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## IMPORTANCE OF COMMUNITY PARTICIPATION IN DISASTER RECOVERY

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**Abstract:** The aim of this paper is to investigate the views about community on their participation during disaster recovery and how they can be empowered. The community participation from the beginning to end of the project, and future maintenance of the community is essential for a successful recovery in an efficient and effective manner. Little, or token, participation by the community has proved to be fatal through schedule delays in recovery or public uprising. This article will outline a global literature review of community participation complemented with some interview preliminary data from San Francisco and Christ Church, New Zealand. The outcome is a framework of community participation and empowerment. As "owners", the community will ensure a well- maintained community for many years ahead.

**Keywords:** Community, Disaster, Empowerment, Survivors, Project Management.

### 1. BACKGROUND

#### 1.1 Need of empowering the disaster effected community

Communities are the first responders during the aftermath of a disaster. Numerous studies about single countries (Ainuddin, 2012; Bornstein, 2013; Chandrasekhar, 2012; Crawford, 2013; Magnin, 2007; Olofsson, 2007; Twigg, 2009; World Bank, 2005, 2008) provide incredible insightful information on why the community is very important even when their power and influence are low and why it is important to empower to disaster affected community (San Francisco, 2013; Rowlands, 2013; Slotterback, 2013).

Currently, Federal Emergency Management Association (FEMA) encourages the community to take care of itself during the first 72 hours after a disaster as shown during the recovery from Hurricane Sandy (San Francisco, 2013). Following a disaster, if the government does not deliver on recovery, or on time, then citizens protest. According to a San Francisco interviewee, to offset the potential dissatisfaction from the affected community, the community needs to be encouraged to be part of the recovery. However, the community tends to ignore disaster recovery plan after the disaster event and their demands could be not possible to fulfil after the disaster. In essence, they become stakeholders with unreasonable expectations and a single person within the community can stop the recovery project. Therefore, agreement with the community from the beginning of the disaster recovery process must be established.

Rowlands (2013) indicates that empowering the community and maximizing the community's participation at the local level will give the community control of the process and enable it to take charge of its rebuilding. This means tapping into the community's resourcefulness; tapping local providers to supply materials and services (such as psychology and social work); and tapping workers to rebuild the community is required to ensure

meaningful disaster recovery projects within the social and cultural sectors of natural disasters.

The community's ideas and wisdom helps to shape the community through empowered decision making with the government and other agencies. Would the government go this far? That is part of empowerment: community involvement in the process. Not everyone from the community sits at the planning table. The chain of command of the recovery project does not allow ownership but allows participation in decision making. There are rules to govern on how this happens through civic engagement of the community to the government. Community is not asked to meddle nor implement in the recovery process. Accordingly, this paper investigates the about community on their participation during disaster recovery and how they can be empowered

## **2. LITERATURE REVIEW**

### **2.1 Community Empowerment**

Davidson's study (2006) proved that there existed variation in community participation among different countries as stakeholders in the projects. Some of the communities were informed, consulted but were not empowered; in essence have no power to affect the deliverables of the project. The International Association of Public Participation (2007) developed the following guidelines on how the community can participate and powered and be empowered.

