

Community approaches involving the public in crisis management

A literature review

Mikael Linnell

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Community approaches involving the public in crisis management. A literature review.

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Summary

Within the framework of the research project *Public Empowerment Policies for Crisis Management*¹ a literature review was conducted with the aim of summarizing research on community approaches involving the public in crisis management, and the co-production of response organizations and citizens in enhancing community resilience. Some of the main findings are presented below.

Several authors in the reviewed literature emphasized that focus should be on people and what people can do, instead of what risks and hazards they might face. A major part of the literature stresses the importance of using pre-existing or established networks (i.e. families, workplaces, associations, organizations, congregations, etc.) when reaching out to people. People prefer to participate in collective efforts through the groups and institutions in which they normally participate, rather than through forms of collaboration created specifically for emergency and disaster management. Thus, collaboration between different actors should occur prior to an actual event, and the matter of collaboration does not have to focus on emergency or disaster *per se*. Many of the existing organizations, groups and networks grounded in collective needs and interests could be accentuated as potential actors in emergency and disaster preparedness and response. People and networks within specific interest groups or professions with no previous connection to emergency management might be in possession of skills or material resources well needed in emergency and disaster preparedness and response.

As is stated in the reviewed literature, ethnicity, gender and social and economic circumstances are but just a few of the causes of discrimination in many crisis and disaster management efforts. By capacity building and inclusive voluntary community work, processes of empowerment can be triggered. The result is an enhanced sense of community and more opportunities for co-production. Important partnerships can be formed among groups that interact within a given population on a daily basis: scout troops, sports clubs, home-school organizations and faith-based and disability communities are examples of networks where relationships can be built. Thus, all members of the community should be part of the emergency management team, including social and community service groups and institutions, faith-based and disability groups, academia, professional associations, and the private and nonprofit sectors. Identifying the critical points of contact for all constituencies in the community makes communication and outreach most effective.

¹ www.crisiscommunication.fi/pep

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Introduction

A policy background

At times of disaster, impacts and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and ready to act and are equipped with the knowledge and capacities for effective disaster management. So it is stated in the Hyogo Framework for Action (HFA 2005:12). Initiated by the United Nations and the International Strategy for Disaster Reduction (ISDR), the Hyogo Framework for Action is a strategic and systematic approach for building the resilience of nations and communities to disasters and to reduce vulnerabilities and risks to hazards. Depending on its scale and impact, an emergency or disaster is likely to require the resources of a number of agencies and organizations in order to meet the needs that will be presented. As is stated on the resource website of the European Commission and the Red Cross joint project, Informed Prepared Together (www.informedprepared.eu), when citizens, volunteers, communities and organizations work together, they can better inform and prepare themselves to reduce the impact, disruption and trauma of an emergency and complement the civil protection arrangements.

One key activity, according to the Hyogo Framework, should be to develop specific mechanisms to engage the active participation and ownership of relevant stakeholders, including communities, in disaster risk reduction, in particular building on the spirit of voluntarism (HFA 2005:13). These mechanisms are also mentioned in the Yokohama Strategy and Plan for Action for a Safer World as policies, legislation and institutional arrangements required to bring together all parties in disaster and risk management sectors to plan and respond in more integrated and better coordinated ways (Yokohama Strategy 2005:17). The Yokohama Strategy is a set of guidelines for natural disaster prevention, preparedness and mitigation adopted at the World Conference on Natural Disaster Reduction in 1994. In a wider frame of reference, the Yokohama Strategy states, the supporting roles of other government agencies, local authorities, essential infrastructure and lifeline utilities managers, business interests, non-governmental organizations and the public itself all need to be factored into a more inclusive and deliberate process (ibid).

In a European context, the European Parliament and the Council has called for increased action at Community level in order to prevent disasters and mitigate their impact. In response to this call, a Community approach on the prevention of natural and man-made disasters is presently being launched. The approach should also contribute to the implementation of the Hyogo Framework for Action [COM(2009)82:8].

According to the approach, awareness-raising of the general public can contribute to disaster prevention (ibid. 6). Likewise, the European Security Research and Innovation Forum (ESRIF) states that European citizens should be regarded as a decisive and integral active part in any future crisis management solution. Every individual has his or her own resilience capabilities that need to be enforced and deployed in a crisis situation (ESRIF Final Report 2009:112). ESRIF is a joint initiative of the European Commission and the EU Member States which includes independent representatives from industry, public and private end-users, research establishments and universities, as well as non-governmental organisations and EU bodies.

One way of moving forward towards increased public engagement in situations of emergency is formally recognizing the value of local volunteer efforts (UN Volunteers 2005). Regulatory frameworks encourage volunteerism by empowering volunteers with formal roles during and in the aftermath of disasters (ibid).

A reader's guide

One objective of this literature review was going beyond mere summarizing previous research. Accordingly, the method employed for conducting the review is best described as a mix of meta-synthesis and a systematic literature review. This means that in addition to reviewing previous research the aim has been to integrate, evaluate and interpret findings in the previous literature.

As a starting point, this report describes the concept of *community* as it is employed in the reviewed literature. An exposition of the concept was needed since emergency and disaster studies by tradition employ the concept of community as referring to a geographical unit or as a group of people living in the same area. Thereafter the report describes the continuum of disaster as it is presently conceived in the field of emergency management. Describing the continuum of disaster in this introduction serves the purpose of providing a model of the temporality of events described in the reviewed literature. The model places the different phases of disaster on a scale of societal consequence and describes the relevant features of each phase. The majority of the literature reviewed for this report refers to the phases of emergency and disaster while catastrophe is less considered. After these descriptive passages follows a short section on the method employed for eliciting the literature. The main part of the report is thus dedicated to accounting for the reviewed literature.

This report is structured by the logic of *research themes*. The themes are thus constructed by the author in order to organize the extensive material. The introductory theme deals with what constitutes a culture of collaboration among citizens, organisations, emergency

professionals and local authorities. Next, a common model for community involvement (Community Based Disaster Management) in hazard prone areas is provided as an example of how a culture of collaboration might be fostered. The third theme deals with collaboration among the private and public sectors. The fourth theme emphasises the importance of inter-agency networks and engagement among the multitude of community agencies. The fifth theme emphasises potential collaboration between public health agencies and communities in regards to crisis and disaster management. The sixth theme describes various forms of community resources, networks and capitals. The seventh theme describes various forms of individual voluntarism, while the eighth theme focuses specifically on organised voluntary efforts. The ninth theme brings together some perspectives on disability and impairment as related to crisis and disaster management. The last theme aims to synthesize all previous by introducing an emerging “philosophy” of community engagement. This approach is currently being developed by the US Federal Emergency Management Agency (FEMA).

Defining *community* and *community approaches*

Definitions of the term *community* are context dependent (NRC 2011; Chandra et al. 2011; Twigg 2009; Kendra & Wachtendorf 2007). In conventional emergency management research, communities are often viewed in spatial terms, as groups of people living in the same area or close to the same risks (Twigg 2009:9; McAslan 2011:6; Scottish Government 2013:5). This location-oriented definition overlooks other significant dimensions of community, which are to do with common interests, values, activities and structures (Twigg 2007:9). It also ignores the reality that disasters do not respect jurisdictions (NRC 2011:14). Communities are complex and often not united. One community might contain another, and individuals can be members of several communities at the same time, linked to each by different factors such as location, occupation, economic status, gender, religion or recreational interests (Turner 2010:281; Twigg 2009:9; SCRA 2010:43-45). Further, communities are dynamic: people may join together for common goals and separate again once these have been achieved (Twigg 2009:9, McAslan 2011:6). As stated by, for example, FEMA (2011:3) and UK Cabinet Office (2011:12), there are different kinds of communities, including communities of place, interest, belief, and circumstance, which can exist both geographically and virtually. Seeing communities as dynamic and connected with entities beyond jurisdictional boundaries do not negate the importance of collaboration that reflects the needs, priorities, and economics of the geographic communities and regions the collaborative networks serve (NRC 2011:15). On the contrary, viewing communities in terms of location provides an easily recognizable group of people facing common risks and threats, and with common interests in responding together to disruptive events (McAslan 2011:6).

