Disaster Recovery Annotated Bibliography - Social Capital

This document was developed to provide information on the state of knowledge on disaster recovery. This document includes a list of articles collected in the Fall of 2018. To obtain relevant articles, a list of keywords was used to search Google Scholar and University Library Databases. These keywords were: “community disaster recovery”, disaster recovery”, “post recovery planning” “pre disaster planning”, and “national planning recovery”. An additional search of academic journals that are related to the planning field was then undertaken to ensure that articles from these journals were not overlooked. These journals included: Journal of the American Planning Association, Journal of Planning Education and Research, Applied Geography, Land Use Policy, Environment and Planning A, Planning Theory, Progress in Planning. After collecting articles, each article was then systematically reviewed to ensure relevance. The articles needed to address community level recovery (including issues related to housing, economic, infrastructure, planning, etc.) or note issues that affect recovery outcomes (e.g., differences in housing outcomes for rental versus owned housing). Next, we reviewed the reference list of identified articles to determine if any articles had been missed in the initial collection process. If there were additional articles that were missed, we collected the information and searched for the title of the article. After processing each article, the articles were than compiled into the Zotero software.

The Zotero bibliographic database is open to the public to view at: https://www.zotero.org/groups/2278263/recoveryguidancetamu/items

Social Capital

Articles with focus on “social capital” or the trust, social networks, and collective will of communities.


Each year, natural disasters threaten the strength and stability of communities worldwide. Yet responses to the challenges of recovery vary greatly and in ways that aren’t explained by the magnitude of the catastrophe or the amount of aid provided by national governments or the international community. The difference between resilience and disrepair, as Daniel P. Aldrich shows, lies in the depth of communities’ social capital. Building Resilience highlights the critical role of social capital in the ability of a community to withstand disaster and rebuild both the infrastructure and the ties that are at the foundation of any community. Aldrich examines the post-disaster responses of four distinct communities—Tokyo following the 1923 earthquake, Kobe after the 1995 earthquake, Tamil Nadu after the 2004 Indian Ocean Tsunami, and New Orleans post-Katrina—and finds that those with robust social networks were better able to coordinate recovery. In addition to quickly disseminating information and financial and physical assistance, communities with an abundance of social capital were able to minimize the migration of people and valuable resources out of the area. With governments increasingly overstretched and natural disasters likely to increase in frequency and intensity, a thorough understanding of what contributes to
efficient reconstruction is more important than ever. Building Resilience underscores a critical component of an effective response.


Disasters remain among the most critical events which impact residents and their neighborhoods; they have killed far more individuals than high salience issues such as terrorism. Unfortunately, disaster recovery programs run by the United States and foreign governments have not been updated to reflect a new understanding of the essential nature of social capital and networks. I call for a re-orientation of disaster preparedness and recovery programs at all levels away from the standard fixes focused on physical infrastructure towards ones targeting social infrastructure. The reservoirs of social capital and the trust (or lack thereof) between citizens in disaster-affected communities can help us understand why some neighborhoods in cities like Kobe, Japan, Tamil Nadu, India, and New Orleans, Louisiana displayed resilience while others stagnated. Social capital – the engine for recovery - can be deepened both through local initiatives and interventions from foreign agencies.


Much research has implied that social capital functions as an unqualified ‘public good’, enhancing governance, economic performance, and quality of life (Coleman 1988; Cohen and Arato 1992; Putnam 1993; Cohen and Rogers 1995). Scholars of disaster (Nakagawa and Shaw 2004; Adger et al. 2005; Dynes 2005; Tatsuki 2008) have extended this concept to posit that social capital provides nonexcludable benefits to whole communities after major crises. Using qualitative methods to analyze data from villages in Tamil Nadu, India following the 2004 Indian Ocean tsunami, this paper demonstrates that high levels of social capital simultaneously provided strong benefits and equally strong negative externalities, especially to those already on the periphery of society. In these villages, high levels of social capital reduced barriers to collective action for members of the uur panchayats (hamlet councils) and parish councils, speeding up their recovery and connecting them to aid organizations, but at the same time reinforced obstacles to recovery for women, Dalits, migrants, and Muslims. These localized findings have important implications for academic studies of social capital and policy formation for future disasters and recovery schemes.


Despite the regularity of disasters, social science has only begun to generate replicable knowledge about the factors which facilitate post-crisis recovery. Building on the broad variation in recovery rates within disaster-affected cities, I investigate the ability of Kobe’s nine wards to repopulate after the 1995 Kobe earthquake in Japan. This article uses case studies of neighborhoods in Kobe alongside new time-series, cross-sectional data set to test five variables thought to influence recovery along with the relatively untested factor of social capital. Controlling for damage, population density, economic conditions, inequality and other variables thought important in past research, social capital proves to be the strongest and most robust predictor of population recovery after catastrophe. This has important implications both for public policies focused on reconstruction and for social science more generally.
Standard approaches to disaster mitigation and recovery have, until recently, tended to overlook the role of social resources. This chapter investigates the mechanisms through which social capital and networks assist with disaster management, including modifying the responses of exit and voice, overcoming barriers to collective action, and providing informal insurance and mutual aid. Through examples such as the 1923 Tokyo earthquake, the 1995 Kobe earthquake, the 2004 Indian Ocean tsunami, and the 2011 compounded disaster in Tohoku, Japan, this piece seeks to underscore a potentially efficient and cost effective response to crises.