# IAP2 Spectrum of Public Participation

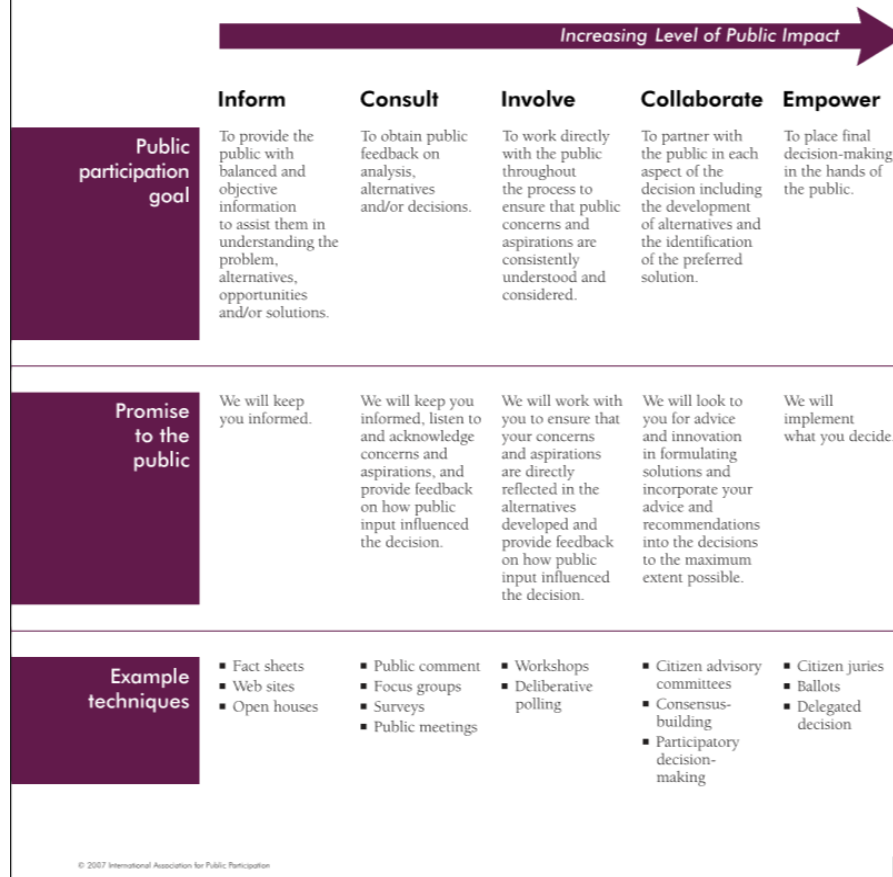


Figure 1: Spectrum of Public Participation

As noted in Figure #1, empower enables final decision-making in the community. Regional Australian Institute (2013) indicates the empowered community share responsibility in decision making and accountability. Legislative and policy frameworks within the state/country establish the level of power communities can decide: some were limited and some wide ranging within a defined time period. In the case of collaboration, there is delegated decision-making, but the government retains the overall decision-making power.

The different types of participation is effective in different contexts; empower may not be suitable for all situations. Slotterback (2013) noted that effective management of power differences between stakeholders and community can help the community trust the process; some powerful stakeholders might be reluctant in the process if they feel their power is diminished. We need to make the Government and Project Manager aware and utilize community empowerment within their projects. Community empowerment within disaster recovery has much to offer as shown in the next section.

## 2.2 Community Empowerment in Disaster Recovery

The premise of Figure #1 above is those affected by a decision must be involved in the decision-making process (IAP, 2007). Work in San Francisco, based on the “Whole Community Approach” from the Federal Emergency Management Agency (2011), has taken the above premise to enable community members to be trained in leadership and in project management for the communities to adapt to stressors, such as residential fires, heat waves, earthquakes and power outages (San Francisco, 2016). The community will act immediately in an effective and efficient manner when trained and recognized (ADAP, 2004). Their performance goes beyond traditional disaster management practices of preparedness and response to mitigation and recovery (San Francisco, 2016) when masterly dealing with stressors (disasters). Community empowerment has great benefits for Emergency Management, government agencies, private and non-profit sector organizations when their budgets are impacted by economic constraints (FEMA, 2011).

## 2.3 How to empower the community?

### *Collective Resilience*

The news presents disasters as mass panic: rioting, looting and killing. Once the masses have descended to a primitive psychological state, it is thought to be pointless trying to reason with them about their civic obligations — let alone attempting to involve them as active partners in disaster response. Instead, greater legal powers for government, and even coercive force, should be used to restore social order. ‘Sensitive’ information is restricted to the establishment elite, government and their functionaries, who not only ‘know best’, but are somehow immune to the “mass panic” (Drury, 2012). The conclusion is that the victims are too traumatized to take care of themselves.

