prone areas, or along fault lines. Given this lax environment and the assurance of federal aid, government intervention is higher, while taxpayers pay more for the losses of a few.

We see it often. When catastrophe strikes, state and local responders step in to save lives, protect property, and meet basic human needs. When these needs outstrip available local resources, the affected state’s governor will ask the President to declare a state of emergency, which then triggers federal supplemental assistance through FEMA. This executive authority is rooted in the Robert T. Stafford

Disaster Relief and Emergency

Figure SEQ Figure \\* ARABIC 7 FEMA Regional Offices and Facilities Centers Source: Department of Homeland Security Office of Inspector General

Assistance Act, PL 100-707, signed into law 23 November 1988, amending the previous Disaster Relief Act of 1974. It was amended again in 2000 and 2006, when Congress passed the Pets Evacuation and Transportation Standards Act (PL 106-390). Most FEMA and FEMA related programs are funded by the Stafford Act, which provides for “an orderly and continuing means of assistance to State and local government in carrying out their responsibilities to alleviate the suffering and damage from disasters.” While this sounds good, there are limitations to the Stafford Act that pose barriers to local recovery and renewal.

The Stafford Act authorizes financial and technical support for a vast number of needs, including preparedness and mitigation assistance; general assistance for essential needs; public facility and public housing assistance; repair, replacement, and relocation assistance; debris removal; federal assistance to individuals and households; food assistance; unemployment assistance; relocation assistance; legal services; crisis counseling and training; emergency public transportation; emergency communications; fire management assistance; timber sale contracts; community disaster loans; case management services; transportation assistance to individuals and households; and assistance to essential service providers (including telecommunications, electrical power, natural gas, water and sewer, and other essential services as deemed by the President).<sup>88</sup>

The Stafford Act does not, however, allow funds to be used for the construction of permanent housing. In the case of New Orleans, pre-existing problems with inadequate housing, large numbers of abandoned, blighted or adjudicated tax properties, and significant problems with property assessment contributed to a situation that made rebuilding housing stock very

<sup>87</sup> Specifically, the law provides for federalizing the National Guard in order to “restore public order and enforce the laws of the United States when, as a result of a natural disaster, epidemic, or other serious public health emergency, terrorist attack or incident, or other condition in any State or possession of the United States, the President determines that domestic violence has occurred to such an extent that the constituted authorities of the State or possession are incapable of maintaining public order.” H.R. 5122, *John Warner National Defense Authorization Act for Fiscal Year 2007*, 109th Congress, 2nd sess., 3 January 2006, §1076. The Act and information pertaining to it can be viewed at GovTrack, <http://www.govtrack.us/congress/bill.xpd?bill=h109-5122>

<sup>88</sup> The Stafford Act is named after former Vermont governor, U.S. Representative, and Senator Robert T. Stafford, a moderate Republican and staunch environmentalist. A complete version of the Stafford Act can be downloaded from FEMA at [http://www.fema.gov/pdf/about/stafford\\_act.pdf](http://www.fema.gov/pdf/about/stafford_act.pdf)

difficult. When combined with the pre-existing racial disparities affecting the population – including poverty, health, and health care – and how these disparities became pronounced in the displaced population, you have a recipe for a “perfect storm” that continues to defy decent and just resolution. As stated in a report issued by the Health Policy Institute of the Joint Center for Political and Economic Studies, *In the Wake of Katrina: The Continuing Saga of Housing and Rebuilding in New Orleans*, “Delayed responses and poor recovery management turned what was already a tragic situation into horror stories that continue to unfold.”<sup>89</sup> Nevertheless, the bundle of environmental, economic, and housing challenges facing New Orleans are but an exaggerated reality of similar problems facing other American and international coastal cities.

According to many knowledgeable observers, compounding the problem with state and local roles is the fact that disaster assistance tends to be motivated by politics rather than need; the President’s decision to declare a disaster and the amount of funds allocated to it are determined by presidential political interests as well as those of the roughly twenty congressional committees which have oversight over FEMA. Those states which are politically important (such as Florida or California) tend to receive more aid than those which are not (such as Louisiana or Mississippi), a phenomenon not restricted to Katrina.<sup>90</sup>

FEMA’s handling of logistics remains a big problem. Several separate systems are in use for ordering, shipping, and accounting for disaster goods. This is not uncommon: a maddening dimension to disaster relief is the breakdown – or nonexistence – of logistics information systems to track the inventory, distribution, and delivery of donated goods. Related to this are “human capital problems,” as the General Accounting Office describes it.<sup>91</sup> One example of the logistics problem is CNN’s mid-June revelation that for the past two years FEMA has been warehousing \$85 million in donated emergency household supplies in the Gulf region, without getting them to intended social service beneficiaries. The unused donated items included tents, cleaning supplies, boots, buckets, bedding, clothing, plates and utensils, and camp stoves.

“We didn’t have anyone out there who told us they wanted it,” claimed the director of the Louisiana Federal Property Assistance Agency. Thus did FEMA decide the supplies were no longer needed in the stricken area, deemed them “federal surplus,” and gave them away. “These are exactly the items we’re seeking donations of right now,” responded the head of

<sup>89</sup> James H. Carr, H. Beth Marcus, Shehnaz Niki Jagpal, and Nandinee Kutty, *In the Wake of Katrina: The Continuing Saga of Housing and Rebuilding in New Orleans*. Washington, D.C.: Joint Center for Political and Economic Studies, Health Policy Institute, May 2008. The report can be obtained at [http://www.jointcenter.org/publications\\_recent\\_publications/environmental\\_projects/in\\_the\\_wake\\_of\\_katrina\\_the\\_continuing\\_saga\\_of\\_housing\\_and\\_rebuilding\\_in\\_new\\_orleans](http://www.jointcenter.org/publications_recent_publications/environmental_projects/in_the_wake_of_katrina_the_continuing_saga_of_housing_and_rebuilding_in_new_orleans) According to its website, the Joint Center for Political and Economic Studies is “one of the nation’s premier research and public policy institutions and the only one whose work focuses primarily on issues of particular concern to African Americans and other people of color.”

<sup>90</sup> See especially Perrow, *The Next Catastrophe*.

<sup>91</sup> In May 2007, the Government Accountability Office (GAO) reported that FEMA should address five areas of logistics management for an effective logistics system: **Requirements** – FEMA did not have operation plans to address disaster scenarios, nor did it have detailed information on states’ capabilities and resources; **Inventory Management** – FEMA’s ability to track supplies in-transit was limited; **Facilities** – FEMA had little assurance that it maintained the right number of facilities in the right places; **Distribution** – Problems included poor transportation planning, unreliable contractors, and lack of distribution sites; and **People** – Human capital issues were pervasive, including in the logistics area. GAO noted that FEMA was taking many actions to transition its logistics program to be more proactive, flexible, and responsive, but that it would be several years before these areas were fully implemented and operational. See William O. Jenkins, Jr., *Observations on DHS and FEMA Efforts to Prepare for and Respond to Major and Catastrophic Disasters and Address Related Recommendations and Legislation*, GAO-07835T Testimony before the Committee on Homeland Security, House of Representatives, 110<sup>th</sup> Cong., 2<sup>nd</sup> sess., 15 May 2007 at <http://www.gao.gov/new.items/d07835t.pdf>



Unity of Greater New Orleans. “FEMA refers homeless clients to us to house them. How can we house them if we don’t have basic supplies?” Instead, 16 other states took them.<sup>92</sup>

FEMA is taking steps to rectify this. In late May of 2008, one year after a similar report issued by the GAO, the Department of Homeland Security Office of Inspector General (OIG) issued its audit report stating the obvious: “FEMA’s existing information technology systems do not support logistics activities effectively.” It described FEMA’s recent efforts to improve its logistics capabilities through planning and independent evaluations, which will help move it forward. OIG then recommended that FEMA complete its logistics strategic and operational plans; develop standard business processes and procedures for logistics activities; evaluate current technologies, and obtain information technology systems to support the logistics mission. In its management response, FEMA pledged to seek a professional workforce; develop permanent and professional relationships with stakeholders; outline and document key business processes; and modernize FEMA logistics systems.<sup>93</sup>

**FEMA’s Catastrophic Disaster Planning Initiative currently uses scenarios for Louisiana (hurricane); the New Madrid Seismic Zone (affecting 8 states); Florida (hurricane); California (earthquake); Hawaii (cyclone and tsunami); and Nevada (earthquake). Nevertheless, catastrophic**

**Figure** Source: FEMA Catastrophic Disaster Planning Initiative

**According to experts, future considerations also need to be given to a tsunami in the Northwest; a volcanic eruption of Mt. Rainier; an earthquake in Salt Lake City, and an East Coast tsunami. Other weather-related disaster scenarios include droughts, crop failures, and mass**

As for disaster scenario planning, FEMA’s Catastrophic Disaster Planning Initiative identifies high-risk areas based on loss estimates and existing disaster response capabilities, relying on fifteen “National Preparedness Goals” scenarios. Based upon shortfalls and gaps, planners are able to determine response requirements. Based upon these scientific estimates, the catastrophic planning initiative currently uses scenarios for Louisiana (hurricane); the New Madrid Seismic Zone (affecting eight Midwestern and Southern states); Florida (hurricane); California (earthquake); Hawaii (cyclone and tsunami); and Nevada (earthquake). Nevertheless, catastrophic event planning can only go so far, as this spring’s Midwestern floods demonstrated. According to experts, policy makers should give future consideration to

the potential for a tsunami in the Northwest; a volcanic eruption of Mt. Rainier; an earthquake in Salt Lake City, and an East Coast tsunami. Other weather-related disaster scenarios include droughts, crop failures, and mass migrations.<sup>94</sup>

By the end of June, the U.S. Senate finally confirmed the appointment of a retired Vice Admiral from the U.S. Coast Guard as FEMA’s deputy administrator and chief operating officer. Nominated more than two years ago, Harvey Johnson had been serving in that capacity since April 2006, when the Bush administration hastily filled four senior management slots, including

<sup>92</sup> See CNN, “FEMA gives away \$85 million in supplies for Katrina victims,” 12 June 2008, available at <http://www.cnn.com/2008/US/06/11/fema.giveaway/index.html?iref=mpstoryview>

<sup>93</sup> Office of Inspector General, Department of Homeland Security, *Logistics Information Systems Need to Be Strengthened at the Federal Emergency Management Agency*, OIG-08-60, Washington, D.C.: DHS, Office of Inspector General, 30 May 2008. The report can be viewed at [http://www.dhs.gov/xoig/assets/mgmt/rpts/OIG\\_08-60\\_May08.pdf](http://www.dhs.gov/xoig/assets/mgmt/rpts/OIG_08-60_May08.pdf)

<sup>94</sup> FEMA Catastrophic Disaster Planning Initiative – EM Hi-Ed Conf. Session Report, excerpts from a presentation made by Michel S. Pawlowski, FEMA Headquarters; Carla Boyce and Dr. Jon Bushnell, Innovative Emergency Management; and Dr. Robert Smith, L-3 Communications at FEMA’s June Emergency Management Higher Education Conference, appearing in *FEMA Daily Digest Bulletin*, EMI Higher Education Activity Reports, 1 July 2008.

the top one. (Appointed as FEMA administrator was R. David Paulison, who had been serving as acting director since the resignation of Michael D. Brown shortly after Katrina.<sup>95</sup>) No stranger to FEMA's ups and downs, Johnson was involved in October 2007 with the televised "phony press conference" about the California fires, organized by FEMA's former public relations chief.<sup>96</sup>

---

#### THE NEED FOR WISER POLICY: PREVENTION AND RESILIENCE

About fifty disasters a year have been declared within the US since the 1990s. Yet relatively little of the disaster money spent, from the 1960s to the present, as been directed toward reducing basic vulnerabilities or prevention. Most of the funds were used for mitigating disasters' effects: building more and higher levees, establishing better warning systems, funding better escape routes for evacuation. To some extent, federal involvement has resulted in improving construction standards and building codes, as well as regulating land use in some risky areas, but this is relative minor when compared to the vast sums of money allocated to major construction of dams, levees, and channels, or on reconstruction, insurance payments, and direct aid.

Sadly, this kind of federal involvement has done little to reduce risk, improve our readiness, enable swift and effective relief operations, or rebuild communities devastated by catastrophic events. A GAO report from last August referred to the need for a comprehensive strategic framework to reduce the impact of disasters. Although a variety of natural hazard activities exist – such as hazard mitigation planning; strong building codes and design standards; and hazard control structures (e.g., levees) -- they primarily are implemented at the state and local level.

Public education, financial assistance, and insurance discounts can help encourage mitigation, but significant challenges exist, including the desire for local economic development in hazard prone areas, or the cost of mitigation which may limit the number of activities that occur. Even as FEMA, other federal agencies, and nonfederal stakeholders have collaborated on natural disaster mitigation, the GAO found these efforts to be fragmented, usually occurring on a hazard-specific basis or through informal arrangements. It recommended that FEMA, in consultation with other appropriate federal agencies, develop and maintain a national comprehensive strategic framework for mitigation, which would help define common national goals, establish joint strategies, leverage resources, and assign responsibilities among stakeholders.

FEMA generally agreed with these recommendations, but the new administration first must address the structural and political barriers that block fair and just intervention and prevention, as well as interagency cooperation and coordination.<sup>97</sup>

Despite our tendency to expect too much of our organizations, it did not have to be this way—yet twice in FEMA's short history it has been hijacked for other political purposes. Indeed, it always has been vulnerable to the tension between "civil

---

<sup>95</sup> Eric Lipton, "Nominations Made for Top Post at FEMA and Three Other Slots," *New York Times*, 7 April 2006, at <http://www.nytimes.com/2006/04/07/washington/07fema.html?scp=4&sq=FEMA+Harvey+Johnson&st=nyt>

<sup>96</sup> Eric Lipton, "FEMA Aide Loses Job Over Fake News Conference," *New York Times*, 30 October 2007 at <http://www.nytimes.com/2007/10/30/washington/30fema.html?scp=2&sq=FEMA+Harvey+Johnson&st=nyt>

<sup>97</sup> Report to the Ranking Member, Committee on Financial Services, *Natural Hazard Mitigation: Various Mitigation Efforts Exist, but Federal Efforts Do Not Provide a Comprehensive Strategic Framework*, GAO-07-403 House of Representatives, 110<sup>th</sup> Cong., 1<sup>st</sup> sess., August 2007 at [www.gao.gov/cgi-bin/getrpt?GAO-07-403](http://www.gao.gov/cgi-bin/getrpt?GAO-07-403). See also Elaine Karmarck, "Fixing the Department of Homeland Security," *Progressive Policy Institute*, Policy Report, November 2007. Available at <http://www.ppionline.org/documents/FixingDHS11142007.pdf>

defense from terrorism” and “natural disaster readiness and relief,” internal turf battles among autonomous agencies and external meddling, particularly from Congressional committees.

After its brief history in the Carter administration, FEMA became the locus for civil defense more than disaster relief; the Reagan administration used FEMA to help fight the “evil empire” by linking FEMA to the military and the National Security Council and setting up a Civil Security Division to teach civilian police how to handle agitators and terrorists. It also charged a small division within FEMA called the National Preparedness Directorate (NPD) with developing a classified computer and telecommunications network to ensure the continuity of government in the event of a nuclear attack. Meanwhile, FEMA’s own disaster relief personnel could not have access to it; it was “top secret,” with only the Defense Department and the National Security Council having access. “Natural disasters took a back seat to bomb shelters in homes and mass evacuation plans,” writes Charles Perrow in his review of FEMA’s history. “Now, nuclear defense would be secretly revitalized in FEMA...despite the fact that since the late 1960s, the public’s support for large civil defense programs had waned.”<sup>98</sup>

With its emphasis on civil defense against the threat of a Soviet attack, throughout the 1980s FEMA was beset with scandal, organizational turmoil, and political conflict, and became a dumping ground for political cronies. When Hurricane Andrew hit Florida in 1992, during the administration of George H.W. Bush, FEMA was slow to respond and eventually bypassed by White House transmission of 7,000 federal troops, which eventually grew to 20,000, including nineteen generals. It was not until the Clinton administration, under the rubric of “reinventing government,” that FEMA was “reformed” and reverted to its original mission. In 1992, President Clinton appointed James Lee Witt to reform FEMA and made it a cabinet-level agency, reporting directly to the president; what followed was a reorganization that bolstered FEMA’s effectiveness. Witt also negotiated with the National Security Council and DoD to get portions of its information technology declassified so FEMA could use them.<sup>99</sup>

Despite these structural advances, FEMA was still at the mercy of electoral politics and Congressional committees, limited in its technological capabilities, and unable to implement forceful incentives for flood mitigation efforts and tighter enforcement of flood insurance requirements. These constraints matched with other basic vulnerabilities – such as dense settlements in high-risk areas, pressures for subsidized insurance and relief even without taking out insurance, and lax enforcement of building codes – continued to plague FEMA’s effectiveness.

By the time of the current Bush administration, FEMA’s mission and organizational importance once again was eclipsed by concerns about terrorist attacks rather than hurricanes, tornadoes, floods, wildland fires, or landslides. It seems not to matter that more death and destruction from natural and industrial disasters have occurred in the seven years since 9/11 than those occurring from terrorist activity.

The challenge for the next administration will be to reassemble the building blocks of emergency readiness, and make the system work. This is the point made in a provocative report, *Managing the Next Domestic Catastrophe*, issued recently by the Center for Strategic and International Studies. According to authors Christine E. Wormuth and Anne Witkowsky, “The key

---

<sup>98</sup> Perrow, *The Next Catastrophe*, 54-59.

<sup>99</sup> *Ibid.*, 54-64.

for the next Administration will be to bring order to the relationships, processes, and implementation of its homeland security system.

Which organizations at the federal, state, and local level will perform what roles, who is the lead official at each level of the response, and how do all the players work together as a team? What processes should guide how stakeholders interact and ensure that everyone is working toward the same goals? What plans are needed to prepare the government to deal effectively with future catastrophes, and how should government at all levels decide what it needs so that it can execute those plans? Finally, how can the government translate its strategies and plans into trained and ready capabilities on the ground that can be deployed effectively in accordance with comprehensive, integrated plans developed in advance of a specific catastrophe?

