

2012 – Davos, Switzerland

Building on our successful conferences in Zurich and Washington, DC, we sought to explore three core themes on community resilience:

- How local communities impacted by crises and disasters build capacities (and capabilities) to respond to these events. Specifically, we explored studies that look at how local communities redeploy existing resources, infrastructures, and people to respond and recover from a disaster.
- An examination of citizen engagement, deployment of technology, and network-centric collaboration around planning, response, and recovery from disasters.
- A review of public policy implications for planning and designing resilient nations. Engaging with the policy and governance apparatuses (budgeting, coordination of public programs, planning for uncertainty and longer time horizons, etc) of nations is critical if we are to advance the cause of designing resilient nations.

Program

Keynote Speaker

Kathleen Tierney, Director, Natural Hazards Research and Applications Information Center, University of Colorado at Boulder

Panel: Disaster Response & Recovery Capacity Using Existing Resources

Chair: Jack Harrald, Center for Community Security and Resilience, Virginia Tech

- Walter Peacock, Director, Hazard Reduction and Recovery Center, Texas A&M University
- Joe Schilling, Assoc. Director, Metropolitan Institute, Virginia Tech
- Bonnie Regan, Deputy Director, Arlington County, VA Emergency Management

- Helen Molin Valdes, United Nations, International Strategy for Disaster Reduction

Luncheon Speaker

Diana Mangalaglu, Smith School of Enterprise and Environment, University of Oxford and Sciences Po, Paris

Panel: Public Policy Approaches for Designing Resilient Communities

Chair: James Bohland, Professor Emeritus, School of Public and International Affairs, Virginia Tech

- Chris Barrett, Director, Virginia Bioinformatics Institute, National Capital Region, Virginia Tech
- JoAnn Carmin, Associate Professor of Environmental Policy and Planning, Dept of Urban Studies and Planning, Massachusetts Institute of Technology
- David Dodman, Senior Researcher, International Institute for Environment and Development
- David Alexander, Chief Senior Scientist, Global Risk Forum

Panel: Citizen Engagement and Technology Deployment Disaster Mitigation: Preparedness Response and Recovery

Chair: Kevin Desouza, Director, Metropolitan Institute, Virginia Tech

- Maggie Cowell, Assistant Professor, Urban Affairs and Planning, School of Public & International Affairs, Virginia Tech
- Liesel Ritchie, Assistant Director for Research, Natural Hazards Center, University of Colorado
- Georg Frerks, Professor of Disaster Studies, Wageningen University
- Isabel Ramos, Assistant Professor, Dept. of Information Systems, Minho University

Panel: Vision and Opportunities for Collaboration

Chair: Paul Knox, University Distinguished Professor and Sr. Fellow for International Advancement, Virginia Tech

- Charles Steger, President, Virginia Tech

- Don Leo, Vice President and Executive Director, National Capital Region Operations, Virginia Tech
- Jimmy Martin, Director, Disaster Risk Management Institute, Virginia Tech
- Walter Ammann, President and CEO, Global Risk Forum

Conference Summary and Presenter Abstracts

David Alexander

Negative and positive examples of resilience derived from post-earthquake recovery

The period 2008-2012 has been one of momentous political and economic change in southern Europe. Besides the financial and social upheavals caused by recession and the banking crisis, this interval of time has been punctuated by disasters. In April 2009 an earthquake disaster occurred at L'Aquila, central Italy, in which 308 people were killed and 100,000 buildings were badly damaged. In May 2012 earthquakes in Emilia, northern Italy, killed 27 people and seriously compromised the life of 15 towns in the country's economic heartland. In order to draw some general lessons about how recovery from earthquakes should be managed, this presentation compares the strategies used to manage the aftermaths of these two disasters. Regarding L'Aquila, large sums of money were spent on the basis of purely political justifications, with little attention to economic rationality. Political change and economic stringency meant that the same approach could not be adopted in Emilia, where market economics have driven the process of formulating recovery policies. A contextual model is presented in order to help understand these contrasts and changes.