“Collective resilience” forms in which the attitude of mutual helping and unity in the middle of danger (Drury, 2012). In the initial absence of the emergency services, people within the crowd act as ‘first responders’: applying make-shift bandages and tourniquets, sharing water, talking to keep each other’s spirits up, physically supporting each other, and thus contributing to each other’s survival and recovery as far as they were physically able. Majority of the people, who are strangers to one another, see themselves as fellow mates helping one another. Survivors need the provision of resources (food, shelter, communications and technologies), know their family’s whereabouts, and find contact and location details of agencies and professional services to restore their lives.

### *Survivor Assets*

Survivor assets are the human, economic, physical and social capital. Human capital refers to *skills, education and job experience*. Economic capital refers to *funds to rebuilt housing, agricultural, retail and manufacturing*. Physical capital refers to *material, housing, infrastructure and land to rebuild the community*. The least acknowledge is the *social capital – people and their networks*. Are the networks loose or dense? The residents of New Orleans’ Village de L’Est were a close-knit community before Hurricane Katrina hit; through their parish priest they maintained their sense of community when temporarily relocated to Houston. Within two years, there was a 90% population return and 90% rate of business re-opening (Aldrich, 2008).

### ***Survivors' resourcefulness***

The next step for empowerment is to understand community resources. During the Japan's March 2011 earthquake, elderly and infirm were saved by the social capital, such as, networks of neighbors, friends, and family and the resources (Aldrich, 2015). Social capital provides financial (such as, loans and gifts for property repair) and nonfinancial resources (such as, child care during recovery, emotional support, sheltering, and information). Isolated individuals with few social ties are less likely to be rescued, seek medical help, take preventative action in evacuation, and receive assistance from others, such as shelter (Dynes, 2005, 2006). Linking social capital connects community members with those in power.

After the Aceh Tsunami, Aldrich (2011) noted that Indian villages with high levels of bonding and linking capital received greater amounts of aid and assistance more quickly than communities which possessed only bonding capital. The villages who overcame collective action problems and efficiently extracted resources from donors and government officials also left out tsunami-affected villagers on the social margins of society.

### ***Vulnerable Survivors***

Vulnerable groups must be engaged not just protected and in need of care. The elderly, children, and women, must be made priorities during effective post disaster response (Ranghieri, 2014). Older people are more often thought of as a vulnerable group in need of care rather than as a resource to support younger generations. When marginalized, elders lose opportunities for interaction and the ability to contribute to society, and young people lose the wisdom and talents that elders can offer. After the Great East Japan Earthquake of 2011, Ibasho, an NGO, heard many stories about elders who saved the younger generation by telling them where to escape or by teaching them how to survive with extremely limited resources.

Marcillia (2012) recommended that flexibility and open ended design in reconstructing homes be very advantageous in the critical transition of the community to their new homes such as the location and size of kitchen or parlour.

### ***Social and Cultural Coping***

Another way is how to utilize those resources through social and cultural coping. Cretney (2016) outline coping, response and adaptive capacities to rebuild. Wlodarczyk (2016) confirmed that coping strategies and participation occurred at an individual and communal level in different cultural contexts. Communal coping strategy was found to be higher in collectivism countries as Colombia and Chile rather than in individualistic culture of Spain. Spiritual coping was found to be high in Colombia and Chile but growth was found in Spain. Social support was high in Colombia and Chile, but had a mediating role in Spain.

The importance of coping as an avenue to build relationships between community organizations and higher level governance institutions allow for communities to take some level of ownership and control. This reinforces the importance of moving away from the command and control approach that has focused on an intensive role of State and governance actors, relegating individuals and communities to passive roles in response and recovery (Singh-Peterson et al., 2015; Prior and Eriksen, 2013).

A paradigm shift from perceiving the community as victims to survivors is necessary to utilize the inner strengths and resources of the community to rebuild the community after a disaster into a resilient and sustainable community.

### 3. RESEARCH METHODOLOGY

To investigate the views about community on their participation during disaster recovery and how they can be empowered, a case study research strategy has been used. Accordingly, the below section includes the findings of the initial case study carried out in San Francisco. The unit of analysis of the case study is Project Manager and Community Leader. Semi-structured interviews were used as the data collection method within the case study. Data obtained through the semi-structured interviews were analysed by using NVivo software. This section aims to present and analyze the data obtained from fourteen semi-structured interviews in the San Francisco area.

