



The Hauser Center
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Comparative Advantage in Disaster Response¹

by

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Abstract

This paper introduces a framework for a systematic analysis of the comparative advantages of various types of emergency responders. Our hypothesis is that one can define and then test comparative advantages across categories of actors and that a policy-making framework can help prepare better disaster responses in the future. We present an analytic framework that categorizes NGOs, governments, militaries and private responders at various levels. This initial theoretical framework provides a structure to begin to analyze comparative advantage. It suggests that there might be better combinations and sequences of responders in given situations. With the basic theory set forth, the framework is tested against data from two cases: 1) the disaster response following the 2004 Tsunami in Sri Lanka and 2) the response in Honduras after Hurricane Mitch in 1998. Ultimately, this work is intended to inspire other researchers interested in questions of disaster response to employ this methodology to develop and publish cases as well, creating a body of analysis that could then be further refined into policy recommendations to improve humanitarian emergency efforts.

I. Towards a Systematic Analysis of Emergency Responders

In the last decade, several large-scale natural disasters have focused the world's attention on questions of effective disaster response. International humanitarian aid organizations have been in the business of disaster response for decades.² They have developed best-in-class standards and internationally accepted professional principles, such as that of “doing no harm” when responding to natural or manmade disasters in conflict zones.³ Foreign governments also traditionally have provided money and expertise.

Disasters such as Hurricane Mitch (1998, Central America), the Gujarat Earthquake (2001, India), the Asian Tsunami (2004, India, Indonesia, Sri Lanka, Thailand, etc.) and Hurricane Katrina (2005, Gulf of Mexico, United States), however, have demonstrated that the world of responders has grown beyond international aid agencies. Government involvement has increased in nature and scope, while political and economic factors have driven increased involvement by external militaries and by private companies and individuals. The number and complexity of the actors, coupled with the massive devastation that these disasters wreaked, has raised a host of difficult questions about how to ensure that disaster response is timely and effective.

Modern disaster responses highlight the reality that a set of players—military, private, nongovernmental and governmental—are vying, either intentionally or indirectly, for a greater role in post-disaster response. Signals of fundamental shifts in relief work include new U.S.

² *The Sphere Handbook*, produced by The Sphere Project: Humanitarian Charter and Minimum Standards in Disaster Response. <http://www.sphereproject.org/content/view/27/84>

³ *The Do No Harm Handbook: The Framework for Analyzing the Impact of Assistance on Conflict*, produced by the Collaborative for Development Action. <http://www.cdainc.com/dnh/docs/DoNoHarmHandbook.pdf>

military directives, private contractor preference in recent USAID budget allocations, and coordination efforts in the latest UN reforms. For example, the U.S. Department of Defense Directive of November 28, 2005 defines military interest in emergency stability operations as “a core U.S. military mission that the Department of Defense shall be prepared to conduct and support.”⁴ USAID has increasingly relied on private contractors to deliver humanitarian aid. In Iraq, the total awards to private-sector firms are the largest USAID has ever implemented, dwarfing the sums granted to NGOs. Even in sectors where NGOs traditionally lead recovery efforts, such as education and public health, the US government has used private contractors instead. Additionally, the United Nations created a Central Emergency Response Fund (CERF) to provide swifter loans and grants to victims of national disasters and has begun to implement a “clustering” system to coordinate humanitarian responses.

Policymakers interested in laying the groundwork for future responses must think through how to value and utilize diverse actors. Some have noted the proliferation of actors with concern. One challenge is coordinating growing numbers of actors, many offering distinct agendas or approaches. Another challenge is to balance the value of the innovation that often comes with increased competition, and the efficiency that often comes with a smaller set of well-known actors. We believe it is necessary to evaluate the diversity of players systematically before drawing conclusions. Such systematic understanding can help policymakers structure response protocols that best leverage what a given actor has to offer, and that minimize the impact of actors who offer little or nothing and pose reputation or other risks to the emergency response.