For the purpose of studying approaches to enhance public participation in emergency preparedness and response, a broad conceptualization of community will be used, which take into account the above conceptualizations of community. Community is thus defined as a collective of people living in a particular area, or being socially connected through common interests, beliefs and circumstances. Building on this conceptualization, *community approaches* refers to ways in which citizens and groups might be included in the management of

emergencies and thus facilitate more effective emergency management. Thus, community approaches attempt to engage the full capacity of the private and nonprofit sectors, including businesses, faith-based and disability organizations, and the general public (FEMA 2011).

The crisis and disaster continuum

This literature review deals with how communities include citizens in the preparedness and mitigation of major events that threaten to harm the community. Determining whether an event is to be characterized as a crisis, an emergency, a disaster, or a catastrophe is not a black and white situation. Many researchers of today acknowledge that such events occur along a continuum where one can distinguish between emergencies, disasters, and catastrophes. Thus, crisis is an integral part in all stages along the continuum (Phillips et al. 2012:33).

Emergencies are part of everyday life in a community. Response situations may include heart attacks, house fires, and car accidents. In a longer time-perspective, emergencies are fairly predictable and most situations are handled by local emergency response organizations. Thus, for anyone not directly involved, life goes on as usual.

During a *disaster*, the local community may not by itself be able to respond to the event. There is a disruption in the everyday structure and function of the community: “The infrastructure may suffer major damage. Most of a community may lose electrical power. Water may not be available. Highways and bridges may be impassable, or destroyed. Family members may be separated from each other, have no food or water, or their homes may be destroyed. Businesses, schools, and other organizations will be closed due to damage or destruction; customers, employees, and students will be unable to travel to such locations. In short, everyday life as we know it ceases during a disaster” (Phillips et al. 2012:34).

During a *catastrophe*, most daily routines of individuals, families, organizations, governments, businesses, and other facilities are totally disrupted. The basic characteristics that distinguish a catastrophe from a disaster are that (1) most or all of the community built area is heavily impacted, including structures housing police, fire, welfare, and medical centers; (2) the social impact and aftermath is complicated due to the many deaths, to the lack of transport and infrastructure, and to the lack of communication possibilities; (3) catastrophes tend to affect multiple regions, which prevents help from nearby communities; (4) most everyday community functions, including work, recreation, worship and education, are sharply interrupted; (5) there is much more and longer coverage by national mass media, and; (6) the political arena becomes extremely important, with concrete and symbolic presence in the affected communities (Quarantelli 2006). In the present report, *crisis management* refers to the process of community mitigation, preparedness, response and recovery through the continuum of disaster, however emphasis in the reviewed literature is primarily on the stages of emergency and disaster while catastrophe is less considered.

As mentioned before, crisis and crisis management are integral parts along the continuum of disaster. The process of managing the different stages can be deployed into phases that are characterized by different goals and resources (Lettieri et al. 2009:125). Some of the literature reviewed (Lettieri et al. 2009) argues that there are three different temporal and logical stages of crisis management: pre-crisis, crisis and post-crisis. In detail, pre-crisis is the period before the occurrence of a disaster (i.e. an event along the disaster continuum), crisis is the actual occurrence of the event, and post-crisis is the period between the fading of crisis and the return to normal conditions. Thus, the stages of crisis management have a logical relationship with the disaster continuum. Lettieri and colleagues (2009) suggests a reference model for the process of disaster management based on the following phases: mitigation and preparedness (mainly in pre-crisis), response (in crisis), and recovery (in post-crisis) (Lettieri et al. 2009:125). This model shares some features with the integrative crisis management framework proposed by Ammann (2006). The proposed framework specifies steps of risk identification, analysis, assessment and evaluation of necessary risk reduction and mitigation measures in all elements of the risk cycle, i.e. prevention and preparedness planning (pre-crisis), interventional measures (in crisis), and recovery tools and practices (in post-crisis).

Method

The collection of data

The literature in this report was gathered through a mix of strategies. Primary literature consists of articles abstracted from scientific, peer-reviewed journals, while secondary literature was gathered through books, Google Scholar and the Libris database. The method employed for conducting this review is best described as a mix of meta-synthesis and a systematic literature review (<http://libguides.utoledo.edu>). The former is a non-statistical technique with the aim of integrating, evaluating and interpreting findings of multiple qualitative research studies, while the latter is a more rigorous and well-defined approach with the aim of clarifying the frame within which the literature was selected. See table A below for the main differences between the two strategies.

Table A. Research strategies

Meta-synthesis	Systematic Literature Review
<ul style="list-style-type: none"> • Non-statistical technique • Integrates, evaluates and interprets findings of multiple qualitative research studies • Involves analyzing and synthesizing key elements • The goal is to transform individual findings into new conceptualizations and interpretations 	<ul style="list-style-type: none"> • A rigorous and well-defined approach • Comprehensive • Published and unpublished studies relating to a particular subject area • Details the time frame within which the literature was selected

Source: <http://libguides.utoledo.edu>

The strategy for eliciting previous research focused on literature on community approaches and citizen participation in crisis management. The strategy for finding primary literature is presented in table B below. The search for secondary literature was more intuitive, but mainly the same key words were used. The articles on community approaches and citizen participation were gathered through database search (mainly Academic Search Elite and ProQuest Social Sciences) during the first two weeks of February 2012. Table B also displays the key words used in the initial search.

The selection of data

In order to narrow down and distill the material, a number of inclusion criteria were used. The literature should cover (1) research on community approaches to crisis management, (2) issues of citizen participation in crisis management, and (3) models of co-production between emergency professionals and the public. See table B below for an outline of the inclusion criteria. These criteria also served the purpose of excluding literature on risk- and crisis management that was not in line with the present study, like health related risk management (for example issues of patient safety, lifestyle factors, medical conditions and well-being), crisis management pertaining to work and employment (for example safety and health at work, occupational accidents and individual experiences of unemployment) and risk management pertaining to finance and banking (for example stock exchange and economic speculation).

Lastly, in order to structure the remaining articles in a useful way, three questions were posed to the literature: (1) does the article focus a bottom-up or top-down perspective, (2) what phase of emergency and crisis is focused, and (3) what is the national context of research? For a schematic outline of the reviewed primary literature, see appendix.

Table B. Literature review and abstraction

Key words in initial search:	[community approach OR community] AND [crisis management OR risk management OR disaster management] AND [citizen participation OR public participation] AND [involvement] AND [resilience]
Inclusion criteria:	<ol style="list-style-type: none"> 1 Articles should cover research on community approaches to crisis management 2 Focus should be on public/citizen participation in the management of crises 3 Articles should account for models of co-production between emergency personnel and the public
Key elements in the texts:	<ol style="list-style-type: none"> 1 Does the article focus a bottom-up perspective? 2 What phase of emergency and crisis is focused? 3 What is the national context of research?

Research themes

In this section the key themes extracted from the reviewed literature are presented. As was stated in the introduction these themes were constructed by the author in order to organize the extensive material. The introductory theme deals with what constitutes a culture of collaboration among citizens, organisations, emergency professionals and local authorities. After that, a common model for community involvement (Community Based Disaster Management) in hazard prone areas is provided as an example of how a culture of collaboration might be fostered. The third theme deals with collaboration among the private and public sectors. The fourth theme emphasises the importance of inter-agency networks and engagement among the multitude of community agencies. The fifth theme emphasises potential collaboration between public health agencies and communities in regards to crisis and disaster management. The sixth theme describes various forms of community resources, networks and capitals. The seventh theme describes various forms of individual voluntary efforts, while the eighth theme focuses specifically on organized voluntary efforts. The ninth theme brings together some perspectives on disability and impairment as related to crisis and disaster management, while the last aims to synthesize all previous themes by introducing an emerging “philosophy” of community engagement.

A culture of collaboration

Crisis preparedness and response will not be effective without the participation of the vulnerable communities. When involved in the mitigation process, the communities’ confidence, capacities and coping mechanisms develop in an upward spiral (Newport & Jawahar 2003:33). A common denominator between different conceptualizations of community preparedness and response approaches is an acceptance of communities as being capable of drawing upon internal resources and competencies to manage the demands, challenges and changes encountered (Paton & Johnston 2001:272; NRC 2011:59).