Many of the building blocks required to move the country toward being truly prepared to handle a catastrophe already exist in some form, but the next Administration needs to bring the pieces together, fill in the gaps, and provide the resources necessary to get the job done.<sup>100</sup>

Nevertheless, in spite of these chronic structural and political problems, the regional FEMA infrastructure proffers a vehicle for professional development and training, in partnership with universities such as Tufts having a high credibility in emergency management and public service. This summer's forum on higher education and emergency management, sponsored by FEMA Region I and held at UMass Boston, is a good precedent. Later, I describe the opportunity for just such a linkage with another Homeland Security program, the Citizen Corps, which also exists to help with emergency response but has floundered in achieving its mission and evolved in a different, far less potent, direction.

## DEFENSE DEPARTMENT FRAME CHANGE

Most Americans do not realize the extent to which the U.S. armed services are involved in international relief operations, which is part of the military's transformation as the scope of security concerns widen, breaching disciplines and, sometimes, sovereign borders. Yet there are no discernible military forces on rapid alert to respond to a catastrophe here at home. The next President will be in a position to address this, and several recommendations have been made. One that is especially intriguing is Wormuth and Witkowsky's proposal that regional homeland security task forces, drawn largely from existing National Guard units, be created to complement regional homeland security hubs. They would serve as a military complement to the FEMA regional offices.

The next Secretary of Defense and Chief of the National Guard Bureau should work closely with governors and U.S. Northern Command (NORTHCOM) to organize National Guard-led homeland security task forces in each region. Not only would these task forces create a focal point for regional military planning, exercising, and training, they would ensure that each region of the country has a rapid response force able to help bridge the three- to five-day gap between the immediate aftermath of an event, when local first responders are the only capabilities on the scene, and the arrival of most federal capabilities.<sup>101</sup>

Given current American "war fatigue" and a general desire to reduce dramatically our military engagement in Iraq, it may be premature to consider redeployment to homeland security purposes, especially when the term "homeland security" carries unpleasant baggage. Nevertheless, the role of the U.S. military in planning for and responding to disasters falls within the category of non-combat operations or, as mentioned earlier, "Military Operations Other Than War (MOOTW)."

<sup>100</sup> Christine Wormuth, principal author, and Anne Witkowsky, contributing author, *Managing the Next Catastrophe – Ready (or Not)?* Washington, D.C.: Center for Strategic and International Studies, June 2008. The report can be downloaded at [http://www.csis.org/media/isis/pubs/080606\\_managingthenextdomesticcatastrophe.pdf](http://www.csis.org/media/isis/pubs/080606_managingthenextdomesticcatastrophe.pdf)

<sup>101</sup> Wormuth and Witkowsky, Executive Summary, *Managing the Next Catastrophe – Ready (or Not)?* p. 13

A conference held in March 2007 examined the role of the military with the context of climate change and national security, specifically with respect to the role of the military. The aforementioned gathering was co-sponsored by the Strategic Studies Institute of the U.S. Army War College and the Triangle Institute for Security Studies (TISS), a consortium of Duke, University of North Carolina – Chapel Hill, and North Carolina State University. Participants included academics and members of the U.S. government and armed forces.<sup>102</sup> In his synopsis and concluding remarks, Dr. Richard Weitz, a senior fellow and director of program management at The Hudson Institute identified several areas of agreement and disagreement emerging from the discussions. There was general consensus that:

- climate change is real and poses a problem for national security;
- this also applies to U.S. allies and Americans living with them;
- climate change could foster more U.S.-led humanitarian interventions;
- the military can enhance the capabilities of its forces to undertake humanitarian missions, while taking adaptive measures to reduce the impact of climate change on operational readiness;
- the military alone cannot manage the consequences of climate change’s multidimensional and wide-ranging threats;
- an interagency approach is needed that involves deep and sustained collaboration between the military and a range of civilian agencies, from the intelligence community to climate scientists.

As for areas of disagreement, Dr. Weitz identified the following points of contention:

- differences regarding the definition of what constitutes a “climate change” issue as opposed to one concerning related environmental, economic, or energy security issues—yet general agreement that consensus over these terms is irrelevant compared to a recognition that significant impacts will occur on the natural world and especially upon human behavior;
- the immediacy of the threat posed by climate change;
- problems associated with viewing the military as the “go to” agency for every major security issue, including climate change, which increases budgetary requirements and resources directed to the defense budget rather than other under-funded civilian agencies;
- differences regarding the harmony between dealing with the national security consequences of climate change and other goals, e.g., the promotion of “soft power” and a “virtuous cycle” as a result of limiting climate change’s negative effects, which produce other ancillary benefits to U.S. national security objectives, versus budgetary tradeoffs and under-funding of other priorities, and other conflicts and spillovers. The 2004 Asian tsunami and subsequent U.S. relief operations demonstrate the potentially positive that accrue from the limited application of U.S. military power to natural disasters, particularly concerning U.S. public perceptions in a predominantly Muslim area, yet it is unclear whether this form of soft power can be replicated in other instances—particularly if it was seen as an attempt to pursue regime change under the cloak of humanitarianism;
- Although participants agreed that the U.S. military must incorporate climate change into its assessment and planning processes, not all elements of the military appear to be ready or willing to do so. References were made to the fact that regional combatant commanders are beginning to consider how to incorporate climate change into their own agendas, but it is not their main focus, nor are there force personnel assigned solely to deal with climate change. Moreover, combatant commanders tend to focus on the short term, in two- to four-year windows, which is their rightful responsibility;
- fighting climate change is not the main reason most people join the military, and the Pentagon appears more hesitant to make long-term plans. The same cultural and intellectual barriers to dealing with climate change within the armed services arise as they do in the cases of post-conflict reconstruction or state-building interventions: it is not the role that most people attribute to the military. There is no intramilitary consensus on the future role the U.S. armed forces must play to prepare for the national security

<sup>102</sup> A videotape of the proceedings of the Climate Change and National Security conference can be viewed at <http://www.pubpol.duke.edu/centers/tiss/programs/reports/confrecs00-10.php>

implications of climate change, and whether or not; and to what extent, this should affect future force structure decisions.<sup>103</sup>

XXXXXXXXXX

Related to this, the American military is more environmentally conscious than is widely-recognized which, to some extent, writes Dr. Carolyn Pumphrey of the Triangle Institute of Security Studies, is policy driven. “The energy Policy Act, for example, makes energy conservation on bases a requirement.<sup>104</sup> U.S. Army *Field Manual 3-100.4* stresses environmental stewardship.<sup>105</sup>

However, interest in environmental issues goes beyond grudging acquiescence to orders given by civilian ‘bosses.’ Some regional commanders have insisted on environmental engagement in the face of resistance from above. Environmental security and disaster prevention, response, and recovery are now looked upon as acceptable military missions in that they are viewed as essential elements of regional stability.<sup>106</sup> And agencies like the Army Environmental Protection Agency work hard to promote advances in this area. At the same time, the Armed Forces continue to be committed first and foremost to the warfighting mission.<sup>107</sup>

But the U.S. armed forces also are major consumers of energy and, particularly when engaged in warfare, contribute to climate change and global warming, which compel them help find solutions and mitigate the damage. Because peacekeeping and stabilization are now an official part of the military’s core mission (see below), the armed forces are in a good position to play a supporting role in disaster relief, in keeping with proper civil-military protocols. Its worldwide presence, ability to handle emergencies, and vast arsenal of resources at its disposal place it in a strategic position to handle disaster relief very well.

This is a reactive, *ipso facto* posture. One hopes that our military would begin to adopt a more proactive stance, in concert with climatologists and other scientists and policy professionals, to plan for climate change and help develop preventive strategies for building resilience. As Dr. Douglas V. Johnson II, a research professor of national security affairs at the Strategic Studies Institute puts it, “Suppose we were to write a National Security Act of 2010. I see no reason why we could not use it to heighten awareness of those kinds of environmental issues which pose a threat to the integrity of the United States first, and then its allies and friends, in that order.

If we are indeed facing – as everyone now thinks we are – inundation of the coast and low-lying waters; if 20 percent of Florida is going to go under water as the sea level rises, should we not be seriously interested in this? Do we actually believe that this will happen? Can we begin to plan for this? It does not matter the color of the suit that does the planning.

One would hope that in this National Security Act of 2010 (which, by the way, has been on our plate for about 15 years) we might mandate, as an act or law, a means of integration of climatological information across government agencies. We created the Central Intelligence Agency (CIA). Cannot we write a law that says this intelligence agency can talk to environmental people? We created the national Security Agency. Can we not give it new properties that make it something other than the personal pet of the present president? Do we want to establish some connecting mechanism that will allow us to talk to nongovernmental organizations, private voluntary organizations, and people like that who are, as mentioned, not really comfortable getting close to military guys? Why not?

There is an awful lot of interest in doing this. What if environmental security were to become a part of the National Security agenda and become incorporated into the National Security Act of 2010? Can it happen? Absolutely! Can we get

<sup>103</sup> Richard Weitz, “Synopsis and Concluding Remarks,” *Global Climate Change*, 408-419.

<sup>104</sup> David A. Sheets, “Military Technology and Renewable Energy,” *Global Climate Change*, 302-311.

<sup>105</sup> Karen Lesley Hulme, “Warfare and Climate Change,” *Global Climate Change*, 312-332.

<sup>106</sup> Burt B. Tussing, “The Role of the Military in Civil Support,” *Global Climate Change*, 347-365.

<sup>107</sup> Carolyn Pumphrey, “Introduction,” *Global Climate Change*, 9.

it to do the right thing? Absolutely! How do we go about it? The guys in uniform understand the need for this. The average guy for whom you vote, either in local elections or national elections, hasn't got a clue. So, what I am telling you is that there is a possibility of bringing all of this together in a synergistic fashion in about 6 years. Maybe. Is that too late? I do not know.<sup>108</sup>

#### ADD MORE from Burt Tussing...

Admiral Keating, speaking at the Pentagon briefing described earlier, included reference to other relief operations besides Burma and China in his remarks. He described the presence of the *USS Mercy*, a hospital ship stationed in the Philippines that provides medical and dental assistance; last year, similar assistance was provided to those in need by the *USS Peleliu* and her team. "Whether it's Marine and Navy folks on the ships off the coast of Burma or Air Force on C-17s, we're providing significant disaster assistance relief all throughout the Pacific, in addition to our primary job of defending the homeland.

We have two C-17s, one of them in Thailand and one in Cambodia out of Pacific Air Forces, that carry with them a smaller complement of doctors and nurses and dentists and engineers that land in kind of out-of-the-way places to provide assistance [which includes] veterinary medicine. It's a much bigger deal than some folks might assume, but the vets on these flights have already seen 250 some animals, including pets, in addition to seeing hundreds of patients.<sup>109</sup>

Earlier this year, the U.S. had sent China two planeloads of blankets and tents following a cold snap that stranded some 400,000 people at a railway station; indeed, China, along with many other nations, had offered relief to the U.S. in the aftermath of Hurricane Katrina.

#### Transition...

In late 2005, the Defense Department issued its Directive for Stability, Security, Transition, and Reconstruction (SSTR) as a core component of DoD policy and operations.<sup>110</sup> The Directive requires that SSTR be "given priority comparable to combat operations and be explicitly addressed and integrated across all DoD activities including doctrine, organizations, training, education, exercises, materiel, leadership, personnel, facilities, and planning." By definition, logically speaking, stability operations establish order, thus enabling the advancement of U.S. interests and values and protection of the international system.

The Defense Department SSTR Directive continues by specifying the purpose and objectives of engaging in these activities, a responsibility that transforms the military mission by widening its scope. The Directive also refers to citizen engagement and partnership with other sectors, including other government agencies and institutions (both U.S. and foreign); global and regional international organizations; U.S. and foreign nongovernmental organizations; and private sector individuals and for-profit companies. Section 4.2, the Policy section of the Directive, states: "The immediate goal often is to provide the local populace with security, restore essential services, and meet humanitarian needs. The long-term goal is to help develop indigenous capacity for securing essential services, a viable market economy, rule of law, democratic institutions, and a robust civil society."

<sup>108</sup> Douglas V. Johnson, II, "The Strategic Challenges of the U.S. Army in the Face of Global Climate Change," *Global Climate Changes*, 377-378.

<sup>109</sup> Keating DoD briefing, May 28, 2008.

<sup>110</sup> Department of Defense Directive 3000.05, "Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations," 28 November 2005.

--ADD MORE / TRANSITION--

## STATE AND LOCAL GOVERNMENT

Surprisingly, there are no agreed-upon comprehensive guidelines for measuring the capabilities of states, cities, and towns to assure that they are prepared for the worst. There have been significant and hard won improvements since 9/11, including the National Response Framework (NRF) issued last March by FEMA, but they have been primarily at the federal level; arguments persist that, while concerted efforts were made to involve state and local representatives in the drafting process, underlying weaknesses in that relationship with FEMA and DHS were revealed. Many state and local officials view DHS and FEMA as paying lip service to the importance of state and local contributions on policy issues, while acknowledging the enormous difficulties in achieving the collaborative goals that states and localities seek.

Nevertheless, preventing, protecting against, preparing for, and responding to natural disasters are basic tasks of government at all levels. After all, assuring public safety is the government's job, and this spring's spate of floods and tornadoes has strained the capacity of state and local government to respond. The federal government cannot manage a crisis occurring thousands of miles away, especially when FEMA regional offices are weak, but it can release financial support. For unity of effort to emerge, changes in within the Department of Homeland Security and at the state and local level need to occur. Recent proposals for doing this were discussed during a forum on "Homeland Security After the Bush Administration," hosted earlier this year by Stanford University's Center for International Security and Cooperation (CISAC). They include:

- appointment of far more senior officials to DHS who are "street smart" in state and local government operations;
- reestablishment of an Office of State and Local Government Coordination (OSLGCP), which currently is buried in the DHS Grants and Training Unit;
- improvement in the manner in which states and localities select their representatives to participate in homeland security policy deliberations;
- restructuring DHS grants to states and localities so as to facilitate *regional cooperation*, rather than competition, and *planning capacity*, rather than equipment purchases;
- improvement of risk-based strategies for grant funding, moving beyond "incident management" thinking and more toward "sustainable resilience," which recognizes that some regions can provide "surge capacity" for other areas more vulnerable to disaster.<sup>111</sup>

So far, to the average citizen, the federal role seems primarily to be as emergency benefactor, unleashing millions of dollars in local aid after appeals for federal disaster assistance as authorized by the Stafford Act. Yet there is little, if any, public attention to the provisions of this Act; nor is there any visible accountability regarding the amount of dollars requested, where the money actually goes, and whether or not it has made a material difference. Until checks and balances are restored, in part through invigorating FEMA regional offices, this likely is to remain the case.<sup>112</sup>

<sup>111</sup> Paul N. Stockton and Patrick S. Roberts, "Findings from the Forum on *Homeland Security After the Bush Administration: Next Steps in Building Unity of Effort*," *Homeland Security Affairs*.

<sup>112</sup> Wormuth and Witkowsky, Executive Summary, *Managing the Next Catastrophe – Ready (or Not)?* p. 13.



Currently, state and local response to catastrophe tends to be (pun intended) haphazard, at the mercy of a bureaucratic maze of agencies with uneven integration or coordination. A better method involves strengthening more open, community-based, multi-stakeholder capabilities that emphasize coalitions and partnerships, rather than centralized, hierarchical control.

At the moment, state and local officials face a dizzying array of requirements and resources pertaining to emergency management.<sup>113</sup> Even as disaster scenarios are becoming more complex and destructive, compliance requirements for federal support come from an alphabet soup of agencies: the Department of Homeland Security (DHS), Emergency Management, Continuity of Operations (COOP), and Continuity of Government (COG) have different reporting systems. So do other government agencies providing relevant services, such as the National Incident Management System (NIMS) and its Multi-Agency Coordination System (MACS); the Incident Command System [ICS]; the National Preparedness Goal and Target Capabilities List; the Critical Infrastructure Protection Plan (CIPP, which involves data storage, not bridges and dams); and the Department of Health and Human Services (DHHS).<sup>114</sup> Many emergency practitioners believe that the NIMS / ICS system is badly broken and needs revision; others claim that they provide simple and flexible tools, yet must be integrated better into academia and emergency planning, preparations, and response.<sup>115</sup>

Not surprisingly, a plethora of security companies and consultants have emerged, offering services to vulnerable communities that need help in building and sustaining their emergency management plans, which include problems associated with informational technology, communication systems, debris removal, water and wastewater management, and supply chain management.

On 22 March 2008, in an attempt to harmonize and coordinate the disparate elements, FEMA unveiled its National Response Framework (NRF), which sets forth “guiding principles, roles, and structures that enable all response partners to prepare for and provide a unified national response to disasters and emergencies – from the smallest incident to the largest catastrophe. The *Framework* establishes a comprehensive, national, all-hazards schematic for domestic incident response.”<sup>116</sup> It also

<sup>113</sup> See especially the resource list for state and local officials maintained by the U.S. government at [http://www.usa.gov/Government/State\\_Local/Disasters.shtml](http://www.usa.gov/Government/State_Local/Disasters.shtml). Additionally, the Municipal Research Services Center, based in Washington State, maintains a comprehensive clearinghouse of the various programs and requirements pertinent to disaster management. It can be viewed at <http://www.mrsc.org/Subjects/PubSafe/emergency/EM-Planning.aspx#General>

<sup>114</sup> The *National Incident Management System (NIMS)* was developed by the Federal Emergency Management Agency (FEMA) to provide a system that would help emergency managers and responders from different jurisdictions and disciplines work together more effectively to handle emergencies and disasters. Cities and counties needed to formally adopt NIMS by 30 September 2005 through an ordinance, resolution, or proclamation. According to FEMA, *Continuity of Operations (COOP)* planning guidance can help state and local governments develop or update contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations. Continuity of Government (COG) standards exist for fire departments (available at <http://www.nfpa.org/assets/files/PDF/NFPA1600.pdf>); law enforcement; succession, personnel, transportation and evacuation management; and so on, usually determined at state and local levels.

<sup>115</sup> Report of “Incident Command System for Educators,” a breakout session by Philip Politano and Martin H. Singer of the FEMA Emergency Management Institute, held during FEMA’s June 2008 Emergency Management Higher-Education Conference, as reported in *FEMA Daily Digest Bulletin*, 4 July 2008.

