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Organizational Collaborative Capacities in Disaster Management: Evidence from the Taiwan Red Cross Organization

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Abstract
In the post disaster situation, relief organizations are expected to learn and adjust their capacity to collaborate with other major players such as nonprofit organizations, government agencies, and local workers. In other words, effective responses to disasters require capacity for collaboration on the part of emergency response agencies; however in disaster affected area, not every relief organization is equally capable of doing so. The capacity for organizations to collaborate with others in and after a disaster does not occur spontaneously or in a vacuum. Since organizational collaborative capacity is essential in disaster relief, it is imperative to present empirical evidence regarding organizational collaborative capacity. The purpose of this paper is to develop a working theory of what characteristics an emergency response organization needs in order to develop collaborative capacity. We analyze collaborative capacities by examining two events: the 2004 Asian Tsunami and the 2008 Wenchuan Earthquake. This piece argues that collaborative capacity, defined by purpose, structure communication and resources, is a requisite for collaboration in a post disaster situation. The implications for practitioners and scholars in post disaster society are discussed.

Keywords
collaborative capacity, disaster, Taiwan Red Cross, Asian Tsunami, Wenchuan Earthquake

Introduction

During or immediately after a disaster, response agencies need to coordinate with a multitude of state, private, and nongovernmental actors. Their success in coordinating actions with these actors is dependent on the agency's ability to coordinate other actors, including the affected populace. We define such capacity as the collaborative capacity of an organization. Lead public agencies, in particular, are paramount organizations in the coordinating task. In this article, we propose an analytical framework that specifies what dimensions a

lead nongovernmental organization should build in order to develop the necessary collaborative capacity. We argue that the categories of collaborative capacity are purpose, structure, communication, and resources. This framework can be used to diagnose organizations and make recommendations. We then illustrate the use of the collaborative capacity framework by applying it to the Taiwan Red Cross, Taiwan's most prominent actor that actively participates in humanitarian affairs. Using observations and data obtained from its actions we apply the framework in the context of two events related to disaster preparedness and relief.

Collaboration and Collaborative Capacity in Disaster Management

During or after a disastrous event, a response agency has to work within multi-organizational alliances or networks (Agranoff and McGuire, 2003; Gulati et al., 2000; Light, 1999). Collaboration outcomes go beyond single focused implementation efforts that emphasize on either the vertical dimension or the horizontal component of a program. Rather, response agencies need to collaborate to facilitate and operate in multi-organizational arrangements in order to solve problems that cannot be achieved, or achieved easily, by single organizations (Agranoff and McGuire 2003: 4). In such arrangements, the ability of an organization to collaborate (and also to survive) and interact with other players in a timely fashion is crucial (Selsky and Parker, 2005). We define this capability as organizational collaborative capacity. Without collaborative capacity in place, managing networks among multiple stakeholders is unlikely to succeed (Bardach 1998: 21).

Collaborative capacity is critical right after a disaster strikes when relief organizations need to coordinate a network of players under conditions of decisional urgency, high uncertainty, and threat (Boin et al., 2005; Lagadec, 1990: 21; Weick, 2001). The emergence of unexpected and threatening conditions weaken the capacity of organizations to make sense of new contexts and develop adaptive solutions. This is especially true during post disaster relief phase given the limited time, dynamic conditions, and intense pressure that relief agents work under. These agents are supposed to be capable of evaluating the nature and scope of a crisis and searching for an appropriate response.

Post-disaster coordination between responding agencies has to be especially efficient because 1) the short response times mean that agencies have to quickly establish how to allocate responsibilities among the various actors, how to distribute resources, and which areas to cover — this requires rapid, effective

modes of communication and coordination amongst them; 2) the great volume of supplies received in a matter of hours or days, requires quick modes of accounting, routing, and distribution among agencies; and, 3) the great number of policy actors, including a large number of volunteer organizations, requires close and rapid coordination in order to reduce overlapping activities, underserved areas, or neglected tasks (with chaos, many tasks can fall through the cracks).

However, not every relief organization is equally capable of collaborating with other players effectively. This paper looks at the practical significance of such uneven ability to explore what constitutes collaborative capacities and how collaborative capacities come to influence the organizational performance in a situation of crisis by proposing a framework for collaborative capacity assessment.

## A Conceptual Framework for Assessing Collaborative Capacity

We propose a conceptual framework for assessing collaborative capacity to understand its development (Figure 1). Based on a literature review on collaborative capacities (Bardach, 1998; Bryson et al., 2006; Mattessich and Monsey, 1992), four general categories are proposed: purpose, structure, communication, and resources. Note that I do not consider the four of collaborative capacity to be exclusively definitive. I fully agree that alternative categorizations of collaborative capacity could be developed in one way or another.