⁴ The U.S. Department of Defense Directive, Number 3000.05, “Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations,” November 28, 2005. <http://www.dtic.mil/whs/directives/corres/pdf/300005p.pdf>.

These advantages should influence emergency response policies and strategies for future scenarios regarding who does what, where, and when.

We assert that one can determine clear comparative advantages among kinds of actors in disaster response. Different types of actors – government, military, NGO, private sector – bring strengths and weaknesses that both are inherent to their organizational type, and that can be exacerbated, or perhaps even reversed, depending upon the specific context of the disaster. We further assert that those in charge of planning for and coordinating disaster response, especially government officials and policymakers, can begin using the concept of comparative advantage to a) recognize and embrace the new reality of a broader range and number of possible responders; b) determine what each category of responder best has to offer; c) recognize how different disaster contexts affect those strengths; and d) do smarter, more effective planning and sequencing as a result.

We are applying the term “comparative advantage” to disaster response to underscore that fact that there are multiple organizations with varying skill sets. We are not using the term in a strictly technical sense. The technical, economic definition of “comparative advantage” requires attention to the overall productivity of the players in trade or competition. We neither know nor wish to try to assess the overall productivity of each potential disaster responder. Nevertheless, in keeping with Ricardo’ original 1817 definition,⁵ we recognize that disaster responses increasingly involve multiple players with variable skill sets, in which some specialization and exchange might achieve greater overall effectiveness and impact in the stages of disaster response. It is in this spirit that we employ the term.

⁵ Ricardo, David, “On the Principles of Political Economy and Taxation.” London: John Murray, 1817.

Given our assertions, we aim to develop a policy-making guide for determining preferred responders across categories and for creating a responsible sequencing of efforts in future disasters. Ultimately, we aim for the work to inform the conversation about combining contributions to future humanitarian efforts. To do this, we need a theoretical framework that defines and clearly distinguishes groups of responders as well as outlines perceived comparative advantages for each player.

In doing so, we recognize both that each actor group is internally diverse and that each of the particular “advantages” must be evaluated based on the needs of a particular situation or context. What might be perceived to be a benefit in one context may be harmful in another. For example, an organization that has rigid chain of command will be more or less effective depending upon how that authority is perceived by beneficiaries. Similarly, an organization with an explicitly Christian mission may be more or less effective depending upon the attachment of the local population to other religious beliefs. Alternatively, a private contractor may have a comparative advantage in sourcing supplies in a functioning economy but become stymied in a region whose infrastructure has been destroyed. These examples show that there is a difference between situational and intrinsic comparative advantage.⁶ The framework attempts to drill through the situational to the intrinsic in this analysis and the table below draws out, to the extent possible, intrinsic comparative advantages.

⁶ See, *Nongovernmental Organizations and Health in Developing Countries* by Green and Mathias, pg. 47.

Definitions

The following set of definitions seek to capture the nature of the actor (e.g., military v. NGO) as well as its point of origin and scope (e.g., local v. global). **Table 1** provides definitions for the nature of the actor and **Table 2** for the actor's scope and origin.

Table 1: Nature of the Actor

Term	Definition
<i>NGO</i>	Nonprofit, nongovernmental organization ⁷
<i>Military</i>	Official military body ⁸
<i>Private Sector</i>	For-profit corporation or entity
<i>Government</i>	Formally recognized governmental body

Table 2: Scope and Origin of the Actor

<i>Global</i>	Multinational or transnational, including a presence in multiple countries; possessing independent governance in at least two locations (headquarters/primary plus at least one independent governing body for at least one chapter, arm, division, etc.)
<i>External</i>	Originating from and presence largely in one country; that country must be external to the country/emergency being analyzed; possessing a single governing body across all subsidiaries, offices, branches, etc. ⁹
<i>Local</i>	On-the-ground presence in the country of the emergency; originates from that country; typically small scale

⁷ Detailed definitions of what constitutes a nongovernmental organization abound. One useful definition can be found in Lindenberg and Bryant's *Going Global*, pp. 5-6, in which four characteristics are cited, including serving a "specified public purpose;" being barred from distributing profits; "created, maintained and terminated on the basis of voluntary decisions;" and based in values and/or ideology.

