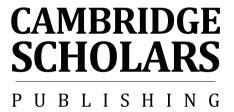
Rebuilding Sustainable Communities with Vulnerable Populations after the Cameras Have Gone

Rebuilding Sustainable Communities with Vulnerable Populations after the Cameras Have Gone: A Worldwide Study

Edited by

Adenrele Awotona



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This book first published 2012

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

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ISBN (10): 1-4438-3739-3, ISBN (13): 978-1-4438-3739-2

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ACKNOWLEDGEMENTS

Most of the essays in this edited volume were originally presented at the April 2010 International Workshop on After the Cameras Have Gone: Rebuilding Sustainable Communities in Haiti after the January 12th Earthquake and the July 2010 International Conference on Rebuilding Sustainable Communities with the Elderly and Disabled People after Disasters that were held at the University of Massachusetts Boston in the United States of America.

In addition to our esteemed program participants, I would like to acknowledge the following people and organizations for their efforts to make the Workshop and Conference successful: Christopher Brindley, Computer Specialist and Domain Administrator, John W. McCormack Graduate School of Policy and Global Studies, University Massachusetts Boston; Jennifer Brunson Parrado, former Administrative Assistant, Center for Rebuilding Sustainable Communities after Disasters (CRSCAD), University of Massachusetts Boston; Candyce Carragher, Business and Grants Manager, John W. McCormack Graduate School of Policy and Global Studies, University of Massachusetts Boston; Virginia Clancy, President of the Department of Political Science Honors Society, University of Massachusetts Boston; Carol Darcy, Vice President for the World Organization for Early Childhood Education, United States National Committee and acting secretary of the UNICEF NGO Committee on the Working Group on Education; Patrick Day, Vice Chancellor for Student Affairs and Chair, Haiti Relief and Redevelopment Task Force, University of Massachusetts Boston; Angela Devlen, President, Mahila Partnership; Tara DeSisto, former Research Assistant, Center for Sustainable Communities after Disasters (CRSCAD), University of Massachusetts Boston; Barbara Graceffa, Director, Marketing and Communications, John W. McCormack Graduate School of Policy and Global Studies, University of Massachusetts Boston; Chantal Healey, a health care and social justice advocate in Massachusetts; Eleanor Jewett, Regional Program Management Analyst, Region 1, Federal Emergency Management Agency; Jason Lamanna, former Research Assistant, Center for Rebuilding Sustainable Communities after Disasters (CRSCAD), University of Massachusetts Boston; DeWayne Lehman, Director of Communications, University of Massachusetts Boston; Dennis Maxey,

Associate Dean, University College, University of Massachusetts Boston; Brandon Milby, Dean's Office, John W. McCormack Graduate School of Policy and Global Studies, University of Massachusetts Boston; J. Keith Motley, Chancellor, University of Massachusetts Boston; Anuradha Mukherji, former adjunct faculty at Boston University; Jane O'Brien Friederichs, Dean Division of Social Sciences and Professional Studies, MassBay Community College, Wellesley, Massachusetts; Robert O'Keefe, Operations Manager, John W. McCormack Graduate School of Policy and Global Studies, University of Massachusetts Boston; Raquel Ortiz, Emergency Management Specialist, Region 1, Federal Emergency Management Agency; Enrique Silva, Boston University; William ("Russ") Webster, Federal Preparedness Coordinator, Region 1, Federal Emergency Management Agency.

In addition to these people, there were many others who worked tirelessly on this event. I thank all of them as well.

Adenrele Awotona Center for Rebuilding Sustainable Communities after Disasters (CRSCAD) University of Massachusetts Boston USA

INTRODUCTION

Vulnerable Populations: In Search of a Working Definition*

Although the term "vulnerable populations" is widely used in the theory and practice of disaster management, it does not have a singular definition. Generally, the expressions "vulnerable" or "special needs" populations are often used interchangeably by the emergency management community to describe sections of the community "whose needs are not fully addressed by traditional service providers."