According to Newport and Jawahar (2003:33), community participation should be viewed as a social process, in which the vulnerable groups organize themselves for their common needs and problems. However, in order to make it a practical reality, crisis and disaster mitigation requires not only the participation of the individual within the vulnerable community, but also the involvement of related institutions, NGOs and the general public (Newport & Jawahar 2003:33; Victoria 2002:274; Chen et al. 2006:219) as a supportive institutional construct (Yodmani 2001:5; Paton & Johnston 2001:274). Thus, building resilient communities involves ensuring that communities and community members have the

resources, capacities and capabilities necessary to bounce back and recover in a manner that minimizes disruption and facilitates growth (Paton & Johnston 2001:273).

While self-sufficiency and self-organization, according to López-Marrero and Tschakert (2011) are key to resilience, actions must not rely on just one group. Instead, it is important to promote joint projects that involve both community members and emergency managers (ibid 2011:244). Resilience, though, must be fostered through a mix of strategies (Paton & Johnston 2001:275; ADPC 2009:3), as dependence on a single strategy has negative consequences for resilience, because this dependency constrains adaptive capacity (López-Marrero & Tschakert 2011:245). Consequently, to be able to draw upon internal resources and competencies, communities must be empowered and, as discussed by Rich et al. almost twenty years ago, empowerment is often achieved by meaningful participation (1995:660).

As stated in the introduction, there are many different kinds of communities. They might be based on place, interest, belief and circumstance, and they do exist both geographically and virtually. The question then is how to achieve meaningful participation of the diverse groups and individuals constituting modern communities. What approaches and strategies should be employed to capture, encourage and channel the resources and capacities existing within the complex communities of today? This report will not provide a definite answer to the question, as any approach or strategy employed must be related to the nature of the crisis or disaster in specific geographic and demographic contexts. Still, this study maps and explores a variety of possible approaches with the aim of reflecting the diversity of enablers and initiatives in present societies and communities.

Community Based Disaster Management

Local governments using citizen participation for disaster mitigation and response is nothing new. Citizens' volunteering as emergency response personnel, due to a shortage of professionals, goes back to World War II (Chen et al. 2006:211). In general, the goal of community based disaster management is to transform vulnerable or at-risk communities to disaster resilient communities (Victoria 2002:274). By using a CBDM-approach, peoples capacity to respond to emergencies increase by providing them with more access and control over resources and basic social services (Jahangiri et al. 2011:83). Community participation is generally viewed as a social process, but on a practical level there must be some efforts in education, training and awareness-building within the vulnerable groups as well as with related agencies and institutions (Newport & Jawahar 2003:33; López-Marrero & Tschakert 2011:229; McEntire & Myers 2004:148-149; Jahangiri et al. 2011:89). Thus, the underlying rationale of CBDM is that there is empowerment of and ownership by local stakeholders at community or municipal level, that should lead to a sustainable reduction in disaster risks over time (Maskrey 2011:48).

However, many CBDM initiatives resemble programmes and projects that are implemented at the community or local levels rather than with community or local ownership (United Nations 2011:139; Yodmani 2001:4; Maskrey 2011:48).

Many programs are successful during the project period, but gradually diminish as time passes, due to a lack of effective participation and capacity building of the local communities (Pandey & Okazaki 2005:2). Also, Buckle (2001:10) notes that since the way of implementation of community based approaches differs in various countries due to cultural, socioeconomic, political, and health related issues, it is not possible to design a uniform application to fit every possible context. Similarly, Jahangiri et al. (2011:89) points out that the type of community participation and contribution may differ according to the characteristics of each specific country.

There are many stakeholders involved in a CBDM process. These can be divided into two broad categories, the *insiders* and the *outsiders* (ADPC 2009; Victoria 2002; Rodríguez & Aguirre 2005). Insiders are those individuals, organizations and stakeholders who are located within the community. As insiders, every individual, family, organization, business and public service within a community has a role to play in reducing disaster risks, as all of them would be affected by disasters. A local Disaster Management Committee (DMC) should mobilize the different actors in order to implement the multitude of projects, strategies and actions during a CBDM process (ADPC 2009:3). Outsiders refer to those sectors and agencies which are located outside of the community and want to reduce community vulnerability and enhance its capacities for disaster risk management. Outsiders include, for example, government ministries and departments, voluntary organizations and NGOs (ADPC 2009:4). Their role is to support the community's efforts in reducing their vulnerabilities and enhancing capacities. They can do this through providing technical, material and financial support. Successful disaster education and management must involve the integration of both insider and outsider accounts. The desired outcome is a creative synthesis of these various values and truths through highly interactive and collaborative processes (Rodríguez & Aguirre 2005:3).

When all these actors join in collaboration on the disaster management arena, community volunteers, local DMCs and organizations becomes the necessary interface or channel for outsiders such as NGOs and government agencies (Victoria 2002:274). Thus, in their role of supportive institutional construct (i.e. providers of financial resources, technical expertise and political influence), outsider agencies must be aware of their potential dominant position towards the communities (ADPC 2009:4). See Victoria (2007:278-280) for an elaborated discussion on the role of NGOs and government agencies in CBDM programs.

The outside agencies may initiate the CBDM process as part of their agenda, or the communities may contact them in order to receive support. Where the initiative comes from is less important; what matters is that after initiating the process, the community participates in the study of their disaster risks, action planning and decision making on mitigation and preparedness solutions and in the implementation stage (Victoria 2002:277).

Aiming at transforming vulnerable communities to disaster resilient communities, CBDM programmes generally develop in a six- to seven-step process (Victoria 2002; ADPC 2009; Danish Red Cross 2005). First, outside organizations connect with the community at-risk (or communities contact them in order to receive support); second, the parts involved create a

common understanding of the present risk- and disaster situation; third, participatory assessments of hazards, vulnerabilities, and capacities are carried out; fourth, appropriate mitigation and preparedness measures are identified; fifth, the community forms a disaster preparedness and response organization; sixth, short-, medium-, and long-term risk reduction measures, activities, and projects are implemented; and seventh, continuous improvement of the disaster risk reduction plan, and documentation and dissemination of good practices for replication, are carried out (Victoria 2002:274).

In order to identify key factors for successful CBDM, Pandey and Okazaki (2005) conducted six case studies in the Asian region, targeting three specific hazards: cyclones (India and the Philippines), earthquakes (Indonesia and Nepal) and floods (Bangladesh and Cambodia). Crucial factors for sustainable community based work were, among others, the participation of community citizens and groups in all stages of the process; shared motivation and sense of ownership among community and supporting agencies; well-delivered educational and training inputs in accordance with the objectives of the project and the needs of the community, and; specific focus on sectorial groups like women, elderly, children and ethnic minorities. These results are in accordance with the reviewed literature on CBDM approaches, for example Jahangiri et al. (2011:92), López-Marrero & Tschakert (2011:229), and Victoria (2002:276).

As a practice, CBDM programs have taken root in all developing regions. Since the 1990s, CBDM approaches have been increasingly taken up by almost all of the major international NGOs and other organizations such as the World Bank and United Nations Development Programme (Maskrey 2011:45). Some programs similar to CBDM are for example Integrated Community Disaster Planning Programmes (ICDPP) and Local Level Disaster Management (LLDRM) programs. ICDPP has been employed by Red Cross in Southeast Asia (Danish Red Cross 2005), while LLDRM has evolved mainly in Latin America and to a lesser extent in Asia (Maskrey 2011:45).

Building resilience through private-public collaboration

International research on recovery highlights the importance of not only strong local government capacity, but also of a cohesive system of public, private and volunteer groups integrated into the community (Johnston et al. 2012:253). When a major part of the workforce is engaged in the private sector, responsibility for building community resilience cannot rest upon the public sector alone. Thus, all sectors must collaborate to build community-level disaster resilience (NRC 2011:xi).