⁸ Note that the definition "Military" specifically limits our consideration to state-level militaries. This decision is based on the fact that a state-level military is the lowest level of recognition at which there is broad acknowledgement of legitimacy. In other words, militaries associated with recognized states can claim the legitimacy of those states.

⁹ Any individuals acting as NGOs fall under "external NGOs."

Our definition of “global” focuses on governance. In other words, the key factor in qualifying as “global” was whether a multi-national entity had independent governance. To be a global entity requires decision-making in at least two countries. This definition is based on the argument that governance structures are more permanent than money or country presence. An enterprise’s size of budget and funding sources can change – dramatically and frequently. The regions in which an enterprise operates also can change over time. The presence of independent governance and decision-making is likely to change much less often. When a change does happen, it is more likely to indicate a truly substantive shift in the mission. Enterprises with independent governance in at least two sites also tend to have more global legitimacy as policies and approaches are less likely to be tied to a single country of origin and truly global organizations with independent governance are likely to be more locally responsive across multiple locations. Using governance as the source of differentiation allows us to make a normative as well as a descriptive distinction. Local decision making is a normative value broadly recognized as important in engaging in a humanitarian response.

With definitions in place, we can create a matrix of actor-against-scope and provide some illustrations of what kinds of actors fall into which boxes. **Table 3** offers those illustrations.

Table 3: Matrix with Examples from Tsunami Response in Sri Lanka

	Global	External	Local
NGO	ActionAid, CARE, Oxfam	AMURT, Catholic Relief Services, Goal	Sarvodaya Foundation, Golden Temple Dambulla
Military	UN Peacekeepers, NATO troops Africa Union	Australian military, Canadian military, Dutch military	Military of the Sri Lankan government
Private Sector	Citibank,	General Motors,	ETC Lanka Consultants

	Glaxo Smith Kline, Royal Dutch Shell	Microsoft	
Government	Asia Development Bank, World Health Organization	Australia, Canada, the Netherlands	Sri Lankan government

The next step is to outline hypothesized comparative advantages presented by different categories of actors. For example, by definition, local actors are at the scene when a disaster strikes, allowing them to have immediate presence. However, with each comparative advantage there are corresponding disadvantages. Local actors with presence at the scene of disaster are also vulnerable to the disaster and may be weakened by the event.

Global actors act under a different set of concerns and accountability structures than local bodies. Most global NGOs have professional codes of conduct and adhere to the SPHERE standards-- a humanitarian charter which sets minimum standards in disaster response. Codes such as SPHERE provide peer accountability and accountability to the victims of the disaster. However, international bodies are not representative of national interests and therefore local bodies including national governments in states where a disaster strikes have comparative advantages through their connections and local networks. National government officials have a policy-setting capacity that is important for long-term recovery of an affected region.

Other, hypothesized comparative advantages include the capacities that military actors can bring to the table. Military units have practiced command and control communications that allow them to act more nimbly and engage more quickly than other large institutions in times of emergency. The private sector often brings expertise in economic efficiency to the table. They understand supply chain management and may provide know-how on managing the logistics of

distribution of necessary equipment and aid. Private sector comparative advantages are sometimes tempered by lack of humanitarian training and experience. Again, we stress that the following illustration of comparative advantages and disadvantages should be tested. Furthermore, certain advantages will play a more crucial part depending upon the circumstances presented in a given emergency.