Despite the tremendous destruction wrought by catastrophes, social science holds few quantitative assessments of explanations for the rate of recovery. This article illuminates four factors—damage, population density, human capital, and economic capital—that are thought to explain the variation in the pace of population recovery following disaster; it also explores the popular but relatively untested factor of social capital. Using time-series, cross-sectional models and propensity score matching, it tests these approaches using new data from the rebuilding of 39 neighbourhoods in Tokyo after its 1923 earthquake. Social capital, more than earthquake damage, population density, human capital, or economic capital, best predicts population recovery in post-earthquake Tokyo. These findings suggest new approaches for research on social capital and disasters as well as public policy avenues for handling catastrophes.

To meet the dire need for housing following Hurricane Katrina, New Orleans and Federal Emergency Management Agency officials created lists of potential sites for trailer parks. We analyze approved sites to track which factors were linked with larger (or smaller) numbers of trailers and trailer sites per zip code block. Areas which displayed greater levels of social capital, as evidenced by voluntaristic activities such as voting, were slated for fewer trailers, controlling for race, income, education, flood damage, and other relevant factors. Civil society worked simultaneously to bring citizens together while mobilizing them against the threat of trailer parks in their backyards.

Despite the ubiquity of disaster and the increasing toll in human lives and financial costs, much research and policy remain focused on physical infrastructure–centered approaches to such events. Governmental organizations such as the Department of Homeland Security, United States Federal Emergency Management Agency, United States Agency for International Development, and United Kingdom’s Department for International Development continue to spend heavily on hardening levees, raising existing homes, and repairing damaged facilities despite evidence that social, not physical, infrastructure drives
resilience. This article highlights the critical role of social capital and networks in disaster survival and recovery and lays out recent literature and evidence on the topic. We look at definitions of social capital, measurement and proxies, types of social capital, and mechanisms and application. The article concludes with concrete policy recommendations for disaster managers, government decision makers, and nongovernmental organizations for increasing resilience to catastrophe through strengthening social infrastructure at the community level.


The physical impacts of a disaster are usually the most obvious impacts, and they are easily measured. However, there is not sufficient in-depth understanding of social issues arising after disasters. This qualitative study explored three main concepts regarding social issues after an earthquake in an Iranian context: social vulnerability, social uncertainty and confusion, and ignorance of local social capital. Negligence of social issues after disasters leads to delays in returning back to normal life. Policymakers are encouraged to take a comprehensive plan into account which considers these issues and facilitates the process of returning to normal life after earthquakes.


Community-based disaster preparedness (CBDP) approaches are increasingly important elements of vulnerability reduction and disaster management strategies. They are associated with a policy trend that values the knowledge and capacities of local people and builds on local resources, including social capital. CBDP may be instrumental not only in formulating local coping and adaptation strategies, but also in situating them within wider development planning and debates. In theory, local people can be mobilised to resist unsustainable (vulnerability increasing) forms of development or livelihood practices and to raise local concerns more effectively with political representatives. This paper focuses on the potential of CBDP initiatives to alleviate vulnerability in the context of climate change, and their limitations. It presents evidence from the Philippines that, in the limited forms in which they are currently employed, CBDP initiatives have the potential both to empower and disempower, and warns against treating CBDP as a panacea to disaster management problems.


The social support strand of network analysis has confirmed the importance of taking seriously the personal network context in studies of informal support. But, as recent reviews make clear, it has paid relatively little attention to other situational contingencies that may influence flows of informal support. To begin to fill this gap, we draw on social-resources theory and research on helping behavior during disasters to expand its analytical focus to cover two other situational contingencies: local community context and receipt of formal support. Using data on recovery support during Hurricane Andrew, we find that although all three situational contingencies are important, their roles in the support process become clear only when their effects are considered simultaneously. We conclude by using the finding that the effects of the personal network and local community contexts on informal support differ for individuals
who did and who did not receive formal support to call for a better integration of the social support and social-resources strands of network analysis.


Massive floods hit Mozambique in 2000. Many of the affected regions benefited from external aid. This paper investigates how the floods impacted on two communities in the interior of the Limpopo Valley, which did not receive significant assistance during the event and in the immediate aftermath. Drawing on the livelihood approach, it focuses on the role of two types of local resources: knowledge and social capital. The paper shows that the scale of the 2000 floods surpassed the response capacity of these resources and looks at how wealth and gender influenced access by households to the local support mechanisms that enhance survival and recovery. It appears that the floods mainly affected wealthier households, as these more frequently lost houses and cattle. The paper points to the importance of ploughs and cattle for local support mechanisms, which, in turn, most likely reduced the capacities of communities to recover from the disaster.