According to *PrepareNow.org*, a U.S.-based organization that supports special needs and vulnerable populations in disaster, "vulnerable populations" are people

who feel they cannot comfortably or safely access and use the standard resources offered in disaster preparedness, relief and recovery. They include but are not limited to those who are physically or mentally disabled (blind, deaf, hard-of-hearing, cognitive disorders, mobility limitations), limited or non-English speaking, geographically or culturally isolated, medically or chemically dependent, homeless, frail/elderly and children.¹

"Social vulnerability" is a relatively new term in the lexicon of international diplomacy. The word "vulnerability" is defined by Webster's dictionary as "capable of being hurt: susceptible to injury or disease." "Social vulnerability" carries the implicit meaning of its root term "vulnerability", but branches off in being both broader and yet more specific. Currently, there is no consensus definition agreed upon for "social vulnerability." However, the short but complex research into the matter is gradually bringing a universal understanding of what the term itself means and what implications it has for population studies.

According to Warner,

^{*} Based on unpublished CRSCAD Working Papers by Adenrele Awotona and Kevin Maley

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Social vulnerability is one dimension of vulnerability to multiple stressors and shocks, including natural disasters. Social vulnerability to disasters refers to the inability of people, societies, and organizations to withstand adverse impacts from multiple stressors to which they are exposed. Social vulnerability is due in part to characteristics inherent in social interactions, institutions and systems of cultural values.³

In the last decade, the United Nations has done a significant amount of work toward bringing all stakeholders together in finding a consensus definition of "social vulnerability." Lynn (2005), quoting a 2002 report by the UN Development Program, defines the term as

the degree to which societies or socio-economic groups are affected by stresses and hazards, whether brought about by external forces or intrinsic factors—internal and external—that negatively impacts the social cohesion of a country,⁴

noting further that social vulnerability is

characterized by increased growth in criminal activities, growing rates of HIV/AIDS infection, growing rates of children dropping out of school, declining age of prison population, declining public health, rotting public infrastructure and migration of skilled professionals. These occurrences are symptoms of negative social processes resulting in increased social vulnerability.⁵

Four years later, the United Nations University, in conjunction with the Munich Re Foundation, held a summer academy on social vulnerability at Schloss Hohenkammer, Germany. The purpose of the program was to develop "new approaches to complex issues such as human security and the resilience of complex social systems in the context of natural disasters." Gathering scholars from Brazil, China, Ecuador, India, the U.S., Germany, and many countries around the globe, the seminar focused on the susceptibility of certain vulnerable populations (mainly the young and elderly) to natural disasters. The young and elderly have a high degree of "social vulnerability", and therefore the seminar sought ways to understand better how their risks could be addressed. Toward the end of the ten-week program, the academy determined that there were ten specific areas that needed to be addressed in order to reduce social vulnerability. Those areas were:

- 1. A common understanding of vulnerability
- 2. Useable science

- 3. Measuring and analyzing vulnerability
- 4. Complexity
- 5. Education
- 6. Mediating a bridge between science and society
- 7. Community Involvement
- 8. Empowering vulnerable people
- 9. Creating partnerships
- 10. Ownership: Living conditions will improve in a sustainable manner only when the most important stakeholders—the vulnerable themselves—embrace the idea of vulnerability reduction and own the tools to contribute to building more resilient communities.⁷

The United Nations was not the first to attempt to define social vulnerability as a cultural term. Roberto Pizarro, writing in *Statistical Studies and Prospectives* in 2001, defined the term as

the insecurity and defenselessness experienced [sic] by communities, families, and individuals in their livelihoods as a consequence of the impact of a socio-economic event of traumatic character; and the... management of resources and strategies which are utilized by these communities, families and individuals to cope with the effects of this event.⁸

In that same year, the International Strategy for Disaster Reduction defined it as

the set of conditions and processes resulting from physical, social, economic and environmental factors, which increase the susceptibility of a community to the impact of hazards.⁹

The origins of the notion and terminology of social vulnerability date back a few centuries. While the modern term itself was first mentioned in a paper by O'Keefe, Westgate and Wisner in the mid-1970s (relating to populations at risk from natural disasters), the concept can be traced back to an earthquake in 1755 that ravaged the Portuguese capital of Lisbon and caused widespread death. Having seen that much of the human catastrophe could have been prevented by more conscious urban planning, Jean-Jacques Rosseau "advanced the modern-seeming argument that people died by a failure of city planning rather than divine will," with Rousseau's contemporary Voltaire noting to a friend that

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this is indeed a cruel piece of natural philosophy. We shall find it difficult to discover how the laws of movement operate in such fearful disasters in the best of all possible worlds. ¹⁰