JoAnn Carmin

Like a Pebble in a Pond: Building Commitment to Urban Climate Adaptation

Preparing for the impacts of climate change is integral to achieving urban resilience. Despite the critical nature of this agenda, cities are having difficulty generating commitment and political and policy support for adaptation initiatives. Drawing on interviews with representatives from eight developed and developing country cities, this paper examines how pioneering cities have generated acceptance, commitment, and support for climate adaptation planning. The findings illustrate that cities overcome these challenges by linking adaptation to local goals and priorities, engaging departments, attending to the political and policy realities of local officials, and enlisting the support of diverse stakeholders. These efforts help build commitment by making the unfamiliar more familiar and demonstrating that adaptation is inherent in ongoing activities, particularly in the domains of disaster risk reduction, sustainability, and land use, coastal, environmental, and social planning. While efforts to normalize adaptation

may foster acceptance, they also can limit understanding of the importance of assessing and addressing climate impacts. The results further suggest that fostering resilience requires first establishing an understanding of the unique characteristics of climate impacts and adaptation and then working to mainstream adaptation into ongoing initiatives.

Maggie Cowell

Social Media in Community Resilience: A Reality Check?

Communities need to be resilient in the face of disasters both large and small. Often, we hear about the large disasters, but less so about the smaller-scale ones. There is a dire need to study the smaller-scale incidents to see how communities who do not get significant help from external sources (e.g. government agencies, the private sector, or individuals who are removed from the disaster zones) respond and recover to experience resilient outcomes in the long run. One tool that can be leveraged in response and recovery efforts is technology. Technology allows for the sharing of vital information, coordination of activities, and even in drawing attention to the cause. In this paper, we look at the role that technology and social media play in response and recovery efforts within social networks at the community scale. The goal is to understand the extent to which technology is currently being used in communities during times of disaster and some of the innovative ways it is likely to be used in the future. Our research finds that two types of social networks can enable resilience, both online network communities (technology-driven mobilization efforts) and offline network communities (less technology-driven mobilization efforts). Both types of communities can provide important lessons for each other in terms of social media usage, connectivity, and the engagement of social capital during times of duress.

David Dodman

Community Resilience in Low-Income and Informal Urban Settlements

Residents of low-income and informal urban settlements in developing countries are vulnerable to a wide range of shocks and stresses. These settlements are frequently located in areas on marginal land that is highly exposed to hazards, and are usually poorly served by risk-reducing infrastructure. They exist in a context of rapid urbanization, inadequate infrastructure, uncontrolled or poorly managed urban expansion, and limited financial and technical capacity of local governments. Individuals and households in these communities are particularly susceptible to these hazards because of poverty, inadequate basic services, poor public health provision, and the lack of political rights.

This paper explores the specific nature of vulnerability in these settings, and how this is shaped by environmental, socio-economic, cultural, institutional and political factors. Drawing on broader understandings of the role of participation and governance in achieving urban development that meets the needs of marginalized groups, and on current debates about 'transformational' urban change that addresses disaster and climate risk, it examines the potential for community-based action to build resilience in informal settlements. Using examples from research and practical interventions in cities in Africa and Asia, it identifies strategies that have been used in these communities to reduce risk, and discusses whether these contribute to the broader project of building resilience. It shows how community organizations can engage with and seek to influence city and national governments around a broader suite of issues that can help to shape patterns of risk and resilience for these communities and for the city as a whole.

Georg Frerks

Citizen Engagement in Dutch Disaster Management: A Black Hole in Policy and Practice?

Dutch disaster management policies and practices are characterised by the so called safety paradox. Due to high levels of infrastructural flood protection and the resulting feeling of safety, little to no attention has been paid to societal resilience and citizen's participation. This has been accompanied by a fairly technocratic and top-down managerial approach relying largely on professional expertise and formal agencies. Only as of recent the Dutch government has introduced the notion of 'self-reliance' or 'self-help', but due to the safety paradox the Dutch population seems not to be worried and well prepared enough to follow the government's instructions. This paper discusses the safety paradox, attitudes and perspectives among the Dutch population, and exploratory research findings on the involvement of Dutch citizens in disaster preparedness and response. It also outlines some consequences and recommendations for Dutch policies.