Studies of social capital have focused on the static relationship between social capital and health, governance and economic conditions. This study is a first attempt to evaluate interventions designed to improve the levels of social capital in post-conflict communities in Nicaragua and to relate those increases to health and governance issues. The two-year study involved a baseline household survey of approximately 200 households in three communities in Nicaragua, the implementation of systematic interventions designed to increase social capital in two of the locales (with one control group), and a second household survey administered two years after the baseline survey. We found that systematic interventions promoting management and leadership development were effective in improving some aspects of social capital, in particular the cognitive attitudes of trust in the communities. Interventions were also linked to higher levels of civic participation in governance processes. As in other empirical studies, we also found that higher levels of social capital were significantly associated with some positive health behaviors. The behavioral/structural components of social capital (including participation in groups and social networks) were associated with more desirable individual health behaviors such as the use of modern medicine to treat children’s respiratory illnesses. Attitudinal components of social capital were positively linked to community health behaviors such as working on community sanitation campaigns. The findings presented here should be of interest to policy makers interested in health policy and social capital, as well as those working in conflict-ridden communities in the developing world.


The mounting frequency and scale of natural disasters, increasing urbanization, a growing reliance on interdependent technologies and infrastructure, and inflated expectations of emergency response interventions are responsible for greater disaster vulnerability and demonstrate the need to establish more resilient communities ahead of a disaster. The decisions of the private sector are among the reasons for increased vulnerability, for example through unsustainable or unsound real estate development. One factor that is known to impact resilience is social capital, particularly as manifested in strong social
networks. The built environment has been shown to influence social networks in multiple ways. Research has shown that walkable, mixed-use neighborhoods with a higher concentration of social gathering places and public space encourage the development of social capital and place attachment through an increase in social interaction. The built environment is a physical, social, and symbolic anchor for residents. Most importantly for resilience, it can be a support system for social networks. The private sector influences this relationship through real estate development decisions. This paper examines how characteristics of the built environment that influence social networks contributed to greater resilience to Hurricane Katrina along the Mississippi Gulf Coast. Given that social networks increase community resilience to all types of disasters, that social networks are shown to be influenced by certain types of space, and that the built environment is a common intervention for urban planners, this paper explores the potential for creating cities that are more resilient by encouraging private development that fosters social networks.


Recent discussions of social capital within the public choice literature have tended to focus on its role in solving collective action problems and promoting political accountability. Consequently, two areas of inquiry remain underexplored: (1) the role social capital plays in facilitating lobbying and rent seeking, and (2) the possibility that the availability of government resources can cause community-based groups to re-orient their stocks of social capital away from mutual assistance and toward lobbying and rent seeking. This article examines the relationship between social capital and lobbying in New Orleans’s post-Katrina recovery.


This paper examines how social capital aids in post-disaster community recovery and redevelopment. While previous studies on social capital and post-disaster recovery have tended to focus on social networks as a source of necessary assistance, the primary focus of this study is on how social capital in the form of collective narratives affects post-disaster recovery. We argue that collective narratives can shape the recovery strategies that individuals adopt. To illustrate this we examine the post-Katrina recovery efforts in St. Bernard Parish, an area devastated by flooding and significant environmental damage. In particular, we focus on the shared narrative that dominated qualitative interview data collected in St. Bernard, namely, its shared identity as a close-knit, family-oriented community comprised of hard workers. This narrative led community members to adopt a strategy that emphasized self-reliance.


Sociological research on the relationship between social bonds and economic activity typically focuses on how social bonds facilitate economic activity. There is, however, a growing and important literature on the development of commercial relationships into social friendships and the important role that commercial spaces can play in facilitating social connections. To date, however, this research has not focused on the important role that these commercial friendships and spaces can play in facilitating an individual’s recovery efforts after a major disaster like a tornado, hurricane or flood. It has also not focused on the effect that major disasters can have on commercial ties. Moreover, while the sociological literature on post-disaster recovery has emphasized the important role of social capital, it has not
emphasized the role that social networks developed within commercial contexts can play in helping individuals to rebound from disaster. This article is an effort to fill these gaps in the literature. Using interview data collected in the Gulf Coast following Hurricane Katrina, we argue and describe how meaningful social bonds that emerge out of and are facilitated by commercial activity as well as the social spaces provided by commercial entities can facilitate community rebound after a major disaster.


