

Social Resilience: The Forgotten Element in Disaster Reduction

Guy Sapirstein, Ph.D.

Senior Partner

Organizational Resilience International

Boston, Massachusetts, USA

www.ORIconsulting.com

Guy@ORIconsulting.com

Telephone +1 617 755 8280

Executive Summary

This article outlines the principles of Social Resilience building in Disaster Reduction and Mitigation. Social Resilience is measured by the time it takes for a community (or organization) to rebound from a natural (or man-made) hazard. The longer it takes a community or organization to “bounce forward” after a natural or man-made hazard, the greater the risk of damage to the social fabric that holds a community or organization together. Similar to the notion of “broken families”, the effect of psychological or relationship dysfunction reaches beyond the economic impact of that lack of functioning.

A key concept introduced in this paper is the role *redundancy* of social systems in building Social Resilience. Typically, there is an expectation and an assumption that governments (central and local) take charge and respond to the people's needs following a natural or man-made hazard. Following recent large scale events, that assumption has proven false resulting in devastation to entire communities.

With an increase in urbanization, and decrease in the ability of the nuclear family unit to be self sustaining and supporting, it is up to the private sector and faith based organizations to provide the redundancy that is needed to expedite recovery from hazards. The role of government would be to provide assistance to those not receiving it from other sources. This strategy is particularly important in the developing world.

Large companies involve the coordination of vast numbers of people both directly and indirectly: Employees, suppliers/vendors, customers, shareholders, community stakeholders etc. Including these people in the Disaster Prevention Planning process is not good citizenship, it is vital for business.

The model of Social Resilience that is proposed includes:

1. **Redundancy** through overlapping social networks
2. Strengthening **response capacities**
3. Supporting **self-organization**
4. Fostering **learning and education**
5. Encouraging **adaptation**

Using a “Human Impact Preparedness” lens which focuses directly on people-needs (rather than on technology or infrastructure) organizations of all types can prepare and mitigate the effects of hazards on their various stakeholders and thus support and ensure increased Social Resilience.

Enhancing Social Resilience requires cooperation and collaboration of all stakeholders: private sector, government (public sector), Non-Governmental Organizations (NGO's) and other community organizations (such as faith based organizations).

Increasing the strength of a society is about increasing the strength and scope of the internal connections between the people, organizations and environment that form that society. Moving away from the doctrine of independence to embracing a culture of *interdependence* is the key to both harmony and development.

Background

The current thinking in the Disaster Reduction field emphasizes assessment and reduction of vulnerability and especially Social Vulnerability as an important factor in mitigating the effects of disasters. The notion of vulnerability reduction came about in the international community in the late 1990's. The World Bank, for example, shifted its emphasis from a policy of "growth promotion" to one of "poverty reduction" (Ishikawa, 2002). Similarly, the United Kingdom's Department for International Development (DFID) in its 1997 White Paper recognized the role of socio-economic factors in vulnerability to disasters. DFID also included in its goals (1999) a statement about reduction of risk and vulnerability to future crises. In the process of emphasizing vulnerability, the role and complexity of Social Resilience was somewhat lost and at times minimized. For example, Terry Cannon and his colleagues include resilience as a factor of social vulnerability in a report to DFID (Cannon, Twigg and Rowell, 2002). The United Nations University, Institute for Environment and Human Security (UNU-EHS) delineates "Social Vulnerability" and "Individual Vulnerability" as working areas, but does not mention Social or Individual Resilience (Bogardi, 2006).

As a result of the conflation of the term 'Social Resilience' with 'Social Vulnerability', these two concepts in addition to the concept of "capacity" became somewhat blurred. Cannon et al. (2002) describes some of the confusion around the concepts of social vulnerability and capacity in terms of their relationship to one another. At times they appear linearly related and at other times nonlinearly related. Jeff Dayton-Johnson (2004) clarifies this confusion by explaining that "Adaptive capacity is a function of countries *ex-ante* vulnerability to natural disaster risk and their *ex-post* resilience once such disasters have struck " (p. 8). In other words, *both vulnerability and resilience affect capacity*.