The point that both philosophers were making was that it was not so much the earthquake itself that was the direct cause of widespread death and suffering, but the city's inability to prepare properly for such disasters which led to Lisbon's population being at high risk. As noted earlier, the modern conception of social vulnerability has its genesis in a 1976 publication in Nature by O'Keefe, Westgate and Wisner, called "Taking the Naturalness Out of Natural Disasters." The authors reflected back on decades of natural disasters and found that much of the death and human suffering could be related to lack of preparation, poor planning or a dearth of resources in anticipating disasters. Tellingly, they found that there were far more instances of death and other human casualties in the developing world, where planning and resources were scarce. Thus, many of the deaths were preventable; although natural disasters did occur, there were ways to mitigate the catastrophes that such a calamity could cause. The populations most at risk had a high level of what was deemed social vulnerability—that is, they were at more risk because of their circumstances (socio-economic) or demographics (the elderly, youth, etc.). With these new concepts outlined, the modern understanding of social vulnerability began to take shape.

According to Cutter, Boruff and Shirley,

vulnerability to environmental hazards means the potential for loss. Since losses vary geographically, over time, and among different social groups, vulnerability also varies over time and space. 12

They identify three key analytical approaches in vulnerability research as:

the identification of conditions that make people or places vulnerable to extreme natural events, an exposure model; the assumption that vulnerability is a social condition, a measure of societal resistance or resilience to hazards; and the integration of potential exposures and societal resilience with a specific focus on particular places or regions.¹³

Which one of these approaches is used depends on the type of research being conducted as well as on the disciplines and professionals involved: academia; disaster management agencies; the climate change community; and development agencies.¹⁴

Today, social vulnerability is examined under a wide lens and applied to a variety of situations and populations. Susan Cutter, a professor at the University of South Carolina and director of the Hazards Research Lab, examined social vulnerability as it applied to disasters along the U.S. Gulf Coast after 2005's Hurricane Katrina. In the context of a vulnerable population existing in the world's most advanced nation, Cutter provided a greater understanding beyond the initial focus on developing or poorer nations. In this case, Cutter argues that

Socially created vulnerabilities are largely ignored in the hazards and disaster literature because they are so hard to measure and quantify. Social vulnerability is partially a product of social inequalities—those social factors and forces that create the susceptibility of various groups to harm, and in turn affect their ability to respond, and bounce back (resilience) after the disaster. But it is much more than that. Social vulnerability involves the basic provision of health care, the livability of places, overall indicators of quality of life, and accessibility to lifelines (goods, services, emergency response personnel), capital and political representation.¹⁵

Disasters, the Elderly and Disabled People

The International Federation of the Red Cross and Red Crescent Societies has estimated that between 1987 and 2007, about 26 million older people were affected each year by natural disasters alone and that this figure could more than double by 2050 due to the rapidly changing demographics of aging. 16 Correspondingly, a recent report by the Baylor College of Medicine and the American Medical Association (Recommendations for Best Practices in the Management of Elderly Disaster Victims) has computed that 74 percent of the approximately 1,200 people who died as a result of Hurricane Katrina in New Orleans were over sixty years old, and 50 percent were over age seventy-five. The elderly comprised only 11.7 percent of the total population. Furthermore, the February 2006 United Nations Roundtable (Elderly Sidelined in Recovery Efforts) noted that thousands of elderly people were neglected in the initial aftermath of the 2004 Indian Ocean tsunami because of their inability to compete with younger survivors for scarce resources and because they were largely excluded from international aid efforts.¹⁷ The Roundtable also observed that almost 14 percent of the 300,000 deaths, and nearly 93 percent of the 1.5 million displaced persons in Indonesia, India, Sri Lanka and Thailand, the four hardest-hit countries, were over sixty years old.

People with disabilities (physical, medical, sensory or cognitive) are equally at risk of utter neglect during and after disasters. The Australian Agency for International Development estimates that 650 million people

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across the world have a disability, and about 80 percent of the population with a disability live in developing countries. The Asia-Pacific region is home to two-thirds of this population. Similarly, according to the U.S. Census of 2000, nearly one person in five of Americans aged five and older in the civilian non-institutionalized population is disabled. The U.S. National Organization on Disability also remarks that 54 million American children, women, and men who have disabilities are among the most vulnerable in disasters.