Purpose

The purpose of an organization drives it to develop particular partnerships, and most often determines the way an organization is led, expected, and able to take collaborative action. Hence organization purpose as a category is best understood through 1) an organization's leadership; 2) whether the organization has a shared vision in its mission statement that focuses on collaborative efforts; and, 3) whether the organization has its membership in a specific network.

Leadership

Leadership is one among many means to coordinate and control actions across people, knowledge, time, and space. Effective leadership clarifies who will do what, organizes joint and individual efforts, and facilitates decision-making. Therefore, effective leadership transcends immediate and interactive bases of coordination and control through internal organizational hierarchies. With

Figure 1. Framework of collaborative capacity
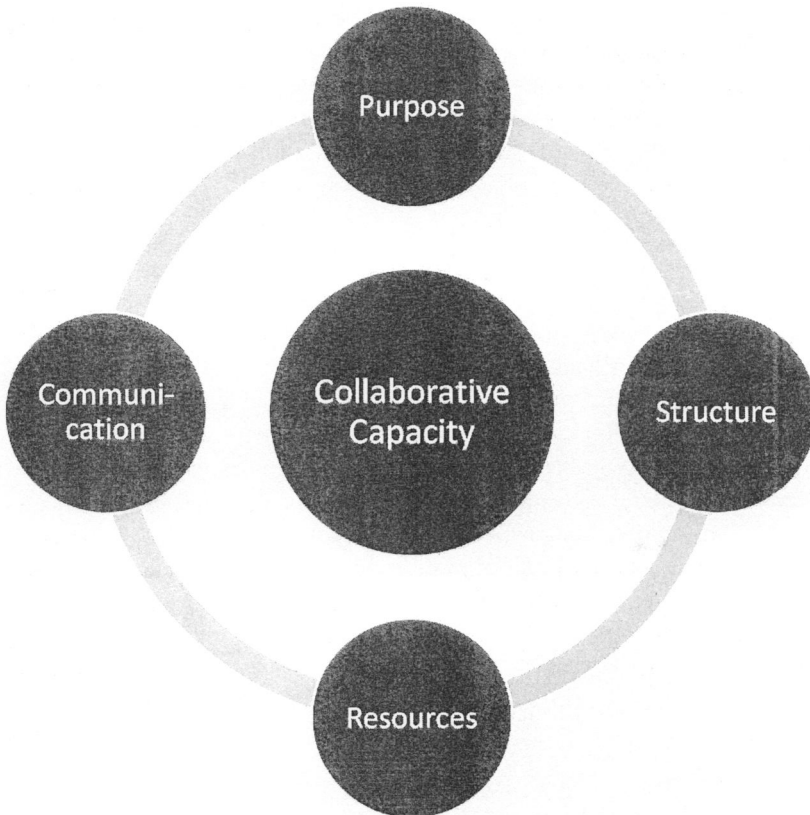
effective leadership, compatible policies and procedures can be established to operate across organizational boundaries. More importantly, in providing direction, leadership further helps organizations to frame problems, develops mental models, and makes sense of the collaboration (Lipshitz et al., 2001; Weick, 2001). To shape perceptions, leadership needs to share cognitive skills when pursuing the first course of action that comes to mind (Lai, 2010; Senge, 1993) and to determine the severity of the problem consistent with the multiplicity of societal needs (Agranoff and McGuire, 2003).

Shared Vision

It is not uncommon that collaborating organizations have their own mission statement, goals and agendas. When organizations bring diverse cultures to collaborative efforts, it is important to address these differences to enable a

cohesive working relationship. At the same time, organizations need to create a shared vision to enhance and sustain the collaborative advantage. This requires organizations to agree on a distinct collaborative agenda that aligns attainable goals, and specifies a unique purpose and a means of delivery. By identifying the unique purpose in a shared vision, organizations are able to work with the right players and resources, keep them committed, and facilitate effective interaction among them (McGuire, 2002: 600).

Network Membership

Network membership is defined in terms of an organization's connection to a broader functional network, rather than by organizational characteristics, such as size, or geographical location. From a research point of view, organizational membership is operationally defined by the relationships an organization has with other organizations within the network, rather than by an attribute of the organization itself. Obtaining a network membership ensures the patency of resource exchange (Lai et al., 2009). The more important membership an organization holds, the greater the likelihood that collaboration will emerge and thrive in rapidly changing situations (Bryson et al., 2006). Not only is purpose category needed for collaboration, but it is also a response organization's structure that enhances the emergency relief's efficiency.

Structure

Structure means the process by which an organization monitors and evaluates its collaborative behavior with other players. Structure reveals what role each member should play in the rules. Hence, structure for collaboration is embedded in formal and informal procedures in an organization, supported by organizational infrastructure and administrative systems that control and oversee collaborative service or production.