Much of what is known about disasters and emergency management is based on studies of households, broader communities, and organizations in the public sector (Phillips et al. 2012:378). However, recently the private sector has begun to attract attention in the context of disasters and emergency management. Three major reasons are considered by Phillips et al. (2012): first, there is a growing awareness of the financial costs of disasters and, as stated above, this cost cannot be handled by the public sector alone; second, recent major events has

highlighted the important role of the private sector in emergency response, as many key elements of the critical infrastructure (i.e. electricity, telecommunications and transportation) are owned or operated by private companies; and third, “businesses” ought to be added to the list of key stakeholders (along with individuals and households, community groups, and government agencies) that must resume quickly to normal operations during recovery (Phillips et al. 2012:379; Henstra 2010:239). In addition, businesses should be ready to respond to and recover from disasters because (a) companies have a moral duty to protect their employees, (b) companies need to follow existing laws related to safety, and (c) companies can return to business much more quickly, which not only helps the business, but the community and the affected region (Phillips et al. 2012:23).

The National Research Council (NRC) discusses a framework for enhancing disaster resilience with an emphasis on private-public local-level strategies. Some key issues mentioned are the importance of recognizing the significance of local networks and recognizing network diversity. Efforts to mobilize individuals and groups are most efficient and successful when begun through existing networks and institutions using multiple mechanisms (NRC 2011:60). People are more motivated to participate in collective efforts through the groups and institutions in which they normally participate, rather than as isolated individuals. Inclusive networks can be created by linking and optimizing existing professional, religious, service, social, economic, and other networks. Collaboration with local agencies can increase the effectiveness of collaboration, not only because of increased interaction with the emergency management community, but because of the relationships of local organizations with members of the community (NRC 2011:61). Private-public collaboration, whether directed at enhancing a community’s quality of life, solving community problems, or aiding communities in becoming disaster resilient, will be most successful when it includes an early comprehensive assessment of diverse community network assets (NRC 2011:62).

Private-public cooperation can be pursued informally or more structured, and it can be pursued in a short or long time perspective. Formalized cooperation usually involves some degree of financing and plan for action. At present, private-public cooperation in crisis management is often pursued in an informal and temporary manner (KBM 2008:58). Cooperation is often centered on a specific problem or activity, and limited in time to the duration of a certain project. But cooperation can favorably also be long-term and formalized (see figure 1 below). Previous studies show that it is better to use pre-existing or established forms of collaboration (if such exist) instead of creating new forms specifically for private-public cooperation in crisis management (KBM 2008:59; Henstra 2010:239).

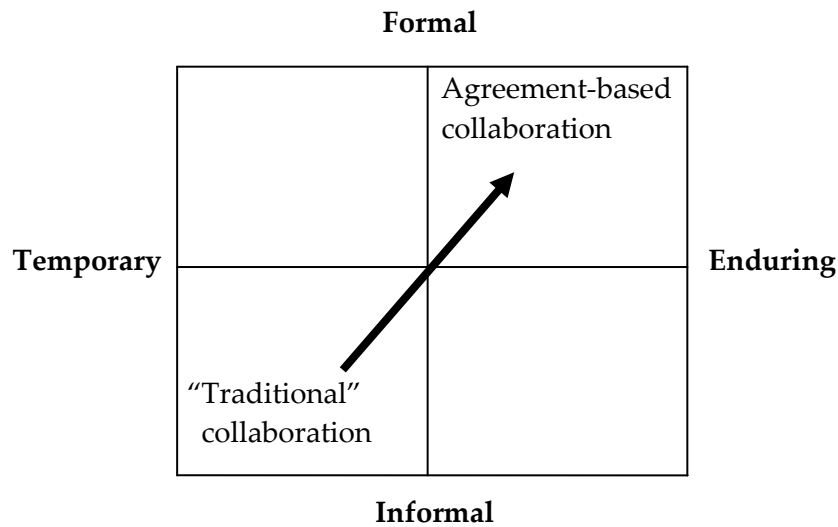


Figure 1. Dimensions of private-public cooperation (KBM 2008:58)

The multi-agency collaboration of insider agencies

During a crisis or disaster there is no time for an emergency manager to start meeting his or her state or federal representatives. The emergency manager must have confidence in the competence of other agencies, just as other agencies must trust the emergency manager's abilities to be competent in his or her area of responsibility (McEntire & Myers 2004:150). Thus, inter-agency networking is crucial to implementing an effective crisis mitigation and recovery program (ibid). In an extensive literature review on disaster management, Lettieri et al. (2009) traces some main features of inter-agency networking. Findings suggest a well developed coordination between all organizations and inside each organization through team working along all the phases, from strategy to recovery and not only during response (Lettieri et al. 2009:129).

In a recent paper, Johnston et al. (2012) points to the importance of multi-agency community engagement during the response and recovery of a crisis or disaster. The coordination of diverse professional resources is required to deal with the physical, social, and personal consequences of extreme events (Johnston et al. 2012:253). The issue has also been highlighted by Paton (2006), stating that as the event progressively moves through the response phase, adaptive capacity will increasingly involve interaction between communities and societal-level institutions, such as businesses and emergency response agencies (Paton 2006:313). Thus, the quality of reciprocal relationships between communities and societal institutions will influence the quality of the community experience of recovery (ibid). The collaboration of agencies, institutions and the public in situations of crisis and disaster is often achieved in an ad hoc manner (Johnston et al. 2012:264), and there might thus be difficulties getting communities to participate in complex decision-making in times of stress

immediately after a disaster event (ibid. 265). One possible strategy to alleviate this problem is by ensuring that communities are participating in similar participatory decision-making processes prior to an event, so that the process and structure is familiar to them, thus putting them in a more recognizable and less stressful environment after a disaster (ibid).

In Sweden, some 18 agencies and public authorities have recently established a national platform for disaster risk reduction. This platform works to prevent and handle the effects of crisis and disasters in line with Sweden's commitments to the Hyogo Declaration and the Hyogo Framework for Action (MSB 2010; 2011). The network of authorities associated to the platform are for example the Swedish Energy Agency, the County Administrative Boards, the Swedish Forest Agency, the Swedish Geotechnical Institute, the National Board of Health and Welfare, and the Swedish Transport Administration (MSB 2011:9)

Public health agencies and the public

Public health is uniquely placed at the community level to build human resilience to crises and disasters (Keim 2008). In a recent article, Barishansky and Mazurek (2012) define the intersection of community resilience and public health, and explore what public health can do for raising community resilience. Over the years, the authors' state, public health has been given more and more responsibilities. Also Chandra et al. points out that the sustained ability of communities to withstand and recover from adversity (e.g. economic stress, influenza pandemic, man-made or natural disasters) has become a key policy issue in recent years (2011:1). In addition to its traditional agenda, public health is now required to serve, in some capacity, as a response agency alongside police, fire, emergency medical services, and so on. Public health departments are to ensure that local civic leaders, citizens, and families are educated about threats and empowered to mitigate their own risks, in order to ease the need for additional assistance (Barishansky & Mazurek 2012:3). It is increasingly recognized that communities may need to be on their own after an emergency before help arrives and thus need to build resilience before an event (Chandra et al. 2011:1). By promoting safety and health, public health works to reduce the pre-existing burden of disease, build social capital, and strengthen community resilience to a wide range of hazards, including extreme weather events like drought, wildfire, floods, cyclones and landslides (Keim 2008). In the context of crisis and disaster management, health promotion involves working with people to prevent, prepare for, and respond to, disasters so as to reduce risk, increase resilience and mitigate the impact of disasters on health (WHO 2003:202). As stated above, community engagement helps relieve the burdens on health and safety agencies by enabling more members of the public to assume the role of responder rather than victim (Schoch-Spana 2006:16). In critical situations, leaders should be able to tap the civic infrastructure (i.e. the public, voluntary associations and social service organizations) to support agencies during response and recovery, and meet the diversity of needs in modern communities (ibid). In the management of less critical situations during everyday life emergencies, like heart attacks, the public is encouraged to assume the role of first responder to relieve the burden on health agencies.

The UK first aid charity St John Ambulance² and the Swedish medical university Karolinska Institutet³ use a web-based SMS solution that enables unit leaders to contact volunteers quickly so that the nearest individual trained in cardiopulmonary resuscitation (CPR) is called when someone is suffering a cardiac arrest.