Furthermore, the Secretariat of the African Decade of Persons with Disabilities (SADPD) has calculated that there are about 60 million disabled people in Africa due to malnutrition and diseases, environmental hazards, natural disasters, traffic and industrial accidents, civil conflict and war.

There is currently an abundance of documents, plans and policies addressing the needs of the elderly and people with disabilities in the preparedness phase of disaster. Moreover, there have been countless conferences which have examined the challenges that the elderly and people with disabilities face in emergency planning and response.

However, no significant systematic post-disaster study has been undertaken with a focus on the long-term, sustainable community recovery and rebuilding needs of this population.

July 2010 International Conference on Rebuilding Sustainable Communities with the Elderly and Disabled People after Disasters

Consequently, the Center for Rebuilding Sustainable Communities after Disasters (CRSCAD) at the University of Massachusetts Boston organized an international conference on rebuilding sustainable communities with elderly and disabled people after disaster from July 12 to July 15, 2010.

The conference addressed the following main issues:

- the status of elderly and disabled people in various communities after disasters and the continuing need for superior research and appropriate data;¹⁸
- the place of elderly and disabled people in local, regional and national post-disaster reconstruction policies, plans and programs; 19
- the role and input of elderly and disabled people in post-disaster reconstruction planning and implementation processes;

- the roles of governments, institutions of higher education, the private sector, non-governmental and community-based organizations in post-disaster reconstruction;
- the promotion of human dignity in the creation of sustainable environments that empower elderly and disabled people in the aftermath of disasters;
- integration of elderly and disabled people into the larger community after disasters;
- promotion of the human rights of disabled people through full participation, equalization of opportunity and development;
- the role of women with disabilities in the formulation and implementation of reconstruction policies after disaster; and
- the participation of children with disabilities in the development and execution of post-disaster plans and programs. ²⁰

The conference sought to contribute to policy formulation and implementation processes.

The event brought together specialists and stakeholders from around the globe to share information and experiences and to develop strategies around some of the core issues concerning the place of the elderly and disabled people in local, regional, national and international post-disaster reconstruction policies, plans and programs. These professionals included disability community leaders; gerontologists; officials of government, non-governmental, international and grassroots agencies; disaster-preparedness professionals; crisis managers; emergency response workers and managers; employees of humanitarian relief organizations; academics and students; leaders of industry and the private sector; physical medicine and rehabilitation physicians, geriatric rehabilitation professionals; architects; healthcare workers; law enforcement officers; engineers; environmental risk managers; epidemiologists; hazard experts; transport providers; community leaders, organizers, experts, attorneys and advocates.

April 2010 International Workshop on Rebuilding Sustainable Communities in Haiti

Similarly, earlier in April 2010, CRSCAD organized an international workshop at the University of Massachusetts Boston which focused on rebuilding sustainable communities in Haiti in the wake of a 7.0 magnitude earthquake.

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Titled "After the Cameras have Gone: Rebuilding Sustainable Communities in Haiti after the January 2010 Earthquake," the workshop drew nearly 150 participants from several countries and U.S. cities.

Before the earthquake, Haiti was a "country with tremendous development needs and numerous impediments to development," according to U.S. Congresswoman Maxine Waters. These impediments included an overwhelming burden of international debt; lack of personal and community assets; and very little or no internal and external capacities. In 2007, according to the Institute for Justice and Democracy in Haiti, the country owed

over one billion dollars to multilateral financial institutions, including \$21 million to the IMF, \$507 million to the World Bank and \$534 million to the Inter-American Development Bank. Much of Haiti's debt burden was accumulated during the oppressive rule of the Duvalier regimes, neither of which used the money to benefit the Haitian people.²²

In fact, the IMF estimated that Haiti would "spend \$56 million on debt service payments to multilateral creditors during the 2006–07 fiscal year." ²³

It was against this background that the Workshop examined the following:

- the challenges of post-earthquake rebuilding in Haiti;
- new policy for urban/rural housing;
- social, economic and infrastructural development (health, schools, higher education, water, roads, etc.);
- the reconstruction of state, public and commercial buildings;
- allocation of post-earthquake reconstruction financing to the various sectors of the economy;
- participatory post-earthquake reconstruction planning and development;
- choosing a paradigm for disaster recovery;
- the roles of government, institutions of higher education, the private sector, and non-governmental and community-based organizations in post-earthquake rebuilding;
- the participation of women and other special-needs populations (elderly, disabled people, children who lost their homes, family members in need, etc.) in the formulation and implementation of reconstruction policies after the earthquake;

- the promotion of human dignity in the creation of sustainable environments that empower women, the poor and low-income households:
- clean and appropriate energy technologies;
- earthquake resistant design;
- the role of the media in the reconstruction of Haitian communities;
- global case studies of post-earthquake rebuilding and best practices.