Formal and Informal Procedures

Formalizing the procedures in formal documents enables organizations to strengthen a collaborative commitment to work collaboratively (Granovetter, 1992: 35). The formalized procedures can be in the form of a memorandum of understanding that contributes to a shared mental model (Bigley and Roberts, 2001), or an interagency planning document, signed by senior officials in the respective organizations. Establishing formalized procedures can also be done in an informal way by which each partner operates across

organizational boundaries, including through compatible standards and data systems, and through frequent communication to address such matters as cultural differences. In order to deal with changing conditions, informality allows *flexibility* and *adaptability* for collaborators to remain open in the midst of major changes, such as changes of major goals or members.

Clear Roles

Collaborative process needs partners who clearly understand their roles, rights, and responsibilities. In doing so, each partner can be held accountable to the role in the collaboration process. Accountability is unique and diffused across network members that make control exceptionally complex in the collaboration. Subsequently, to reinforce organizational accountability for collaborative efforts, organizations develop appropriate accountability mechanisms which allow activities to be transparent and open to scrutiny by relevant stakeholders. Such mechanisms can be made clear at the beginning by designing agreed and informed policy guidelines. When defining roles and guidelines, collaborators should ensure that the decision making body is well represented by stakeholders playing a role in the process and outcome of this collaborative effort. Examples of guidelines that might be developed include strategic and annual performance plans and performance expectations for collaboration can be created.

Communication

The communication category refers to the ability of an organization to manage timely and valid information through its open communication links. The communication links matter to collaborative organizations because these links are conducive to information storage, retrieval, dissemination, and exchange. In contrast to the structure category that focuses more on administrative control, the communication category not only deals with formal and informal information links where information is transmitted, but also refers to active communication by putting information in the context of solution-seeking.

Information Links

To make collaboration work coherently, channels of information must be present. Such channels can either take the form of an earlier formal agreement, or they can also be established via personal connections. That is, members can informally form a cohesive working group on a common project-basis.

The channels provide a means for each partner to examine information, consider its significance, and decide how future action will be affected (Moynihan, 2005). Through existing or created channels, information on resources and needs of each partner is shared and better aligned (Granovetter, 1992). By sharing information, organizations can further work collaboratively based on the mutual trust — a shared belief that the partners will carry out their part of the joint agreement (Uzzi, 1996a). The process of information exchange and feedback within an organization results in a shared base of goals, knowledge, and practice that constitutes organizational learning (Argyris, 2002).

Active Communication

Having information links does not equate to effective communication unless relevant information is treated seriously. Active communication means the extent to which collaborating organizations absorb relevant and useful information, disseminate it to key actors, and translate it into organizational memory or key actions in a timely manner. Active communication also refers to tapping into information and communication technology to build a boundary-free platform. Making use of technological advances helps collaborative partners interact and update one another more easily and more often. Frequent communication among collaborating organizations is important because it facilitates working across sector boundaries and prevents misunderstanding. On the other hand, information systems that fail to collect and deliver timely information limits the potential for organizational learning (Lagadec, 1990). By providing timely access to information between organizations, collaborating organizations significantly increase the range of interactions among individuals, and among sets of organizations in order to deal with a common event or problem (Comfort and Sungu, 2001). This point brings us to the next key aspect regarding maximizing the benefits of an emergency response in the context of a post-disaster society: resources.

Resources

The resources category is defined as intellectual, human and financial capital necessary to develop and sustain collaborative efforts. With respect to collaboration, resources determine whether an organization can survive. Resources help an organization establish capacity that delivers public services (McGuire and Silvia, 2010). Knowing resources cover a wide range of areas, we will

focus on the two most prominent elements in the resources category here: 1) knowledge and skills; and, 2) financing powers.

Knowledge and Skills

Knowledge and skills focuses on the capability of collaborating managers in a capacity building model that has shifted to knowledge-based modes that uses techniques such as pre-planning, role plays, on-job training, drills and exercises, and simulation (Comfort, 1989: 334; Lagadec, 1990). Such capacity development aims to ensure that the interventions are essential to achieve a collaborative advantage with people equipped with the proper skills and network support. This includes: 1) a manager's ability to empower the community and to operate collaboratively from within a given agency *structure*, and 2) internal capabilities for forming and sustaining external *information links* as expressed in terms of proper boundaries among various roles and good levels of internal coordination (Perry et al., 2006: 79). It also refers to a manager's ability to tap into *information technology* that allows the relief organization to task goals for multiple teams in different geographical regions (Comfort, 1989).

Financing Powers

Financing powers refer to the extent to which an organization can make use of (designated) financial resources at its disposal to maximize the collaboration effort in order to deliver new types of services or projects. It deals with designing the funding principles to allocate the collective financial pool. Therefore financial powers present the legitimacy and public trust of a collaborating organization to access and dispense money. Financing powers are critical to organizations, in particular when designing an exit strategy that sustains their collaboration efforts in the long term. To succeed in collaboration, lead collaborative organizations need an adequate, consistent financial base to support collaborative efforts. But how does this framework help us to better understand and evaluate the quality of an organization's emergency response to a disaster?