Community resources, networks and capitals

Communities have many different kinds of resources related to social phenomena. Magis (2010) describe some of these resources in terms of community capitals. Community capitals are the social, cultural, spiritual, and political capitals inherent in a community. *Social capital* refers to the ability and willingness of community members to participate in actions directed to community objectives, and to processes of engagement; *cultural capital* refers to people in social groups and reflects communities' ways of knowing the world; *spiritual capital* refers to the effects of spiritual and religious practices, beliefs, networks and institutions that have a measurable impact on individuals, communities and societies⁴; and *political capital* refers to community members' ability to access resources and power, to express themselves, and to participate as active agents in their community (Magis 2010:406-407). The formation of effective and productive social networks constitutes a key element in the development of social capital (NRC 2011:106). Also, using and strengthening existing social networks means investing in the social, economic, and political structures that make up daily life and connecting them to emergency management programs (FEMA 2011:16). In a recent article, López-Marrero and Tschakert (2011:231) lists different elements that support community resilience in the face of hazards. Social capital, according to the authors, is a key source of resilience upon which partnerships and collaboration depend. Networks, partnerships and collaborations of stakeholders and institutions operating at different levels also promote social learning, foster diversity and create opportunities for recovery, renewal and reorganization (López-Marrero & Tschakert 2011:231).

Aguirre (2006:4) mentions 17 disaster relevant institutions in which relevant networks can be assumed to operate. They are the family, religion, politics, economy, medicine and health, education, science, law and the courts, risk management (to include insurance as well as the police, firefighting and other response instrumentalities), mass media and communication, transportation, energy, food, water, leisure and entertainment, construction and other built environment activities, and land use and environmental regulation and protection. Networks of social relations populate these institutions, so that social life in them can be conceptualized as involving networks acting within and across these institutional boundaries (Aguirre 2006). The multitude of networks, groups, associations and institutions within a community is sometimes referred to as *the social infrastructure* of communities (FEMA 2011:16).

² www.sja.org.uk/sja/volunteer/first-aid/community-first-responder.aspx

³ www.smslivraddare.se

⁴ www.metanexus.net/archive/spiritualcapitalresearchprogram/what_is.asp.html

Other times, the concept of *civic infrastructure* is used. The civic infrastructure of a community is comprised of the public's collective wisdom and capability to solve problems; voluntary associations (both virtual and face-to face) that arise from shared interests or a public good; and social service organizations that look out for the wellbeing of various groups (Schoch-Spana et al. 2007:8). In situations of extreme events, like crisis and disasters, leaders should be able to tap the civic infrastructure to support emergency agencies during response and recovery. Thus, volunteer integration and partnerships with community based organizations should be working on a daily basis before the event (Schoch-Spana et al. 2007:16).

As mentioned above, community approaches in emergency preparedness and response are most successful when begun through existing networks and institutions. People are less motivated to work toward a goal as isolated individuals; rather, they participate in collective efforts through the groups and institutions in which they normally participate (NRC 2011:60). Therefore, community stakeholders collaborating in resilience-enhancing strategies should consider how to reach individuals and groups through the organizations to which they belong (ibid. 61). Knowing who interacts with whom can be critical for developing coordinated emergency response plans before a disaster occurs. Thus, local community members need to be involved in response planning to determine what social networks exist and how to activate them during a disaster (Chandra et al. 2010:22).

The themes discussed in the previous and coming sections all relate one way or another to community cohesion. Cohesion is fostered and manifested through networks, partnerships and collaborations. Meaningful participation, like volunteer activities, contributes to a sense of community and community cohesion. Slatter and Worth (2011) has developed a model displaying the relationships between different levels of cohesion. They found that the level of community cohesion depends on the capacity of the local community infrastructure at four levels: *first*, there is the connection between people and place; *second*, there are links between citizens (Slatter and Worth mention neighborliness as specifically important); *three*, there exist a feeling of belonging and ability to express identity as a community; *four*, the capacity for shared activism ('doing things together') is enabled by community networks and public facilities (Slatter & Worth 2011:7). Thus, a cohesive community has capacity on each step of the "ladder"; the connection between citizens and place needs to be matched by opportunities for links between citizens, neighborliness, etc; the ability to form communities and express their identity; and by networks that enable cultural and social exchange and the organization of joint activities. This model was not developed specifically for the purpose of crisis and emergency management activities, but could certainly serve as inspiration when looking at different conditions and possibilities for citizen participation in the co-production of crisis preparedness and response activities on community level.

Voluntarism and convergence

In the aftermath of September 11, 2001, Citizen Corps⁵ was initiated to capture the spirit of service and voluntarism that emerged throughout communities in the US. The mission of Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues, and disasters of all kinds. These programs provide opportunities for people to participate in a range of measures to make their families, their homes, and their communities safer. Citizen Corps is coordinated nationally by the Department of Homeland Security's Federal Emergency Management Agency (FEMA). Together, Citizen Corps and FEMA coordinate an ambitious initiative for increasing individual preparedness and engaging community members in enhancing security and resilience. This initiative is called "A Whole Community Approach" (see page 34 below).

Fisher (1998) among others has shown that general beliefs about people's behaviors during crises and disasters are often fallacies, supported by media news reports. Panicking crowds, looting and antisocial behavior is thus part of the disaster mythology. On the contrary, a quantity of studies report that people typically react to situations of collective stress with a spirit of concern and generosity, and that volunteer activities increase in the direct aftermath of an event (Trainor & Barsky 2011:25).

The interaction between professional emergency actors and the general public has been considered by Enander (2010:15-16) from two perspectives. On the one hand focus is on admitting the concerned public into the "risk- and crisis arena" as part in dialogue, planning, decision-making and practical measures, and on the other hand, focus is on activating the passive public and engage people to participate in constructive community risk- and crisis management. As for the latter, the public might be perceived as passive when people fail to understand - or consciously ignore - a threat. Collective passivity or ignorance might occur when the public experiences repeated threat warnings during a short span of time (Wang & Capucu 2007). Crucial factors in both approaches are perceived level of trust towards authorities, and perceived level of personal responsibility and capacity (Enander 2011:164-165). A high level of trust towards authorities combined with high confidence in personal responsibility and capacity makes a good basis for people to comply with recommendations and to take pro-active action (ibid).

An increasing number of studies stress the fact that emergency management agencies should encourage and utilize citizens' active participation during crises and disasters. This could be done by assimilation of citizens' skills, knowledge, and experiences when planning for crises (Enander 2011:166), by mobilizing and coordinating relevant social networks (Aguirre 2006:4-6), and by paying serious attention to channeling volunteer potential (Trainor & Barsky 2011:27).

⁵ www.citizen corps.org

Aguirre (2006) mentions two types of social networks that need to be included in the project of creating resilient communities. First, there are networks, groups, and voluntary organizations dealing explicitly with crisis and disaster management. These groups often respond to disasters but are not financially or otherwise assisted to facilitate the work of professional emergency workers, or, as Aguirre puts it, “they come, they help, and they disappear” (Aguirre 2006:5). Secondly, there are many relevant networks that do not define themselves as doing anything related to community resilience but who are in possession of skills or material resources well needed during crisis and disaster management. These groups arise in response to crisis but are often not recognized or used effectively by emergency management officials (NRC 2011:62). Aguirre illustrate this type of network with fishermen. As owners of boats they came to be key actors in the aftermath of hurricane Katrina. They had the resources required for searching and rescuing victims in the flooded area (Aguirre 2006:6). Apart from the two types mentioned by Aguirre, there are also other relevant networks to be considered. FEMA (2011:18) provides a concrete example about a research team that had worked for months after the catastrophic earthquake in Haiti 2010. They identified two different types of social and organizational networks providing aid to earthquake survivors. One network consisted of large relief agencies that focused on transporting a large volume of humanitarian aid from outside the country and into the disaster area (this network is thus similar to the first type mentioned by Aguirre). The second type of network involved pre-existing social groups that routinely worked with, and inside, local Haitian neighborhoods to provide basic social services. This network was established in the local community prior to the event, dealing with the everyday needs and problems of the community residents. Thus, one important aspect of effective emergency management is acknowledging the value of leveraging *existing* social infrastructure.