The Workshop sought to propose strategies, policies and programs for the long-term reconstruction of the country.

Structure of the Book

This volume is based largely on papers that were presented at both the April 2010 workshop on rebuilding Haiti and the July 2010 conference on rebuilding sustainable communities with the elderly and disabled people after disasters. It consists of two parts.

Part I examines the international perspectives on rebuilding with a variety of vulnerable populations in different social and cultural contexts. It consists of thirteen chapters.

Part II analyses the challenges of rebuilding in Haiti after the January 2010 earthquake. It has three chapters.

Since 2006, the Public Health Agency of Canada's Division of Aging and Seniors (DAS) has served as the secretariat for three international working groups on older adults and emergency management. In Chapter One, eight co-authors (Maggie Gibson, Gloria Gutman, Robert Roush, Rory Fisher, Laurie Mazurik, Sandi Hirst, Kelly Fitzgerald, and Nabil Kronfol) introduce the International Working Group on Health Professionals and Continuity of Health Services in Disasters (IWGHP), then summarize roles and responsibilities of health care providers and issues in continuity of care that are critical in post-disaster recovery.

In Chapter Two, Oluwatoyin Olatundun Ilesanmi employs a case study method to investigate the disaster experience of the elderly and the disabled in Nigeria. She presents the long-standing Ife-Modakeke crisis as one amongst so many violent clashes in Nigeria that have negatively impacted the lives of the vulnerable groups. She uses a Disaster Experience Scale (consisting of four sections measuring demographic variables, disability status, disability assessment schedule and disaster experience) to determine the impact of the most recent Ife-Modakeke

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crisis on the elderly and the disabled in Nigeria. She raised and tested five hypotheses at 0.05 level of significance. Results showed a significant difference in the impact of the crisis on the elderly and the disabled than ordinary people in the society. Ilesanmi observes that this finding has implications for clinical and environmental psychologists as well as those in the building industry. That such a crisis will not recur is a wrong assumption, but what to do to minimize its impact on this group of people should be a matter of psychotherapeutic concern, she notes. Ilesanmi concludes that globally, the safety needs of the elderly and the disabled prior to and after disasters must be ascertained and provided for psychologically.

One-third of adults sixty-five years and older fall annually; 74 percent of these falls occur in or around the home. In Chapter Three, Janet Popp examines how, during reconstruction after a natural disaster, an older adult falls prevention program would educate participants about fall risk and empower them to make informed choices that would increase housing stock accessibility. These rebuilt homes would support aging in place, provide a framework for naturally occurring retirement communities and accommodate the changing housing needs of an aging population.

In Brazil, the most frequently occurring disasters are related to floods. which provoke destruction in homes and in the lives of the victims. In addition to material, social and psychological losses, the devastation of food production areas reduces the availability of food to the population and, in parallel with the monetary difficulties for access to this food, a situation of food insecurity is established, which becomes alarming as the risk of hunger for the population rises, especially for those groups that are most vulnerable, such as the elderly and individuals with disabilities. The State's activity is restricted and does not reach the entire population, which finds itself required to mobilize and promote the restructuring of the social context. What Ana Lucia da Silva Castro and Natália Utikava propose in Chapter Four is not only special attention for guaranteeing the human rights of adequate food for the elderly and individuals with disabilities, but also, primarily, the receptiveness of the community for the participation of these individuals in the processes of rescuing victims and post-disaster reconstruction, functioning as subjects of more sustainable community planning and promoters of food and nutrition security.