The analyzing of data through Nvivo started by classifying the data into nodes related to Community empowerment methods (49%) and Project Management methods (51%). Community node was further broken down into community strategies, community response and community factors. The result is highlights of learned experience in community participation and empowerment. The highlights gave an understanding of which dynamics to note, such as social capital and organizational change management, for the efficient and effective rebuilding a community.

### 4. FINDINGS

The analysis is to establish the importance of empowering disaster affected communities in the post-disaster phase. Accordingly, the below node on Community Empowerment in NVivo was established.

CE - Community Empowerment	13	43
Social Capital	11	14
Relationships	4	4
Connections	2	2
Community	5	9
Participation Power	4	4
empower	5	5
empower	1	1

Figure 2: Nvivo screenshot of the Community Empowerment themes nodes

The references discussed in the interviews were subdivided into three groups: Social Capital, Community and Empowerment. Social capital is defined by interviewee IP13 as *"created by individuals who work in an area of concern for necessity or interest. The work they do often volunteer bring benefits to larger group of people. Bottom up approach in social capital. Brought to the community skills that they can utilize to the benefits of the community"*.

Interviewee IP4 stressed: *"Need to focus on what is tangible to the community. ... Community let the professionals to do the work. Citizens and professionals must establish a balance on what can be done by each other. Once ask citizens to do work of professionals then the*

*citizens will push back". This indicates that what we need to have during the post-disaster recovery is a collaborative working relationships between the community and professionals. Interviewee IP6 commented that consultation with the community does not exist: "Consult does not exist: City agencies working with themselves. Do not listen (active listen). They have their own agenda. This agnostic approach is not getting anywhere. Belief in collaboration rather than conformational to form better relationships. A lot of infighting within city and community result...Community has kernels of knowledge. Meet with the community in group and one to one. Get to know them. Project manager cannot do this because they have a lot of money to spend. Get their buy in". The community expresses this frustration of being ignored, priority is on the funders (government and banks) for expediency of the project. Priority is to spend the money expediently; consulting with many people is onerous and bothersome with many conflicting views. Interviewee IP9 stress that "Community ideas and wisdom helps to shape the community. Empower to shape decision making. The challenge for poor communities is what they want their community to look like".*

Interviewee IP9 stress that you "*Cannot separate all the components of public participation. Community needs to be informed to start decision making. Community is allowed to decide after the decision was made to move them. Community participate in final phase of the project not the first phase". The result is tokenism takes place to ensure government and other organizations have public participation. A token to shareholders but a blow to the community. From a stakeholder perspective, interviewee IP4 commented:*

*"Government is not a stakeholder. It is a hired help: a layer bureaucracy. Government players do not have vested interests in the project. Their vested interests is only as a job. They lose their job rather than house, family and friends that community experience. If government employees live in the area; they are stakeholders as citizens but they are employees; therefore their jobs becomes priority".*

Importance of community member's participation is emphasized where interviewee IP1 indicated the community: "*it is where the community lives and works. They sense what happened in the past. They may not want to restore in the same way as the past; parks and roads are different design dependent on changing values.*" Community input is stressed.

Interviewee IP4 stressed the community is the owner of the project; hence major stakeholder of the project through the following quote: "*community owns the project. Owns is the ultimate responsibility for the benefits or deficiencies of the project. Own is an extension of the idea the citizen are responsible to their representatives (elected officials and professionals). They are the major stakeholder; they are the owners. The community tend to ignore to plan after the event. Their demands are not possible to fulfill. They become stakeholders with unreasonable expectations".*