Application of the Collaborative Capacity Framework

This paper investigates the collaborative capacity of the Taiwan Red Cross (hereafter TRC), Taiwan's most prominent leading actor that actively participates in humanitarian affairs regarding disaster preparedness and relief. The TRC is one of the few organizations in Taiwan that actively participated in

both disasters in Indonesia and China. More importantly, the TRC manages the majority of Taiwanese charity fund in these two disaster reliefs. Following the two disasters, the TRC transforms its capacity dramatically to adapt to the changing environment. The evidence that allows us to evaluate the TRC's performance comes from the two most recent events in which the TRC was one of the principal agencies involved. The two events are 1) the 2004 Asian Tsunami in which the TRC first dispatched its rescue team abroad, and 2) the 2008 Wenchuan Earthquake in which the TRC scaled up its collaborative efforts and as a result, won great applause from the public (Taipei City Fire Department, 2011). The role that the TRC played in these two disaster relief operations allows us to examine the dynamics of collaborative capacity. By comparing collaborative capacity in respective relief practices, we believe the two cases can illuminate organizational collaborative capacity. However, the objective is not to compare which relief operation was more successful, but instead to understand the organizational capacity in the two events.

A mixed-method research design was used to collect in-depth qualitative data from both relief operations and voluntary involvement collaborated by the TRC. The research material is based on in-depth interviews and communication with relief managers in the field. Interviews and briefings of key management staff from TRC and its partners were also a source of data. In addition, material for this paper includes a review of case files, situation reports and the perusal of key management guideline documents.

Summary of the Two Events

The Asian Tsunami that occurred on 26 December 2004 has been regarded as one of the most significant and deadliest natural disasters in modern human history. The tsunami that devastated coastal areas across South Asia resulted from the Sumatra-Andaman Islands earthquake beneath the Indian Ocean. It unleashed other tsunamis which caused great destruction on the coasts of Malaysia, Thailand, Sri Lanka, India, and the Maldives. Although this was only the fourth largest earthquake since 1900, the magnitude of the human disaster was greater than any similar event in recorded history. The response it drew was unprecedented at both local and international levels.

Less than five years following the Asian Tsunami, the world was again appalled as it witnessed the overwhelming destruction at Wenchuan county Sichuan province, China, after it was struck by a devastating earthquake. Measuring more than the magnitude of 8.0, the 2008 Wenhuan earthquake was ranked as one of the most severe that China has ever experienced. And to make the rescue effort in the aftermath even more challenging, the disaster area

continued to be rocked by aftershocks for at least two months. According to official Chinese figures, almost 70,000 were killed and 400,000 were listed as either injured or missing as a result of the May 12 earthquake. Economic losses also amounted to hundreds of millions of dollars.

Both 2004 Asian Tsunami and 2008 Wenchuan Earthquake are important moments for the TRC. The unprecedented scale of these disasters and outpouring deluge of charity with the challenges therein obliged the TRC to redefine its traditional administrative role and core mission of humanitarian assistance and adopt a significantly different model of collaborative management and partnering service delivery in disaster relief from what they have previously been accustomed to. The two large scale disaster cases in China and in Indonesia demonstrate the need for interagency collaboration to a greater extent.

Analysis and Discussion

Purpose

The TRC has long been dedicated to protect human life and dignity, relieving human suffering and responding to emergencies.[1] Through these efforts, the TRC is perceived within the relief community as a *leader* — at least with respect to its emergency expertise, community preparedness and training activities.[2] However, the TRC has been regarded by others as a relief organization that acted autonomously in most great scale disaster operations. In the early days, the TRC enjoyed the discretion of allocating *resources* and volunteers to assist governments in providing social services, such as healthcare and scholarships, to financially deprived people. *Sharing resources and joint decision-making* was not commonly practiced in those days.[3] Cross-border disasters at an overwhelming scale have become potential focusing events for the TRC and other relief organizations to work towards a *shared vision*.

It was not until the TRC's first overseas mission in 2004 Asian Tsunami (Taiwan Red Cross, 2005a: 2) that the TRC clearly understood the unprecedented scope of relief operations had far surpassed its administrative and operational capacity.[4] Because of unfamiliarity with the international relief practice,

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[1] See the mission statement of the TRC, available at http://web.redcross.org.tw/about_org02.aspx, accessed on 11 June 2011 [in Mandarin].
[2] See the achievement in relief efforts by the TRC, available at http://web.redcross.org.tw/human9.aspx, accessed on 11 June 2011 [in Mandarin].
[3] Interview, Professor Lucia Lu, CEO of Begonia Foundation, 13 December 2010.
[4] Ibid.

and the local culture and language in the Tsunami affected countries, the TRC more or less followed the direction of the International Red Cross Framework and filled the needs requests indirectly sent from local government and other local NGOs that the TRC contacted for the very first time. The TRC's *vision* was not fully recognized domestically and internationally, which handicapped the TRC's position in further collaboration.[5]