In Chapter Five, Alessandra Marques Sohn, Giovanna Pereira Ottoni, and Michele Schultz Ramos de Andrade contend that the experience of acquiring a disability can be a disaster when some aspects are considered, such as individual and collective ruptures. From this perspective they ask and attempt to answer the following questions: how did the individuals

live the experience of acquiring a disability and all the changes experienced in their lives? How does this disaster affect this person's life within a community? Which community should be considered after these ruptures? Is there a community linked to this experience, and if so, how? They further contend that the individual experience is relevant and that, indeed, the social-cultural context is an important aspect to be considered. The chapter, therefore, endeavors to achieve the following aims: to enumerate the difficulties identified in interviews with persons with a physical disability for developing a better comprehension of the sociocultural context in the city of São Paulo, Brazil; and, to elucidate and comprehend the moment that people acquire a disability, considering their own perspective at both the individual and community levels. After analyzing the interviews, the chapter identifies the different categories representing the common points that emerge from the study. The common points identified were: dependence on the other; the pitying looks from other people; the rehabilitation experience; meeting people with similar experiences; autonomy gained through sports; the acceptance of the self and the acquisition of space to have freedom within society. This chapter shows the strong link that exists between the community and the complexity of the disaster of acquiring a disability, and recognizes how this comprehension can propitiate proximity and access to the other people with disability living in/as a sustainable community.

Chapter Six, which is co-authored by Diana María Contreras Mojica and Stefan Kienberger, looks at how the Geographic Information System (GIS) can be used to assess the vulnerability of elderly and disabled people before a disaster, and to monitor their condition during the recovery time. GIS enables the geo-referencing of the location of these groups, thereby creating spatial information that can be overlaid with the information of hazard-prone areas. In this way, it is possible to elaborate a plan to assess the vulnerability of elderly and disabled people and, based on this assessment, to develop a pre-impact recovery plan considering their requirements and social networks. The co-authors conclude that mapping the location, facilities and social networks around elderly and disabled people could be useful in increasing the resilience in a community and undertaking an efficient recovery process in developed and developing countries.

In Chapter Seven, Yasamin O. Izadkhah and Vida Heshmati examine how many of the elderly are psychologically resilient in coping with disasters despite their physical fragility. They propose recommendations for response to, as well as mitigation efforts that address the social. xxviii Introduction

physical, psychological and cultural needs of the elderly people, especially those living in earthquake-prone countries such as Iran.

An area of pressing concern is addressing the needs at the local and regional levels to provide health care and public health services in times of disaster. Focused attention and practical management systems must be developed in health care and public health which allow for better medical resource allocation to deal with the immediate and long-term medical impacts of disasters. This includes the need to provide for immediate needs with medical supplies and address ways to improve the tracking of individuals and patients to reduce family separation. In Chapter Eight, Kevin Thomas and Winnie Suen discuss the use of citizen involvement and collaboration as means to improve services delivery and address the uncertainty that various stakeholders have with respect to varying perceptions of potential outcomes. Mechanisms which incorporate the recognition of the differences in "knowledge claims" of experts and laypersons and the need to provide venues which allow for all stakeholders to express concerns are addressed. The implications of "wicked" problemsolving, where no shared understanding of issues or problem resolutions exists, are addressed. Finally, collaboration techniques which incorporate structured information exchanges, under deliberative democratic principles, to address the "discontinuity gap in information" are provided as a means to improve disaster planning modeling activities for diverse populations including disabled and elderly groups.

Resilience is a set of skills and attitudes that can be learned and that can assist an individual in adapting well in the face of adversity, trauma and tragedy. In Chapter Nine, Ron Breazeale and Richard Lumb review these skills and attitudes and the research that was used as a base for developing the Maine Resilience Program. They discuss the reasons for resilience training and the importance of self-awareness in learning and applying these skills and attitudes. Storytelling and peer coaching have been two of the primary tools for teaching these skills. Their use with different occupational groups such as police, women returning to the workforce and correctional officers are discussed in some detail. They conclude this chapter with a discussion of what they have learned from their involvement in this work over the past four years and what they believe the future will hold.

In Chapter Ten, Lynn King proposes that

the path to sustainable development and disaster-resilient communities must include not only "hard" (technology) but, more importantly, "soft" technologies (the "soft" ones being community-building skills).

She then examines the question: what needs to exist in order for disasterresilient communities to arise?