Brennan (2007:8; 2006:2) emphasizes the fact that volunteers interacting together not only enhances local personal and community safety, but that volunteer interaction also serve the function of transcending class and racial divides in the search for community well-being. Thus, volunteerism provides a mechanism to cut across gender barriers and more adequately include women, youth, and minorities in local decision-making.

Volunteer organisations in crisis preparedness and response

Volunteer organizations, like faith-based, community-based and civic organizations, play an important role in crisis and disaster management. In the US, the National Voluntary Organizations Active in Disaster⁶ (NVOAD) coordinates more than fifty members to provide disaster assistance (Phillips et al. 2012:23). Many organizations have determined their own specific set of tasks during crisis and disaster response. As a result, they can decrease duplication of tasks and maximize resources (Phillips et al. 2012:24). One example, provided by Holcombe (2007), describes how the characteristics of a faith-based organization can influence the type of service it chooses to provide:

⁶ www.nvoad.org

For example, the leader at a black Baptist church that served as a shelter [*during Hurricane Katrina*] noted that the congregants were able to identify with the evacuees since many personally understood needing material assistance. Leaders and members at a large black Methodist church have a lot of experience dealing with the homeless population, partly because a large proportion of their own congregants are homeless. Thus, in a position to understand the evacuees who were homeless even before the storm, the church focused its relief efforts on serving this hard-to-reach group of people. (Holcombe 2007:114)

Civic organizations usually do not focus on disaster concerns, but serve as extending organizations when crisis or disasters occurs (Dynes 1970). In Sweden, some 18 voluntary civil defence organizations collaborate under the umbrella of the Swedish Civil Contingencies Agency (MSB). Organizations associated to the platform are for example The Volunteer Air Corps, The Voluntary Radio Association, The Civil Protection Association, Swedish Women's Voluntary Defence Association, the Swedish Parachute Association, and The Swedish Working Dog Association (SFS 1994:524). Community organizations differ from civic organizations in that they focus mainly on those in need locally before extraordinary events like disasters occur (Phillips et al. 2012:413). These organizations offer emergency managers an important connection to local residents:

Staff and volunteers in community-focused organizations know and understand the local context. They know who is in need, which households may fall through the cracks, and the most effective ways to use incoming assistance. Community organizations also bring in expertise that emergency managers may lack. A local senior citizen center, for example, understands what seniors need and how to serve them. (Phillips et al. 2012:414)

The BC Coalition of People with Disabilities⁷ (BCCPD) is a Canadian umbrella organization, representing over 120 community organizations in emergency planning for people with disabilities. The organization works to promote the inclusion of people with disabilities in emergency preparedness and response activities, and have for that purpose developed a program for community training in emergency planning for people with disabilities (BCCPD 2010). The program invites staff and volunteers from volunteer centers and disability organizations, as well as friends, family and others in the informal networks of people with disabilities. Also, emergency response professionals, seniors' organizations, groups dealing with issues of poverty, care aids, paratransit drivers, and people from diverse cultural groups and interested members of the public, are invited to take part in this program.

⁷ www.bccpd.bc.ca

Perspectives on disability in crisis and disaster management

The Red Cross World Disasters Report of 2007 states that people – and not disasters – create discrimination. Ethnicity, gender, language, religion, political view, national or social background and economical circumstances are but just a few of the causes of discrimination, adventuring many crisis and disaster management efforts (Red Cross 2007:2). The World Disasters Report of 2007 focuses on some specific categories of vulnerability in situations of crisis, like minorities, women, the elderly, and the disabled.

Who is resilient and who is vulnerable is discussed by, among many others, Buckle, Marsh and Smale (2001). They state that everyone is vulnerable in one way or another to some loss: “Even the wealthy may be vulnerable to loss of irreplaceable memorabilia, emotional or psychological loss. Even though they have the resources to easily replace material losses. Equally, most people will have some degree of resilience, some coping capacity, some resources or networks or support services to draw upon” (Buckle et al. 2001:23). Similarly, there are groups that are traditionally accepted as being vulnerable. However, it is important to understand that the aged, for example, are not vulnerable because they are aged.

They may be vulnerable because they have reduced mobility or have sensory impairments. These may be impediments that other younger people share (Buckle et al. 2001:22).

In crisis and disaster management activities it is important to think about disability broadly.⁸ Traditional narrow definitions of disability are not appropriate (NCD 2005:11). The term disability does not apply just to people whose disabilities are noticeable, such as wheelchair users and people who are blind or deaf. The term also applies to people with heart disease, emotional or psychiatric conditions, arthritis, significant allergies, asthma, multiple chemical sensitivities, respiratory conditions, and some visual, hearing, and cognitive disabilities (ibid).

As stated above, it is important to think broadly about disability in crisis and disaster management. Still, we might need some kind of framework to help us relate the broad perspective to our everyday life approaches to disability. The EU sees disability as a social construct and stresses the environmental barriers in society which prevent the full participation of people with disabilities in society [COM(2003)650:4]. Similarly, the National Council of Disability (NCD) states that people with disabilities should be able to use the same services as the other residents of the community in which they live:

⁸ In this report the term *disability* is employed since this is the term consistently used in the reviewed literature. However, the term *impairment* could also be employed. Impairment refers to an injury, illness, or congenital condition or is likely to cause a loss or difference of physiological or psychological function, while disability refers to the loss or limitation of opportunities to take part in society on an equal level with others due to social and environmental barriers. Disability is thus the result of negative interactions that take place between a person with impairment and her or his social environment. An impairment is not the cause of, nor does it justify, disability.

Although they may need additional services, the emergency management system must work to build provisions for these services into its plans so that people with disabilities are not excluded from services available to the rest of the community. If planning does not embrace the value that everyone should survive, they will not. (NCD 2005:11)

In the last few decades, approaches to disability issues have been based on a social model of disability. The focus is on disabled people's rights and on the need to change society to be inclusive of everybody. Within these models, it is the way that society is organized to exclude people with impairments that are considered disabling, not the individual impairment (EC Guidance Note 2004:3). Or, as stated by Hemingway and Priestly, "Just as disability is not the inevitable outcome of functional impairment, human 'disaster' is not the inevitable outcome of natural 'hazard'. Rather, disabled people's vulnerability to human disasters is embedded within social structures, institutional discrimination and the presence of environmental barriers." (Hemingway & Priestly 2006:58)

In summary, the disability discourse has moved from special needs to functional needs. Individuals with functional needs are people who before, during and after an incident may have additional needs in one or more of the following functional areas: maintaining independence, communication, transportation, supervision and medical care (Cameron 2011).

Supporting citizens with disabilities to become an effective part of the economy and society as a whole means participation in the mainstream for everyone for whom this is possible and in every area where this is possible. Mainstreaming requires well-informed policy-making and wide participation in the policy process to ensure that disabled people, and their diverse needs and experiences, are at the heart of policy-making each time it has an impact, directly or indirectly, on their lives [COM(2003)650 pp. 6]. Thus, people with disabilities must be included not only as an effective part of the economy and society as a whole, but also in the specific area of crisis and disaster management.