On the contrary, the TRC's relief collaborative model differed in the 2008 Wenchuan Earthquake (Taiwan Red Cross, 2008b: 10). Due to its past experience with Chinese Mainland affairs, the TRC was expected by the whole Taiwanese society to lead the relief initiative.[6] Within one week after the earthquake, the TRC immediately took the *lead* to convene a joint meeting with domestic major public and nonprofit organizations.[7] In the joined meeting, all like-minded parties *shared the same vision* that collaboration had to be aligned to the needs of disaster victims and the affected country in their engagement so that the involvement of local authority and citizens could embrace the opportunities opened up by these organizations.

The TRC had different sorts of memberships in the 2004 Asian Tsunami and the 2008 Wenchuan Earthquake.[8] In Tsunami relief, the TRC is more like a service delivery partner in the joint program under the auspice of IFRC (Taiwan Red Cross, 2007). In 2008 Wenchuan Earthquake, the TRC took the initiative to invite major welfare organizations join in a temporary task force network — Wenchuan Earthquake Taiwan Service Alliance (TSA) — to make informed decisions and take charge of the relief service delivery network.[9] The TSA is a good demonstration of collaborative efforts through horizontal integration with like-minded members in the relief network.[10] As a result, the scope of collaboration also expanded in terms of participating agents. The number of collaborating domestic agents increased exponentially, from less than 10 in 2004 to more than 30 in 2008 (Taiwan Red Cross, 2005a and 2008b).

Structure

Prior to the 2004 Asian Tsunami, the TRC was new to the relief agencies in the affected area (Taiwan Red Cross, 2005b: 2). The working relationship and

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[5] Ibid.

[6] Interview, Dr. Chen Charng-Ven, Chairman of the TRC, 6 January 2011.

[7] Interview, Mr. Chen Shih-Kwai, the then Secretary General of the TRC, 7 January 2011.

[8] Interview, Mr. Joseph Chen, the Director of Department of Disaster Relief of the TRC, 6 January 2011.

[9] Interview, Dr. Chen Charng-Ven, Chairman of the TRC, 6 January 2011.

[10] Interview, Professor Lucia Lu, CEO of Begonia Foundation, 13 December 2010.

joint agreement had yet been established. Later the TRC's involvement in 2004 Asian Tsunami by and large relied more on a bilateral formal structure and procedures.[11] For example, when news of 2004 Asian Tsunami broke, the TRC contacted the IFRC to discuss relief assistance through its official channel. Later the TRC liaised with the Taipei City Government and immediately convened an official task force, and dispatched rescue teams by collaborating with aid agencies based in Indonesia, India, Thailand and Sri Lanka (Taiwan Red Cross, 2005b: 2). Most of the TRC's field projects were subcontracted to local relief organizations. The TRC did not have a *clear role* in the 2004 Asian Tsunami relief effort. Partly because the role of TRC was an autonomous donor that financed part of the master plan assigned by the IFRC (Taiwan Red Cross, 2005a: 2). That is, in most relief operations the TRC partnered with international organizations in separate stages of relief projects. Because TRC's collaboration with external actors was limited to part of the whole project, it is difficult for each partnering organization to be held accountable.[12] Therefore, the accountability mechanisms were unclear in terms of managing the results.

On the contrary, in its 2008 Wenchuan relief mission, the TRC was characterized more by *informal* nongovernmental systems rather than by bureaucratic structures within organizations and formal relationships between them. Such informality enhanced relief organizations' responsiveness in an emergent multi-lateral network. This is because the TRC became more flexible and adaptable in remaining open to varied ways of organizing themselves and accomplishing their work in changing conditions. In other words, informality enhanced relief organizations' responsiveness in an emergent multi-lateral network. That is, the TRC distinguished itself from its past relief operations by developing a *clear role* and, for the first time, took the initiative to form a joint team to work together with other major welfare organizations.[13]

One week after the Wenchuan earthquake took place, the TRC urged other nongovernmental organizations to form a collaborative relief committee, the TSA (Taiwan Red Cross, 2008b). The TSA contributed to a shared mentality in joint planning, which enhanced the structural arrangement for the relief operation.[14] The TRC encouraged their partnering voluntary organizations to

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[11] Interview, Mr. Joseph Chen, the Director of Department of Disaster Relief of the TRC, 6 January 2011.

[12] Ibid.

[13] Interview, Mr. Daniel Chen, the TRC reconstruction manager posted in Chengdu for the TRC's Wenchuan Earthquake Relief Project, 5 January 2011.