In Chapter Eleven, Amal Mohammed Hassan Jamal presents the first documentation of the various nomadic and semi-nomadic *Azjer* Tuareg housing typologies in Libya, accomplished through her fieldwork, which she conducted in 2006. She provides a detailed architectural study and analysis of three permanent and semi-permanent types of Libyan Tuareg dwellings called *derb*, *éhekyet*, and *tekabrayen*. The purpose of this study is to investigate how these dwellings' space organization, building materials, and construction techniques are a practical response to their socio-cultural practices, local resources, way of life and the harsh Saharan environment. This study is important for exploring archetypes that can be used for disaster mitigation and rebuilding after disasters.

Older adults have heightened casualty rates and are vulnerable to displacement after a disaster. Dementia is an important risk factor for poorer outcomes among this population, due to the following factors: reduced intellectual capacity and decision-making; impaired functional ability including ability to perform activities of daily living; increased emotional response and disturbance; and decreased physical capacity and ability to seek safety. Delirium is a second risk factor that frequently cooccurs with dementia. This acute psychiatric condition involving confusion and altered consciousness is relatively likely to be initiated during a disaster event and is associated with worse immediate and longterm disaster-related outcomes, particularly for older patients with preexisting dementia. Older adults with dementia require distinct interventions to ensure their inclusion in the mainstream rebuilding effort. These include: explicit efforts to locate older adults with cognitive impairment during evacuation and relocation; reinstating appropriate care; mitigating risks for older adults with impaired cognition; and ensuring that basic human rights are met. Chapter Twelve, by Michelle Langill and Maggie Gibson, examines these factors in relation to the recovery stage of a disaster, and outlines several strategies for including older adults with cognitive impairment within the mainstream rebuilding effort.

The rapid advance in information processing systems in recent decades directed engineering research towards the development of artificial intelligence (AI) models that can model natural phenomena automatically. In AI models, a process of training is used to build up a model of the particular system, from which it is hoped to deduce responses of the system for situations that have yet to be observed. AI models learn the input output relationship from the data itself. The quantity and quality of the data govern the performance of the AI model. In Chapter Thirteen,

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Pijush Samui describes two different AI models—the Artificial Neural Network (ANN) and the Least Square Support Vector Machine (LSSVM)—for solving different problems in disaster mitigation and management.

The Haitian communities of New York and Miami were rooted in resistance to the Duvalier regime. After the dictatorship's collapse in 1986, closely joined popular movements linking Haiti and the Haitian Diaspora supported the resistance against "Duvalierism without Duvalier" in Haiti and simultaneously empowered Haitians' campaigns against discrimination and abuse in the U.S. This interconnected movement reached a pinnacle in both Haiti and in the Haitian Diaspora in the momentous but short-lived victories of 1990 and 1991. In Chapter Fourteen, Carl Lindskoog surveys the historical context for rebuilding Haiti. He examines the dynamic of power and resistance through the history of Haiti and its Diaspora, and concludes that the Haitian Diaspora had a decisive impact on resistance in Haiti, just as the popular campaign in Haiti had a substantial impact on the popular struggles in the Diaspora.

In Chapter Fifteen, Sonja Darai examines the diverse reporting sources, funding streams, and systems involved to support Haiti in the aftermath of the January 2010 natural disaster. The conclusion finds a trend for funds going straight to supplies, immediate disaster aid, and health. While these appear to be the most pressing needs in the hours and days following a catastrophic disaster, there are needs around crises during this period for personal and community security, human rights and reducing risks for vulnerable populations.

The 2010 earthquake disaster in Haiti has many examples of the ongoing discrimination against people with disabilities embedded in the very basic culture of society to the exclusion of known best practices, most efficient and effective strategies and intentions of almost all the people involved in disaster response and reconstruction. There is a disconnection of integrated best practices throughout the system with regard to individuals with disabilities. In Chapter Sixteen, Sonja Darai observes that there is a growing cultural shift of advocates included throughout the levels of decision-making and implementation of rescue and programming that appears to be creating integrated and comprehensive services.

Notes

¹ "Vulnerable Population Links," PrepareNow.Org, accessed January 5, 2011, www.preparenow.org/pop.html, para. 2.

² Miriam Webster Dictionary [Online edition], s.v. "vulnerability," accessed December 16, 2010, www.merriam-webster.com/medical/vulnerability