Diana Mangalagiu

The Role of Foresight in Enhancing Community Resilience

Over the past decade, the design of public policy for enhancing community resilience has received significant attention. However, numerous studies observed that windows of opportunity for change often only open after the communities have experienced shocks. This undoubtedly challenges the design and implementation of pro-active and transformative public policies.

As a response, rather recent approaches set forth to integrate futures studies within the policy design process. Foresight (forward-looking) approaches such as scenario planning and visioning can help create regimes of adaptive governance that can deal with uncertainty, surprise and change before the shock has been experienced.

Cultivating expectations (visions) is a key element of the process. Visioning is intended to help participants to making effective changes, and simultaneously tackling feelings of helplessness in the face of uncertain futures. Scenario-planning and backcasting can help communities to understand the forces or drivers of change at global, national, regional and at their community scales and how these forces may interact and influence future change. Communities can imagine positive futures and strategize how to achieve them, collectively, how to create tangible and clearly expressed goals and buy-in for action plans for the present.

In my intervention, based on concrete examples, I will explore the role of foresight when designing policies to enhance community resilience.

Walter Peacock

An examination of the factors determining the implementation of broad based mitigation strategies and programs at the local level and the implication for community resilience

While increasing numbers of jurisdictions in the United States are participating in and have FEMA approved hazard mitigation plans, these plans have not guaranteed the implementation of mitigation strategies and practices at the local level. While several recent studies suggest a disconnect between mitigation planning and practice, they actually depend upon an assessment of planned actions, not actual mitigation practice. As a consequence, there is a fundamental blind spot in the literature — little is known about the actual adoption and usage of mitigation practice by local jurisdictions. The last broad assessment of mitigation practices was undertaken in late 1980s (Godschalk et al. 1989) and much of the literature still depends upon these findings. This presentation will examine the factors determining the implementation of more comprehensive mitigation policies and strategies at the municipal and county level. The implications of these findings for enhancing community resilience are discussed.

Isabel Ramos

Crowdsourcing market research for Portuguese companies: a resilience mechanism for a country in deep economic crisis

The talk will present the project being developed in the University of Minho to assist the internationalization of Portuguese companies. It has been said that one way to overcome the economic crisis is by making companies more competitive and capable of

working in international markets. Most of Portuguese companies are small or medium-sized enterprises (SME) – 99% – that face significant limitations regarding the resources available to conduct their businesses. Market research is usually performed by consultants practicing hard to hold prices for smaller companies and that sometimes apply approaches developed for large companies.

It has been identified that the way SME engage with the market is often direct and simple, aiming at capturing consumer preferences and verifying the market approaches of competitors. To implement this approach to explore the distant markets of Asia, Africa or Latin America, for example, is neither easy nor cheap. However, it could be made accessible by applying collective intelligence mechanisms and technology. This can be done by involving the Portuguese Diaspora in sharing of success stories, gathering information on local markets and social dynamics for companies requesting it, financing small businesses around the world that take Portuguese regional products and brands into local markets, and participating in R & D projects conducted by research entities in Portugal.

The challenges and potential benefits of this project idea will be presented and discussed.

Bonnie Regan

Public Private Partnership / Enhancing Local Government Capabilities

In order for local government to have a comprehensive emergency management program, all facets of the community, including the private sector, must be engaged and given the opportunity to contribute. From preparedness to recovery the private sector plays an important role. The private sector can provide essential resources to supplement government efforts. Partnering with the private sector not only makes sense but is eventually necessary regardless of the lack of plans in place. The key to effective emergency management is building relationships and systems through collaboration and planning before disaster strikes. Likewise, partnering with private business to assist them in preparing their employees in the event of an emergency serves the community as a whole by lessening the demand for local services in times of crisis. Consequently, the private sector needs to become an integral part of local government's overall plan to prepare for, respond to, and recover from emergencies. Furthermore, because neither the public sector nor the private sector has enough expertise or resources to manage a major disaster alone being able to work collaboratively can provide an essential tool to facilitate a coordinated response. For some jurisdictions the development of public private partnerships for emergency preparedness and response offer a conduit for such collaboration.