<sup>116</sup> More on the National Response Framework and the work of FEMA’s Emergency Management Institute can be viewed at <http://www.fema.gov/emergency/nrf/>

describes how communities, tribes, states, the federal government, the private sector, and nongovernmental organizations can work together to coordinate national response.

---

#### PROMISES TO KEEP: NOLA, KATRINA & AMERICA'S BROKEN COVENANT

Hurricanes have flooded New Orleans six times within the past century, in 1915, 1940, 1947, 1965, 1969, and 2005. In 2008 New Orleans remains a disaster zone, despite the city's best efforts and the help of thousands of volunteers, multiple investors, and federal and state government.

There are many reasons for this, but what is important to keep in mind is the disparate impact Katrina had on its residents. In addition to devastating New Orleans infrastructure, Hurricane Katrina's worst impact was on those residents least equipped to rebuild and recover. Overall, Katrina and its storm surges affected more than 200 continuous miles of the Gulf coast, displacing more than one million people in an area covering 92,000 square miles. More than 250,000 homes were flooded, 62,000 buildings destroyed, 12,000 businesses shut down, and 1,600 people lost their lives. Standing water lasted for a month, amplifying the initial damage and creating ancillary environmental and public health problems. Since then, the recovery process has been sporadic, unevenly distributed across neighborhoods despite the emergence of a Unified Plan.

New Orleans was hardest hit, primarily due to the failure of the levees to protect it. An analysis conducted by an independent team of professional engineers and researchers funded, in part, by the National Science Foundation reported that four-fifths of the flooding was caused by poor performance of the flood protection system, due to localized engineering failures, questionable judgments, and errors involved in the detailed design, construction, operation, and maintenance of the flood protection system. Led by UCal-Berkeley, the 35-member Independent Levee Investigation Team (ILIT) drew upon *pro bono* expertise covering a diverse array of professions.

The ILIT report includes 15 chapters, with highly detailed analyses. The ILIT points out that the design of New Orleans' levees was for largely unpopulated agrarian land. "Design levels of safety and reliability were nowhere near those generally used for major dams, largely because dams are considered to pose a potential risk to large populations.

There are few U.S. dams that pose risk to populations as large as the greater New Orleans region, however, and it is one of the recommendations of this study that standards and policies much like those used for "dams" should be adopted for levee systems protecting such regions.

Another major cause cited by ILIT were "more global "organizational" and institutional problems associated with the governmental and local organizations responsible for the design, construction, operation, maintenance, and funding of the overall flood protection system." For adequate protection to occur, changes will be needed in "the process by which these types of large and critical protective systems are created and maintained. It will not be feasible to provide an assured level of protection for this large metropolitan region without first making significant changes in the organizational structure and interactions of the national and more local governmental bodies and agencies jointly responsible for this effort." ILIT recommends, for example, that a "highly reliable" FEMA be restored to Cabinet status and that the White House appoint a new Council for Catastrophic Risk Management and given responsibility for disaster preparation and response. Congress, too, should establish a similar body, with incentives to deal with potential national, regional, and local disasters. Other structural recommendations include reorganization and modernization of the Army Corps of Engineers, and development of a

National Flood Defense Authority (NFDA) to oversee the design, construction, operation, and maintenance of flood control, with an equivalent unit in each state.

“There is also a need to resolve dysfunctional relationships between federal and more local government, and the federal and local agencies responsible for the actual design, construction and maintenance of such flood protection systems,” ILIT continues. Some of these groups need to enhance their technical capabilities.

A long-term expense that would clearly represent a prudent investment at both the national and local level, given the stakes as demonstrated by the losses in this recent event. Steady commitment and reliable funding, shorter design and construction timeframes, clear lines of authority and responsibility, and improved overall coordination of disparate system elements and functions are all needed as well.

And there is some urgency to all of this. The greater New Orleans regional flood protection system was significantly upgraded in response to flooding produced by Hurricane Betsy in 1965. The improved flood protection system was intended to be completed in 2017, fully 52 years after Betsy’s calamitous passage. The system was incomplete when Katrina arrived. As a nation, we must manage to dedicate the resources necessary to complete projects with such clear and obvious ramifications for public safety in a more timely manner.<sup>117</sup>

Thus far, the Army Corps of Engineers has spent roughly \$4 billion of the \$14 billion Congress set aside to repair and upgrade the metropolitan area’s hundreds of miles of levees by 2011. This past May, after \$22 million in repairs, one of the levees started leaking again due to the mushy ground on which New Orleans was built, raising serious questions about the ability of the city’s flood defenses to withstand another catastrophe. “Fixing the 17<sup>th</sup> Street Canal floodwall has been one of the most expensive and laborious repair jobs since the storm and has served as something of a test case for scientists and engineers, who plan to apply the lessons learned to the city’s other levees,” reported the Associated Press.<sup>118</sup>

--ADD MORE / Broadmoor / George Penick / Bob Tannen / Tufts volunteer experience--

Meanwhile, economic tensions continue to persist between black and Latino residents who compete for jobs and housing.<sup>119</sup>

Hurricane Katrina also took a toll on the New Orleans Police Department, which lost 500 officers and currently is recruiting nationwide. Back in September 2005, roughly 11,700 National Guard troops were deployed to augment the NOPD; many of these troops had recently returned from overseas assignments and were accustomed to using lethal force.<sup>120</sup> Three years later, the Guard continues to help maintain law and order by patrolling the hardest-hit New Orleans neighborhoods. Much of their work involves property inspection and protection, as many abandoned buildings remain vulnerable to looting; violent crime tends not to occur where vacant properties sit, often sharing space with stolen cars that are dumped there. Guard members work 12-hour shifts, one day on, one day off, patrolling in squad cars and on foot. They function as a kind of junior partner to the New Orleans Police Department, able to detain people but not arrest them. At the end of May, Governor

<sup>117</sup> See Independent Levee Investigation Team, “Executive Summary,” Investigation of the Performance of the New Orleans Flood Protection Systems in Hurricane Katrina on August 29, 2005,” 31 July 2006. pp. xxiv, xxv. The Final Report in its entirety can be downloaded at [http://www.ce.berkeley.edu/~new\\_orleans/](http://www.ce.berkeley.edu/~new_orleans/)

<sup>118</sup> Cain Burdeau, AP, “Leaking levee in New Orleans alarms experts,” *Boston Globe*, 22 May 2008, at [http://www.boston.com/news/nation/articles/2008/05/22/leaking\\_levee\\_in\\_new\\_orleans\\_alarms\\_experts](http://www.boston.com/news/nation/articles/2008/05/22/leaking_levee_in_new_orleans_alarms_experts)

<sup>119</sup> David Greene, “Tensions Persist Between Blacks, Latinos in New Orleans,” with Deborah Amos, NPR broadcast, 14 July 2008, which can be heard at <http://www.npr.org/templates/story/story.php?storyId=92510412>.

<sup>120</sup> Peter Whoriskey and Susan Levine, “Guard Troops Descend on New Orleans,” *Washington Post*, 3 September 2005, at <http://www.washingtonpost.com/wp-dyn/content/article/2005/09/02/AR2005090200670.html>

Bobby Jindal extended their tour of duty through the end of 2008, so that 200 will remain. The State pays about \$1 million a month for the Guard's services.<sup>121</sup> Meanwhile, the police department continues its recruiting drive, with 1,470 officers now on the force, compared to 1,668 pre-Katrina.<sup>122</sup>

The Urban Institute maintains an excellent collection of readings on the impact of Hurricanes Katrina (29 August 2005) and Rita (24 September 2005), and the subsequent rebuilding challenges facing New Orleans and the Gulf Region, particularly the role of nonprofits. Issue areas covered include housing; children and families; arts and culture; disaster preparedness; community health; and poverty reduction and asset development. In many cases, the studies draw on the lessons learned from other disasters or demonstration projects aimed at revitalizing a city or strengthening the social and economic fabric of communities

Another important resource is the Rand Gulf Policy Studies Institute, XXX

## PROMOTING VOLUNTARY ACTION: TRANSFORMING THE CITIZEN CORPS

Largely unnoticed by most Americans, a network exists committed to the notion of readiness and relief, created in the wake of 9/11. It is called the Citizen Corps, and I was somewhat surprised to discover it.

In January of 2002, President Bush used his State of the Union address to issue a "call to service," rooted in his sense of "compassionate conservatism." The SOU speech conveyed the President's vision for a "new culture of service, citizenship, and responsibility" in America, building on the "countless acts of service, sacrifice, and generosity that followed September 11," and announced the establishment of USA Freedom Corps (US AFC) to help achieve it. USA Freedom Corps would be based in the White House, and was intended as a clearinghouse to promote new volunteer initiatives, partner with national service organizations, help strengthen the nonprofit sector, and connect people to volunteer opportunities.<sup>123</sup>

One wing of the Freedom Corps was the Citizen Corps, which would stimulate American voluntarism in community-based homeland security efforts and be coordinated by FEMA. Community-based Citizen Corps Councils would promote local involvement, develop community action plans, assess possible threats, identify local resources, and coordinate other Civilian Corps programs. The Councils were intended to be broad based, including leaders from law enforcement, fire and emergency medical services, businesses, community-based institutions, schools, places of worship, health care facilities, public works, and "other key community sectors." Citizen Corps volunteers would be able to participate in a number of programs that matched their skills and abilities.

According to the original 2002 White House press release, these Councils would coordinate local Citizen Corps programs, including:

<sup>121</sup> JJ Sutherland, "National Guard Still Patrols New Orleans," NPR broadcast, 15 July 2008, which can be heard by visiting <http://www.npr.org/templates/story/story.php?storyId=92563043>

<sup>122</sup> Associated Press, "Louisiana: National Guard to Remain in New Orleans," *New York Times*, 20 June 2008, at [http://www.nytimes.com/2008/06/20/us/20brfs-NATIONALGUAR\\_BRF.html?ref=nationalspecial](http://www.nytimes.com/2008/06/20/us/20brfs-NATIONALGUAR_BRF.html?ref=nationalspecial)

<sup>123</sup> More information on the history and current operations of the USA Freedom Corps can be obtained at <http://www.usafreedomcorps.gov/>

- FEMA's **Community Emergency Response Teams (CERT)**, a training program enabling individual volunteers to participate in emergency management training in their communities and prepare to respond to disasters and other emergencies;
- **Volunteers in Police Service (VIPS) Program**, intended to build on successful local programs in which civilian volunteers help local police departments perform "non-sworn functions," freeing up police officers to perform vital front-line duties in times of emergency;
- **Medical Reserve Corps**, which would enable retired healthcare professionals to effectively augment local health officials' capacity to respond to an emergency;
- **Operation TIPS (Terrorist Information and Prevention System)**, giving millions of American transportation workers, postal workers, and public utility employees to identify and report suspicious activities linked to terrorism and crime;
- **Neighborhood Watch Programs**, to be doubled and enhanced through incorporation of "terrorism prevention" into its mission; and the
- **Citizens Preparedness Guidebook** to provide current crime and disaster preparedness techniques as well as the "latest information on terrorism," to give Americans guidance on how to prepare in their homes, neighborhoods, workplaces, and public spaces.<sup>124</sup>

Bush put former director of White House Domestic Policy Council, John M. Bridgeland, a talented Ohioan who was close to the President, in charge of the USA Freedom Corps; Bridgeland helped set up Citizens Corps. Bridgeland (who now heads a Washington-based public policy firm called Civic Enterprises) is widely admired as a gifted leader and tireless advocate of civic engagement and collaborative partnerships. But as Bush became more deeply embroiled in the Iraq quagmire, both USA Freedom Corps and Citizens Corps began to wither. Bridgeland left the White House in 2003, a move akin, as one sage observer put it, to Michael Jordan leaving the Chicago Bulls.<sup>125</sup>

The current Citizen Corps administrator is Brock Bierman, who serves as director of the Community Preparedness Division within FEMA's "National Preparedness Directorate." Bierman also is FEMA's "Small State and Rural Advocate," having joined the agency in 2007; prior to that, he spent five years at USAID, after serving six years in the Rhode Island legislature.<sup>126</sup> In an article about his FEMA appointment *The Providence Journal* noted, "While Bierman has been a loyal Republican, he has no background as a police or fire professional, or in emergency management or homeland security."<sup>127</sup>

Current Citizen Corps activities appear to have shrunk, and are far less visible than six years ago. Apparently, its focus has dwindled to public education, rather than disaster readiness. I had to do some digging and cross-checking; the only current Citizen Corp project I could identify concentrates on summarizing "citizen preparedness research" carried out by other organizations. Citizen Corp also is getting ready for this September's "National Preparedness Month," a national campaign to educate the public about emergency preparedness.<sup>128</sup>

<sup>124</sup> See "President Creates Citizen Corps", White House news release, January 2002, viewed at <http://www.whitehouse.gov/news/releases/2002/01/20020130-8.html> More information on the Citizen Corps can be obtained at <http://www.citizencorps.gov/index.shtm>

<sup>125</sup> See Sheryl Gay Stolberg, "Bush's 2002 State of the Union Volunteerism Initiative is Seen as Sputtering," *New York Times*, 27 January 2008, viewed at <http://www.nytimes.com/2008/01/27/washington/27union.html>

<sup>126</sup> "Representative Brock Bierman Accepts Appointment to USAID," USAID news release, 8 July 2002, at [http://www.usaid.gov/press/releases/2002/pr020708\\_1.html](http://www.usaid.gov/press/releases/2002/pr020708_1.html)

<sup>127</sup> Amanda Milkovits, "Brock Bierman to head FEMA program," *The Providence Journal*, 14 September 2007, at [http://www.projo.com/news/content/brock\\_bierman\\_09-14-07\\_QK74DBN.3394990.html](http://www.projo.com/news/content/brock_bierman_09-14-07_QK74DBN.3394990.html)

<sup>128</sup> As of 12 June, more than 1,100 organizations had signed up as "National Preparedness Month Coalition Members" to sponsor activities throughout the summer and fall. A list of Coalition Members can be obtained at <http://www.ready.gov/america/npm08/members.html>

(*Sidebar:* I abhor the term “homeland security” and find it hard to use in this narrative, as well as in conversation. It reminds me of South Africa apartheid or Nazi Germany.) I am not alone in perceiving what might be called “program cold shoulder”: there is no coverage of Citizen Corps activities in the disaster literature I have reviewed, and even so-called institutional partners, such as the well regarded Corporation for National and Community Service, make no reference to the Citizen Corps on its website, despite Citizen Corps’ prominent placement of the Corporation on its own. Indeed, AmeriCorps, one of the programs under the Corporation’s umbrella, has its own “disaster unit”; one would think that this would be a natural partnership link, yet it does not appear to be.

According to FEMA, there are now 2,291 state and local Citizen Corps Councils, serving 78 percent of the American population.

What follows, then, is an overview of the Citizen Corps program, as well as some information about its Massachusetts operations. Overall, it appears to be toothless, perhaps due to its original focus on protection from “terrorism” and – believe it or not – weapons of mass destruction. Yet it does exist, and provides a structural opportunity for transformation into a vital force for disaster risk reduction, both here and abroad.

In addition to publishing “Are You Ready?” guides” as well as pamphlets on helping children cope with disaster, how to select and store food and water, and preparedness for people with special needs and disabilities, the Citizen Corps offers a range of measures to help keep individuals, families, and communities safe from “the threats of crimes, terrorism, and disasters of all kinds.”<sup>129</sup>

According to information posted on its website, Citizen Corps works closely with the Corporation for National and Community Service (CNCS), a federal agency that administers national service programs that was established in 1993. (The Corporation houses such well known volunteer programs as AmeriCorps, the Senior Corps, and Learn and Serve America.<sup>130</sup>) Yet, when I went to the Corporation’s website to learn more, I could find no reference to the Citizen Corps.

Nevertheless, in addition to the Corporation, other professed Citizen Corps programs and partners include: a CERT training program that prepares people to help themselves, their families and their neighbors in the event of a disaster in their community; a Fire Corps, which promotes the use of citizen advocates (volunteers) to support and augment the capacity of resource-constrained fire and emergency service departments at all levels: volunteer, combination, and career; the Civilian Volunteer Medical Reserve Corps (MRC) Program, which supplements existing emergency and public health resources during local emergencies and other times of community need and reports directly to the Surgeon General of the U.S. in the Department of Health and Human Services; USAonWatch, the face of the National Neighborhood Watch Program, managed nationally by the National Sheriffs' Association in partnership with the Bureau of Justice Assistance, Office of Justice

<sup>129</sup> English and Spanish versions of the disaster preparedness guides can be downloaded at <http://www.fema.gov/areyouready/> The other publications can be downloaded by visiting [http://www.citizencorps.gov/ready/cc\\_pubs.shtm](http://www.citizencorps.gov/ready/cc_pubs.shtm)

<sup>130</sup> The Corporation for National and Community Services website is <http://www.cns.gov/>

Programs, and US Department of Justice; and the Volunteers in Police Service (VIPS) Program serves as a gateway to information for law enforcement agencies and citizens interested in law enforcement volunteer programs.<sup>131</sup>

In addition to maintaining its nationwide network, Citizen Corps also sponsors periodic summaries of opinion survey research on citizen disaster preparedness. It makes this Citizen Preparedness Database available, along with its sister publication, the *Citizen Preparedness Review*, through its website. The most recent issue, released last fall (2007), contains information on how American perspectives on disaster readiness have or have not changed. Among its findings: Individuals may be less prepared than they think; surveys are exploring preparedness measures beyond a kit and a plan; new potential barriers to preparedness are beginning to be explored; new factors have been shown to affect the level of personal preparedness; levels of preparedness depend on geographic location; and evacuation is an emerging area of exploration.<sup>132</sup>

Sadly, Citizen Corps appears to be a boondoggle for the status quo and private contractors, used more as a source of procurement than a program for citizen engagement. For example, in December 2002, FEMA awarded \$2.3 million to Massachusetts for state and local responders and emergency management to “become better prepared to respond to acts of terrorism and other emergencies and disasters,” according to a Citizen Corps news release. Instead of organizing citizens, the money was used as “a down payment on plans to modernize and strengthen preparedness statewide,” according to the FEMA director, which meant updating state and local plans and procedure to respond to “all hazards, with a focus on

---

<sup>131</sup> More information on the array of Citizen Corps programs and partners can be obtained by visiting <http://www.citizencorps.gov/programs/>

<sup>132</sup> See [http://www.citizencorps.gov/pdf/citizen\\_prep\\_review\\_issue\\_5.pdf](http://www.citizencorps.gov/pdf/citizen_prep_review_issue_5.pdf)

weapons of mass destruction.” Seventy-five percent of the Citizen Corps grant was to go local government to develop comprehensive plans “in responding to terrorist incidents and other disasters.”<sup>133</sup>

This is sad, and a misuse of what could be a valuable resource. Surely we can, and should, do better with this apparatus designed to encourage greater civic participation.