Table 4 provides illustrative perceived comparative advantages and disadvantages of various actors in this matrix. This table will be refined over time; we do not present it as mutually exclusive or collectively exhaustive. These theoretical comparative advantages between NGOs, governments, military bodies and private companies must be tested against actual disaster responses. The two cases in this paper begin to do that. With additional testing, over time, it should be possible to adapt the matrix from a broad, hypothetical set of advantages to a narrow list of real advantages.

The next section presents two case studies, based on a database designed for collecting information about these categories of responders by disaster, that begin to test the hypothesis of comparative advantage in general, as well as particular advantages by actor and by disaster context. The cases explore questions based on the hypothesis, including:

- Do different kinds of emergency responders have demonstrated advantages?
- Does the political, social and economic context in which the disaster happened drive a preferred set of responders?
- Does that change depending on the stage of disaster response?

- Do the lessons from the case suggest that planning, or at least responding after the fact, with the concept of comparative advantage in mind would improve the effectiveness of a response?

Table 4: Illustrative Comparative Advantages and Disadvantages

	Global	External	Local
NGOs	<ul style="list-style-type: none"> + Independence and impartiality + Adherence to professional standards like SPHERE + Already active on-the-ground, + Availability & access to resources: + Experience /historical track record + economies of scale - May receive state funding risking perceived independence - Heavy emphasis on donor relations - High overhead costs - Can compete with other agencies for projects, donations, or media attention to the detriment of relief - may be perceived as importing culture 	<ul style="list-style-type: none"> + Independence and impartiality + Flexibility to select areas, timing, coverage, and # of engagements; + Entrepreneurial approaches + Mission based + Often specialized actors + May have non-traditional expertise - Lack of experience on the ground - Heavy emphasis on donor relations - Limited knowledge of local needs - May preference religious affiliates - SPHERE standards may not govern - Limited training within locale - May import culture, values, agenda 	<ul style="list-style-type: none"> + Knowledge of local area/ needs + Local legitimacy + Local penetration + Immediate presence + Approach and processes consistent with local culture + Connections within communities, government, and established networks - Often lack of resources - May be weakened by the event - May prioritize local agenda(s) - May preference religious affiliates - May not have independent board - Limited governance/accountability - limited transparency
Military	<ul style="list-style-type: none"> + Command and control systems + Distribution and logistical capacity + Availability of people and equipment; + Immediate availability of financial resources + Limited loss of capacity as a result of the emergency - Primary interest in security/peace - Untrained in local culture/realities - May be confused w/neutral actors 	<ul style="list-style-type: none"> + Command and control systems + Distribution and logistical capacity + Availability of people and equipment; + Limited loss of capacity as a result of the emergency - Primary interest in security/peace - Untrained in local culture/realities - May be confused w/neutral actors 	<ul style="list-style-type: none"> + Command and control systems + Knowledge of the local area + Authority of official sanction; + Ready availability of people and equipment - May be weakened by event; - Risk of local corruption - Partiality
Business	<ul style="list-style-type: none"> + Economic efficiency expertise + Economies of Scale for purchasing + High levels of financial resources + Efficient supply chain + Vast distribution channels + May have logistical expertise - May prioritize profit over aid - Risk of corruption - May disregard local culture/needs - Lack of humanitarian training/experience 	<ul style="list-style-type: none"> + Economic efficiency expertise + Financial resources; + Efficient supply chain + Vast distribution channels + May have logistical expertise + New (entrepreneurial) approaches - May prioritize profit over aid - Risk of corruption - May disregard local culture/needs - Lack of humanitarian training/experience 	<ul style="list-style-type: none"> + Economic efficiency expertise + Quick access on the ground + Entrepreneurial approaches + Understands local culture + Access to inexpensive goods + Connected to local networks - May prioritize profit over aid - Risk of corruption - May be weakened by the event - May lack financial stability
Government	<ul style="list-style-type: none"> + Access to resources; + Coordination plan in place (OCHA) + Not weakened by the event; + Expertise in disaster response + Ability to mobilize governments; - Partiality - May pledge but not deliver funds - Slowed by bureaucracy - Slowed by competing interests 	<ul style="list-style-type: none"> + Access to resources; + Not weakened by the event; + Expertise in disaster response + Regional presence may allow rapid response and cultural fluency - Partiality - May pledge but not deliver funds - Slowed by bureaucracy - Slowed by competing interests or limited by regional political tensions 	<ul style="list-style-type: none"> + Knowledge of local area; + Ability to navigate bureaucracy + Policy-setting capacity + Ability to coordinate efforts - May be weakened by the event - Risk of corruption, - Risk of political agenda - May be bound by bureaucracy, competing interests, or financial constraints