For example, the Verona Charter on the rescue of persons with disabilities in case of disasters (2007), states that:

- a) Persons with disabilities and their organizations need to be actively involved in decision-making processes concerning situations of humanitarian emergencies and the occurrence of natural and man-made disasters and in all the related emergency management activities. This involvement should be fostered by the development of inclusive policies at all levels starting from organizations of persons with disabilities and families, communities up to national and international organizations. Persons with disabilities and their organizations need to be aware of the management of all phases of the intervention in case of risk situations and empowered to be active actors. (Article 3)
- b) The establishment of local community networks has to be encouraged and empowered also when it comes to addressing the needs of persons with

disabilities in situations of humanitarian emergencies and the occurrence of natural and man-made disasters (i.e. Social networks and neighborhood network). (Article 7)

- c) The potential of new technologies should be fully implemented and used to empower persons with disabilities and to ensure equal opportunity and treatment also in emergency situations. (Article 11)
- d) Information should be correct and easily understandable, accessible by all and appropriate to meet the different needs of persons with disabilities considering the different kind of disabilities. (Article 12)

Hemingway and Priestly (2006) has reported on case studies from hurricane Katrina that provided evidence on the readiness and capacity for disaster response among disabled people's organizations and community-led advocacy organizations. This readiness was reflected in informal networks of support and communication and in specific forms of disability expertise that were not readily available within the mainstream disaster response systems (Hemingway & Priestly 2006:63). The authors therefore conclude that improvements in resilience to disaster must include investments in the full participation and equality of disabled people within "vulnerable" communities (ibid. 64). Likewise, the National Council on Disability reports that the strengths and skills of community based organizations (CBOs) serving people with disabilities are yet not well integrated into the emergency service plans and strategies of local government (see the previous section). Emergency managers need to strengthen their relationships with these organizations by recruiting, encouraging, and providing funding and incentives to CBOs so that they can participate and assist in disaster preparedness and relief (NCD 2005:12). Shein (1989) proposed a theory of the deaf community that includes both a strong sense of affiliation no matter where deaf people live in the world, as well as a sense of alienation from the hearing society that does not understand them. During hurricane Katrina, White and her colleagues sent the word out to the deaf community that cots and mattresses were needed by the deaf evacuees. Within hours they began arriving, along with captioned television sets and TTY (i.e. text telephone) devices for deaf evacuees to make phone calls (White 2006:52). In several locations, disability task forces, offices, or agencies have fostered positive change through cooperation and collaboration. For example, the City of Chicago's Mayor's Office for People with Disabilities pulled together builders, architects, developers, and the disability community to design a new, accessible building code. The effort connected people in a partnership that produced change (NCD 2007:227). Other examples of progress in the area of disability inclusiveness in disaster and emergency situations is the work of the United Nations Enable program (www.un.org/disabilities) which pushes for a paradigm shift in attitudes and approaches to persons with disabilities – from viewing persons with disabilities as objects of social protection, towards viewing persons with disabilities as subjects with capacities and ambitions of being active members of society. Another step further was taken by the Pacific Disability Forum (PDF) in partnership with the Fiji Disabled Peoples Association (FDPA) in 2011, when they embarked an innovative project that will provide opportunity for people

with disabilities to be included in Disaster Risk Management processes. Workshops were held in order to understand the current practices of disaster preparedness and risk management in the Fiji area and to formulate strategies for developing a disability inclusive approach to disaster preparedness and risk reduction (Australian Government and AusAID 2011). Beyond these few positive examples, much remains to be done in this area.

Synthesis: FEMA and the Whole Community Approach

As stated by Aguirre (2006), increasing community resilience means that governments must facilitate and strengthen independent and coordinated and cooperative social networks. Such networks could then be the catalysts of social and cultural change in a society through the introduction of mitigation practices (Aguirre 2006:4). This, says Aguirre, "...would be resilience from the bottom up as it were, allowing for myriad mitigation efforts that would be loosely facilitated by governments" (ibid).

One such initiative was recently introduced by the US Federal Emergency Management Agency (FEMA). The Whole Community Approach represents a new foundation for increasing individual preparedness and engaging members of the community in enhancing security and resilience. The concept of A Whole Community Approach is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and address the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests (FEMA 2011:3).

The Whole Community Approach acknowledges that changes in transportation systems, changes in housing styles, shifting employment trends, and increased ethnic and linguistic diversity, in combination with new technologies, will alter the ways in which local residents plan their home-to-work commuting patterns as well as their leisure time (FEMA 2011:1). The challenge for those engaged in emergency management is to understand how to work with the diversity of groups and organizations and the policies and practices that emerge from them in an effort to improve the ability of local residents to prevent, protect against, mitigate, respond to, and recover from any type of threat or hazard effectively (ibid. 3).

The approach is guided by three main principles: (1) *we have to understand and meet the actual needs of the whole community*. Thus, community engagement can lead to a deeper understanding of the unique and diverse needs of a population, including its demographics, values, norms, community structures, networks, and relationships; (2) *we have to engage and empower all parts of the community*. Thus, engaging the whole community and empowering local action will better position stakeholders to plan for and meet the actual needs of a community and strengthen the local capacity to deal with the consequences of all kinds of threats and hazards; (3) *we have to strengthen what works well on a daily basis*. Thus, building community resilience requires finding ways to support and strengthen the institutions, assets, and networks that already work well in communities and address issues that are important to community members on a daily basis (FEMA 2011:4-5).

The advantage of creating a holistic and all-embracing change process, such as the Whole Community Approach, is enormous (Aguirre 2006:7). For example, in a vigorous system of networks, people would use these associational arrangements to channel their charity, thus discourage the phenomenon of convergence (i.e. the “downside” of voluntarism, when people and material assemble in unstructured ways at the sites of disasters). In addition, the emphasis on social networks would allow governments to provide training and specify functions which would be performed by volunteers who would participate in the management of crisis and disasters as part of certified networks of social relations (Aguirre 2006:8).

Summary of major themes

In the previous sections, a wide spectrum is featured of conditions for the empowerment of citizen participation in crisis and disaster management on community level. In what follows, the themes are integrated and summarized. Each theme is prompted by a key-statement (*italics*) compressing the content of the summary.

People rather than disasters: Some authors in the reviewed literature emphasized that focus should be on people and what people can do, instead of what risks and hazards they might face. The basis in this line of discussions is that all crisis and disasters are different and has different impacts depending on the context and structure of the affected community. Thus, what matters is that people become involved and take actions to become better prepared, rather than focusing on the physical impact of disasters.

Flexibility of approaches: In the reviewed literature, we have seen that communities are no static and predictable entities with clear boundaries and homogenous populations. On the contrary, modern communities are nested, dynamic and complex. They can be based on circumstance, belief, interest or place. Similarly, crisis and disasters are always different in scope, intensity and magnitude. The consequences of disasters differ in various regions due to geographic, demographic, socioeconomic, political, cultural, and other issues. Thus, it is not possible to design a uniform approach or application to fit every possible context. Approaches must be applicable to diverse environments and communities.

Utilize pre-existing forms of collaboration: A major part of the literature stresses the importance of using pre-existing or established networks (i.e. families, workplaces, associations, organizations, congregations, etc.) when reaching out to people. FEMA (2011:16), for example, states that “Leveraging and strengthening existing social infrastructure, networks, and assets means investing in the social, economic, and political structures that make up daily life and connecting them to emergency management programs.” Efforts to mobilize individuals and groups are more successful when begun through familiar networks. People prefer to participate in collective efforts through the groups and institutions in which they normally participate, rather than through forms of collaboration created specifically for crisis and disaster management. Thus, collaboration between different actors should occur prior to an actual event, and the matter of collaboration does not have to focus on crisis or disaster per se.

Utilize local actors and networks: Resilient communities should be able to draw primarily upon internal resources and competencies to manage the demands and challenges encountered during a crisis or disaster. Local authorities should be able to tap the civic infrastructure of the local community in order to get the relevant resources, relief and input needed in the specific case. Internal resources and competencies refer not only to an involved and empowered public, but also to the multitude of public, private and civic agencies, organizations and businesses active on community level. Previous research, for example Chandra et al. (2010:23), has suggested that the decentralized and flexible structure of local social networks allows them to respond quickly, and that a centralized, rigid emergency response takes longer to mobilize and can ultimately delay the distribution of needed resources.

A salutogenic vision: Recurring in the literature is the idea that we have to strengthen what already works well on a daily basis at community level. We have to start with existing and familiar networks and integrate crisis and disaster management activities into these. We have to emphasize and encourage good examples, not to get caught in the weaknesses and vulnerabilities of local communities. A fundamental assumption in co-production theory and practice is that people have assets and not just problems.