Acknowledging that both ICT and mass media had played an influential role after the Great East Japan Earthquake, this study explores if they can also contribute to longer term post-disaster recovery. From the literature review, it is anticipated that the use of both media can positively effect social capital and civic participation, which are essential for an efficient recovery. However, as this can be questioned it is important to understand and demonstrate how media can affect people's perception and behaviour in post-disaster recovery, especially considering the current complex media environment. The two media in consideration are very different, but at the same time are highly intertwined. Currently, few previous studies on this question can be found because suitable case studies limited as nature disaster of such a scale rarely occur and the media environment is rapidly changing. This study proposes a two-model approach to examine the effects of ICT and mass media in post-disaster recovery from two different perspectives in media studies: the active and passive audience perspectives. Using data collected from the three prefectures that were directly hit by the disaster, the results of the two models demonstrate a consistent pattern that the use of both ICT and mass media can create positive effects in post-disaster recovery. They increase the level of social capital through building bonding trust, network bridging and civic participation, as well as increase a person's intention to participate in post-disaster related activities. Thus, it can now be argued that both ICT and mass media can have positively contributed to the recovery. These findings have important implications for NGOs as well as policy makers that are working on the recovery. The two models also serve as the foundation for future studies that would further explore the underlying mechanisms of the media's effect and role in post-disaster recovery.


In this paper we draw on the findings of a critical, multi-sited ethnographic study of two rural communities affected by a wildfire in British Columbia, Canada to examine the salience of place, identity, and social capital to the disaster recovery process and community disaster resilience. We argue that a reconfiguration of disaster recovery is required that more meaningfully considers the role of place in the disaster recovery process and opens up the space for a more reflective and intentional consideration of the disorientation and disruption associated with disasters and our organized response to that disorientation. We describe a social-psychological process, reorientation, in which affected individuals and communities navigate the psychological, social and emotional responses to the symbolic and material changes to social and geographic place that result from the fire’s destruction. The reorientation process emphasizes the critical importance of place not only as an orienting framework in recovery but also as the ground upon which social capital and community disaster resilience are built. This approach to understanding and responding to the disorientation of disasters has implications for community psychologists and other
service providers engaged in supporting disaster survivors. This includes the need to consider the complex
dynamic of contextual and cultural factors that influence the disaster recovery process.

model for understanding community resilience to natural disasters. *Global Environmental Change, 18*(4),
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There is considerable research interest on the meaning and measurement of resilience from a variety of
research perspectives including those from the hazards/disasters and global change communities. The
identification of standards and metrics for measuring disaster resilience is one of the challenges faced by
local, state, and federal agencies, especially in the United States. This paper provides a new framework,
the disaster resilience of place (DROP) model, designed to improve comparative assessments of disaster
resilience at the local or community level. A candidate set of variables for implementing the model are
also presented as a first step towards its implementation.

Asset-Based Approach to Enhancing Adaptive Capacity Before a Disruption. *Journal of the American

Problem, research strategy, and findings: Conventional hazard mitigation and pre-disaster recovery
planning processes typically begin with hazard scenarios that illustrate probable events and analyze their
impacts on the built environment. The processes conclude with responses to the hypothetical disruption
that focus on “hardening” buildings or structures or removing them from threatened areas. These
approaches understate the importance of natural and social sources of adaptive capacity. Three
“proof-of-principle” exercises designed to strengthen the Federal Emergency Management Agency
(FEMA)’s Risk MAP (Risk Mapping, Assessment, and Planning) process in Washington State suggest
how better to conduct hazard mitigation and recovery planning. Each begins with workshops where
stakeholders identify built, natural, and social assets that contribute to human wellbeing (HWB) before
introducing earthquake scenarios that affect HWB. Participants then identify assets that could facilitate
adaptation to changed circumstances (a “new normal”). Participants discuss how these assets would
achieve the goals of comprehensive community planning as well as hazard mitigation and recovery from
disaster. Neighborhood-scale social organization emerges as an important priority. Takeaway for practice:
Asset-based approaches enable communities to better recover from disaster and adapt to a post-disaster
“new normal.” By premising planning discussions on a more holistic set of assets, communities can
balance physical recovery goals with qualities that help them to adapt to future change. Furthermore,
thinking about recovering before an event actually occurs can enlarge the menu of mitigation strategies.
Planning for adaptation can also help communities achieve many non-risk-related objectives.


This article examines the downsides of social capital (networks of citizens) for women affected by
disasters, an issue little understood in the public administration literature. Studying this issue is important
due to women’s unique vulnerabilities and resilience in the face of disasters. Based on the case study of
the epicenter of the August 17, 1999, earthquake in Turkey (in-depth interviews, participatory site
observation, a focus group, and review of secondary sources), this article suggests that despite its benefits, social capital has its downsides. It helps perpetuate gender-based assumptions and could put women in conflict with the state authorities.


Although social capital has made inroads into the public administration literature, little is known about the gender dimensions of social capital in the context of a disaster. This article examines what kind of benefits, if any, social capital offers for women who are affected by disasters. Studying this question is important because it would help public administrators overcome the unique vulnerabilities of women and strengthen their capabilities in preparing for, responding to, and recovering from disasters. This case study of the city of Gölcük, Turkey, suggests that social capital offers benefits for women affected by disasters because it is therapeutic in nature and helps women gain empowerment and avoid the stigma of public assistance. The article offers lessons on how public administrators could build social capital in disaster-stricken communities by enabling face-to-face interaction, initiating leadership programs, and putting in place institutions and policies that are conducive to collective action.