## 5. DISCUSSIONS AND CONCLUSION

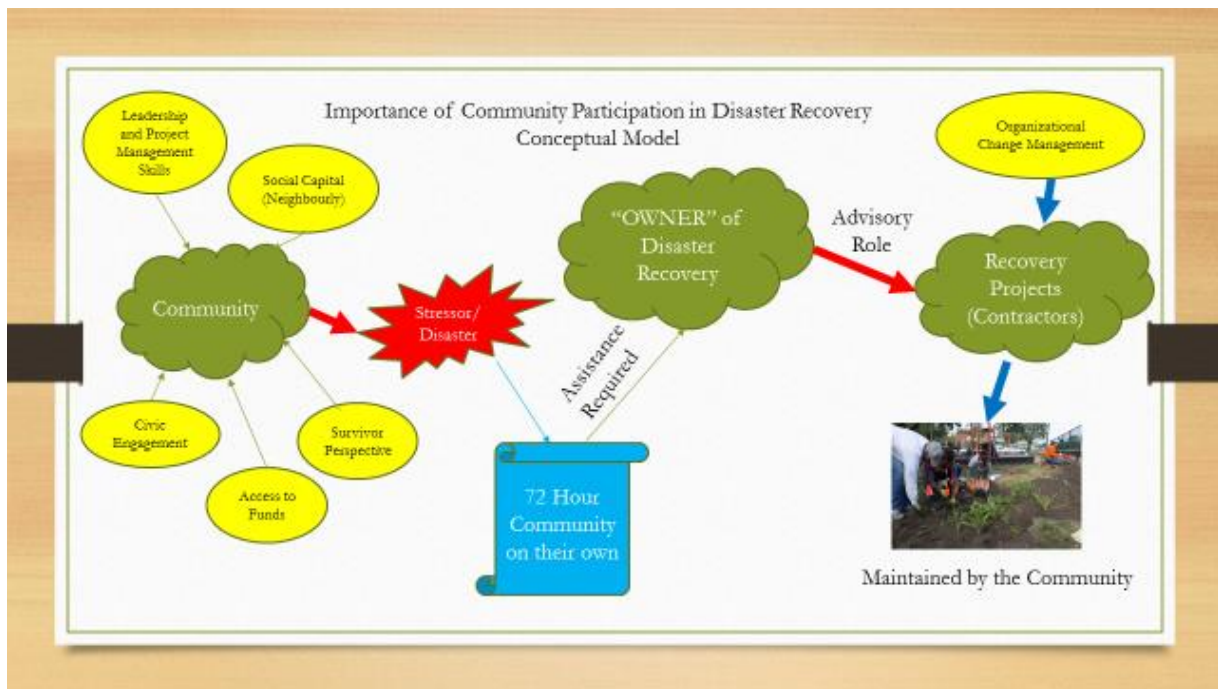


Figure 3: Importance of Community Participation in Disaster Recovery

### 5.1 Discussion - Empowerment

The above conceptual model summarizes the interview comments as highlighted in this paper. As shown above, the community is the "owner" of the project. The community has vested interest because they raise their children in the community; work in the area; have intimate knowledge of the geography, social and cultural environment; and have close friends they grew up in the area. In addition there are people with leadership and project management skills within the community to assist in the recovery. These skills were taught through the community and assistance from local universities. The community members have to learn to work with the various levels of government which takes time and guidance – civic engagement. Time to build expertise in civic engagement and be recognized by various levels of government in return. The most important advice given is the community has an intimate knowledge of itself. That knowledge and expertise is available in a collaborative and empowerment manner. The community asks to be walked through the process in an advisory role as the "owner" of the project. The principles of organizational change management on close involvement and frequent communication of stakeholders is greatly stressed.

The community is a major stakeholder since the community "owns" the project. They are the "owners" of the project as the persons ultimately responsible for the benefits or deficiencies of the project. Extending the idea that the citizen are responsible to their representatives (elected officials and professionals). Ownership part of the project is formed by the attitude of citizens. Citizens feel that government should do their job. Government is going to fix if government has the capacity. These ideas formed the basis for Figure #3 (Importance of Community Participation in Disaster Recovery). The community is shaped by social capital; funds available for recovery through various mechanisms; well-being indicators on health, social and economics; civic engagement (working relationships within the community and

government); and leadership skills of community leaders to work within the community and stakeholders (government, NGOs, and INGOs). The first 72 hours the community is on their own after disaster; therefore community participation is extremely important in disaster recovery.

