Fixing Recovery: Social Capital in Post-Crisis Resilience

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Abstract: 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.

Introduction

In the wake of the disastrous Haitian earthquake which killed at least 230,000 people and the Chilean earthquake which killed more than 700 residents, images of the tragedy and pleas for donations have captured world-wide attention. While the aid that has flooded into these countries will no doubt do much good, decision makers and NGOs have overlooked the real route to revitalization both in Haiti, Chile, and other crisis-struck communities around the world. Recovery from natural and other disasters does not depend on the overall amount of aid received nor on the amount of damage done by the disaster; instead, social capital - the bonds which tie citizens together – functions as the main engine of long term recovery.

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Formal and informal ties coordinate action and diffuse information among citizens and policymakers as they seek to solve social problems. While most recognize the value of social networks in our everyday lives, disaster recovery policies often overlook and at times upset these resources in their efforts to deliver necessary physical and material aid to victims. Here I am not repeating the oft-voiced criticisms of the Department of Homeland Security (DHS), the Federal Emergency Management Agency (FEMA), USAID, the Department of Defense (DOD), and other agencies which handle disasters at home and abroad - namely that they are underfunded, understaffed, and underprepared for major catastrophes. Rather, based on a new cross-national research project on neighbors struck by disaster, I call for a re-orientation of disaster recovery programs at all levels – local, national, and international - away from the standard "fixes" focused on physical infrastructure towards ones targeting social infrastructure.

Typical Approaches to Disaster Recovery

Most coverage on natural disasters focuses understandably on the extent of physical damage: lives lost, buildings destroyed, and infrastructure ruined. Many intuitively believe that the extent of the damage determines the speed of the recovery (Kates and Pijawka 1977:12; Dacy and Kunreuther 1969: 72; Haas, Kates, and Bowden 1977); similarly, it seems obvious that the more assistance and money flowing in, the better off victims will be (cf. Caputo 2010). As a result of these approaches, governmental and NGO response to disasters has been premised on the idea that moving more money, supplies, and experts into affected areas will result in a faster recovery. Local and national government bureaus and volunteer organizations like the Red Cross and the Salvation Army envision their mission as progressing from search and rescue to mass care to infrastructure recreation. FEMA coordinates the removal of debris, delivery of ice

and water, repair of damaged roofs, and the creation of temporary housing. Overseas, military personnel work alongside other organizations to deliver food, water, and tent cities to survivors. Once order is restored, agencies may rebuild basic infrastructure (bridges, power lines, roads) and buildings.

Three recent disasters provide telling evidence that social networks – and not aid or damage levels – create efficient recoveries. Comparison of the one-year anniversaries of the Kobe Earthquake, Hurricane Katrina, and the Indian Ocean Tsunami demonstrates that recovery is linked neither to the scale of destruction nor to the amount of financial assistance that flows into the country. Though the 1995 Kobe earthquake killed 6,500 and made 300,000 homeless, within a year the city restored all utilities and resumed trade and exports at 80% and manufacturing at 80% of pre-disaster levels. One year after the 2004 tsunami which caused 8,000 deaths and left 310,000 homeless, the Tamil Nadu region of India rebuilt almost all of its schools, fixed 75% of the damaged housing stock, and put most of its fishermen back to work. In New Orleans, however, one year after Hurricane Katrina, which killed 1,600 and left 250,000 homeless, some neighborhoods remained apparently untouched from the time waters struck, less than half of the schools, restaurants, and stores were open across the city, and employment hovered at less than two-thirds its pre-storm level. In some fields, such as public transportation, hospital openings, and child care centers, rebuilding all but ground to a halt.

These cases contravene traditional explanations. Kobe experienced the most damage -- $180 billion to New Orleans' $150 billion and India's $3 billion. New Orleans and Kobe had more financial resources with per capita incomes of $28,000 and $27,000 respectively to just $700 per person in Tamil Nadu. FEMA provided $16 billion and India distributed $2.1 billion to survivors, while Japan, under its "no compensation" policy, gave nothing. Despite clear

material advantages, few dispute that New Orleans has recovered slower than its Asian counterparts. While poor governance may be a culprit, intra-city variation in recovery suggests that community characteristics, such as trust and social capital, better explain the differences. New Orleans' Vietnamese neighborhood of Village de L'Est, for example, recovered quickly due to its dense community networks and high levels of trust, while other neighborhoods lacking these characteristics stagnated (Chamlee-Wright 2010).