II. Case Studies

The case research teams designed a database that includes fields ranging from type and focus of responders, to amounts pledged, to historical relationship with the damaged locale, among others. Appendix A provides a full list of the fields we pursued, as well as our information sources. We then populated the database for each case in question, and analyzed the data both to help quantify the magnitude and nature of the response, and to draw inferences regarding the strengths and weaknesses of the responders.

Our information regarding the size, scope and nature of the response comes from the data collected. We recognize that the data has inherent limitations. Those most pertinent to these case studies include the fact that most local institutions, though highly active, are difficult to track; the data relies predominately on English language sources; the historical record of local media coverage is weak; some information simply was not tracked; and some double-counting of financial contributions cannot be avoided due to the quality and inconsistency of the information available. On balance, these weaknesses will over-represent larger, international and institutionalized organizations. Despite these constraints, however, we attempt to give an account of the organizations that have been reported on in publicly available sites so as to get a sense of the number, range and type of responders active on the ground. The following two case studies apply the framework and database to the response in Sri Lanka after the 2004 Tsunami and to the response in Honduras after Hurricane Mitch.

Case Study 1: The 2004 Tsunami's Impact on Sri Lanka

Despite the distinctions in scale and scope of the Asian Tsunami among recent disasters, its humanitarian response offers important lessons for the aid community. This case on the tsunami's impact on Sri Lanka illuminates the challenges of humanitarian relief in the context of ongoing ethnic conflict.

Just after dawn on December 26, 2004 a 1,200km section of the earth's crust shifted beneath the Indian Ocean, releasing stored energy equivalent to more than 23,000 Hiroshima bombs.¹⁰ This raised the seafloor several meters and sent a train of giant waves rushing east and west to wreak havoc on the coasts of more than a dozen countries spread over two continents. The tsunami's impact was devastating; more than 227,000 people lost their lives and 1.7 million more were displaced.¹¹ (See Figure 1: Impact Map of the December 2004 Tsunami.)