The present paper examines the local community’s support for the post-tsunami recovery of two affected places in India: one a tourist destination and the other an agrarian village. The investigation begins with the proposition that social capital is a vital influence upon local communities willingness to support tsunami recovery efforts. The underlying assumption was that the resident community at the agrarian village with its rich social capital and tradition of community activities would proactively participate in the reconstruction program and thereby make a speedier and more meaningful recovery than the resident community at the tourist destination. However, an empirical survey conducted to prove this point provided us with contradictory results: the survey revealed no significant difference in the levels of social capital across the communities. Consequently, the researchers carried out a focus group discussion with the locals at the tourist destination. The interesting conclusion is that it is probably the richness of the very same social capital that provoked local participation at the agrarian village and eliminated it at the tourist destination.


In this article, I use New Orleans’ experiences pre- and post-Katrina, as well as information on other cities exposed to shocks, to develop and advance an original explanation for urban resiliency. The explanation suggests that economic origins influence elite commitment to and participation within cities, thereby influencing the city’s ability to redefine itself after experiencing an exogenous shock, whether it be a natural disaster, economic crisis, or any other threat. I show that New Orleans’ economic origins were incompatible with the production of an elite that showed place commitment, which was needed for leadership and resources to recreate the city after Katrina. New Orleans’ development mirrors that of other cities that have proven not to be durable. As a result, the city “came back” from Katrina as a smaller and more socially challenged version of its old self—a city still split by racial inequality. Thus, despite its
climb out of the damage caused by Hurricane Katrina and the levee failures, New Orleans is not resilient. I conclude by reiterating the importance of leadership in building resiliency, especially in a place that is more likely than most others to experience a disaster.


This paper describes how the inhabitants of Llico, a small fishing town in Chile, organized to move from the coastline to avoid a tsunami that devastated their homes and livelihoods and then to manage immediate responses. It then describes how long it took for state support to arrive and how the inhabitants were marginalized from planning and implementing the reconstruction processes. As a result, this poorly served their needs and priorities and failed to utilize their knowledge and organizational capacities. Here and elsewhere in Chile, post-catastrophe reconstruction processes miss the opportunity to improve living conditions for the affected communities and to develop policies for disaster management that incorporate and use their social capital.


Social capital and leadership are critical in mobilizing collective actions to promote community and individual recovery after a natural disaster. Transformation to a better situation post-disaster, not just returning to a previous state, reflects the growing emphasis on disaster as a catalyst for change. To facilitate transformative change, the development focus at the core of this approach emphasizes empowerment through local governments and domestic civil society organizations working in the “bottom up” participatory mode to enhance the resilience of vulnerable population groups. Poverty reduction and disaster risk reduction are interlinked. However, the research literature on disasters pays least attention to socially created vulnerabilities. They are ignored because of the difficulty in developing agreement on theory, and prioritizing issues quantifying them. This article investigates the impact of the cultural contexts in Myanmar and Taiwan on disaster recovery and reconstruction plans for specific disaster events in which vulnerable population groups respond to different risk governance frameworks and suggests a foundation for developing a cross-cultural, all-hazards approach to understanding the relationship between resilience and recovery in the context of large-scale Asian disasters.


The objective of this research is to determine what important roles are played by social capital in the implementation of recovery policies for areas affected by disasters. We will compare two districts in India where tsunami recovery has either failed or been successful. In 2004, the Sumatra Tsunami in the Indian Ocean killed more than 14,000 people and left 50,000 people homeless. Regardless of the cultural background or ethnicity of victims, disaster recovery greatly depends on social capital. This research included a questionnaire survey administered to people in two tsunami-affected districts and compared the types of social capital that can be associated with disaster recovery. The result is that the style of each community prior to the disaster and the presence of a strong village leader are both crucial for the successful implementation of a recovery program. We believe that social capital significantly affects
successful policy implementation, which will lead people to utilize government resources for disaster recovery.


After the attack on the World Trade Center on September 11, many firms, directly affected by the attack, resumed trading when markets reopened less than a week later. How were these companies able to respond, working under conditions of fear and grief, so quickly and effectively? Drawing on conversations with executives and employees in financial service firms with offices in the World Trade Center and adjacent buildings, this report documents the importance of strong personal ties, lateral self-organization, and nonhierarchical relations in the recovery process. As a response to uncertainty, organizational factors that explain recovery are similar to those that generate innovation.


Although an expansive literature exists on individual experiences after a catastrophic event, there is less attention to how the community as a social structure experiences a significant tragedy. These public tragedies create disruptions across multiple domains of community functioning. Using the Community Capacity Model (Hart, 1999) as a framework for assessment, outcomes of a public tragedy are described. Additionally, community practice approaches are identified for the three phases that communities subsequently experience: crisis, processing of the event, and adaptation.