[14] Interview, Mr. Chen Shih-Kwai, the then Secretary General of the TRC, 7 January 2011.

take ownership for managing the reconstruction programs and the TRC, at best, provided technical, financial and logistical assistance for these partnering organizations.[15] The TSA played a key role in screening applicants and providing recommendations to help partnering organizations better align their proposals in the master relief plan. On the premise that the proposal is accepted, such an organization needs to become a member in the TSA network.[16] This working relationship offers other collaborative partners an understanding of the roles and expectations that were required. The relationship also enables them to trust the process.

Communication

The TRC has a quite different configuration of information links in the cases of the two disaster relief operations. In the aftermath of Asian Tsunami, the TRC's information channel depended much on indirect sources, such as press release from local governments and Field Assessment and Coordination Team from the IFRC (Taiwan Red Cross, 2005a: 3). Indirect information links compromised TRC's communication capacity in terms of timely relief data exchange, as well as resource allocation. It was not until 10 days after the Tsunami that the medical team from the TRC and Taiwanese government started to provide medical services to the disaster survivors in Medan Indonesia (Taiwan Red Cross, 2007). While most international relief organizations had their health posts for service delivery and resources congested in Medan, a remote but more heavily stricken hinterland, Meulaboh, was left ignored.

Compared to its limited communication in Asian Tsunami relief, the TRC's communication capacity was significantly enhanced in the Wenchuan Earthquake relief mission. With its active and open information channels, the TRC was able to actively assess the 2008 disaster relief needs. For example, according to the needs assessment approved by the China Red Cross (CRC), the TRC specifically targeted affected areas located in the most rural areas where victims were being neglected (Taiwan Red Cross, 2008b: 2). This unique purpose immediately won the TRC strong recognition and support. As the TRC Chairman Dr. Chen Charng-Ven noted, *"Based on our working relationship in the past, the TRC obtained legitimate recognition to enter the affected area, got familiar with the rules of relief operation, and could allocate resources."* The TRC was immediately involved in and was able to assess the

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[15] Interview, Professor Lucia Lu, CEO of Begonia Foundation, 13 December 2010.

[16] See guidelines of the membership application on the TSA website, available at http://www.512tsa.org/about1.asp, accessed on 12 June 2011.

disaster. Unlike its efforts that were requested in a resource condensed area in the Tsunami relief, the TRC delivered relief services to resource deprived remote villages impacted by the earthquake. Getting timely information about what was needed was very critical in aligning which organizations the TRC sought to collaborate with.

The TRC's improvement in communication capacity is demonstrated through the TRC's adoption of new information communication technology (ICT). The TSA has developed a website as a common communication platform.[17] The platform is a multi-level communication interface where multiple parties and stakeholders can exchange, update, retrieve, and convey timely and relevant relief information on a common channel in an open fashion (Taiwan Red Cross, 2009: 10). As a result, the platform engages each relief partner to actively disseminate relief information, outcome sharing, uploading of relief service progress on a regular basis. Moreover, during the Wenchuan earthquake, it served as a governance mechanism, providing a collaboration platform for professional relief agencies. It allowed resources from public and private sectors to work in an integrated fashion and allowed its members to exchange timely information and relief needs. Through the website, all members are held accountable by providing their progress reports and, at the same time, checking others. In this sense, the enhanced communication capacity resulting from ICT contributed to public trust and accountability among and between partnering members. It also provided peer-to-peer organizational relief and support beyond traditional donor networks.

The information platform allows the TRC to be able to regularly report progress in the use of the public donations by providing timely information on the TRC website. Such ICT advances were not available in the TRC's 2004 Tsunami relief because of poor ICT infrastructure in the affected countries.[18] However, in the 2008 Wenchuan relief, the TRC actively leveraged the available technology. In addition to effective communication, properly trained relief managers on the ground were integrated into the relief effort.

Language is another factor that hinders the TRC from communicating with the affected communities.[19] The TRC need additional help (in most

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[17] See the official website of Taiwan Service Alliances, available at http://www.512tsa.org/about.asp, accessed on 12 June 2011.

[18] Interview, Mr. Joseph Chen, the Director of Department of Disaster Relief of the TRC, 6 January 2011.

[19] Ibid.

cases having volunteers come from local Chinese community) to translate Indonesian Bahasa to Mandarin, and vice versa, when discussing issues on relief supply and demand. On the language front, the TRC's efforts in Wenchuan Earthquake relief presented a different case. Right after the calamity, the TRC was the first organization that directly expressed their concern to the China Red Cross and demonstrated its willingness to help (Taiwan Red Cross, 2008b: 7). Given its close cooperation experience with China Red Cross in the past, the TRC gained immediate recognition and trust in its relief network and obtained timely relief information.

Resources

The TRC has been a veteran in mobilizing professional volunteers in its domestic missions. Prior to 2004 Asian Tsunami mission, the TRC's work effort was generally limited to domestic disaster and emergency assistance. Though the TRC is a professional relief organization which has core experience in disaster preparedness and response, extending relief work onto foreign soil requires a peculiar portfolio of relief knowledge and skills. It was apparent that the TRC lacked the required skills and knowledge in its relief operation for the 2004 Asian Tsunami.