A social capital deficit may explain why New Orleans as a whole did not witness the vibrant recovery seen in Kobe or Tamil Nadu despite its significant material advantages. Like two individuals exposed to the same disease, recovery may have more to do with the quality of the host than the nature of the illness. Communities with more trust, civic engagement, and stronger networks can better bounce back after a crisis than fragmented, isolated ones (Aldrich 2008). We can measure social resources through proxies such as levels of trust (in fellow citizens and in government officials), the propensity to expend time and energy on civic duties (such as voting in local, regional, and national elections), and the ability of citizens to mobilize cooperatively (through demonstrations, neighborhood cleanup days, and other collective action). Citizens in Kobe and India – despite vastly different levels of income – showed stronger propensity to mobilize as a community (in informal networks and through caste councils in India and through voting and creating self-help groups in Kobe) than those in New Orleans. Across the Big Easy, some neighborhoods – such as Village de L'Est – displayed strong ties among residents, creating clearinghouses of recovery information and tools while working collectively to clean up damaged housing; others showed little, if any broad scale cooperative activity (LaRose 2006; Faciane 2007). Field hospitals, water, and food are certainly important and often

life-saving resources for survivors, but without social capital these programs and other schemes which focus solely on physical infrastructure in no way guarantee resilience or effective recovery.

The Role of Social Capital

Social capital – the networks and social resources available to us – matters immediately following crisis (the emergency response phase) and in the long period of recovery afterwards (restoration). When disaster strikes, the first responders are not trained emergency personnel but rather local residents and neighbors (Perrow 2007). In disaster after disaster we have seen parents find and pull their children from the rubble and residents struggle with shovels to extricate elderly neighbors from collapsed houses. By the time domestic or international rescue personnel arrive on the scene, many victims are already rescued by locals or are dead. While foreign rescue teams pulling survivors out a week after an earthquake makes front page headlines, it is the exception, not the norm. After the Kobe earthquake, when narrow streets and debris prevented official aid from reaching victims, local citizens formed bucket brigades and searched the debris to find survivors (Tsuji 2001: 56; Shaw and Goda 2004: 21). Similarly, after Katrina, local rescuers with deep knowledge of the local terrain arrived well before the National Guard troops were on the scene.

In the months and years of rebuilding that follow disasters, social networks continue to be a critical resource in three ways. First, social ties can serve as "informal insurance," providing victims with information, financial help, and physical assistance (Beggs, Haines, and Hurlbert 1996). Rather than a market based type of formal insurance in which members pay premiums to a corporation in exchange for health or life insurance, informal insurance involves friends and neighbors providing information, tools, living space, and help. After disasters, individuals who

are better connected to more individuals receive more assistance post-disaster than less-connected people (Hurlbert, Haines, and Beggs 2000: 594). Free housing, child care assistance, short term loans, and information are readily available from core network members in post-crisis times when it may not be accessible from organizations such as the local government, professional childcare services, and other institutions. Following the Kobe earthquake, many survivors went to live with family and friends who provided a spare bedroom or cleaned out unoccupied space for their new boarders rather than seeking long term shelter in government provided housing. Survivors of tornadoes in the Midwest need to borrow water, chainsaws, diesel generators, and other equipment that they do not own and are not available due to the closure of stores. Neighbors and friends – not government agencies or NGOs - provide the necessary resources for recovery after disaster.

Information and signals from civil society – such as "who is coming back when and what services will be provided" – are critical to decision-making processes of survivors, and cannot be replaced by government pronouncements (Chamlee-Wright and Rothschild 2007: 2). Survivors of Katrina did not want to return to be the only household on their blocks, as this could be risky due to both crime and a lack of social support. While New Orleans city officials could regularly update the status of electrical and gas utilities, schools, and other facilities, such top-down memos and press releases about broader "Building Back Plans" held little useful information to homeowners who were more interested in hearing if their neighbors also planned on returning (Chamlee-Wright 2010). Similarly, research on post-war Japan underscored how regional social networks collaborated with the national government to speed up reconstruction by providing information and facilitating implementation of recovery plans (Kage forthcoming).