The relationship between Social Vulnerability and Social Resilience

The concepts of social vulnerability and Social Resilience are orthogonal to each other (Bogardi, 2006). In other words, when represented on a graph, Social Vulnerability and Social Resilience are perpendicular to one another (one is represented by the "X" axis and the other represented by the "Y" axis). While they might interact with respect to their effect on community capacity, they are not directly correlated with each other. Moreover, they are measured in different units. Vulnerability is the degree to which people will be impacted by a hazard (natural or man made). Social Vulnerability is measured

primarily through cost: be it economic or human. In other words, how much will it cost if a hazard occurs in a given community and how many lives will be lost or affected. Social Resilience, in contrast, is measured by time. Specifically – how long would it take for the community to respond to the event, self organize and incorporate the lessons learned before returning to a [new] normal way of functioning. While it might be tempting for some to transform this measure of “time” to economic cost (time=money), that would effectively force a nonlinear relationship into a linear one. The amount of time it takes to recover from an occurrence of a hazard affects not only the economic viability of a community, but also its social fabric or “glue” that keeps it together. The longer it takes to recover, the more likely it is that the community will break up – because of people leaving, economic stagnation, and rampant psychological and emotional distress. Similar to the notion of “broken families”, the effect of psychological or relationship dysfunction reaches beyond the economic impact of that lack of functioning.

A concept analogous to the concept of Social Resilience is the concept of Recovery Time Objectives (RTO's) which is taken from the field of Business continuity Planning. It refers to the time it should take a company (or unit) to resume operations after a critical disruption. The purpose of this metric is to create a benchmark measure that can help evaluate the efficiency and capacity of a business unit to cope with a critical event or process.

Emphasizing the importance of time in the recovery from disasters is not merely a cold hearted corporate attitude that time=money. It is also a reflection of the reality that the longer it takes to move from response to rebuilding and reconstruction, the more deleterious and long lasting the negative effects of the disaster will be. In the field of human trauma it is known that while people need some amount of time to recuperate from traumatic events, they should try to resume their regular or necessary activities as soon as possible.

Definition of Resilience

Despite outlining a clear description of the relationship between resilience, vulnerability and capacity, Dayton-Johnson (2004) does not clearly define resilience beyond its economic aspect. In fact, few (if any) of the people who have written on Social Vulnerability have defined Social Resilience clearly. The abundance of definitions for “resilience” and the fact the this concept is shared by many different disciplines make it particularly difficult to define uniformly. Two definitions that are especially comprehensive are the following:

- ..."the ability to face internal or external crisis and not only effectively resolve it but also learn from it, be strengthened by it and emerge transformed by it, both individually and as a group." (Brenson-Lazan, 2003).
- "The resilience of an eco-system is its capacity of absorb disturbances while maintaining its behavioral processes and structure. It can be defined as the capacity to buffer perturbations, to self-organize, and to learn and adapt." (ResAlliance.org).

These definitions include 4 main components: Response, Self-Organization, Learning, and Adaptation. These components apply equally to all social units – from individuals, through families to communities or organizations. Moreover, they necessitate voluntary participation by all involved: one cannot force or require an individual to be resilient. Rather, resilience is the outcome of developing those four components. While poverty reduction (the cornerstone of reducing social vulnerability) is a complex process involving factors beyond the individual or even a community, developing Social Resilience is a grassroots process that does not require an intervention on a macro level. Social Resilience can be achieved at the level of the individual family, isolated village or at the other end of the spectrum – a mega-city.

Redundancy

Implicit in the definitions of resilience is the assumption of redundancy. In other words, there is more than one system of coping -- when one system is impacted the other systems help with continued functioning. The greater the redundancy, the more resilient the system. A simple example would be someone who has a single computer with no backup. If the computer crashes they will have lost all the data. Increasing redundancy would translate into having a backup and perhaps even having another computer with the data on it (higher level of redundancy). Looking at the amount of time it would take that person to resume working (resilience) we could safely assume that if they had a backup and an extra computer the disruption would be minimal. If they only had the backup they would need to find another computer which would take longer (thereby decreasing resilience).

In the social sphere, Social Resilience assumes a certain amount of redundancy. Traditionally, the redundancy was created through family ties. People were cared for by their extended family when in need (e.g. Disaster, illness, old age). With the phenomenon of migration to more urban areas, that system of Social Resilience cannot always provide support. In these situations the creation of

redundancy is expected of the central or local government which is supposed to take care of the citizens and residents when they cannot care for themselves.

With globalization, population migration and other social phenomena of the late 20th century we need to rethink the way in which redundancy and Social Resilience are achieved. An increasing number of people are living in urban areas (at least 50% of the world population by some estimates), and thus are exposed to different types of social ties. Faith based communities, workplace communities, neighborhoods, dwellers of high-rise buildings all can provide the redundancy necessary for Social Resilience. Of this list, the first two have a particular vested interest in Social Resilience. Most (if not all) organized religions have as part of their tenets a moral code calling for social responsibility. Similarly, most (if not all) companies and businesses depend on people for their functioning and revenue. It seems logical then that those organizations (faith based and businesses) should be involved in the process of enhancing Social Resilience. Not just out of a sense of social responsibility, but out of a realization that Social Resilience is critical and essential to their continued viability. A business will cease to function if it does not have employees, customers or suppliers. Even if it has all three, the longer the disruption to operations, the more money the business will lose. Similarly, a faith based community will fail its constituents if it does not offer social support. With many more alternatives in an urban setting, worshipers are more likely to choose a community offering them organized, practical and sustained support in times of crisis and disaster.