I believe that, when harnessed to the same idea and ideals that animated the 1961 creation of the Peace Corps and the 1993 creation of AmeriCorps, a reorganized and revitalized Citizen Corps that is engaged in disaster resilience, prevention, and sustainable development can be a vehicle for improving foreign attitudes toward America, as well as providing an important service opportunity for Americans of all ages. This idea was brought to life during the extreme flooding engulfing the upper Midwest in June: a team from AmeriCorps, one of the signature volunteer service initiatives of the Clinton Administration, showed up to help town officials (all of whom are unpaid) from Clarksville, Missouri coordinate a cadre of local volunteers to do what needed to be done. “I think they are awesome,” said Clarksville Alderman Mike Russell, also the town’s emergency services manager. “I can literally tell you that if it was not for them running the City Hall end, we would be much worse off.”<sup>134</sup>

I believe that, when harnessed to the same idea and ideals that animated the 1961 creation of the Peace Corps and the 1993 creation of AmeriCorps, a reorganized and revitalized Citizen Corps that is engaged in disaster resilience, prevention, and sustainable development can be a vehicle for improving foreign attitudes toward America, as well as providing an important service opportunity for Americans of all ages.

---

#### REAPPROPRIATING AMERICA’S CIVIC IDEALS

Let us revisit the Peace Corps’ origins, as articulated by its two midwives who were responsible for its planning and organization, Warren Wiggins (who died in April 2007) and Bill Josephson, a former colleague of mine who resides in New York City.

The Peace Corps was given organizational form in a paper called “The Towering Task,” written by Wiggins and Josephson that eventually reached Sargent Shriver, who had been asked by John F. Kennedy, the day after JFK’s 1961 inauguration, to come up with a plan<sup>135</sup> At the time, Wiggins and Josephson were young officials at the U.S. Foreign Aid Program (now USAID) and, dissatisfied with the operations of the program, had submitted a series of papers to the newly elected presidential staff on how to run foreign aid. They viewed *A Towering Task* as a way of connecting with the new administration, and considered themselves “proud amateurs,” paying little attention to hierarchies of professionalism, bureaucracies, or the establishment.

---

<sup>133</sup> “FEMA Awards \$2,302,168 to Massachusetts for State and Local Emergency Preparedness,” FEMA news release, 12 December 2002, at [https://www.citizencorps.gov/news/press/2002/02\\_12ma\\_ri.shtm](https://www.citizencorps.gov/news/press/2002/02_12ma_ri.shtm)

<sup>134</sup> Mike Stuckey, “AmeriCorps helps river town take a stand,” MSNBC, 17 June 2008, which can be viewed at <http://www.msnbc.msn.com/id/25200476/>

<sup>135</sup> *A Towering Task* can be viewed at [www.peacecorpswriters.org](http://www.peacecorpswriters.org) For a more behind the scenes information on the origins of the Peace Corps, see the special issue of *RPCV Writers & Readers*, January 1997, Vol. 9, No. 1. *RPCV Writers & Readers* is the precursor of PeaceCorps Writers, and can be accessed at <http://www.peacecorpswriters.org/pages/depts/archives/archive.html>



In “A Towering Task” – the title was taken from a phrase used in JFK’s inaugural speech, when he said, “the problems ....are towering and unprecedented—and the responses must be towering and unprecedented, as well” – Wiggins and Josephson provide a lawyerly argument for how the Peace Corps should be set up, summarizing “the present trend of thinking and proposals,” including Peace Corps bills filed in 1960 by Senator Hubert Humphrey, Representative Henry Reuss of Wisconsin, and Senator Richard Lewis Neuberger of Oregon. That same year, Kennedy suggested to Max Millikan of MIT’s Center for International Studies that he submit a report recommending the establishment of a Peace Corps, which then was proposed formally in his 1961 State of the Union address. There appeared to be unanimous favorable response at home and abroad, so “the question then is what are to be its scope and timing.”

Wiggins and Josephson believed that the Peace Corps should begin with a large number of youth (5,000 to 10,000, with a potential 30,000 or 50,000 or even 100,000 participating), rather than with small pilot projects, and that it should be a bold initiative, not a cautious pilot. This was at odds with other recommendations, which were to go slowly and stay small. Wiggins and Josephson listed the main reasons for a National Peace Corps – which included improving international relations; providing a training and recruiting ground for other activities; improving American attitudes and understanding of foreign affairs; and the desire of American youth to serve abroad – and then chronicled the main difficulties, all of which involved the shortcomings of the “start slow, think small” game plan. For a number of reasons that they delineate, the authors believed strongly that “a ‘small,’ ‘cautious’ National Peace Corps may be worse than no Peace Corps at all. It may not receive the attention and talent it will require even for preventing trouble. A slow, cautious start may maximize the chance of failure. A small, cautious National Peace Corps may be a diversionary path of inconsequential accomplishment ... and major administrative and diplomatic trouble.”<sup>136</sup>

Later, in his 1997 reflections on the experience, Warren Wiggins, who had helped administer the Marshall Plan in Western Europe as well as the Peace Corps, was asked, *Should the Peace Corps be reinvented?* His response is prescient for today’s reality and needs:

The question for the country ought not to be: How do we reinvent the Peace Corps as the Peace Corps. The interest of the country ought to be: How do we apply Peace Corps principles to other things that are achingly in need of attention? That is the Peace Corps opportunity: to see itself – and to be seen by others – as containing very dramatic statements about how to get things done, and how to involve people in doing what needs to be done. .. The Peace Corps caught the wind that was blowing in the land. If you want to be effective now, you have to damn well know what winds are blowing.<sup>137</sup>

**INSERT PARAGRAPHS ON LOCAL OPPORTUNITY for Better Civic Engagement / Edit...**

A hallmark of climate change government activism is that, with no coordinated federal policy, the nation’s states and cities have taken on the challenge. State and local government have incubated new ideas for efficiency and renewable energy sources, revised existing laws that create barriers to sustainability, and adopted bipartisan regional strategies for reducing emissions and strengthening economies. But these comprise a mosaic of adaptive measures, which also holds true for disaster response. Experts have called for a more coordinated effort, bringing together stakeholders from multiple levels of

<sup>136</sup> “A Towering Task,” in *RPCV Writers & Readers*, p. 5.

<sup>137</sup> “The Midnight Ride of Warren Wiggins,” an interview by John Coyne, in *RPCV Writers & Readers*, p. 20. Portions of it can be viewed at [http://peacecorpswriters.blogs.com/johncoynebabbles/2007/01/the\\_midnight\\_ri.html](http://peacecorpswriters.blogs.com/johncoynebabbles/2007/01/the_midnight_ri.html)

government and multiple policy sectors.<sup>138</sup> Where the Department of Homeland Security has been active, the effort largely has been to bolster rapid response effectiveness relative to terrorist attacks.

In late May 2008, speaking at a Boston press conference following a fatal trolley crash, a member of the National Transportation Safety Board commented that local police and fire responders are doing a very good job, in part due to heightened awareness and improvements in readiness training after 9/11.

## THE UN & HUMANITARIAN AGENCIES

Humanitarian organizations continue to soldier on, deploying resources as the need arises. Large players such as the UN Office for the Coordination of Humanitarian Affairs (OCHA), the UN's World Food Programme (WFP), the UN Children's Fund (UNICEF), the UN High Commissioner for Refugees (UNHCR), the World Health Organization (WHO), the International Federation of Red Cross and Red Crescent Societies, World Vision, Save the Children, Doctors Without Borders, AmeriCares, CARE, Oxfam, and Catholic Relief Services are joined by other smaller groups, such as Habitat for Humanity, the International Rescue Committee, AlertNet, Mercy Corps, and People in Aid.

For the past 23 years, a set of internationally approved guiding principles have governed the disaster-related work of these organizations. From 1985 to 1995, the *Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness, and its Plan of Action* (the "Yokohama Strategy") were approved....

In January 2005, the UN convened a follow-up World Conference for Disaster Reduction in Hyogo, Japan. In the run up to the 2005 World Conference, in 2004 an open-ended Preparatory Committee was established, led by a Bureau comprising five Member States representing the regional groups, in addition to the host country of Japan. Operating under the stewardship of the UN's Geneva-based International Strategy for Disaster Reduction secretariat, the Preparatory Committee undertook extensive preparation and collaborative information gathering throughout 2004 to identify priority areas for further action to implement disaster risk reduction in 2005 through 2015. On substance, national authorities were encouraged to provide information on needs and make policy recommendations through various reporting platforms. In addition, a number of regional and thematic meetings were held to articulate the perspectives of partner agencies, and online stakeholder dialogue was conducted. In October 2004, the Preparatory Committee created a Drafting Committee and charged it with the responsibility for generating "outcome documents", which included the *Hyogo Framework for Action 2005-2015* and the *Hyogo Declaration*. Following further negotiation in Geneva and Japan, as well as contributions from civil society, the documents were then adopted at the January 2005 World Conference meeting.<sup>139</sup> It has been signed and adopted by 168 countries.

<sup>138</sup> See especially Chenoweth, Erica and Susan Clarke, "Homeland Security: How to Improve Interoperability for State and Local Responders." *A Memo to Homeland Security Officials*. Cambridge, Mass.: Belfer Center for Science and International Affairs, March 3, 2008; available at <http://belfercenter.ksg.harvard.edu/files/homelandsecuritybrief.pdf>

<sup>139</sup> For further information on the Hyogo Framework for Action and the Hyogo Declaration, as well as the Interagency Secretariat of the International Strategy for Disaster Reduction and the proceedings of the World Conference, go to <http://www.unisdr.org/wcdr>

Within the U.S., the primary agent formally endowed by Congress with this responsibility is the American Red Cross (ARC). From its beginnings in 1881, when Clara Barton incorporated the American Association of the Red Cross (and for most of the twenty-five years she dominated it), disaster relief was the primary activity. “Her conception of the American Red Cross as an agency for rendering assistance in times of peace as well as war...she emphasized opportunities and responsibilities for service in plague, fire, food, drought, and accident,” writes Robert H. Bremner, in *American Philanthropy*. “Her idea of what the Red Cross could and should do in peacetime made sense to people who saw no danger of war but who had recently raised large funds for victims of the Chicago and Boston fires and who were all too familiar with the havoc wrought by natural disasters, epidemics, and appalling railway and mine accidents.” This focus on disaster relief, Bremner notes, put the ARC in its formative years outside the mainstream of late 19<sup>th</sup> century philanthropy, guided by the constellation of reform rather than charity. There was no crusade to end wars, famine, plagues, fires or floods, no movements to reorganize complex systems (indeed, they really did not exist) but rather a commitment to meet emergencies as they arose, through the one-on-one provision of temporary relief.<sup>140</sup>

Over the past few years, the ARC has suffered from leadership and governance problems, which continue to plague it.<sup>141</sup> ARC chapters are unevenly distributed across the country -- they tend to concentrate in the Northeast -- so are unable to be effective in some regions, such as rural Mississippi which was ravaged by Katrina. Moreover, according to Peter Dobkin Hall, a highly-regarded expert on the history of non-profits and their governance, despite their federally-chartered mandate to provide disaster response -- a term emblazoned on their red and white trucks -- in reality their role has narrowed, operating more as a blood bank than a prime responder. As we have seen with the ARC depletion of its Disaster Fund during the Midwest floods, their readiness for disaster management has diminished, even as such catastrophic events are on the rise.<sup>142</sup>

Because Tufts has deep ties, along with a strong and deserved reputation working within the humanitarian field -- and, indeed, helping to develop humanitarian studies as a professional practice -- it would be presumptuous for me to say much more. The main point I wish to make is that humanitarian organizations have been expected to shoulder the primary burden for responding to the needs created by natural and human health disasters, usually in partnership with other NGOs, development, and governmental organizations. Given the scale and scope of catastrophic events, however, perhaps it is time for new partnerships with newer actors to achieve natural disaster risk reduction in developing countries, as well as here at home.

Amplifying this are two developments in humanitarian aid policy that challenge previous orthodoxies. One is the growing convergence of relief and development work, realms which traditionally were kept separate until the mid-1980s. Critics of a neutral plan that treats symptoms rather than underlying causes argue that “developmental relief” should be used instead.

---

<sup>140</sup> Robert Bremner, *American Philanthropy*, 2<sup>nd</sup> edition. The Chicago History of American Civilization (Chicago and London: University of Chicago Press 1988), 89-90.

<sup>141</sup> See especially William Josephson, “American Red Cross Governance,” *The Exempt Organization Tax Review* 55, No. 1, January 2007, 71-79. Josephson is a prominent figure, who served as chief of New York State’s Charities Bureau and was founding legal counsel to the Peace Corps during the Kennedy Administration. See also Philip Rucker, “President of Red Cross Is Forced to Resign,” *Washington Post*, 28 November 2007; A03.

<sup>142</sup> Conversation with Peter Dobkin Hall, Cambridge, Massachusetts, 4 March 2008.

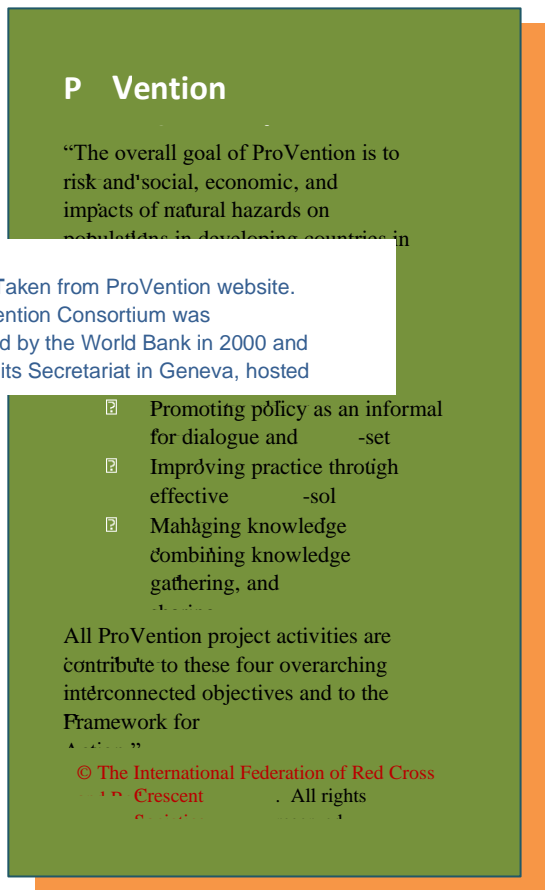
This will build local individual and institutional capacities and resilience in the face of catastrophe. Such a reformist posture also is linked to a universal commitment to human rights and the reinforcement of a rights-based regime, which, as in the case of Burma, poses a threat to the authoritarian order.

As suggested earlier, the UN's Millennium Development Goals (MDG) serve as an important framework within which to consider post-disaster recovery and resilience. Indeed, the idea of developmental relief has the added benefit of squaring the circle: "rebuilding right" can mitigate future damage, when another catastrophic event occurs.

Similarly, humanitarian relief work has drifted away from its purely neutral moorings (one wonders if they ever really existed), which came into tragic, stark relief during the standoff between humanitarian agents and the resistance of the Burmese junta. Here the challenge to sovereignty, contained in a UN resolution adopted in 2005, proved to be impotent, despite the deaths of tens of thousands who were helpless to fend for themselves. In a brazen and bizarre insult to humanitarian intent, the Burmese military government impounded international aid, keeping it for or distributing it themselves, while their people continued to suffer. Although politics is not overtly embedded in disaster assistance, much of what passes for neutrality carries with values and beliefs that are rooted in religious missionary traditions or secular truth claims that beg the impartiality question. And on the receiving end, the question of who gains and who suffers continues to haunt those who are close to the process.

Put another way, disaster management – in whatever form it takes, be it prevention, relief, or reconstruction – is a type of intervention into a situation already in chaos, or anticipating chaos, where prevailing power structures are not only compromised but possibly collapsed. The idea of "pure" neutrality and relief appear as quaint throwbacks to a very different era of sovereignty, where interdependencies were less obvious. The humanitarian sector is not alone in its desire to meet vital needs, provide access to social services, restore infrastructure, and facilitate well being on behalf of those whose

individuals and communities whose lives were interrupted. Nor is the humanitarian sector exempt from political and economic considerations in doing so.<sup>143</sup>



**Figure .** Taken from ProVention website. The ProVention Consortium was established by the World Bank in 2000 and maintains its Secretariat in Geneva, hosted

To this end, in 2006 the ProVention Consortium commissioned a study to explore the CSR perspective in disaster prevention, the core of which involves reestablishing strong partnerships between the private sector and the humanitarian system. Established in 2000 by the World Bank, the ProVention Consortium is a global coalition of international organizations, governments, the private sector (primarily reinsurance companies), civil society organizations, and academic institutions.

ProVention’s purpose is to address the increasing frequency and severity of natural disasters – including their social, economic, and environmental impacts – on developing countries. Its Secretariat is located in Geneva, hosted by the International Federation of the Red Cross and Red Crescent Societies.<sup>144</sup>

In making the business case, Warwick Business School professor Alyson Warhurst argues for, “institutional capacity building and imaginative partnerships that engage the corporate sector at different levels with an awareness of what both business and humanitarian organizations can and cannot do...” In summary, it is both the right thing to do and in the enlightened best interest of business and humanitarian organizations to work with renewed efforts toward disaster prevention.”<sup>145</sup>

## PRIVATE SECTOR ENGAGEMENT

As stated previously, much of the private sector has become keenly aware of the fiduciary implications of climate change, and (with some prodding from environmental and corporate social responsibility advocates) has taken positive steps to address it. Yet these actions primarily have been directed toward exploration of alternative energy resources and commodification of carbon emissions—which can be bought and sold as a form of penance. With the exception of the insurance industry and, to some extent, transportation and logistics firms, the private sector has done little to address disaster management, other than philanthropic donations as part of a given relief effort.