Second, organized communities can better mobilize and overcome barriers to collective action (Olson 1965). While survivors may agree that temporary housing, debris clearing, and the reconnection of utilities are critical, they may not be able to coordinate their efforts to bring about these desired outcomes. Neighbors with greater levels of social capital share information about bureaucratic procedures and upcoming deadlines, monitor public space to prevent dumping, and deter looting in their community (Dow 1999; DeFilippis 2001). Following the Kobe earthquake, for example, local residents in some neighborhoods organized to plan cooperative, fireproof housing while other areas waited for guidance from city officials (Olshansky forthcoming). Survivors of the Haiti earthquake spontaneously organized watch committees to guard belongings from theft and individuals from harm. Social capital can assist individuals in attracting and controlling resources, as better organized and mobilized regions can more successfully access the loans, supplies, and other resources. In New Orleans, when 500 signatures were needed to prompt Entergy – the local utility - to restore electrical power to the neighborhood, more than 1000 residents of the neighborhood of Village de L'Est were able to sign on by the end of the day. Even with grant money, low social capital communities may find it difficult to recover. The neighborhood of Mikura in Kobe, could not coordinate debris removal because no one volunteered to organize written agreements from property owners (Evans 2001: 177; Yasui 2007: 227).

Third, and finally, survivors have difficult choices to make following a disaster. They could leave the community – an option economists call "exit" – or they can stay and use their "voice" to call for assistance, changes to rebuilding plans, and accountability from elected representatives (Hirschman 1970). Strong social networks raise the cost of exit from a community and increase the probability that residents will exercise voice to join rebuilding

efforts and seek to improve their lot. Private citizens with a long-term stake in the community will most be the most motivated to rebuild and possess the greatest capacity to do so while isolated individuals will be less likely to do either (Chamlee-Wright and Rothschild 2007). In fact, citizens bound by fewer ties to their neighbors are more likely to engage in illegal and disruptive acts which impede recovery efforts, neutralizing positive efforts at rehabilitation efforts (Varshney 2001; Lee and Bartkowski 2004). To paraphrase an old platitude, a rebuilt bridge or refurbished home does not a community make.

The current situation parallels 1950s-era beliefs about investment and foreign aid for developing nations. For years, Western bureaucrats and donors imagined that large capital investments would jumpstart developing economies in Africa, Asia, and Latin America. Study after study showed that these bridges, roads, and other facilities did little to alter the productivity, skills, or entrepreneurial behavior of local residents (Ahn and Ostrom 2008: 89). As scholars pointed out, "It soon became clear, however, that merely pumping physical and financial resources into poor countries was having, at best, a marginal positive impact" (Woolcock and Radin 2008: 415). In fact, aid – whether for development or disaster recovery – often created perverse incentives in the recipient population which further undermined broader attempts at economic and social growth (Gibson, Andersson, Ostrom, and Shivakumar 2005). In the mid 1990s, the World Bank began to recognize the need to invest in social infrastructure. Through a new perspective focused on building local trust, interconnectedness, and networks, the World Bank moved beyond physical infrastructure to a new focus on the role of social infrastructure. Trust magnified the effectiveness of foreign aid; societies with more of it could better use the new infrastructure to improve factor productivity, educational levels, and so on (Woolcock 2002).

The Way Forward: New Policies and Programs

Given the importance of social resources, what should be done in future disaster recovery policies? First, government decision makers and nonprofit sectors must recognize the critical role of social capital and social resources. At best, social capital and local networks are mentioned peripherally by disaster planners, if they are mentioned at all. For example, grants are available for post-disaster mental health programs in the U.S. through the Crisis Counseling Assistance and Training Program, but these activities focus on individuals experiencing psychological distress, not on maintaining, restoring, or developing their social networks. The United Nations Team for Tsunami Recovery Support openly recognized the need for "social reintegration" of survivors but provided few details for how to do so.

A number of post-disaster plans, such as the random assignment of survivors to nearby temporary shelters or permanent housing, actually damage existing stocks of social capital. While recovery coordinators may imagine that quick evacuation of survivors would somehow save more lives than a more methodical mass departure plan, their assumptions are often mistaken. Following the Kobe earthquake, for example, the placement of many senior citizens in huge, Soviet-style apartment blocks resulted in a number of "lonely deaths," where elders passed away without anyone even knowing of the event. Many argued that these deaths were completely preventable; had they been placed near friends, acquaintances, or old neighbors, these seniors would have felt connected to the broader community and had something to live for. Following the tsunami, local residents bitterly complained that their random resettlement severed connections to friends and family who often provided child care, informal job assistance, and help in daily living. Without these resources, tsunami survivors found themselves struggling to resume their normal lives. The buses in New Orleans headed for temporary shelters out of town

did not post signs which would have let survivors know where they were heading. Providing this simple information could have allowed New Orleans survivors to travel to cities and towns where they had family and friends. More broadly, preserving communities – either through placement in the same shelter or through the provision of email, cell phone, and texting devices - in post-disaster housing is only the start.