## 5.2 Conclusion

To investigate the views about community on their participation during disaster recovery and how they can be empowered, a case study research strategy has been used. Accordingly, findings of the initial case study carried out in San Francisco. The unit of analysis of the case study is Project Manager and Community Leader. The findings were based on 14 semi-interviews. The result is highlights of learned experience in community participation and empowerment. The highlights gave an understanding of which dynamics to note, such as social capital and organizational change management, for the efficient and effective rebuilding a community. Further analysis is required for the statistical relationships of the various components. A note of caution: similar cookie approach in recovery cannot be applied in disaster recovery since the community and its environment differ from one another. Principles of participation and empowerment must be understood and worked with.

## 6. REFERENCES

- Anderson, W. (November 2008), Mobilization of the Black Community Following Hurricane Katrina: From Disaster Assistance to Advocacy of Social Change and Equity. *International Journal of Mass Emergencies and Disasters*, Vol. 26, No. 3, pp. 197–217.
- Ainuddin, S., Routray, J. K., (2012) "Institutional framework, key stakeholders and community preparedness for earthquake induced disaster management in Balochistan", *Disaster Prevention and Management*, Vol. 21 Issue: 1, pp.22 – 36
- Aldrich, D. (2008), The Crucial Role Civil Society in Disaster Recovery and Japan's Preparedness for Emergencies, *Japan Aktuell* 3 (2008): 81-96
- Aldrich, D. (2011), The Externalities of Strong Social Capital: Post-Tsunami Recovery in Southeast India, *Journal of Civil Society* Vol. 7, No. 1, 81–99, April 2011
- Aldrich, D., Meyer, M.A., (2015) Social Capital and Community Resilience, *American Behavioral Scientist* 2015, Vol. 59(2) 254 –269
- Araki, C., (2013), Earthquake and Disaster Response in the Japanese Community: A Strengths and Community Perspective. *Journal of Social Work in Disability & Rehabilitation*, 12:39–47
- Asian Disaster Preparedness Center (ADPC) (2004). Program Completion Report: Asian Urban Disaster Mitigation Program. Asian Disaster Preparedness Center (ADPC). Bangkok, Thailand.
- Barnshaw, J. 2006. "Beyond Disaster: Locating Katrina within an Inequality Context." Pp. 47-70 in *Learning from Catastrophe: Quick Response Research in the Wake of Hurricane Katrina*. Boulder, CO: University of Colorado Natural Hazards Research Applications and Information Center.
- Bolin, R., 2006. "Race, Class, Ethnicity, and Disaster Vulnerability." Pp. 113-129 in *Handbook of Disaster Research*, edited by Havidán Rodríguez, Enrico L. Quarantelli, and Russell R. Dynes. New York: Springer.
- Bornstein, L., Lizarralde G., Gould, K., and Davidson, C. (2013). Framing responses to post-earthquake Haiti How representations of disasters, reconstruction and human settlements shape resilience *International Journal of Disaster Resilience in the Built Environment*, Vol. 4, No. 1, page 43-57
- Bretherton, Diane; Ride, Anouk, 2011, *Community Resilience in Natural Disasters* Palgrave MacMillian, New York
- Chandrasekhar, D., (2012). Digging deeper: participation and non-participation in post-disaster community recovery. *Community Development* Vol. 43, No. 5, 614–629
- Chandrasekhar, D., Zhang, Y., Xiao, Y., (2014). Non-traditional Participation in Disaster Recovery Planning: Cases From China, India, and the United States. *Journal of the American Planning Association*, Autumn, Vol. 80, No. 4