Few industries and companies, however, have addressed the *disaster management implications* of climate change on their core business, or as a part of their social responsibility. Within the corporate social responsibility (CSR) and socially

<sup>143</sup> Alexandra Galperin evaluation...

<sup>144</sup> For more on ProVention’s mission and activities, go to <http://www.proventionconsortium.org>

<sup>145</sup> Warhurst, *Disaster Prevention: A Role for Business?* 2006.

responsible investing (SRI) community, the topic does not come up, unless one includes community-based loan initiatives or those concerned with community-based development.

The exception, as has been pointed out already, is the insurance industry. This is because so much of their product line – especially property, health, liability, and life insurance – is adversely impacted, thus affecting insurance affordability and accessibility. As stated earlier, a relatively small group of companies within the insurance industry actively recognize the importance of constructive action, especially the adoption of different risk models and customer incentives for risk reduction. Leaders include reinsurance giants Swiss Re and Munich Re; AIG; Insurance Australia Group; Marsh; Allianz(Germany); Millea Holdings(Japan); and Lloyds of London. Also engaged are insurance professional associations, including the Association of British Insurers; the Malaysia Insurance Institute; the National Association of Insurance Commissioners (USA); the National Association of Mutual Insurance Companies; and the UN Environmental Programme’s Finance Initiative.<sup>146</sup>

(I am reminded of the leadership role the insurance industry played in the late 1960s and 1970s, with regard to housing and urban renewal in the wake of the riots that shook the urban core. One could argue that insurers were among the first “socially responsible investors” who recognized the interdependence between private and public security and prosperity.)

To be fair, there are some signs that other business sectors are joining in. After the Banda Aceh tsunami in December 2004, the World Economic Forum created the Logistics and Transportation Industry Humanitarian Workstream, an alliance of some of the world’s major logistics and transportation companies, including United Parcel Service, the Dutch firm TNT; Agility Logistics, and Deutsche Post World Net, the parent of DHL. The idea was to lend expertise to the humanitarian sector in handling the transportation, storage, and distribution of appropriate goods as part of relief operations. This partnership has traveled a bumpy road because of suspicion and mistrust among competing companies as well as between companies and humanitarian groups, reports professor Alyson Warhurst. These historic tensions between private sector and humanitarian organizations are not insurmountable, however.

The California-based Fritz Institute also has taken seriously this challenge by cultivating partners for disaster relief among humanitarian organizations, government agencies, the corporate sector, academic institutions (including Tufts University), and foundations. Its founder Mr. Lynn Fritz, a social entrepreneur and philanthropist, created the eponymous institute after recognizing that “effective front-line humanitarian operations must be supported by strong back-room capabilities: effective organizational processes, appropriate use of enabling technologies, well-trained logistics personnel, objective performance metrics, and institutionalized learning across the humanitarian sector.” The Fritz Institute facilitates “multicompany integrative partnerships” with humanitarian aid groups to help improve their logistics, information, and operating systems, including supply chain management.

Organized as a nonprofit in 2001, the Fritz Institute’s mission is work with its worldwide network of partners “to innovate [sic] solutions and facilitate the adoption of best practices for rapid and effective disaster response and recovery.” According to co-founder Dr. Anisya Thomas, its hallmark style is collaborative and grass roots, and blends social science rigor with practical

---

<sup>146</sup> Evan Mills, Ph.D., a staff scientist at the UCal / DOE Lawrence Berkeley International Science Center and a member of the Intergovernmental Panel on Climate Change, manages a very informative project on insurance and climate change. It can be viewed at <http://eetd.lbl.gov/insurance/>

and professional needs.<sup>147</sup> The Fritz Institute carries out its work through its three main programs, featuring a mix of conference and action research components:

- **BayPrep** (formerly the *Bay Area Preparedness Initiative*) seeks to improve disaster preparedness in the San Francisco Bay Area and ensure that vulnerable communities have been taken into account in disaster planning. Also included is a special project examining the capacity of community-based and faith-based institutions to respond to disasters;
- **Logistics and Supply Chain Solutions** brings recognition and resources to the humanitarian logistics process to improve the delivery of aid. The program mobilizes corporate, academic and humanitarian sector supply chain expertise for more efficient disaster relief operations and the development of a professional community of humanitarian logisticians. It also hosts two certification programs, the Certification in Humanitarian Logistics Course and the Certification in Supply Chain Management Course, launched in May 2008. The Fritz Institute Certification Program was created in collaboration with a multi-agency advisory committee comprising seasoned logistics professionals from UNICEF, ICRC, WFT, UNHCR, Oxfam GB, and Save the Children U.S. In addition, Fritz has developed a software program called HELIOS that provides “complete visibility across the humanitarian supply chain from mobilization to warehouse”;

**Figure .** Cited in “Disaster Relief, Inc.”, an article written by Fritz Institute founder Lynn Fritz and Anisya Thomas appearing in *Harvard Business Review*, November 2006. The article continues by describing constructive ways in which partnerships between the private sector and humanitarian aid community can be made and maintained.

<sup>147</sup> Interview with Anisya Thomas, March 26, 2008.

- **African Capacity Networks** relies upon “inside-out” strategies incorporating African expertise and perspectives so that development and humanitarian initiatives are more likely to succeed. The African Capacity Networks Program seeks systematically to build capacity within local humanitarian organizations, persuade donors to develop more equal partnerships with local organizations, and promote partnership between local organizations and national governments and the private sector. Also, Fritz Institute has developed a set of audit tools that assess humanitarian organizations across the key dimensions of organizational excellence, including transparency, accountability and governance; financial sustainability; and program effectiveness.<sup>148</sup>

With respect to food and nutrition... ADD MORE GAIN Global Forum...

Continuing the theme of collaborative partnerships between the private sector and humanitarian organizations, a press conference was held last January at Davos to sign a set of guidelines from the World Economic Forum and the UN Office for the Coordination of Humanitarian Affairs. According to the Preamble of “Guiding Principles for Public Private Collaboration for Humanitarian Disaster Response,” the guidelines are a response to the increasing interest of the private sector in supporting worldwide humanitarian operations, emphasize key humanitarian principles (“Humanity,” “Neutrality,” and “Impartiality”), and integrate elements of lessons learnt from previous private sector engagement.<sup>149</sup> The multi-stakeholder agreement facilitates a shared sense of purpose and cooperation, and by leveraging new forms of organizational relationships intends to bring “better, faster, and more relief to people on the ground.” The Principles cover a range of needs, including training, deployment, field operations, exit strategy, and post deployment. Commenting on the joint guidelines, Josette Sheeran, executive director of the World Food Program, said, “When disaster strikes, our job is to mobilize massive assistance and make sure it reaches those in need—fast. Private-sector expertise and corporate partnerships are crucial to helping us save lives.”<sup>150</sup>

The Principles is but one of several current and recent initiatives that seek to establish indicators for defining, implementing, monitoring and evaluating disaster risk reduction efforts. Although the Hyogo Framework for Action serves as an important template for many, there are a variety of perspectives and challenges. Some experts have called for more integrated guidelines for measuring DRR / prevention effectiveness, while recognizing the special circumstances of each. Because this is a relatively new area of work, there likely will be further exploration of alternative techniques or, as in the case of the World Economic Forum’s recent work, appeals to integrate DRR and prevention into existing reporting frameworks, beyond Hyogo.

For example, a “guidance note” (meaning, it serves as a resource rather than a manual) and website were recently launched entitled *Characteristics of a Resilient Community*, hosted by the ProVention Consortium. Aimed at governments and civil society groups working on DRR / prevention initiatives at the community level, it describes mapping and “gap finding” exercises that organizations might take place, particularly within multi-stakeholder settings. Thematic areas – such as governance, risk assessment, knowledge and education, risk management and vulnerability reduction, and disaster

<sup>148</sup> Further information on the impressive programs of the Fritz Institute can be obtained by visiting <http://www.fritzinstitute.org>. See also Anisya Thomas and Lynn Fritz, “Disaster Relief, Inc.,” *Harvard Business Review*, November 2006.

<sup>149</sup> World Economic Forum and the United Nations Office for the Coordination of Humanitarian Affairs, “Guiding Principles for Public-Private Collaboration for Humanitarian Action,” which can be viewed at <http://www.humanitarianinfo.org/iasc/content/documents/other/OtherDocs/WorldEconomicForum-OCHAGuidingPrinciplesforPublic-PrivateCollaborationinHumanitarianAction.pdf>

<sup>150</sup> Statements made by Agility Chairman Tarek Sultan and WFP head Sheeran as reported by Alyson Warhurst, “Humanitarian Teamwork from Logistics Giants: A partnership launched at Davos brings together relief organizations and transport companies, united in a can-do approach to disaster response,” *Business Week*, Viewpoint, 25 January 2008.



preparedness and response – are broken down into “resilience components” that possess certain characteristics considered vital to a model resilient community.

In January 2006 the World Economic Forum established a Disaster Resource Network as part of its Humanitarian Relief Initiative (HRI). Building upon the idea that humanitarian relief is a valuable component of corporate citizenship, the HRI seeks to facilitate public private partnerships, develop cross-disciplinary principles for humanitarian relief, and, where necessary, support the engagement of private sector companies in relief operations. Thus far, the Disaster Resource Network program appears to concentrate primarily on relief needs, rather than on rebuilding resilience or engaging in risk reduction work.

Two years later, in January 2008, the World Economic Forum expanded its focus with its report entitled *Building Resistance to Natural Disasters: A Framework for Private Sector Engagement*. The document, the result of a year-long series of dialogues in New York, New Delhi, Cape Town, Washington D.C. and Geneva that involved roughly 200 people from corporations, governments, academia, and civil society, was organized in partnership with the World Bank and the UN International Strategy for Disaster Reduction. As stated in the preface written by Richard Samans, WEF managing director, the *Building Resilience* report recommends a number of concrete actions that key industries can take, in collaboration with governments and civil society, to strengthen global capacity to withstand disasters. It also offers suggestions for mainstreaming resilience into core business activities. The hope is that it will stimulate greater private sector engagement and innovation for public-private partnerships.<sup>151</sup>

---

## MAPPING PRIVATE SECTOR ENGAGEMENT

Private sector engagement with regard to disaster prevention and management can be broken down into several constituent parts, with varying degrees of influence. The following are noteworthy for their accomplishments, and most are organizations with which I have had longstanding relationships. They would be worthy partners in whatever we undertake, and would add enormous value and credibility to our cause:

- **Corporations and the industries** they occupy, particularly those within the *media; pharmaceuticals and health; real estate development / engineering / construction; and utilities sectors*. Special attention can be directed to *companies occupying the military industrial complex*, and the role they can play in applying their technology and innovation to the challenges posed by natural disasters and catastrophes.
- **Investors, especially institutional investors**, and their type (e.g., *pension funds; endowments; particularly foundations; insurance companies; mutual funds; investment banks; commercial banks; micro finance; social venture enterprise*; and so on);
- **Business and industry consultants and financial advisors**, as well as **business schools and professional credentialing / continuing education institutions**. Examples include *Risk Management Solutions; the Strategic Studies Institute of the U.S. Army College; Triangle Institute for Security Studies; the Kennedy School Corporate Social Responsibility Initiative; the Center for International and Strategic Studies; the U.N. University; KLD Research and Analytics*; and so forth;

---

<sup>151</sup> World Economic Forum, in cooperation with The World Bank and UNISDR, *Building Resilience to Natural Disasters: A Framework for Private Sector Engagement*, January 2008. A copy of the report can be downloaded from [http://www.unisdr.org/eng/about\\_isdr/isdr-publications/joint-pub/building-resilience-natural-disasters-wef.pdf](http://www.unisdr.org/eng/about_isdr/isdr-publications/joint-pub/building-resilience-natural-disasters-wef.pdf)

- Professional associations, affinity groups, and special initiatives within the realm of corporate social responsibility (CSR), socially responsible investing (SRI), organized philanthropy, and social entrepreneurship.** Reputable institutions include *Ceres*; the *Global Reporting Initiative (GRI)*; the *Interfaith Center on Corporate Responsibility (ICCR)*; the *Risk Metrics Group*, (formerly known as *Institutional Shareholder Services*; Risk Metrics also owns the former *Investor Responsibility Research Center*, or *IRRC*); the *Social Investment Forum (SIF)*; the *ProVention Consortium*; *Rockefeller Philanthropy Advisors (RPA)*; *Engineers Without Borders*; the *Council of Institutional Investors (CII)*; the *Fritz Institute*; the *Carbon Disclosure Project*; the *U.S. Climate Action Partnership*; the *Investor Network on Climate Risk*; the *Resilient Coasts Initiative*; the *International Business Leadership Forum (IBLF)*; the *Global Alliance for Improved Nutrition (GAIN)*; *Sustainable Endowments*; the *National Committee for Responsive Philanthropy (NCRP)*; the *Council on Foundations*; the *Social Venture Network*; the *University Network for Social Entrepreneurship*, supported by the *Skoll Foundation*; the *Conference Board*; the *Business Roundtable*; the *Chamber of Commerce*; and so forth.
- The media, including print, electronic, and interactive.** Major players with interest in the topic include the *Nieman Foundation for Journalism at Harvard* (last fall, a whole issue of *Nieman Reports* was devoted to “Katrina’s Aftermath”<sup>152</sup>); the *Environmental Media Association (EMA)*; *Newsweek magazine*; and the *Shorenstein Center for Press and Public Policy at Harvard’s Kennedy School*. There also are a number of *Hollywood and New York content providers, producers, and funders* who would be interested in how to integrate information about disaster risk reduction, prevention, and the food crisis into their work, ranging from movies to television, video games and other forms of simulation technology; documentaries; and various forms of Web-based content. The emergence of social networking and Web 2.0 affords multiple opportunities, as well, particularly given the proliferation of platforms created by hand held devices.
- Social entrepreneurs.** Deeply rooted in the American tradition of social initiative for the common good, this realm is exploding with energy and activity, both on the production side as well as within the realms of academe and reflective practice. Notable organizations include the *Investors Circle*; *Ashoka*; *Echoing Green*; *New Profit, Inc.*; the *Skoll Foundation*; the *Schwab Foundation for Social Entrepreneurship*; the *Draper-Richards Foundation*; *Social Ventures in Philanthropy*; the *Root Cause Institute / Social Innovation Forum*; *Inner City Entrepreneurs*; the *National Foundation for Teaching Entrepreneurship (NFTE)*; the *Center for the Advancement of Social Entrepreneurship (CASE) at Duke University*; and business schools ranked within the Aspen Institute’s *Beyond Gray Pinstripes* biennial survey.

For *companies*, disaster risk reduction and prevention means developing smart strategies for sustainability that rely on innovation to unlock value and build competitive advantage. As mentioned before, very little, however, is occurring with regard to linking CSR and sustainability to the realm of DRR / prevention and the food crisis, even though voices in the humanitarian sector are calling for it.

For many *investors and financial services providers*, DRR / prevention means having access to consistent and comprehensive information on the climate risk exposure of their investments, as well as knowledge of existing and new technologies that are profitable in a future carbon-restrained environment.<sup>153</sup> It means engaging in sustainable infrastructure investing, not only to

<sup>152</sup> Edited by Melissa Ludtke, the special issue of “Katrina’s Aftermath: News With No End in Sight,” *Nieman Reports*, Fall 2007, Vol. 61, No. 3, can be download by visiting <http://www.nieman.harvard.edu/reports/07-3NRfall/katrina-aftermath.pdf>.

<sup>153</sup> In the short term, by far the most popular mechanism under development and supported by many Congressional bills is that that blends a commodities market model with a shared risk approach, thus providing companies with the flexibility to achieve their emissions targets while setting a mandatory overall limit on greenhouse gas emissions. This “cap and trade” program puts specified limits on greenhouse gas emissions, and a financial value on emissions that fall between these limits and a baseline set for each emitter.

help meet the enormous capital requirements for U.S. infrastructure products over the next five years, but as a diversification strategy to hedge against inflation over the long term. It also means being less resistant to climate change shareholder resolutions. This 2008 proxy season, the number of global warming shareholder resolutions (54) was nearly double the number filed two years ago, and in mid-April, a report issued by **Ceres** showed that mutual funds finally were modifying their opposition to such proposals.<sup>154</sup>

A subset of the investor universe can be called “responsible investors” or “socially responsible investors”. This segment has grown tremendously over the past thirty years, especially since 2005. These investors – individual and institutional, the latter being pension funds, mutual funds, labor funds, specialty investment managers, and, to some extent, endowments – utilize a variety of procedures for asset management. These include active engagement with portfolio companies through proxy resolutions and dialogue; investment screens that weed out holdings incompatible with core mission; full portfolio integration of financial and non-financial values across all asset classes; and so-called “theme” investment policies concentrating on important values and issues, such as environmental sustainability and infrastructure.

According to the **Social Investment Forum (SIF)**, by 2007 \$2.71 trillion in such investments were under management. Responsible Investor (RI), a U.K. initiative, estimates that \$2.2 trillion are managed according to social criteria.<sup>155</sup> Despite these differences, there is widespread agreement that this number is expected to rise significantly over the next few years, more so than the value of overall assets under professional management. Contributing to this is the growing concern among money managers about climate change and the attendant portfolio risks; investor demand, according to the SIF, is growing for investment opportunities in green tech, alternative and renewable energy, green building and responsible property development, and other eco-friendly businesses.

One category of socially invested assets directly pertains to communities: The Social Investment Forum, a membership organization with 500 social investment practitioners and institutions, estimates that by 2007 roughly \$25.8 billion is managed by community investment institutions, rising by nearly one-third from 2005, when \$19.6 was invested.