This study explores the disaster response, political transformation and community development prospects of the Philippine community of Guinsaugon, a village devastated by a 2006 landslide. Utilizing a social justice perspective, we analyze a range of qualitative data collected over a 5-year period to understand how linking capital functions following a major social disruption. An understudied form of social capital and linking capital features embeddedness, shared values and mutual goals between individuals and groups that are divided by cleavages of class, power and privilege. We uncovered three major outcomes. First, an existing village institution-Cristo Rey High School-was a principal agent of distributive justice, providing immediate material goods and social support to the survivors. This local institution was deeply embedded in the village, yet maintained extensive ties with outside groups that provided crucial resources. Second, linking capital contributed to procedural justice and political transformation. The disaster sparked many emigrants to return to the village and form The ATHena Project: Advocacy for Transparency and Honesty, a civil society organization that promoted accountability and helped dethrone a local political dynasty. Finally, our study uncovered a crucial limitation of linking capital. This powerful social resource did not help fulfill essential elements of long-term community development, such as helping secure land, sustainable jobs or infrastructural development for re-located Guinsaugon villagers. In this way, we underscore the importance of a strong developmental state in post-disaster recovery. Without it, some of the gains derived from linking capital do not endure, undermining the advances of distributive and procedural justice that followed a major social disruption.
Increased likelihood and severity of coastal disasters in the 21st century represent major threats for coastal communities’ resource management capacity and livelihoods. Disaster research has frequently looked for singular factors explaining why some communities are more resilient and better equipped to cope with and recover from disasters. This study draws on Chile’s 2010 tsunami to evaluate the effects of both internal (social capital) and external (level of damage and isolation) factors on fishing communities’ recovery trajectories. Using qualitative comparative analysis (QCA) we assess how the concurrency of conditions explains fisher organization responses. By operationalizing social capital as the social networks developed for co-management, we also evaluate whether social capital developed for natural resource management can help communities overcome post-disaster challenges. Results show that the level of linking social capital is critical in determining post-disaster trajectories. While maintained or increasing levels of social capital are indispensable for positive trajectories to occur, a common denominator for less desirable post-disaster recovery trajectories is a low or reduced level of social capital. However, external factors, such as the amount of damage and geographical isolation, are also important in determining recovery trajectories, indicating the limits of relying solely on social relations for recovery. These concurrent factors can amplify or reduce the importance of supportive relationships. Understanding the implications of complex interplay between social capital and external factors for community recovery in response to coastal disasters can inform the design of more effective and efficient responses and policies in Chile and more broadly. Furthermore, social capital developed for the purpose of co-management of natural resources can actually promote desirable post-disaster trajectories.
emergencies. While social capital has been highlighted as a positive factor for communities under extreme events, questions remain. This chapter reviews how social capital is conceptualized and operationalized in disaster research and the current state of knowledge on this topic. The chapter begins with social capital theory. Next, the relevant research on social capital in disaster is reviewed. This research is categorized by unit of analysis (individual or collective) and the phase of disaster (mitigation, preparedness, response, and recovery). Finally, this chapter concludes with a critical assessment of the use of social capital by disaster scholars and offers implications for future research.


Purpose - This paper aims to focus on the relationship between the people’s perception of livelihood recovery and micro-social capital to seek more effective disaster support at the community level.

Design/methodology/approach - The household survey was conducted for a randomly selected total of 190 households in two divisions of the Ampara District of the Eastern Province, Sri Lanka. The quantitative analysis design captured the extent to which both cognitive and structural social capital factors prescribe people’s overall perceptions of livelihood recovery. Findings - The factors which best prescribe people’s perceptions of livelihood recovery are formal network in the community, and leadership and trustship of community-based organizations. The negative coefficient for newly established community-based non-governmental organizations (NGOs) after the tsunami assumed a serious aspect of “élite capture”, which implies a dark side of collective action with semi-forced participation. Participatory design process in the organizations was another negative factor for livelihood recovery. Research limitations/implications - Further research should consider influencing factors related to religious organizations and conflict issues in the area. Practical implications - Disaster support for livelihood recovery at the community level needs serious consideration about social factors and power structure of the community, and careful design of a participatory approach to reduce the risk of “élite capture”. Originality/value - The research facilitated a quantitative analysis on social capital and livelihood recovery, which may be quite rare, and highlights the issue of effectiveness of disaster support at the community level.