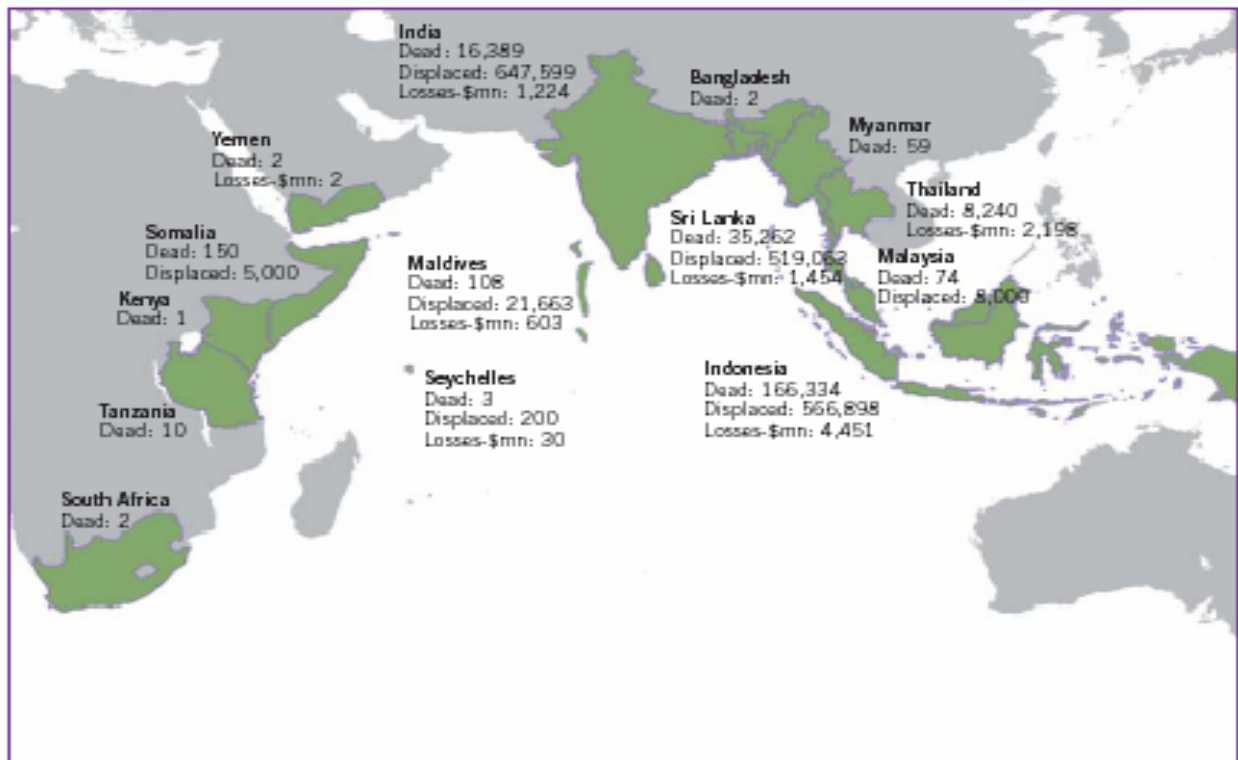
In Sri Lanka alone, the reported figure for the dead or missing surpasses 43,000 and the impact on Sri Lanka's economy has been significant. Sri Lanka is a middle-income country with grave inequities between the haves and have-nots. It is also a land fraught with ethnic tension, fueled by ethnic and religions differences between Tamil and Sinhalese inhabitants.¹²

¹⁰ The Tsunami Evaluation Coalition (TEC) Initial Findings Report (February 2006).

¹¹ TEC Synthesis Report, John Telford and John Cosgrave (July 2006).

¹² The main parties to the ongoing Tamil-Sinhalese conflict are the Sri Lankan Government and the Liberation Tigers of Tamil Eelam, (LTTE) who want to create an independent Tamil state in the north-east of the island. The resulting violence has left tens of thousands of people dead over the last two decades.

Figure 1: Impact Map of the December 2004 Tsunami



Sources: Deaths (USAID, 2005), except for Myanmar, Tanzania, Bangladesh, and Kenya (AFP, 2005), and Yemen (IRIN, 2005b).
Loss and damage: (Said et al., 2005), except for Yemen (IRIN, 2005b), and Seychelles (IRIN, 2005a).

The research for this case study took place in two stages. First, a preliminary analysis of the humanitarian response in Sri Lanka was carried out through Internet sources identifying emergency respondents. We recognize that online research has drawbacks, such as the fact that local groups may be undercounted and some of the newer groups formed after the tsunami do not have websites. Additionally, web search in English privileges those organizations whose primary language of communication is English and not the native Sinhalese or Tamil. However, given these constraints, we attempt to give an account of the organizations that have been reported on in publicly available sites so as to get a sense of the number, range and type of responders active on the ground.

Second, we conducted field research in tsunami-affected communities on the southern coast of Sri Lanka in April 2006.¹³ Through discussion groups with tsunami victims we sought to understand their perceptions of the actors involved in the relief effort. According to some, tsunami aid monies are exacerbating Sri Lanka's underlying ethnic tensions. For this reason, examining tsunami relief and recovery efforts in Sri Lanka forces emergency responders to reconsider their strategies in the context of ongoing ethnic conflict.