The **community investing field** continues to expand in both numbers and kinds of offerings, and also is affected by concerns about climate change. Spurred by the 1977 Community Reinvestment Act (CRA) that required regulated financial institutions to devote a portion of their assets to community credit needs in urban and rural areas, community investors typically engage in housing, enterprise development, job training, and development, and are often organized as community development

---

<sup>154</sup> See Bill Baue and Jackie Cook, *Mutual Fund Industry Opposition to Climate Change Resolutions Begins to Thaw* (Boston: Ceres, April 2008). The report, evaluating 2004–2007 proxy votes, shows that historic opposition toward such resolutions is softening, with some fund firms such as Goldman Sachs supporting many climate resolutions outright, and others, such as Fidelity and Janus, abstaining on most or all resolutions after opposing them in the past. Opposition has dropped from three quarters of fund votes to less than two out of three, while the number of abstention votes has more than doubled. Still, many mutual funds are acting inconsistently on climate change – offering new climate-related funds and research products while continuing to oppose virtually all climate-related resolutions. Available at <http://www.Ceres.org/NETCOMMUNITY/Document.Doc?id=322>

<sup>155</sup> See *Report on Socially Responsible Investing Trends in the United States*, which states that from 2005 to 2007 socially-invested assets grew at a greater pace (18%) than the broader universe of all investments (3%). An executive summary of the Trends Report can be downloaded at [http://www.socialinvest.org/resources/pubs/documents/FINALExecSummary\\_2007\\_SIF\\_Trends\\_wlinks.pdf](http://www.socialinvest.org/resources/pubs/documents/FINALExecSummary_2007_SIF_Trends_wlinks.pdf) Responsible Investor, a UK firm reporting on trends and issues, conducted a global survey of fund managers in 2008 who claimed that more than 10% of their assets were socially invested, representing \$2.2 trillion. They predict that by 2010 this figure will rise by \$700 billion, to almost \$3 trillion. The *RI Landscape Asset Managers 2008 Survey* can be downloaded at [http://www.responsible-investor.com/home/print/ri\\_landscape\\_asset\\_managers](http://www.responsible-investor.com/home/print/ri_landscape_asset_managers)

corporations (CDCs).<sup>156</sup> After Hurricane Katrina, a number of these investment groups flowed assets to local partners to help with the rebuilding effort, including **Access Capital Strategies, LLC**; the **Calvert Foundation**; **Enterprise Corporation of the Delta / Hope Community Credit Union**; **Jewish Funds for Justice**; the **Local Initiatives Support Corporation (LISC)**; and, to a lesser degree, **NCB Development Corporation (NCBDC)**; the **Nonprofit Finance Fund (NFF)**; the **Rudolph Steiner Foundation**; and **Southern Development Bancorp**.<sup>157</sup>

Especially noteworthy is the **Isaiah Fund, developed by MMA XXXX**

**Professional consultants and advisors.** Indeed, a virtual cottage industry of sustainability consulting and publishing has sprung up and continues to mushroom. Through the networks mentioned above, many of these professionals can be mobilized to help build bridges to the existing emergency management infrastructure, as well as emerging ideas, innovations, and projects.

**Associations, networks, affinity groups, special initiatives.** In addition to individual practitioners, a wealth of voluntary associations also exists that promote the integration of positive social, environmental, and governance principles into economic decision-making. Ceres (originally called the Coalition for Environmentally Responsive Economics, founded in 1989 by Joan Bavaria and then directed and brought to prominence by Bob Massie) is an important agent that has mobilized both the corporate and investor communities to address powerfully and practically the reality of climate change. Among its bouquet of achievements: Ceres launched and directs the 60-member **Investor Network on Climate Risk**, with combined member assets of more than \$5 trillion;<sup>158</sup> organized the **Sustainable Governance Forum on Climate Risk**, a leadership program run in conjunction with Yale University and insurance giant **Marsh**.<sup>159</sup> More recently, its **Resilient Coasts Initiative**, described earlier, continues Ceres efforts to identify concrete measures to offset the deleterious effects of climate change.

**Fighting malnutrition:** Fighting malnutrition is the goal of a new annual Award from the **Global Alliance for Improved Nutrition (GAIN)** and the **International Business Leaders Forum (IBLF)**. They recently invited companies, large and small and from a range of sectors, to submit entries demonstrating measurable benefits on nutrition of the poor, a sustainable business model, and, where possible, working partnerships with other organizations.<sup>160</sup> Judges include the chairman and CEO of **Shaklee Corporation**; the former chairman and CEO of **Unilever**; experts from **Cornell University's Center for Sustainable**

---

<sup>156</sup> An excellent resource for up-to-date information on this burgeoning field is the Community Investment Network (CIN), an online presence sponsored by the National Community Reinvestment Coalition (NCRC). It can be accessed at <http://www.communityinvestmentnetwork.org/>. Formed in 1990, the NCRC is a 600-member association of community-based organizations providing access to basic banking and credit services so as to create and sustain affordable housing, job development, and vibrant communities for working families. Its nationwide membership includes community reinvestment organizations, community development corporations, local and state government agencies, faith-based institutions, community organizing and civil rights groups, minority and women-owned businesses, and local social service providers. Information on NCRC can be obtained at <http://www.ncrc.org>

<sup>157</sup> Further information on Katrina-related community investing activity can be obtained by visiting Co-op America's website at <http://www.coopamerica.org/socialinvesting/communityinvesting/Katrina.cfm>. Formed in 1982, Co-op America is a well-regarded nonprofit organization dedicated to harnessing economic power to social justice and environmental sustainability.

<sup>158</sup> For more on the Investor Network on Climate Risk, see <http://www.incr.com/NETCOMMUNITY/Page.aspx?pid=198&srcid=-2>

<sup>159</sup> For more on the Ceres / Yale / Marsh Sustainable Governance Forum on Climate Risk, see <http://www.Ceres.org/NETCOMMUNITY/Page.aspx?pid=745&srcid=745>

<sup>160</sup> Available at [http://www.iblf.org/media\\_room/general.jsp?id=124024](http://www.iblf.org/media_room/general.jsp?id=124024)

**Global Enterprise**; the vice president of the **World Bank Institute**; an official from the consumer industries unit of the **World Economic Forum**, and a former deputy CEO of **FTSE Group**. The deadline for submissions is 30 September 2008.

*Social Entrepreneurs*. **ADD MORE**

---

#### THE MEDIA: BEYOND ADVANCE WARNINGS AND RELIEF COVERAGE

Within the private sector, separate and special mention should be made of the important role played by the media in heightening awareness and making appeals for assistance when disasters and humanitarian crises occur. While laudable, the focus tends primarily to be on the catastrophe itself and its immediate aftermath. Images of starving and homeless people, of Red Cross trucks and helicopters moving in to help, of civilians picking through piles of rocks searching for survivors---all serve to remind us of our shared humanity, shared obligations, and shared vulnerability to oblivion. The media's power to make a constructive difference, however, has barely been tapped, particularly when one considers vastly changing landscape of digital, motion, and social media, simulation technologies, Web 2.0, and the realms of journalism and entertainment. There is much talent and goodwill out there; the challenge is to leverage this talent and goodwill into creative opportunities to educate, inform, and engage.

The recent calamities in Burma and China reminded us of how accustomed we are to relatively instant and compelling coverage of a disaster's impact on people and communities. News outlets are quick to dispatch reporters, local coverage – often featuring pictures and video supplied by plain folk – feeds quickly into 24/7 news cycles, and aid groups scramble to get their message out for donations and other forms of assistance. Even social networking groups join in: after Cyclone Nargis, several Facebook groups popped up, providing Facebook members the opportunity to connect directly with established organizations already having relationships to the Burmese people. Meanwhile, the *China Earthquake Donation Guide: 35+ Ways to Give* emerged from Chinese activists on the blogosphere and Twitter to do something positive; the *Guide* features online donation links, wire transfer instructions, and the home pages of NGOs active in China. The information is updated

constantly and can be viewed at CNReviews.com, a blog about China’s blogosphere, travel, entrepreneurship, and “the urban lifestyle of the generations born in the 70s and 80s in China.”<sup>161</sup>

## ***Media, Disaster Relief and Images of the Developing World***

### **Strategies for Meeting the Challenge**

#### **Strategies for the Media**

Use news resources more effectively

Designate and train development journalists

Cover efforts by indigenous organizations and individuals to prevent, anticipate, and respond to disasters

Provide professional training and review

#### **Strategies for Aid Organizations**

Articulate communications strategy

Train organization personnel to work with media

Evaluate media content

Create alternative programming

Evaluate relief organization communications

**Figure .** From Fred H. Cate, *Media, Disaster Relief and Images of the Developing World: Strategies for Rapid, Accurate, and Effective Coverage of Complex Stories from Around the Globe*, Annenberg Washington Program, March 1994. The six-page report was widely distributed both to inform discussions and influence the behavior of media and relief organizations.

Two National Public Radio hosts and producers were in the midst of pre-Olympic reporting on Chinese life and culture when the Chinese earthquake occurred; their daily dispatches immediately took on meaning and poignancy and were, to many listeners, an unforgettable audio record of the devastation and the courage of those surviving and those trying to help. Many commentators took note of the Chinese government’s willingness to let the foreign press – and the Chinese press – report on the event, with few if any limits on access. It was another story in Burma, where the junta restricted access and news reports, such as those filed with the BBC, came from sources who feared retribution and preferred to remain anonymous.

Yet media coverage tends to be short-lived, concentrating on a given disaster and its immediate aftermath, perhaps even introducing scientific perspectives on how and why it happened. If the tragedy occurs far away, American news coverage tends to be spotty, maybe even absent. Wherever it happens, eventually the publicity wanes and disappears, while recovery work continues, sometimes for years at a time. The ongoing situation in New Orleans is a gross reminder of how little we take seriously the hardship of others—even during a presidential campaign when one would expect more of our candidates about the plight of fellow Americans.

To be fair, however, journalists who live in the Gulf Region are stymied as to how best cover a progressive news event with no end in sight. Last fall, the Nieman Foundation for Journalism at Harvard University devoted an issue of its prestigious *Nieman Reports* to the topic. In “Katrina’s Aftermath: News With No End In Sight,” a number of journalists and photographers who have spent significant time trying to tell the story explore the various demands and

difficulties posed. In her introduction, award-winning editor Melissa Ludtke writes that in the past two years since Katrina wracked the region, “newspapers in New Orleans and Mississippi have made adjustments – from creating new beats to assuming a more aggressive voice – while national news organizations, determined to stay with the slow-moving story of recovery, wrestle with finding fresh ways to engage distant audiences.” She continues by quoting the special projects editor at New Orleans’ *The Times-Picayune*, Gordon Russell, who notes that while it is still possible to pick up his paper and not find a story related to Katrina, “two years after the event, Katrina is still our alpha and our omega .... The ruination wrought by Katrina – with an unwitting assist from the Army Corps of Engineers – looms over nearly everything we do. And it will for years to come.”<sup>162</sup>

---

## WEB 2.0 AND VIRTUAL TECHNOLOGY

However significant media coverage is, both traditional and newer media forms – such as social networking sites on the web, or simulation technology and video game development– are in a powerful position to do more. Because more and more people get their information from the Internet, especially about Big Events, social networking sites such as Twitter, Facebook, FriendFeed, and Flickr can get the word out, fast. As with Burma and China, this was the case during the outbreak of California wildfires: California’s public relations office noticed that conversations posted to these sites were communicating how close their homes were to the fires, whether they were being evacuated or not, and keeping updated as to the safety of loved ones. One Berkeley student set up a Facebook group to raise money for the Red Cross, which quickly became a place to exchange information on the disaster.

Even mapping tools such as those provided by GeoCommons, OpenStreetMap, Mapufacture, and Google can provide overviews of the location and severity of a natural disaster. GeoCommons.com runs a website so that users can explore a huge repository of maps and add their own information, including bridge closures, outlines of flood zones, and even Home Depot locations for supplies. OpenStreetMap has a similar model, and has presented the idea of collaborative mapping to the U.N.’s Joint Logistics Center (UNJLC), which is beginning to test the idea.<sup>163</sup> Google Earth can be used to give field workers a better sense of what they are confronting, and what they are likely to find in an area covered with, for example, thick smoke.

The use of virtual software for relief purposes is under development at Lockheed Martin’s Center for Innovation, located in Suffolk, Virginia. Lockheed Martin created the Center as a “net-centric experimentation and analysis laboratory,” which includes design of prototype command, control and communications and intelligence, surveillance and reconnaissance systems.<sup>164</sup> The defense contractor recently invited about a dozen emergency management officials to showcase their new software system that simulates various types of catastrophes, ranging from California wildfires to nuclear explosions.

---

<sup>161</sup> The *China Earthquake Donations Guide* can be viewed at [http://cnreviews.com/uncategorized/china\\_earthquake\\_relief\\_and\\_donation\\_guide\\_-\\_will\\_update\\_20080514.html](http://cnreviews.com/uncategorized/china_earthquake_relief_and_donation_guide_-_will_update_20080514.html)

<sup>162</sup> Melissa Ludtke, “Introduction” to “Katrina’s Aftermath”, *Nieman Reports*, Fall 2007 issue, available at <http://www.nieman.harvard.edu/reports/07-3NRfall/p04-intro.html>

<sup>163</sup> See Rachael King, “Making Maps Work When Disaster Strikes,” *Business Week*, 7 July 2008, available at <http://www.businessweek.com/>

<sup>164</sup> According to its website, the Center for Innovation carries out “prototype and evaluation efforts for horizontally-integrated, Net-Centric operations systems. It is a key entry point to a growing network – known as the Global Vision Network™ – of Lockheed Martin engineering and laboratory locations. With Net-Centric modeling, simulation and analysis capabilities, the Center for Innovation plays a vital role in helping define, test and assess the architectures that will be the critical underpinnings of emerging net-centric systems.” Further information on the Lockheed Martin’s Center for Innovation can be obtained by visiting <http://www.lockheedmartin.com/innovation/>

According to *Tech Stew*, the software simulation, which can be customized to suit particular areas, , creates a virtual world based on real demographic information so that police, fire, rescue, and other emergency responders can be better prepared, should the real event occur.<sup>165</sup>

There are drawbacks, however, to the use of collaborative mapping and social networking. A primary one is the difference

Public Interest in Natural Disasters		
Event	Date	% following very closely
San Francisco earthquake	Nov 1989	73
Hurricanes Katrina & Rita	Oct 2005	73
Hurricane Andrew	Sep 1992	66
<b>Midwest floods</b>	<b>Aug 1993</b>	<b>65</b>
Earthquake in Southern California	Jan 1994	63
Hurricane Hugo	Oct 1989	60
Tsunami in Indian Ocean	Jan 2005	58
Hurricanes Charley, Frances, Ivan	Sep 2004	52
Drought/Effect on farmers	Aug 1988	49
Hurricane Isabel	Sep 2003	47
Hurricane Floyd	Oct 1999	45
Fires in Southern California	Dec 1993	44
California wildfires	Oct 2007	40
Gulf coast hurricanes	Jul 2005	38
California wildfires	Nov 2003	38
Hurricanes in Gulf of Mexico	Oct 2002	38
Tornadoes in Oklahoma & Kansas	May 1999	38
Floods in California	Mar 1995	37
Hurricane Mitch	Nov 1998	36
Hurricane Wilma	Nov 2005	34
<b>Midwest floods</b>	<b>June 2008</b>	<b>34</b>

between the state-of-the-art and the state-of-the-practice. First responders have their hands full, and texting information is just beginning to catch on, as opposed to more conventional communication tools such as pencil-and-pencil. Moreover, social networking as an emergency management, education, and fundraising tool is still in its infancy, and can be used to help build a “Common Operational Picture,” as one 15-year veteran of the emergency management sector put it, and need no longer to limited to those who are geeks.<sup>166</sup>

---

#### DISASTER MANAGEMENT AND NEWS VALUES

As far as “traditional” media, everyone has heard the high-pitched sound of the regular tests of the Emergency Alert System when it interrupts our favorite TV show or radio program.<sup>167</sup> But we really do not know what to expect of the media when it comes to the grueling day-

to-day coverage of a humanitarian crisis (beyond loss of life and property damage), alerting the world to the needs of an affected area, or facilitating wider public discussions about disaster prevention and mitigation.

Moreover, when the crisis is rooted in underlying, chronic conditions, the news media has few incentives to continue reporting and analysis. At best, there may be a return visit days or weeks later, to see what progress has been made or how people are faring, compared to initial stories about their plight. Editorial decisions about ongoing impact are made, after all, within a bottom-line context that prefers a “lead that bleeds,” rather than public education about reconstruction and prevention. Plus, editors are influenced by public “compassion fatigue” or “disaster fatigue,” in a competitive environment

<sup>165</sup> Matthew Sturdevant, “Disaster Training: Software That Virtualizes Calamities,” *Tech Stew*, 10 August 2008, available at <http://www.linuxinsider.com/story/Disaster-Training-Software-That-Virtualizes-Calamities-64111.html>

<sup>166</sup> Brian Jackson, “Web 2.0 Meets Emergency Needs,” *PCWorld*, 21 June 2008, at <http://www.pcworld.com/article/id,147385-c,sites/article.html#>

<sup>167</sup> The Emergency Alert System (EAS), which supersedes the Emergency Broadcast System, was put in place by the Federal Communications System in 1994. There are about eighty events covered, mostly for weather-related or civil emergencies; more recently, the EAS includes so-called “Amber Alerts” for child abduction. The FCC shares responsibilities for its maintenance and testing with FEMA and the National Weather Service. Efforts are currently underway to improve capability so that digital transmissions of emergency alerts can be sent to cell phones, pagers, computers, and other digital devices.



that values self-gratification more than social responsibility. Finally, there's the problem of available resources; most media operations are experiencing cutbacks and layoffs, which means that disaster and humanitarian crisis prevention and recovery reporting is likely to be even more limited.

The issue of the role of news media in disaster coverage has been addressed in some forums and conferences, particularly at the 2005 World Conference on Disaster Reduction. There, a Roundtable on the Media, Scientific Information, and Disasters examined the communication challenges facing scientists, engineers, government officials, first responders, specialists, and the media in disaster prevention and mitigation. They called for more and better partnerships, and greater sensitivity to the socio-political context of disaster aid. "A news story about the damage inflicted by a cyclone, for example, could just as easily include information about the types of structures that survived and those that did not."