Researchers argue that social networks based on shared values, trust, and norms can facilitate collective action, and such social capital increases the ability of communities to recover after a disaster, implying that the presence of social capital ensures collective community action after a disaster and enables recovery. Drawing from comparative case studies of Bhuj and Bachhau, urban centres impacted by the 2001 Gujarat earthquake in India, this study presents a nuanced view of the role of social capital during post-disaster recovery. It argues that it is important to consider community contexts that are inherent to the amount of social capital available and the use of resources through social networks. The study demonstrates that strong internal bonds based on mutual trust did not necessarily lead to collective action for post-disaster housing recovery among communities in Bhuj and Bachhau. Moreover, the amount of social capital available through bonding networks differed among communities, depending upon their pre-disaster networks and the resources embedded in them. The study findings expand upon the role of
social capital during disaster recovery; in particular, they contribute to public policy debates on the ability of communities to engage in collective action to meet post-disaster housing needs.


Post-disaster recovery processes should be considered as opportunities for development, by revitalizing the local economy and upgrading livelihoods and living conditions. Social capital, which is defined as a function of trust, social norms, participation, and network, can play an important role in recovery. This paper examines the role of social capital in the post earthquake rehabilitation and reconstruction programs in two cases: Kobe, Japan and Gujarat, India. The Kobe case study shows that the community with social capital and with a tradition of community activities can pro-actively participate in the reconstruction program, and thereby can make a successful and speedy recovery. A model for bonding, bridging and linking social capital was developed from the Kobe experience, and was applied to Gujarat in four different communities. It was observed that the community with social capital records the highest satisfaction rate for the new town planning and has the speediest recovery rate. The role of community leaders has been prominent in utilizing social capital in the recovery process, and facilitating collective decision-making. Thus, although the two case studies differ in socio-economic and cultural contexts, the community’s social capital and leadership are found to be the most effective elements in both cases in enhancing collective actions and disaster recovery.


Sustainable redevelopment following disasters has been a main policy objective of post-disaster recovery efforts over the past few decades. Yet, nine years after the 1999 Marmara earthquake in Turkey, the redevelopment of risky housing areas is still a point of debate on the urban planning and disaster mitigation agenda. However, planning studies on mildly and moderately damaged areas located in the centre of Istanbul are ongoing. This article presents the evidence of a pilot project undertaken by Zeytinburnu Municipality, Istanbul, four years after the Marmara earthquake. The aim is to generate a debate on the preconditions required for a sustainable urban regeneration approach in the post-disaster recovery phase. The results of the pilot project underline the importance of capacity building in sustaining social capital, strengthening the legal framework, restructuring planning regulations, and managing the housing redevelopment process by taking advantage of a window of opportunity afforded by the disaster recovery period.


We focus on the role that community plays in the continuum of disaster preparedness, response and recovery, and we explore where community fits in conceptual frameworks concerning disaster decision-making. We offer an overview of models developed in the literature as well as insights drawn from research related to Hurricane Katrina. Each model illustrates some aspect of the spectrum of disaster
preparedness and recovery, beginning with risk perception and vulnerability assessments, and proceeding to notions of resiliency and capacity building. Concepts like social resiliency are related to theories of "social capital," which stress the importance of social networks, reciprocity, and interpersonal trust. These allow individuals and groups to accomplish greater things than they could by their isolated efforts. We trace two contrasting notions of community to Tocqueville. On the one hand, community is simply an aggregation of individual persons, that is, a population. As individuals, they have only limited capacity to act effectively or make decisions for themselves, and they are strongly subject to administrative decisions that authorities impose on them. On the other hand, community is an autonomous actor, with its own interests, preferences, resources, and capabilities. This definition of community has also been embraced by community-based participatory researchers and has been thought to offer an approach that is more active and advocacy oriented. We conclude with a discussion of the strengths and weaknesses of community in disaster response and in disaster research.


Conceptual and empirical research on technological disasters has produced a number of seminal contributions including concepts of recency, collective trauma, lifestyle and lifescape change, corrosive community, secondary trauma, and the ecological-symbolic perspective. This article presents social capital theory as a comprehensive framework that incorporates and integrates these key conceptual elements and theories. After presenting fundamental elements of social capital theory, we demonstrate how key concepts in technological disaster research relate to social capital. We conclude that while social capital theory has merit and potential for improving our understanding of all disaster events, it is particularly useful in comprehending the multifarious impacts of technological disasters.


Recovery is an important but understudied phase in the disaster management cycle. Researchers have identified numerous socio-demographic factors that help explain differences in recovery among households, but are less clear on the importance of place, which we define as a household’s locality and local governance. In this paper, we examine the influence of place on disaster recovery through a study of the 2013 Colorado floods. Our findings are based on data collected from interviews, observation of recovery meetings, and a survey of 96 flood-affected households. We show that place shapes a household’s disaster recovery by structuring: (1) physical exposure to hazards; (2) which local government has jurisdiction over recovery decisions; (3) local planning culture and its approach to citizen participation; and (4) the strength of social capital networks. Our findings expand the recovery literature and show that place-level variables should be taken into consideration when conceptualizing household recovery and resilience.