In Arlington County, Virginia such partnerships come in a variety of formats. Arlington's Office of Emergency Management's (ACOEM) private sector emergency preparedness training and exercise program provides the private sector a chance to evaluate their own emergency planning efforts with a focus towards strengthening their self-sustainment during crisis. Also in partnership with the Northern Virginia Emergency Response System (NVERS), ACOEM has developed the Public Recovery Resource Access Portal, an online resource to provide real-time updates in a disaster to help businesses and the general public know where to donate and receive supplies.

Liesel Ritchie

Social Capital and Community Resilience: Insights from Disaster Research

In the past twenty years, the concept of social capital has emerged as a popular approach to understanding a variety of topics across a broad range of disciplines. More recently—within the past decade—social capital has been widely identified as a critical component of community disaster resilience. Yet, there is relatively little empirical research to support this notion. This paper discusses social capital, how it has been used in disaster research to date, current gaps in the literature and conceptual development, and ways in which social capital has the potential to facilitate understanding of the role of citizen engagement in disaster mitigation, preparedness, response, and recovery. It will also examine the intersection of social capital and technology in these contexts.

Joe Schilling (with Jessica Hanff, Research Manager)

Cleveland's Pursuit of Resiliency—Rebuilding the Institutional Capacity and Policy Framework for Reclaiming Vacant Properties and Abandoned Buildings

For the past 40 years, dozens of older industrial cities, primarily from America's Midwest (also known as the Rust Belt) have sustained a series of major economic and political crises that have caused significant shocks to their regional economies, hindered their capacity to recover, and ultimately have led them to shed 25% to 50% of their peak populations. Starting in the 1960s/1970s with the loss of the steel and manufacturing industries and more recently with the housing and mortgage foreclosure crisis, these so-called "legacy cities" (e.g., Buffalo, Cleveland, Detroit, etc.) suffer from a perpetual cycle of socio-economic decline that is marked by high crime, poor performing schools, concentrations of poverty, and mounting inventories of vacant properties.

Within the academic literature on neighborhood change, shrinking cities, and urban resiliency, a fundamental approach for the recovery of these legacy cities, as well as cities that struggle after significant natural disasters, is their ability to reclaim vacant

and abandoned properties. By reclaiming vacant properties, communities can stabilize declining real estate markets, revitalize distressed neighborhoods, and catalyze their eventual recovery and regeneration. Many legacy cities, however, do not have the institutional capacity, fiscal stability, and cohesive policy frameworks sufficient to operate at the scale necessary to reclaim thousands of vacant properties. Moreover, traditional economic development strategies for attracting or retaining businesses have often led to short term gains that ignore structural problems, such as vacant properties, and perpetuate expectations that legacy cities can simply develop or grow their way out of these crises.

Using the principles of adaptive resilience, our article outlines a more resilient system for reclaiming vacant properties by: 1) rebuilding institutional capacity through a collaborative and iterative process that brings together government officials, universities, foundations, and community-based organizations ; 2) developing a cohesive vacant property policy framework that can adapt to changes in neighborhood and market dynamics; and 3) designing a plan that provides a menu of ideas for the sustainable reuse of vacant properties.

Cleveland, Ohio exemplifies the plight of the America's legacy cities in their pursuit of community resiliency. Despite the constant churn of population loss, neighborhood decay, and mounting inventories of thousands of vacant properties, within the past 10 years Cleveland has reengineered its institutional capacity and redesigned its vacant property policies and plans by instituting a collaborative process that facilitates policy and planning assessments and adjustments. Based on the Metropolitan Institute's technical assistance projects working with Cleveland officials, civic leaders, and community organizations, our paper explores Cleveland's on-going quest to become a more resilient community through its innovative efforts to reclaim vacant and abandoned properties. Cleveland's experience is instructive for other post-industrial cities (within the US and abroad) that struggle with developing more resilient systems for reclaiming vacant properties caused by persistent economic change or natural disasters. Our focus on rebuilding institutions in tandem with developing more systematic policy frameworks and reuse plans offers a new twist on the emerging literature of urban resiliency.