Our database records 478 organizations working in Sri Lanka on tsunami relief and recovery. Each organization is sorted by type, location of headquarters, mode of relief, date of formation, amount pledged to tsunami relief, and post-tsunami media coverage. The most prevalent types of organizations active in Sri Lankan tsunami relief are external NGOs (33%) and local NGOs (25%). Only a small number of organizations (2%) were formed as a response to the tsunami. These new entrants are almost entirely comprised of local NGOs.

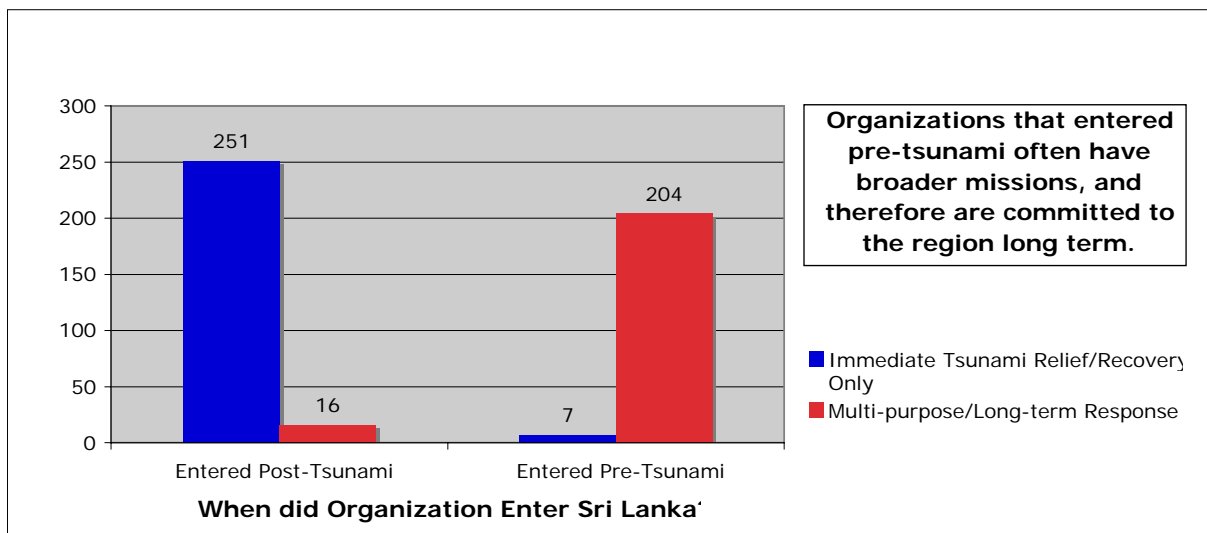
Providing social services is the dominant mode of relief: 88% of all organizations in the database list provision of social services as a focus of their effort. Moreover, more than half of all organizations focus on providing social services. Although the database includes a diverse range of organizations with varying mandates and missions, few organizations include evangelism or economic investment in their stated focus of response. In addition, only one of the external military forces lists security as a reason for its presence in Sri Lanka. All of the external

¹³ It will not be possible in all cases to conduct on-the-ground interviews and research—especially when studying historical cases. Where possible, however, it is recommended.

militaries list coordination and provision of social services, including but not limited to, distribution of relief goods, as their primary purpose.

The four key stages of disaster response are rescue, relief, recovery and reconstruction.¹⁴ Those who participate in the first stages are typically local or locally based global groups. Those who come from the outside are typically interested in the relief phase. Whereas those that have been based in Sri Lanka for some time are those primarily investing in the later stages. Slightly more than half of all organizations (54%) limit their response efforts to immediate tsunami relief and recovery. Of these, only 3% were present in Sri Lanka prior to the tsunami. (See Figure 2: Organization Entrance to Sri Lanka).