Tuft's Dr. Peter Walker has gone on record concerning the media's portrayal of disasters and the impact these portrayals have on the public's perceptions of developing countries, and of humanitarian aid organizations. While serving as director of the Disaster Policy Project at the IFRC, Walker was a participant in a yearlong Annenberg Washington Program project (1993-1994) on the effects of news media coverage on disaster relief. The Annenberg project issued a final report entitled *Media, Disaster Relief, and Images of the Developing World*, which generated a number of strategies for how the media and relief organizations could do a better job. He also has challenged his colleagues in the humanitarian sector to be honest about the motives and ramifications of their public relations / communications, about whether their strategies for fundraising and public awareness end

---

#### THE PRIVATE SECTOR & CLIMATE CHANGE: EXPANDING THE FOCUS TO NATURAL DISASTERS & CATASTROPHES

While the private sector is more engaged than ever in efforts to limit *future* climate change-- you could argue that it is more progressive than our federal government actions -- less attention is being paid to increasing risks to populations and investments as a result of *existing* climate change. With the exception of important initiatives such as Ceres-sponsored reports -- such as that published last fall on the insurance industry<sup>168</sup> -- and the work of the Fritz Institute and ProVention, very little, however, has been done with respect to vulnerability to catastrophic events, to efforts that reduce loss and disruption, to preplanning for sustainability, or to public policy implications beyond immediate profitability concerns.

Why is this so? I believe there are two major reasons. One is that business, despite its recent embrace of corporate social responsibility, traditionally has seen the problems posed by natural disasters or pandemics as a job for humanitarian organizations and government. (Most of the public are of this view, too.) A second reason is that, until relatively recently, scientific assessments of the *impact* of climate change have been ignored. Now that the reality of climate change has been accepted, business has responded quickly to protect their investments and interests without fully recognizing that, within their sphere of influence, they can adopt measure that protect the investments and interests of stakeholders who are at-risk, too.

---

<sup>168</sup> See Evan Mills, *From Risk to Opportunity: 2007 – Insurer Response to Climate Change*. Boston, Mass.: Ceres, October 2007.

Because corporate social responsibility (CSR) now has pretty much spread to the mainstream of management practice, CSR can serve as a powerful platform from which to advance on climate related loss prevention and sustainability strategies. It also can be a springboard for reducing vulnerabilities among the most at-risk populations, particularly the poor, those living in or near high-risk areas, and others who are most affected by the consequences of global warming—including human health disasters. Put another way, now is the time to bring disaster risk reduction into the mainstream of business practice, too—as distinct from emergency response. Financial institutions such as the World Bank and insurance companies have undertaken this, as they assess infrastructure loan sustainability or development policy.

Alas, CSR, socially responsible investing (SRI) – as well as the related fields of social enterprise, social entrepreneurship, and venture philanthropy – seem to occupy a parallel universe to that occupied by humanitarian, military, and NGOs concerned about disaster risk reduction, relief, and recovery. There is very little institutional, professional, or policy overlap, and practitioners do not seem to know each other, or have awareness of their shared worries, concerns, values, and commitments. This poses unique opportunities for constructive and worthwhile interdisciplinary collaboration in areas such as education and training; professional development; capacity building; problem setting and solving; monitoring and assessment; research and development; strategic planning; public education and communication; and policy deliberation and decision making.

## FOUNDATIONS & SOCIAL ENTREPRENEURS

Many people are aware of the role that foundations and social entrepreneurs play in encouraging innovation and diverse approaches to problem solving. They can provide funding and tackle stubborn social issues in ways that government cannot, or has not contemplated. They can encourage civic participation, and draw attention to policy gaps or failures. They also can introduce accountability measures and metrics that help assure success in reaching their goals—or, if need be, changing course.

Most of the time, however, only a fraction of the power of foundations and social entrepreneurs is understood. This section briefly describes multiple other ways in which their power – meaning their capital and social assets – can be leveraged in pursuit of better disaster and catastrophe resilience, relief, and recovery operations. For example, foundations are instrumental not only as donors of money, but through provision of logistical support, expert analysis, and human services in communities suffering from natural disasters. As Dr. Edward Blakely, head of the Office of Recovery Management in New Orleans told *The Wall Street Journal*, “The greatest challenge to New Orleans is the fact that, as in many cities, the community had many issues well before the hurricane: housing abandonment, schools closed and turned over to the state, and public housing closed by the federal government.” Recovery, then, must address pre-existing deficiencies, for which FEMA and other federal government resources are limited. Therefore, “We need foundations that are accustomed to giving to [begin to] think about investing...using their endowments and asset portfolios to work with the banks and provide backstopping for home loans that regulators would normally reject because of loan-to-value ratios. Then we would work with the neighborhood to come up with funding packages.” The Ford Foundation, the Rockefeller Foundation, the Bill &

Melinda Gates Foundation, and the Clinton Foundation have supported these efforts, along with Freddie Mac and other donor groups.<sup>169</sup>

In the Council on Foundations report, *We Were There: The Role of Philanthropy in National Disasters*, four stories are presented about how foundations have responded to disasters, including the 1989 San Francisco earthquake, the 1995

Oklahoma City bombing, the 9/11 terrorist attacks in 2001, and Hurricanes Katrina and Rita in 2005. Running through each vignette is a strategic focus on long-term solutions, emphasizing on innovation and cooperation.<sup>170</sup>

## 8 Principles of Good Disaster Grantmaking

**First, do no harm.**

**Stop, look, and listen before taking action.**

**Don't act in isolation.**

**Think beyond the immediate crisis to the long term.**

**Bear in mind the expertise of local organizations.**

**Find out how prospective grantees operate.**

**Be accountable to those you are trying to help.**

**Communicate your work widely, and use it as an educational tool.**

Source: *Disaster Grantmaking: A Practical Guide for Foundations and Corporations*, 2007.

---

### FIGHTING THE FURY AND THE STEWARDSHIP ETHIC

When disaster strikes, people understandably turn to foundations and other charitable institutions for help, in addition to NGOs within the humanitarian sector. More than 1.1 million charities and private foundations were registered with the Internal Revenue Service, as of 30 September 2007, according to the *Chronicle of Philanthropy*.<sup>171</sup> Many of them are called upon to provide relief assistance to the emergency conditions, yet their potential for achieving sustainability is bigger than that.

According to the Council on Foundations, foundations and corporations are becoming more active in the disaster relief field. “Grantmakers have a distinct role to play in disasters because of their ongoing relations with grantees, long-term perspective, flexibility and [their] convening capacity,” opines the Joint Working Group of the European Foundation Centre and the Council on Foundations in their second edition of *Disaster Grantmaking: A Practical Guide for Foundations and Corporations* in April

<sup>169</sup> See Emily Y. Meehan, “Philanthropy’s Role In Disaster Relief,” *The Wall Street Journal*, 10 December 2007, accessed at <http://online.wsj.com/article/SB119678678686113264.html>

<sup>170</sup> Council on Foundations, *We Were There: The Role of Philanthropy in National Disasters* (Washington, D.C.: Council on Foundations, 2008). The report can be downloaded by visiting the Council’s website at <http://www.cof.org/files/Documents/Publications/WeWereThere.pdf>

<sup>171</sup> Grant Williams, “IRS Says Number of Charities Rose 6% in 2007,” *Chronicle of Philanthropy*, 12 June 2007. According to the IRS, in 2007 a total of 1,128,367 charities and foundations were registered with the federal government, compared with 1,064,191 in 2006. The number of groups classified under Section 501(c)(3) of the Internal Revenue Code rose from 2006 to 2007 by 64,176, the highest percentage increase in four years. This does not include other tax-exempt organizations, such as social and recreation clubs, fraternal beneficiary societies, state-chartered credit unions, corporations organized under act of Congress (such as the American Red Cross), labor and

---

agricultural organizations, and social welfare organizations. This information is contained in the *IRS Data Book 2007*, and can be viewed at <http://www.irs.gov/pub/irs-soi/07databk.pdf>

2007.<sup>172</sup> The report issues practical tips for grantmakers to consider when responding to emergency situations, and suggest eight “Principles of Good Disaster Grantmaking” to assure strategic effectiveness.

For example, after a disaster, foundations can use more than their grant dollars to help communities rebuild; they have a reservoir of “soft power” that can be brought to bear, too. “Foundations can use their social capital as a kind of collateral for those whose former credentials and written proposals understate their potential and reliability,” says James A. Joseph, chairman of the Louisiana Disaster Recovery Foundation and former president and CEO of the Council on Foundations (1982 – 1995). A Louisiana native and former ambassador to South Africa, Joseph holds a joint appointment at Duke University and the University of Cape Town and oversees the U.S. – Southern Africa Center for Leadership and Public Values, based in Durham and Cape Town.

Speaking to participants at the Council on Foundations annual meeting in May of this year, Joseph said that foundations can help local nonprofit groups in affected areas gain access to expertise about what has worked elsewhere, while using their “reputational capital” to advance recovery and redevelopment. Foundations also can deploy their networks of contacts to encourage greater collaboration. “Building coalitions will require that we work with, rather than simply on behalf of, those who

## 10 Principles for Foundation Support of Effective Disaster Related Advocacy

**Foundations need to invest in building and strengthening advocacy capacity of all organizations now.**

**Foundations need to develop their own advocacy capacity.**

**General support and other types of flexible funding are needed immediately after disasters.**

**Funding grassroots leadership development and community organizing efforts should be a priority.**

**Foundations must work with and through local organizations and people.**

**Foundations need to support grantees to make positive, systemic, and infrastructure changes in communities after a disaster.**

**Foundations need to think long-term.**

**Foundations should collaborate to hold government and businesses accountable.**

**Grantmakers should recognize the critical role of government in disaster work by supporting and encouraging grantee engagement with the public sector.**

**Foundations need to have communication strategies in place, especially related to disaster planning and recovery.**

Source: *Power Amidst Chaos: Foundation Support for Advocacy Related to Disasters*, 2007.

<sup>172</sup> First issued in November 2001 after two years of discussion, the report can be downloaded by visiting [http://www.cof.org/files/Documents/International\\_Programs/disasterguide.pdf](http://www.cof.org/files/Documents/International_Programs/disasterguide.pdf) Further information on U.S. grantmaking resources that can be mobilized after international disasters can be obtained at <http://www.usig.org/resources/disastergm.asp>

suffer most in the crisis – mainly the poor and those who are marginalized because of color or culture.”<sup>173</sup>

Along these lines, many foundations have developed grantmaking policies for responding to catastrophes, not only to provide relief to victims, but also to support advocacy efforts aimed at empowering affected communities in the policy decisions that affect them.

On the advocacy side, in 2007 the Alliance for Justice, in partnership with the Louisiana Disaster Recovery Foundation and the Foundation for the Mid South, published *Power Amidst Chaos: Foundation Support for Advocacy Related to Disasters*. Animating this is the idea that local civic engagement is crucial to disaster preparedness, resilience, and recovery, well beyond immediate emergency services. As the Gulf Coast has learned post-Katrina and Rita, the process of long-term recovery and rebuilding generates myriad public policy questions as well as the need for systematic change. Active involvement in community affairs is a necessary predicate for holding government officials accountable and for assuring sustainable redevelopment and readiness. The philanthropic sector can help promote this by working collaboratively with nonprofits and supporting their strategies and action plans for response and recovery. Foundations also can play a catalytic role by supporting emerging leadership and “increasing the policy advocacy capacity that is needed to make fundamental movement toward the equitable rebuilding of the region—and essential disaster preparations for the nation.” Without this, “future disasters are likely to be met with some of the same failures that are still plaguing the Gulf Coast today.”<sup>174</sup>

---

#### INVESTING FOR RESILIENCE & SUSTAINABILITY

Beyond their role as grantmakers and conveners, foundations also are able to utilize the other 95 percent of their assets to encourage disaster resilience. With more than \$500 billion in assets, U.S. foundations have more power, and more responsibility, than the amount of money they distribute in grants each year suggests, and should begin to think about how they use this other 95 percent, Jim Joseph told the Council on Foundations group. “Some thoughtful people in the field are beginning to ask: Should a private foundation be more than a private investment company that uses some of its excess cash flow for charitable purposes? I am delighted that more and more foundations are beginning to put a larger share of their assets in the service of their mission.”<sup>175</sup>

Across the portfolio – equities, fixed income, so-called “alternative investments,” cash instruments, and so forth – foundations and endowments can achieve financial and non-financial objectives, consistent with their institutional mission. As activist shareholders – as well as through their investments in clean energy companies; clean technology funds; real estate; economic and social infrastructure; timber, forestry, and water; and community development – foundations can advance sustainable development, protect their assets against inflation while assuring a steady cash flow, and more fully enact their fiduciary duty. Such a holistic approach has yet to be embraced, and is a wonderful opportunity for IGL to exploit.

---

<sup>173</sup> Nicole Wallace, “More Than Money: How Foundations Can Help After a Disaster,” News Updates – Conference Notebook, *The Chronicle of Philanthropy*, 6 May 2008, available at <http://philanthropy.com/news/conference/4622/more-than-money-how-foundations-can-help-after-a-disaster>

<sup>174</sup> Linda Usin, *Power Amidst Chaos: Foundation Support for Advocacy Related to Disaster*, ed. Holly Yeager (Washington, D.C.: Alliance for Justice, 2007). Alliance for Justice is a coalition of progressive organizations that was established in 1979 to encourage nonprofits and foundations to engage in public policy advocacy. A copy of the *Amidst Chaos* report can be download at <http://www.afj.org/for-nonprofits-foundations/resources-and-publications/free-resources/power-amidst-chaos.html>

<sup>175</sup> Wallace, “More Than Money.”

In addition to public infrastructure bonds that help build bridges, roads, tunnels, and dams, private infrastructure equity investing includes a broad mix of businesses that produce essential social services. Infrastructure investing of this kind began in Australia, and over the past ten years has taken root in the U.K. and Europe, yet is slow to catch on in the U.S. Falling somewhere between stocks and bonds with regard to risk exposure, many infrastructure projects are subject to government oversight and regulation and are highly leveraged, so must be handled with care. Generally speaking, infrastructure stocks occupy two categories, **economic** and **social**. Economic infrastructure projects – which Standard & Poor’s categorizes as utilities, transportation, and energy – support commerce and include such items as toll roads, bridge operators, airport and port operators, utility companies, and companies involved in natural gas or petroleum transportation. Social infrastructure projects include facilities such as schools, public healthcare facilities, or correctional facilities.<sup>176</sup> This is a relatively new and growing field, with opportunities for direct or pooled investing. Given the importance of “[re]building right” to assure resiliency both before and after natural disasters and catastrophes have occurred, it is a field well worth understanding, not only for finance professionals but also for trustees and policy makers.

---

#### INNOVATION FOR IMPACT: SOCIAL ENTREPRENEURS & DISASTER MANAGEMENT

The notion of entrepreneurship is old, but its application to value-creating enterprises, beyond financial prosperity, has grown rapidly over the past 10 years. An extension of the idea of socially responsible investing, social entrepreneurship, as defined by its leading guru J. Gregory Dees, founding faculty director of Duke University’s Center for the Advancement of Social Entrepreneurship (CASE) and professor of the practice of social entrepreneurship and nonprofit management at Duke’s Fuqua School of Business, is about **innovation and impact**, not income.

A social entrepreneur is not someone who aims for a double or triple bottom line; he or she aims for make a better world. A social entrepreneur, by definition, wants to “implement innovative programs, organizational structures, or resource strategies that increase their chances of achieving deep, broad, lasting, and cost-effective social impact,” Dees says. This does not preclude initiatives that have an earned-income dimension, nor does it discourage the use of business methods to achieve social ideals. The basic point, according to Dees, is that social entrepreneurs organize, govern, and manage their institutions according to the social value created, rather than financial value. Moreover, they evaluate and assess their success and effectiveness according to the impact—which means commitment to continued improvement. “Social sector leaders should look for creative resource strategies that enhance their impact, rather than simply sustain their organizations. By embracing a definition of social entrepreneurship that focuses on innovation and impact, we can assure that social objectives are taken seriously in the entrepreneurial process. In the end, social entrepreneurship must be about creating social value, not simply about making money.”<sup>177</sup>

Within the field, numerous case studies and articles defining social entrepreneurship have been published over the past several years; many of them can be accessed through the Social Science Research Network (SSRN), which maintains a

---

<sup>176</sup> See especially the background reports on “Thematic Investment” produced by the U.K. based Responsible Investor. These include a number of documents covering clean energy, climate change, infrastructure, timber, and water, and can be downloaded by visiting [http://www.responsible-investor.com/reports/reports\\_page/thematic\\_investment/](http://www.responsible-investor.com/reports/reports_page/thematic_investment/)

<sup>177</sup> See Greg Dees, “Social Entrepreneurship is About Innovation and Impact, Not Income,” which originally appeared in September 2003 on the Skoll Foundation’s *Social Edge* website. It can be accessed at <http://www.fuqua.duke.edu/centers/case/articles/1004/corner.htm> Greg Dees’ original article, *The Meaning of Social Entrepreneurship*, originally written in 1998 when he was creating the Initiative on Social Enterprise at Harvard Business School, can be downloaded at [http://www.fuqua.duke.edu/centers/case/documents/dees\\_se.pdf](http://www.fuqua.duke.edu/centers/case/documents/dees_se.pdf)

worldwide electronic library of high-quality research.<sup>178</sup> SSRN has collaborated with the University Network for Social Entrepreneurship to create and maintain an E-Journal, which provides working and accepted papers and abstracts, course materials, and broader “field building” publications concentrating on social entrepreneurship.<sup>179</sup> Business schools offering important full-time MBA programs that integrate social, environmental, and financial responsibility are ranked annually by *Beyond Gray Pinstripes*, initiated by the World Resources Institute in 1998 and now a project of the Aspen Institute; the Top 10 schools include Stanford, the University of Michigan, York University; UC Berkeley, Notre Dame, Columbia, Cornell, Duquesne, Yale, and IE Business School in Madrid.<sup>180</sup>

In the midst of its diversity, there are certain features and challenges most social entrepreneurs confront. These include whether or not to incorporate as a nonprofit or profit-making enterprise; developing appropriate measures for gauging success; cultivating public-private and cross-sector partnerships; working with stakeholders and communities; finding the right “fit” or “size,” which sometimes means scalability for greater impact; and determining appropriate earned income strategies. Authors John Elkington and Pam Hartigan describe some of these in their recent book, *The Power of Unreasonable People: How Social Entrepreneurs Create Markets That Change the World*.<sup>181</sup> While most social entrepreneur activity revolves around education, poverty alleviation, and environmental concerns, there are signs that disaster resilience is emerging as an appropriate topic.