Introducing a greater degree of redundancy into prevention and mitigation of the impact of hazards reduces the pool of people who are dependent solely on governments, NGO's and other organizations for care, thereby facilitating a greater efficiency in response to hazards.

Enhancing Social Resilience – The Last Mile

Many researchers and politicians have called both directly and indirectly for increasing Social Resilience. Unfortunately they focus on narrowly defined areas of resilience – e.g. Economic, infrastructure, etc. To effectively enhance *Social* Resilience one needs to focus on the *social* and psychological factors which are inextricably intertwined. The following 5 points outline the main principles of a resilience enhancing strategy:

6. **Redundancy** through overlapping social networks
7. Strengthening **response capacities**

8. Supporting **self-organization**
9. Fostering **learning and education**
10. Encouraging **adaptation**

An important aspect of this approach is the adoption of a decentralized component to enhancing Social Resilience – much of this process is a local, bottom-up approach, rather than the traditional top-down approaches. In this respect it differs from many of the policies aimed at reducing social vulnerability. Many such programs are dependent on central governance to assist in attaining the goals. Social Resilience is developed community by community. Assistance from centralized or local government is of secondary importance. As long as there is buy-in from organizations in the community – employers, businesses, faith based organizations, community groups, etc. -- one can efficiently and cost-effectively enhance the ability of communities to “bounce forward” after a potentially devastating event.

The nascent field of Human Impact Preparedness provides insight into strategies that would be useful to employ in addressing Social Resilience. Human Impact Preparedness addresses disasters and their mitigation from a purely *human* lens, rather than the other lenses (technology, infrastructure, communication, etc.) which address people only indirectly.

Future Steps

The biggest obstacle to implementing a plan for enhancing social Resilience is obtaining the cooperation and collaboration of all the “players” or stakeholders who together create the matrix of redundancy. The challenge to the business or private sector is to look beyond the immediate profit and loss statements and invest in strategic planning that will ultimately enhance Social Resilience. The public sector needs to foster a collaborative atmosphere and consider incentivizing the other players to assume some of the responsibility for enhancing the Social Resilience. NGO's and other traditional “not-for-profit” entities need to accept the private -- “for profit” -- sector as having an important role in this process, rather than being suspicious and critical of its motives.

Increasing the strength of a society is about increasing the strength and scope of the internal connections between the people, organizations and environment that form that society. Moving away from the doctrine of independence to embracing a culture of *interdependence* is the key to both harmony and development. The essence of Social Resilience is not merely fostering independence,

but rather the *interdependence* that is known in South Africa as “ubuntu” (the spirit of a community) or “Umuntu ngumuntu ngbaantu” (I am a person through other people).

References

- Bogardi, J. J. (2006). *Resilience building: from knowledge to action. Introduction to UNU-EHS*. June, Presented to the Summer Academy of UNU:EHS. URL: <http://www.ehs.unu.edu/file.php?id=184>
- Brenson-Lazan, G. (2003). *Group and Social Resilience Building*. URL: www.communityatwork.com/resilience/RESILIENCIAENG.pdf
- Cannon, T., Twigg, J., and Rowell, J. (2002). *Social Vulnerability, Sustainable Livelihoods and Disasters: Report to DFID Conflict and Humanitarian Assistance Department (CHAD) and Sustainable Livelihoods Support Office*. URL: <http://www.livelihoods.org/info/docs/vulnerability.doc>
- Dayton-Johnson, J. (2004). *Natural Disasters and Adaptive Capacity*. OECD Development Centre, working paper No. 237.
- DFID (1997). *Eliminating World Poverty: A Challenge for the 21st Century White Paper on International Development*. URL: www.dfid.gov.uk/pubs/files/whitepaper1997.pdf
- DFID (1999). *Policy Statement on Conflict Resolution and Humanitarian Assistance*. URL: www.dfid.gov.uk
- Ishikawa, S. (2002). Growth Promotion versus Poverty Reduction: World Bank Rethinking of Aid Policy and Implications for Developing Countries. *Transactions of the Japan Academy*, 56(2), (Translated from Japanese). URL: www.grips.ac.jp/forum/pdf02/Ishikawa1.pdf