The factors that explain the speed of recovery after disaster remain contested. While many have argued that physical infrastructure, social capital, and disaster damage influence the arc of recovery, empirical studies that test these various factors within a unified modeling framework are few. We conducted a mail survey to collect data on household recovery in four small towns in southern Indiana that were hit by deadly tornadoes in March 2012. The recovery effort is ongoing; while many of the homes, businesses, and community facilities were rebuilt in 2013, some are still under construction. We investigate how households in these communities are recovering from damage that they experienced and the role of social capital, personal networks, and assistance from emergency responders on the overall recovery experience. We used an ordered probit modeling framework to test the combined as well as relative effects of (a) damage to physical infrastructures (houses, vehicles, etc.); (b) recovery assistance from emergency responders (FEMA) as well as friends and neighbors; (c) personal network characteristics (size, network density, proximity, length of relationship); (d) social capital (civic engagement, contact with neighbors, trust); and (e) household characteristics. Results show that while households with higher levels of damage experienced slower recovery, those with recovery assistance from neighbors, stronger personal networks, and higher levels of social capital experienced faster recovery. The insights gained in this study will enable emergency managers and disaster response personnel to implement targeted strategies in facilitating post-disaster recovery and community resilience.


Nine years after the Kobe earthquake in Japan, social issues are still prominent, and the rehabilitation process is still ongoing. The earthquake caused two major changes in Japanese society: an increase in voluntary and non-government activities, and the enhancement of cooperation between local government and the residents’ association. People’s participation in the decision-making process was a significant achievement. To sustain the efforts generated after the earthquake, the Kobe Action Plan was formulated and tested in different disaster scenarios. The current study suggests that civil societies in urban areas are sustainable if, first, the activities related to daily services are provided by the resident’s associations; and second, these are linked to economic incentives. Leadership plays a crucial role in collective decision-making. Creation of the support system is essential for long-term sustainability of civil-society activities. These observations are exemplified in the case study in Nishi Suma, one of the worst-affected areas in the Kobe city.


Hurricane Katrina hit the Gulf Coast on 29 August 2005, leaving a great deal of destruction, pain, and uncertainty in its wake. Post-disaster community rebound is a collective action problem where every individual’s decision to rebuild is impacted by the likelihood that others in the community will rebuild. The literature on post-disaster recovery suggests that homogenous, tight-knit communities will have an advantage over more diverse, less connected communities in solving this collective action problem and bringing about community rebound and redevelopment. Consequently, these studies have tended to underappreciate the capacity of loosely knit, heterogeneous communities to overcome the challenges associated with community recovery after a disaster. This article hopes to fill this gap in the literature by examining how loosely knit, heterogeneous communities can facilitate post-disaster community recovery
and redevelopment. To examine this, we highlight the importance of community-based organizations and focus on the recovery efforts of Broadmoor after Hurricane Katrina.


Over the past years, many scholars emphasized the importance of maintaining social relations which were built before disasters into temporary housing communities. However, reality is that most of the temporary housing complexes need to develop newly community relations due to the difficulties of maintaining community ties built before disasters. This paper attempts to find community management issues in newly developed temporary housing communities and argues solutions to the issues of constructing social capital. Key findings from this study are summarized as follows: From bonding aspect, the challenges of community management in temporary housing are leadership, ownership, and participation. One of the suggestions to solve these challenges is to employ community organizers, and a union of existing neighborhood associations is supposed to be the community organizer. From bridging aspect, information sharing among presidents of the neighborhood association in temporary housing was effective for the improvement of community management in the neighborhood associations. If this information sharing is run by an external organization, the external organization can be a bridging organization to make weak ties among neighborhood associations, which overcomes negative impacts of social capital. From linking aspect, particularly housing reconstruction is a big concern for residents in temporary housing and gives impact to community management, and therefore, linking information on housing reconstruction process to management of neighborhood associations in temporary housing is significant. To foster three categories of social capital in temporary housing, key is a bridging organization as an external organization, which functions to link among neighborhood associations and neighborhood associations to external resources.


On September the 4th 2010 and February 22nd 2011 the Canterbury region of New Zealand was shaken by two massive earthquakes. This paper is set broadly within the civil defence and emergency management literature and informed by recent work on community participation and social capital in the building of resilient cities. Work in this area indicates a need to recognise both the formal institutional response to the earthquakes as well as the substantive role communities play in their own recovery. The range of factors that facilitate or hinder community involvement also needs to be better understood. This paper interrogates the assumption that recovery agencies and officials are both willing and able to engage communities who are themselves willing and able to be engaged in accordance with recovery best practice. Case studies of three community groups – CanCERN, Greening the Rubble and Gap Filler – illustrate some of the difficulties associated with becoming a community during the disaster recovery phase. Based on my own observations and experiences, combined with data from approximately 50 in-depth interviews with Christchurch residents and representatives from community groups, the Christchurch City Council, the Earthquake Commission and so on, this paper outlines some practical
strategies emerging communities may use in the early disaster recovery phase that then strengthens their ability to ‘participate’ in the recovery process.