For example, in 2005 – 2006, Ashoka’s Changemakers.net, a social networking website devoted to connecting the insights and best practices of social entrepreneurs with citizens in the field, hosted a competition on “Meeting Disasters: How to Prepare and Respond.”<sup>182</sup> Changemakers.net collaborated with the Fritz Institute, and used what they call a “Mosaic of Solutions,” a matrix involving core principles and critical needs, to categorize program initiatives or mini-cases.<sup>183</sup> Twenty-two entries of existing projects were submitted from all over the world;<sup>184</sup> there were three winners – GOONJ, a grassroots urban and rural network in India that can be mobilized rapidly when disaster strikes;<sup>185</sup> a Peruvian program called Estrategia – Mujeres Unidas para un Pueblo that builds disaster resilient housing built by self-help and community organizations in low-income communities;<sup>186</sup> and Comité de Emergencia Garifuna de Honduras (Garifuna Emergency Committee of Honduras), organized after 1998’s Hurricane Mitch, to foster holistic and integrated disaster recovery projects in partnership with sixteen Honduran communities.<sup>187</sup>

<sup>178</sup> Scholarly work on social entrepreneurship archive by the SSN can be found at [http://papers.ssrn.com/sol3/JelJour\\_results.cfm?form\\_name=journalBrowse&journal\\_id=966577&Network=no&SortOrder=numHits&stype=desc&lim=false](http://papers.ssrn.com/sol3/JelJour_results.cfm?form_name=journalBrowse&journal_id=966577&Network=no&SortOrder=numHits&stype=desc&lim=false)

<sup>179</sup> Access to the E-Journal can be gained by visiting <http://www.universitynetwork.org/>

<sup>180</sup> <http://www.beyondgreypinstripes.org/>

<sup>181</sup> See John Elkington and Pam Hartigan, *The Power of Unreasonable People: How Social Entrepreneurs Create Markets That Change the World* (Boston: Harvard University Press, 2008)

<sup>182</sup> More information on the Ashoka / Changemakers.net / Fritz Institute disaster initiative can be viewed at <http://proxied.changemakers.net/journal/300510/>

<sup>183</sup> The disaster-related “Mosaic of Solutions” can be viewed at <http://proxied.changemakers.net/journal/300510/mosaic.cfm>

<sup>184</sup> A list of all the entries can be viewed at <http://proxied.changemakers.net/journal/300510/finalists.cfm>

<sup>185</sup> More information on GOONJ can be viewed at <http://www.goonj.info/>

<sup>186</sup> More information on Estrategia – Mujeres Unidas para un Pueblo Mejor can be viewed at <http://proxied.changemakers.net/journal/300510/displaydis.cfm-ID=30>

<sup>187</sup> The work of the Garifuna Emergency Committee of Honduras can be viewed at <http://proxied.changemakers.net/journal/300510/displaydis.cfm-ID=29>



Another illustration of the power of social entrepreneurs to tackle disaster challenges is a project launched by former Echoing Green fellows called A Single Drop for Safe Water (ASDSW).<sup>188</sup> ASDSW is a Filipino program that also serves as a rapid-response team member of the global Emergency WASH Cluster. (Unicef is the lead agency for the WASH Cluster; the acronym means “Water, Sanitation and Hygiene.”)<sup>189</sup>

While well intended,

Tori Hogan, *Beyond Good Intentions*

#### IV. MEETING THE CHALLENGE: A THREE RING PLAN FOR IGL & TUFTS

These areas are mutually reinforcing, and presume IGL / ALLIES cooperation and coordination with other Tufts units having expertise in relevant areas, including the Friedman School of Nutrition Science and Policy; the Feinstein International Center; the Tisch College of Citizenship & Public Service / Lincoln Filene Center for Community Partnerships; the Fletcher School; Cummings School of Veterinary Medicine; the Department of Urban and Environmental Policy and Planning; Department of Civil and Environmental Engineering; the International Relations Program; the Communication and Media Studies Program; and so on. There are many external partners, some of which are referenced here and to which I have been connected.

#### INDIVIDUAL

##### MISSION: CIVILIAN – MILITARY EDUCATION

**GOAL:** *Provide educational opportunities to develop knowledge and competence regarding disaster risk reduction (DRR), prevention, and sustainable development*<sup>190</sup>

**OUTCOME MEASURES:** Number of students successfully completing program; number of students continuing their studies in related fields; number of constructive “multi-lateral” relationships established; mutual referrals made; progress towards certification

- Establish top 5-10 priority topics following inventory of needs, area offerings, Tufts priorities, and opportunity gaps.
- Cultivate a “**Citizen Catastrophe Corps**” (“**CIT-CAT Corps**”) that is modeled on the **Peace Corps / AmeriCorps** yet is called up on short notice. The CIT-CAT Corps would leverage existing **Citizen Corps** networks, and draw on training curricula developed by **UN OCHA, USAID, FEMA’s Emergency Management Institute, armed forces, and the Feinstein Center**

<sup>188</sup> See <http://www.echoinggreen.org/fellows/gemma-bulos-and-kevin-lee>

<sup>189</sup> The framework for Unicef’s WASH Cluster can be viewed at [http://www.unicef.org/wes/files/Global\\_WASH\\_Cluster\\_Appeal\\_and\\_Strategic\\_Framework\\_71214.pdf](http://www.unicef.org/wes/files/Global_WASH_Cluster_Appeal_and_Strategic_Framework_71214.pdf)

<sup>190</sup> Certain prerequisites may apply. The IGL / ALLIES offerings would complement the work of a number of Tufts faculty, especially the Humanitarian Studies Initiative (HSI) with Harvard and MIT. The core of HSI is a course offered by Peter Walker and Jennifer Leaning, DHP D213, “Humanitarian Studies in the Field,” which offers “a practical and in-depth analysis of the complex issues and skills needed to engage in humanitarian work in field settings.” The course features a 3-day field simulation of a humanitarian crisis, held each April. Also relevant is Tariq Banuri’s course, DHP P223 on “Developing Countries and the Politics of Sustainable Development,” which examines the evolution of sustainable development over the past 30 years, the role of non-state actors, and various perspectives on the paradigm, its limits, and possibilities. Another pertinent class is EIB E246, “Natural Resource and Environmental Economics,” which is taught by Jonathan Harris and studies the underlying issues and contemporary concepts in environmental economics, including climate change. No doubt there are a number of others. No doubt there are many others unfamiliar to me.

(especially **Peter Walker** and **Jennifer Leaning**). Begin at local / state level by developing a scalable model, in conjunction with **FEMA / Massachusetts Emergency Management Agency** and **Community Emergency Response Teams (“CERT”)**, area business continuity managers, and, if possible, **National Guard** units engaged in emergency management

- Co-sponsor with **ALLIES** civilian-military educational programs in different formats (modular, distance learning, training exercises, October Intellectual Roundtable, January executive session, summer session) on critical issues pertaining to disaster risk reduction and prevention
- Co-sponsor with **ALLIES** civilian-military roundtables, involving key institutional partners from the NGO community and private sector, such as **CERES**, **ProVention Consortium**, **Global Reporting Initiative**, **World Economic Forum**, **National Committee for Responsive Philanthropy**, **Community Investment Network / LISC**, and so forth
- Explore potential for Disaster Risk Reduction & Prevention certification in conjunction with military education partners
- Establish advisory board comprising key military, business, media, humanitarian aid, and emergency management leaders; **Friedman School**; **Fletcher School**; **Tufts / Harvard / MIT Humanitarian Studies Initiative**; and urban planning, engineering experts, climatologists, climate risk management experts, *et. al*

---

#### MISSION: EXPERIENTIAL LEARNING

**GOAL:** *Provide structured opportunities & significant exposure for students to apply DRR / prevention framework + knowledge in real-world settings with practitioners and / or sustainable enterprise entrepreneurs (SEE)*

**OUTCOME MEASURES:** Number of students successfully completing program; number of students continuing their studies in related fields; number of constructive “multi-lateral” relationships established; mutual referrals made; number of participants in Web-distributed conversations; number of prominent experts participating in and benefiting from ventures; number of spin-offs with similar aims

- Organize and run training exercises in conjunction with local, regional, national, and international emergency response teams (one precedent is the **FA HUM 08, “Fuerzas Aliadas Humanitarias 2008”** held May 11 – 15, 2008, sponsored by **USSOUTHCOM / Salvadoran Ministry of Defense**; another is the **Guatemala conference on Youth Leadership and Civic Engagement in Central America** organized by the **Project on Justice in Times of Transition** and **IGL**; a domestic version is the annual exercise run by **Peter Walker** and **Jennifer Leaning**)
- Organize and run a structured education immersion for students to work alongside a social entrepreneur or innovative program that concentrates on aspects of DRR / prevention. Possible sites: **San Francisco (Fritz Institute)**; **New Orleans (JFK Broadmoor** project; or a separate site, which needs to be established); **Other US Regions (Resilient Coasts Initiative / Ceres**; other inland sites determined at risk); **Central / Latin America** (Guatemala; El Salvador? TBA); **Southeast Asia / Indonesia**; **China**; **India / Bangladesh**
- Organize, host, and maintain a Web 2.0 initiative that utilizes tools such as Google mapping and social networking to create a networked community of those interested in keeping up-to-date on DRR / prevention practices and emergency management activities. Invite prominent professionals and experts as commentators / guides to help build credibility and reputation. Identify relevant allies and networks (**Wharton School’s “Supernova Conference,” Harvard’s Berkman Center** and **David Lazer’s Program on Networked Governance**, **Arthur Bushkin’s Stargazer Foundation**, among others)

---

#### MISSION: SUSTAINABLE ENTERPRISE ENTREPRENEURS (SEE)

**GOAL:** *Provide opportunities for furthering ideas and nurturing the development of Sustainable Enterprise Entrepreneurs (SEE)*

**OUTCOME MEASURES:** Number of students / practitioners working on innovative solutions to problems generated by increase in weather-related catastrophes, including the food crisis

- In conjunction with **Social Ventures Network**, **Echoing Green**, and other organizations encouraging entrepreneurship, sponsor entrepreneur internships / apprenticeships for students interested in expanding their skill sets and experience
- Sponsor a *SEE the Future* competition for student groups and bestow awards for most promising ideas and work plans at annual EPIIC conference
- Sponsor a lecture *SEE-ries* that brings notable examples of Sustainable Enterprise Entrepreneurs on campus to provide insight into their efforts

---

#### MISSION: KNOWLEDGE DEVELOPMENT & TRAINING

**GOAL:** *Develop new knowledge and provide educational and training opportunities for practitioners and volunteers about DRR / prevention and food crisis, in collaboration with reputable partners*

**OUTCOME MEASURES:** Number of articles, case studies, monographs, working papers; number of courses, modules, portable training units; number of public lectures, presentations, requests for information; number of conference, consultations, Web-based “distributed conversations”;

- New undergraduate course on CSR / SRI and DRR / prevention and food crisis and integration of topic in existing Tufts course offerings
- Partner with other **Tufts** and area school resources (**Harvard, MIT, Boston University**) on innovative approaches to top 10 topics
- Partner with **UN University** and **FEMA’s Emergency Management Institute** to develop executive education course on DRR / prevention and food crisis for private sector and volunteer engagement

### INSTITUTIONAL / PROFESSIONAL

---

#### MISSION: STRENGTHEN COMMUNITIES OF PRACTICE

**GOAL:** *Serve as a “knowledge intermediary” by providing fora for business, grantmaking, financial services, and media sectors, involving science and policy makers, to help raise profile of and develop knowledge and competence regarding disaster risk reduction, prevention, and food crisis*

**OUTCOME MEASURES:** Number of companies pledging commitment to DRR / prevention principles in their core business plans; no. of constructive media events about DRR / prevention and food crisis, including integration in entertainment story lines; number of new ventures + evaluations of entrepreneurial projects with respect to DRR / prevention and food crisis; bundling of innovative practices into sectors with benchmarking potential

- Co-sponsor, with Ceres, ProVention Consortium, Fritz Institute, World Economic Forum, UN ISDR, Business Roundtable, Conference Board, U.S. Chamber of Commerce, and insurance cos. such as Swiss Re, Munich Re, and Lloyds of London, a colloquium on private sector engagement with high-level representatives from the building / construction / commercial real estate development; media; utilities; pharmaceutical / health; and food industries. Would include section on integration of tentative DRR / prevention metrics into CSR reporting, in conjunction with Global Reporting Initiative (GRI)<sup>191</sup>
- Co-sponsor, with Investors Circle (Woody Tasch, Carol Atwood, Mark Finser, Dominic Kulik); Skoll Foundation; Beyond Good Intentions (Tori Hogan); Duke CASE (Greg Dees); and Social Venture Network / New Profit, Inc. (Vanessa Kirsch) a

---

<sup>191</sup> Possible sponsors / partners might include Engineers Without Borders;

DRR / Prevention and Food Crisis Social Innovation Symposium on exemplars of social entrepreneurship.<sup>192</sup> Possible award for Best Practice; first year recipient would be the Fritz Institute for creative solution to logistics & “bottom up” mapping

- Co-sponsor, with Council on Foundations, Jim Joseph, and National Committee for Responsive Philanthropy a consultation on foundation support for disaster risk reduction / prevention, reconstruction, and the food crisis to help them establish best practices for establishing grantmaking and investment priorities (include Chronicle of Philanthropy?)
- Co-sponsor, with Social Investment Forum, Responsible Investor, the Community Investment Network, and LISC a consultation on strategies social investors might consider to integrate DRR / prevention and food crisis concerns into their product offerings, including thematic and infrastructure investments

---

#### MISSION: BUILDING BENCHMARKS & METRICS

**GOAL:** *Help advance the development of industry-specific outcome measures that can facilitate assessment of DRR / prevention and food crisis alleviation*

- Consult with Global Reporting Initiative and Bob Massie on form and nature of industry-specific benchmarks or metrics that address DRR / prevention and food crisis concerns, using the GRI as a platform, which can be used by shareholders and the general public
- Organize and host consultation with select group of companies, including representatives from major shareholder groups and CSR / SRI professionals, on corporate engagement with DRR / prevention, beyond business continuity and corporate philanthropy
- Develop and publish case studies on positive examples of corporate / industry action on DRR / prevention, beyond business continuity and corporate philanthropy
- Public session on efforts of Global Alliance for Improved Nutrition (GAIN) to grow innovative business models, investments for nutrition, and corporate commitment to nutrition<sup>193</sup>

---

#### MISSION: DREAM: DISASTER RESILIENCE, ENTERTAINMENT, AND MEDIA

**GOAL:** *Provide opportunities for professional development and support to media and entertainment industry in covering / conveying stories about disasters, their context and causes, consequences, and actions taken for building future resilience and solving the food crisis*

**OUTCOME MEASURES:** Number of practitioners participating in special seminars, consultations, conferences; degree of in-depth coverage in various media outlets and entertainment venues; alliances built with prominent journalists, digital & motion media creators, funders, and producers; number of constructive media events and products about DRR / prevention and food crisis, including integration in entertainment story lines and features

- Sponsor lecture series on media (journalism and entertainment) and DRR / preventions and food crisis in conjunction with the **Nieman Foundation, Shorenstein Center**, other partners (Anderson Cooper, Rick Kaplan, Hodding Carter, Rick Smith)<sup>194</sup>
- Initiate and create structure for ongoing dialogue with **Alliance for Independent Motion Media / AI Gore / Planet Green** (Discovery Channel) / **Sundance Channel** / Hollywood / New York contacts to determine opportunities for incorporating DRR / prevention into current environmental / climate change initiatives and themes, including the Environmental Media

---

<sup>192</sup> Note IBLF / GAIN business award for nutrition, deadline is 8 September 2008.

<sup>193</sup> Builds on discussions at GAIN Global Forum, 6-7 May 2008. Jay Naidoo, board chair

<sup>194</sup> Builds on MM work at Harvard Divinity School

Association and other related groups (Norman Lear, Gary David Goldberg, Dick Wolfe, Jeffrey Katzenberg, Steven Bochco, David E. Kelley, Tom Fontana)<sup>195</sup>

- Sponsor student media competition on DRR /prevention and food crisis, with award presentation during EPIIC colloquium. Award categories could include, but not be restricted to, moving image; documentary; web / online; simulation technology / video game development

## COMMUNITIES

### MISSION: PARTNERSHIPS FOR SUSTAINABLE COMMUNITIES

**GOAL:** *Build resilience at community level, following lead of ProVenton, Fritz Institute, FEMA, Kennedy School Broadmoor Project, and other reputable agents regarding key indicators*

**OUTCOME MEASURES:** Number of “hazard maps” showing / assessing risks and threats, with descriptive materials and maps; mitigation / preparedness checklists for communities; transparent reporting and monitoring structures; public awareness campaign of risks, prevention, readiness, and response plans; volunteer “CIT-CAT Corps” to work with local / regional emergency management officials; number of sustainable development strategies / initiatives begun or number already underway that have been strengthened; number of cross-sector alliances formed

- Collaborate with **Ceres** and **Heinz Center on Resilient Coasts Initiative** to establish opportunities for students to conduct research and engage in educational immersion projects
- Collaborate with **Fritz Institute, ProVenton, Harvard’s Broadmoor Project, FEMA / Massachusetts Emergency Management Agency** to ascertain how best to make progress toward building community resilience
- Build upon **Tufts New Orleans** initiative, in conjunction with **Synaptic Scholars, Tisch College**, and other interested student organizations and faculty
- Identify local opportunities – Medford, Everett, Boston, Chelsea – for pilot project research into preparedness / readiness and emergency plans, see above, **I. INDIVIDUALS** proposed establishment of a scalable **Civilian Catastrophe Corps**.
- Sponsor lecture series involving individuals from affected communities as to key lessons / insights in DRR / prevention and food crisis

<sup>195</sup> Ibid.