Since it was the first outbound relief operation where the TRC dispatched a relief team overseas (Taiwan Red Cross, 2005a: 2), the TRC's managers for the first time learned about the framework in which foreign relief agencies abided by, and through their experience, they realized the importance of collaborating with other specialized agencies. The TRC recognized the limitations they faced in supporting the victims of the Tsunami (Taiwan Red Cross, 2005b: 2). For example, the TRC was limited in its ability to support people with things like long term housing, livelihood rehabilitation and psychological support because this type of support required skills that were not TRC's core capability. Another criticism rose as volunteers went into the field with helping hands but without the required techniques. In the case of building long term houses, volunteers came from all walks of life. They were writers, teachers, graduate students, and magazine editors (Taiwan Red Cross, 2008a: 4). They needed to learn how to build houses on the ground while the affected families stood beside the volunteers watching their on-the-job training. Building long term houses is a highly technical and knowledge intensive task. Needless to say, it takes professionals to put an anti-quake design in place, especially in this earthquake prone area.

The same task actually was undertaken using a different approach in the TRC's relief assistance to the Wenchuan Earthquake.[20] Unlike its one-man show in the 2004 Tsunami relief, the 2008 Wenchuan earthquake relief mission witnessed the TRC collaborate with other technical agencies that were equipped with specialized skills and knowledge needed in the field. Among its numerous partners, the Begonia Foundation and the Child Welfare League Foundation have comparative advantage in social work and experience in psychological reconstruction while Taiwan Construction Research Institute (TCRI) provides technical assistance in anti-quake design and construction. The TRC signed a Memorandum of Understanding (MOU) with TCRI, an expert in constructing anti-quake quality buildings, to ensure the long term cooperative reconstruction (Taiwan Red Cross, 2009: 1). Each reconstruction project proposal needed to meet anti-earthquake requirements. Fully authorized by the TRC, TCRI is the gatekeeper to set the construction code for anti-quake design and monitor the construction progress for 43 schools, 43 health centers, and one rehabilitation centre for the disabled across three provinces (Taiwan Red Cross, 2009). For the 2008 relief work, the TRC relied heavily on the knowledge and expertise of collaborating partners.[21]

> With TCRI's technical assistance, each reconstruction project proposal needs to fulfill the anti-earthquake requirement. In doing so, the TSA is able to standardize mechanism for efficient monitor and evaluation in such a way that achieves transparency and accountability, [revealed by Mr. Daniel Chen, the TRC reconstruction manager in Sichuan Chengdu.]

Compared to other relief organizations in Taiwan, the TRC has more financing power than many other organizations on two fronts.[22] For one, given its unique legal basis in Taiwan, the TRC is the only non-profit organization that is able to start a charity campaign without getting permission from the central government. That is, the TRC can more quickly begin fundraising than other charity organizations. Having such unique legal standing does not automatically equate to moving quickly to the affected area in need of relief services. Effective mobilization of relief resources actually depends very much on the leader and decision making committee. In addition to fast decision-making, public trust is required to raise funds and to quickly mobilize. Compared to

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[20] Ibid.
[21] Interview, Professor Lucia Lu, CEO of Begonia Foundation, 13 December 2010.
[22] Interview, Mr. Chen Shih-Kwai, the then Secretary General of the TRC, 7 January 2011.

the 2004 Asian Tsunami, the TRC gained more public trust for the 2008 Wenchuan Earthquake relief, which was reflected in the amount of funds raised. As a point of comparison, USD$23 million in public donations were channeled via the TRC for the 2004 Tsunami relief while the amount for the 2008 Wenchuan Earthquake charity was valued at more than double, or almost USD$50 million.

> The collaborating committee for the TSA took advantage of their experiences and strengths in dealing with post traumatic pyschological rehabilitation during the recovery phase of 1999 Taiwan's 921 Earthquake. The TSA in the Wenchuan Earthquake relief supported more than thirty nonprofit organizations involved in social welfare programmes specific for the underpreviledged, mental health rehablitation in terms of funding and logistics [said by Mr. Chen Shih-Kwai, the then Secretary-General of TRC.]

Linkages Across Collaborative Capacities

The proposed conceptual framework for assessing collaborative capacity helps us understand the variables related to collaborative capacity, as summarized in Table 1. It also allows us to understand how an organization's capacity can change and improve from one relief mission to another.

The category of purpose explains the motivation, the direction and the scope of collaboration in TRC's relief efforts between the two disastrous events. This category sets a backdrop and determines when the following categories come into the collaboration at different points in time. However, a collaborative relation is not formed from a vacuum or regarded as given. It is based on critical preconditions: past working experience, existing and functional relief networks. More specifically speaking, the purpose initiates an agenda of collaboration and strengthens existing capacity by which a course of action resumes, such as role definition, activating communication channels, and exchanging resources. For the TRC, the issue of *shared vision* among various actors is very much linked to its *network membership*. Most of TRC's working partners on the ground are from the International Federation of Red Cross system. The TRC worked through the existing relief network to have its *membership* recognized as a legitimate relief agency in the field. It is also through the same channel that the TRC received needs request and communications, allocated resources, and partnered with other local organizations.