- Crawford, L. H., Taylor, N., & Blythman, T. (2013). Understanding the permanent / temporary interface: the case of disastrous events. In IRNOP XI Conference, Oslo, Norway, 16-19 June 2013 BI Norwegian Business School.
- Crawford, L., Langston, C., Bajracharya, B., (2013) "Participatory project management for improved disaster resilience", *International Journal of Disaster Resilience in the Built Environment*, Vol. 4 Issue: 3, pp.317 – 333
- Davidson, C. H., et al. (2006). Truths and myths about community participation in post-disaster housing projects. *Habitat International*, doi:10.1016/j.habitatint.2006.08.003
- Dynes, R. (2005). Community social capital as the primary basis of resilience, University of Delaware, Disaster Research Center, Preliminary Paper #344
- Dynes, R. (2006). Social capital: Dealing with community emergencies. *Homeland Security Affairs*, 2(2), 1-26.
- Drury, John (2012) Collective resilience in mass emergencies and disasters: A social identity model. In: Jetten, Jolanda, Haslam, Catherine and Haslam, S Alexander (eds.) *The social cure: identity, health and well-being*. Psychology Press, Hove; New York, pp. 195-215.
- Federal Emergency Management Agency (FEMA), 2011. *A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action*. FDOC 104-008-1
- International Association of Public Participation, <http://www.iap2.org/>
- Lightfoot, E., Simmelink-McCleary, J., Lum, T. (2014). Asset Mapping as a Research Tool for Community-Based Participatory Research in Social Work. *Social Work Research* Volume 38, Number 1 March
- Maginn, P. (2007). Towards more effective community participation in urban regeneration: The potential of collaborative planning and applied ethnography. *Qualitative Research*, 7(1), 25–43.
- Marcillia, S. R., Ohno, R. (2011), Learning from Residents' Adjustments in Self-built and Donated Post Disaster Housing after Java Earthquake 2006. *Procedia – Social and Behavioural Sciences* 36 (2012), pp. 61-69.
- Olofsson, A. (2007), "The preparedness of local authorities for crisis communication with people who have foreign backgrounds – the case of Sweden", *International Journal of Mass Emergencies and Disaster*, Vol. 25 No. 2, pp. 145-173.
- Prior, T. and Eriksen, C. (2013), "Wildfire preparedness, community cohesion and socioecological systems", *Global Environmental Change*, Vol. 26 No. 3, pp. 1575-1586.
- Pryke, Stephen. (2012) *Social Network Analysis in Construction*. Somerset, NJ, USA: John Wiley & Sons
- Ranghieri, F, and Ishiwatari, M., (2014) *Learning from Megadisasters: Lessons from the Great East Japan Earthquake*. International Bank for Reconstruction and Development / The World Bank
- Regional Australian Institute (2013), *From Disaster to Renewal: The Centrality of Business Recovery to Community Resilience*
- Rowlands, A. (2013). Disaster Recovery Management in Australia and the Contribution of Social Work. *Journal of Social Work in Disability & Rehabilitation*, 12:19–38, 2013
- San Francisco, (2016). *Empowered Communities Program, Toolkit*.
- Singh-Peterson, L., Salmon, P., Baldwin, C. and Goode, N. (2015), "Deconstructing the concept of shared responsibility for disaster resilience: a Sunshine Coast case study, Australia", *Natural Hazards*, Vol. 79 No. 2, pp. 755-774.
- Slotterback, C., Crosby, B., (2012), *Designing Public Participation Processes*, *Public Administration Review*, 73, 1, 23-34/
- Twigg, J. (2009). *Characteristics of a Disaster-resilient Community: A Guidance Note*. London: DFID. . <http://discovery.ucl.ac.uk/1346086/1/1346086.pdf>
- Wapdarczyk, A. (2016). Communal Coping and Posttraumatic Growth in a Context of Natural Disasters in Spain, Chile and Columbia. *Cross-Cultural Research* 2016, Volume 50(4), pp. 325-355
- World Bank (2005b). *Learning Lessons from Disaster Recovery: The Case of Mozambique*. Disaster Risk Management Working Paper Series No. 11. Washington DC: World Bank. [www.proventionconsortium.org/?pageid=37&publicationid=40#40](http://www.proventionconsortium.org/?pageid=37&publicationid=40#40)
- World Bank, 2008; "Building Resilient Communities: Risk Management and Responses to Natural Disasters"