A “philosophy” of resilience: Public participation in community resilience is not simply a technique to be applied at different stages of the project cycle; it is also a philosophy about how development is approached and implemented. Increased and authentic citizen participation that focus on both the process and the outcome is also seen by some public administrators as essential for quality policy development and ultimately improved quality of life. As stated by FEMA and others, we have to foster a way of thinking on safety and resilience, which is nourished in a culture of neighborliness and helpfulness. Community resilience is about acknowledging and using community diversity and heterogeneity for a common cause. Thus, drawing on the principles of FEMA’s “whole community approach”, we have to understand and meet the needs of the whole community, and we have to engage and empower all parts of the community. As noted by the National Research Council (NRC), disaster resilience is a byproduct of more general activities designed to improve the social and economic well-being of community residents. Being prepared for and surviving adversity are prerequisites of a healthy community (NRC 2011:41).

Acknowledge and support unconventional voluntary efforts: Many of the existing organizations, groups and networks grounded in collective needs and interests could be accentuated as potential actors in crisis and disaster preparedness and response. People and networks within specific interest groups or professions with no previous connection to crisis management might be in possession of skills or material resources well needed in crisis and disaster preparedness and response. Untraditional voluntary initiatives and efforts should be acknowledged and rewarded. The International Federation of Red Cross and United Nations Volunteers recommends to integrate volunteerism as a mainstreamed issue in national policies and programs to ensure not to reduce the capacity of citizens to engage in flexible and diversified voluntary action.

Empowered individuals and communities counter discrimination: As stated in the reviewed literature, ethnicity, gender and social and economic circumstances are but just a few of the causes of discrimination in many crisis and disaster management efforts. By capacity building and inclusive voluntary community work, processes of empowerment can be triggered. The result is an enhanced sense of community and more opportunities for co-production. Meaningful participation that connects community citizens contributes to the channeling of communication and facilitates interaction that cuts across class and other divides.

Develop and formalize private-public collaboration: Today, private-public collaboration in crisis management is often pursued in an informal and temporary project-based manner. But collaboration should aim at long-term and agreement-based activities, to establish a stable and familiar infrastructure prior to a situation of crisis or disaster.

Enablers of public empowerment: The reviewed literature has traced a number of potential enablers at community level to support meaningful involvement and participation of the public in crisis and disaster management activities. The categorization provided here does not pretend to be complete or exhaustive in any way. Nevertheless, it reflects the networks, groups, institutions, organizations and agencies mentioned in the selected literature. Three major themes of enabling public empowerment were discussed in this report: (1) *Public and civil sector collaboration.* Health agencies and institutions in collaboration with voluntary associations provide a relevant platform for involving citizens in crisis preparedness and response. The public can be encouraged to assume the role of first responder to relieve the burden on health agencies. (2) *The social and civic infrastructure of communities.* Skills, knowledges and material resources within local communities can be harnessed in order to create a culture of resilience. Assuming that we all have assets and not just problems, it becomes obvious that we all have something to contribute. People possess skills, knowledges and material resources well needed during situations of crisis. Your occupation or interest might embrace connections and capitals relevant in crisis management at community level. For example, important partnerships can be formed among groups that interact with a given population on a daily basis: Scout troops, sports clubs, home-school organizations and faith-based and disability communities are examples of networks where relationships can be built. Thus, all members of the community should be part of the emergency management team, including social and community service groups and institutions, faith-based and disability groups, academia, professional associations, and the private and nonprofit sectors. Identifying the critical points of contact for all constituencies in the community makes communication and outreach most effective. (3) *Volunteer organizations.* Volunteering in faith-based, community-based or civic-based organizations is a very important way to breed social capital. Many faith-based organizations do community work specifically with orientation to crisis and disaster management. Civic organizations often serve as extending and supporting organizations when crisis or disasters occur. Community organizations focus mainly on those in need locally during normal conditions. Thus, in case of extraordinary events, community organizations usually possess important knowledge about local conditions.

Conclusions

A major part of the literature in this review is of North American, Australian and Asian origin, while contributions from the EU are still modest. A general conclusion of this study, therefore, is that empirical research on how to include the public in collaboration on crisis and emergency management in a European context is needed.

A well-connected community may be in a better position to share information to be used in crisis situations with its stakeholders. Strategically doing so will likely improve its stakeholders' resilience (NRC 2011:41). Thus, the more we know about our communities, the better we can understand their real-life safety and sustaining needs and their motivations to participate in emergency management-related activities prior to an event (FEMA 2011:4). Therefore, research should be focused on (1) how to motivate and integrate community-based, faith-based, and other nongovernment organizations – including those not crisis oriented – into resilience focused collaboration, (2) how emergency management can be moved towards a “culture of collaboration” that engages the full fabric of the community, and, (3) how to build capacity for resilience-focused private-public sector collaboration (NRC 2011:105-106).

A large part of the research reviewed here acknowledges a broad definition of communities, such as the one explained in the introduction (p. 4). However, by tradition and for reasons of simplicity, most research is done with the location-based community as unit of analysis. Lots of people do not recognize their community as the people they live near. As such, all kinds of communities should be considered as valid groups within which to prepare for emergencies, and thus suitable objects of further research.

The Multinational Community Resilience Group (Bach et al. 2010:27) proposes five analytical themes for further research. The themes proposed are supposed to work as a support construct for policy opportunities and recommendations. The themes can be summarized as follows: (1) *Understanding communities*, (2) *Social capital development*, (3) *Leadership*, (4) *Sustainability*, and, (5) *Mediating institutions*. Similar themes for further research and policy opportunities have also been advanced by, among others, Chandra et al. (2010; 2011), FEMA (2011) and NRC (2011). Thus, these themes provide a tenable basis for research still to be done in the area of inter-organizational and cross-sectional collaboration in crisis and emergency management, and the enhancement of public participation in preparing for, and responding to, societal crises and disasters.

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Appendix: schematic outline of primary literature

Name	Publ. year	Element 1	Element 2	Element 3	Short description of community approach or model
Chen Liang-Chun et al.	(2006)	T-D + B-U	Prep + Resp	Taiwan	Community Based Disaster Management (CBDM)
Clerveaux Virginia et al.	(2010)	T-D	Preparedness	Caribbean	the Disaster Awareness Game (DAG)
Cutter Susan et al.	(2008)	T-D	All phases	USA	the Disaster Resilience of Place model (DROP)
Duval-Diop Dominique et al.	(2010)	B-U	Recovery	USA	the use of Geographic Information Systems (GIS)
Jahangiri Katayoun et al.	(2011)	T-D + B-U	All phases	Int. comp	Community Based Disaster Management (CBDM)
Johnston David et al.	(2012)	T-D	Recovery	New Zealand	Multi-agency community engagement in reducing trauma
Lettieri Emanuele et al.	(2009)	T-D + B-U	All phases	Int. comp	Review of approaches to disaster management
López-Marrero Tania et al.	(2011)	T-D + B-U	All phases	Puerto Rico	Participatory methods for enhancing community resilience
Magis Kristen	(2010)	T-D	All phases	USA	Community resources, community capital(s), active agents
Maskrey Adrew	(2011)	T-D + B-U	All phases	Int. comp	History and review of CBDM and LLDRM approaches
McEntire David et al.	(2004)	T-D	Preparedness	USA	Public education and training (preparedness programs)
Newport Jeyanth et al.	(2003)	T-D + B-U	Preparedness	India	Participatory Rural Appraisal (PRA)
Paton Douglas et al.	(2001)	T-D + B-U	Preparedness	USA	Public education as a model for preparedness behavior
Pearce Laurie	(2003)	T-D	Preparedness	Aus + USA	Public involvement in community planning
Preston John	(2009)	T-D	Preparedness	USA	Public education
Rich Richard et al.	(1995)	T-D	Preparedness	USA	Citizen participation and forms of empowerment
Romo-Murphy Eila et al.	(2011)	T-D + B-U	Preparedness	Indonesia	Education initiatives and local radio broadcasting
Stewart Robert M. et al.	(2011)	B-U	Preparedness	Canada	CBRM and enhancement of regional networks
Tobin Graham	(1999)	T-D	Preparedness	USA	Different models must work together to create resilience
Vari Anna	(2002)	T-D + B-U	All phases	Hungary	Education and participation as flood management strategy
Yodmani Suvit	(2001)	T-D + B-U	All phases	Int. comp	Risk- and vulnerability reduction programs (CBDM)



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