As our case demonstrates, the TRC has built a good track record for its relief and rescue operations in offering domestic disaster assistance. Such reputation has justified the TRC's leadership in the relief network, and helped to convene an ad hoc cohesive collaborative group, the Taiwan Service Alliance,

Table 1: Summary of collaborative capacity

Category	Elements	Definition
Purpose	Leadership	Clarifying who will do what, organizing joint and individual efforts, and facilitating decision-making, framing the problem
	Shared vision	Aligning attainable organizational goals, a shared vision and specifying unique purpose and their means of delivery
	Network membership	Forming relations an organization has with other organizations in the network
Structure	Procedure	Establishing formal and informal procedures
	Clear role	Partners clearly understand their roles, rights, and responsibility
Communication	Information links	Ways of information storage, retrieval, dissemination, and exchange
	Active communication	Timely absorbing relevant and useful information, disseminating to key actors, and translating into organizational practices or key actions
Resources	Knowledge and skills	Capability development of collaborating managers Making use of technological advance
	Financing power	The extent to which an organization can make use of financial resources at its disposal to maximize the collaboration effort

for information processing and resources sharing. The TRC also used information communication technology to link across the four categories. Among the numerous technological advances, the use of the internet for active communication is a major breakthrough.[23] For example, the TRC developed a website among various partners to enhance mutual connectedness, create opportunities for knowledge sharing, and exchange opinions or expertise.

A clear understanding of the organization respective roles is required for effective communication which is as important as technology capacity. Partnership by seeking and facilitating collaboration among international and local organizations also requires each partner to have clear roles in the relief network. As such, the TRC convened an ad hoc governance body to establish clear procedures and clarified who does what and when in the aftermath of Wenchuan Earthquake at levels of process and outcome (Taiwan Red Cross, 2009: 15). The ad hoc governance structure, the TSA, is another important driver that makes collaboration possible. The team aggregates the most suitable men and skills required for the task and create an image of urgency to break through a bureaucratic formality. Moreover, the ad hoc team is a good demonstration of the leadership and his determination. In our case, the team has a clear role in defining, coordinating and controlling specific relief operations. The TSA was also well represented by experienced voluntary organization members (Taiwan Red Cross, 2008b: 10).

Professionalism is demonstrated by how the TSA selected their collaborating organizations based on their relationships, track record, and professional skills. The partner organizations, at their own discretion, mobilized their existing networks and dispatched professionals from adjacent provinces to reach the needy. The TRC for the first time collaborates with professional non-profits agents, the TCRI, in designing comprehensive building codes for anti-earthquake reconstruction and evaluating construction projects in the earthquake prone areas. Therefore the TRC won a wide recognition from general public which was shown from the greater amount of public donations it collected.

Conclusions

The *demands* of collaborative capacities, as we observe, are central to effective disaster management for relief organizations. In general, the TRC fared well

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[23] Interview, Mr. Daniel Chen, the TRC reconstruction manager posted in Chengdu for the TRC's Wenchuan Earthquake Relief Project, 5 January 2011.

in the four categories of collaborative capacity across two events over time. It is clear that there was a change in collaborative outcomes between the two relief missions: the increase in numbers of participating relief partners, the amount of public donation (and the trust gained), the use of networks, the level of professional involvement, the speed of resource mobilization, and the mastery of information technology all seem more advanced in TRC's responses to Wenchuan Earthquake relief and demonstrate improved organizational collaborative capacity. That said, relief outputs are multi-factorial and enhanced collaborative capacity in a lead relief organization alone should not be allowed to fully explain the performance variation resulting from collaboration. Rather, it is observed that collaborative capacities may contribute to the success of collaborative efforts among organizations in the human services, government, and other nongovernmental fields. We have not arrived at to what extent the additional capacity contributes.

It is intuitive, and also rational, to conclude that more collaborative capacity in place the better the collaborative results for organizations. Nevertheless each capacity is demanded and valued differently according to the context within which the organization finds itself. I argue that each element of capacity contributes to a different extent depending on the nature of the task. For example, elements of collaborative capacity will play out differently in the response phase than they will play out in the reconstruction phase. This paper does not point out which capacity is more important than the rest in what stage of disaster cycle. This piece also is limited in shedding light on the measurement of each capacity. These questions are critical ones in collaborative public management literature. To respond to these practical inquiries, we need to understand the trajectory of the organizational learning process through routine and crisis operation and further academic research is required. A linear evolutional research approach to organizational capacity building is required to address these questions.

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