A handful of innovators have taken notice of social infrastructure in post crisis environments and sought to use it in their policies. In 2002, the United States Department of Agriculture put out a report entitled *Homeowners, Communities, and Wildfire: Science Findings from the National Fire Plan*. In that document, planners recognized the need to integrate social capital in plans for improving community preparedness for wildfires ((Jakes 2002). Japanese law enforcement personnel have written openly about the critical role post-crisis for local volunteers who better know disaster-struck neighborhoods and can respond more efficiently than centralized planners (Araki 2003). Seattle, Washington has set up a disaster response plan entitled Seattle Neighborhoods Actively Prepare which provides explicit roles for local homeowners and residents. USAID has provided $140 million for the Iraq Community Action Program to mobilize local citizens for decision making processes and strengthen governance at the local level. Archaeologists have struggled to protect national treasures from looters and describe how local community members – not centralized law enforcement personnel – can most effectively combat pillaging at archaeological sites in Peru, Iraq, and elsewhere (Atwood 2009).

What can governmental decision makers involved in disaster planning do? They must first recognize that social capital – like other fungible assets – can be increased (or decreased) through policy. Next, thanks to GIS (geographical information systems), we can identify socially vulnerable locations, especially the communities of the Gulf Coast and slums and

villages in developing nations locations (Cutter and Emrich 2006; Cutter and Finch 2008). The next goal is to build up the trust and networks in these areas and in cities and towns. Scholars such as Anirudh Krishna (2007) have demonstrated that trust, interactions, and informal networks can develop and strengthen over time because of self-initiated local organizations and local leaders. Further, external programs – not just locally initiated ones – can strengthen existing civil society and create new bonds between citizens. Studies carried out in Nicaragua and in South Africa showed that locally-tailored programs can improve both local trust and civic participation even in areas with low incomes and little education (Brune and Bossert 2009; Pronyk, Harpha, Busza, Phetla, Morison, Hargreaves, Kim, Watts, and Porter 2008).

Other, currently experimental methods for increasing social capital include policies which create incentives for local community participation. In some programs in Japan and the United States, volunteers receive scrip that can be exchanged for goods and services from local merchants (Lietaer 2004). Encouraging citizens to serve food or assist the weak at elder hostels, serve as Big Brothers, or work together on building new homes can increase stores of social capital and deepen trust (Doteuchi 2002; Richey 2007). Another way to increase social capital in vulnerable or disrupted areas is through the creation of local-level organizations – such as children's halls and play schools – which provide parents with new sources of relevant information along with links to external agencies (Ono 1998; Kobayashi 2006; Small 2009). Urban and suburban infrastructure design itself can also influence levels of social capital; we must alter the layout of new communities to increase interaction among residents. Walkable, mixed-use neighborhoods (Leyden 2003) along with intentional communities and co-housing (Poley and Stephenson 2007) encourage the development of bonds among neighbors. Most broadly, social capital thrives in an environment where residents believe in their efficacy as

citizens and have trust in each other and their representatives; when failing states such as Haiti undergo tragedy, donors and UN personnel should help overhaul governance mechanisms to build new institutions that will positively interact with social resources. All of these possibilities must be on the table if policy designers want to move beyond the outdated structures which continue to define our response to crises at home and abroad.

Thanks to decades of studies on social capital, we have come to recognize its role in building up responsive governance, increasing innovation and business growth, and promoting better health. Disasters remain among the most critical shocks which impact residents and their neighborhoods around the world; they have killed far more than high salience issues such as terrorism. While large scale crises such as the Indian Ocean tsunami and Haiti's and Chile's 2010 earthquakes captured media attention, numerous smaller-scale floods, typhoons, earthquakes, and mudslides killed hundreds of thousands of victims around the world and affected far more. Researchers have confirmed an upward trend in the number in the number of disasters, individuals affected by them, and their economic costs over the past two decades. Scientists predict that the global cost of disaster, both in terms of lives and property damage, will only increase with the progression of global warming. Ensuring that social capital is on the agenda for decision makers will create future plans that will be more effective and generate better recoveries.

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