Figure 2: Organization Entrance to Sri Lanka



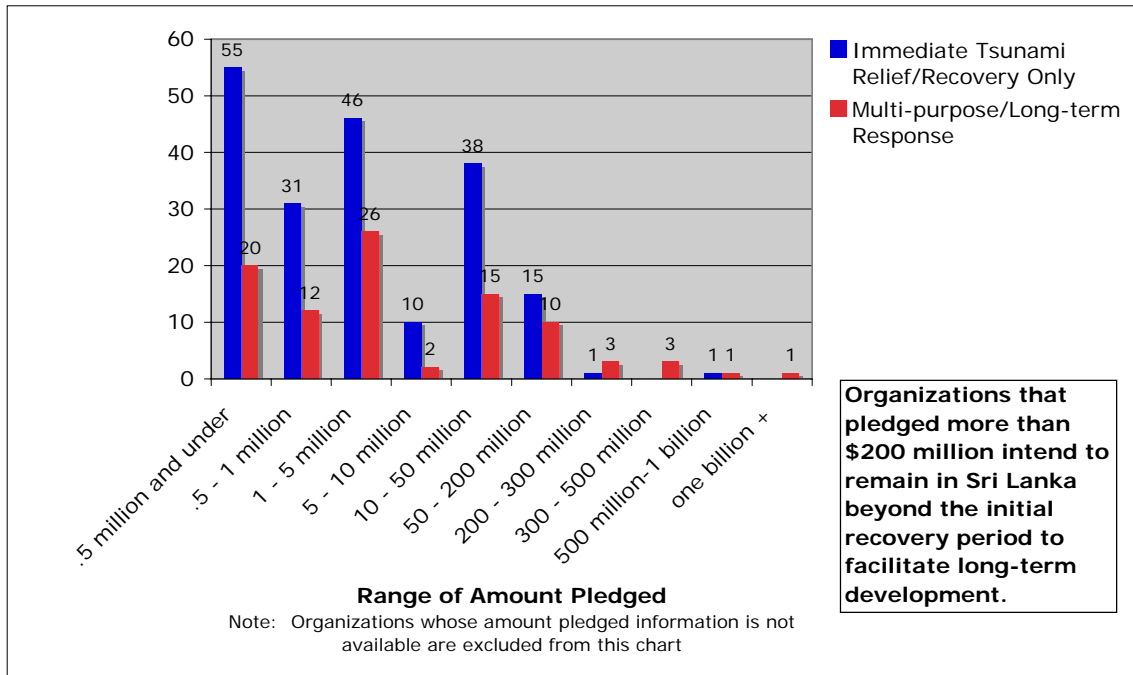
¹⁴ Pipa, Tony, “Weathering the Storm: The Role of Local Nonprofits in the Hurricane Katrina Relief Effort.” The Aspen Institute Working Paper Series, 2006, page 10, <http://www.aspeninstitute.org/atf/cf/{DEB6F227-659B-4EC8-8F84-8DF23CA704F5}/NSPPNonprofits%20and%20Katrina.pdf>.

Of the 46% of organizations that are committed to a long-term presence, 93% were already operating in the area. The vast majority of global governments and global NGOs were operating in Sri Lanka pre-tsunami and are engaged in long-term development. A minority of external NGOs (35%) and only 22% of external private corporations are committed to Sri Lanka beyond tsunami relief and recovery efforts. 54% of global corporations are engaged in long-term commitment.

Groups that plan to remain in the country have a wider range of activities that they can begin to implement as part of the “recovery” or “development” stage of the relief effort. Global NGOs, in particular, have greater ability to shape the country’s long-term development through overseeing programs that require training and implementation over many years. (See Figure 3:

Organization Commitment to Region Relative to Amount Pledged)

Figure 3: Organization Commitment to Region Relative to Amount Pledged

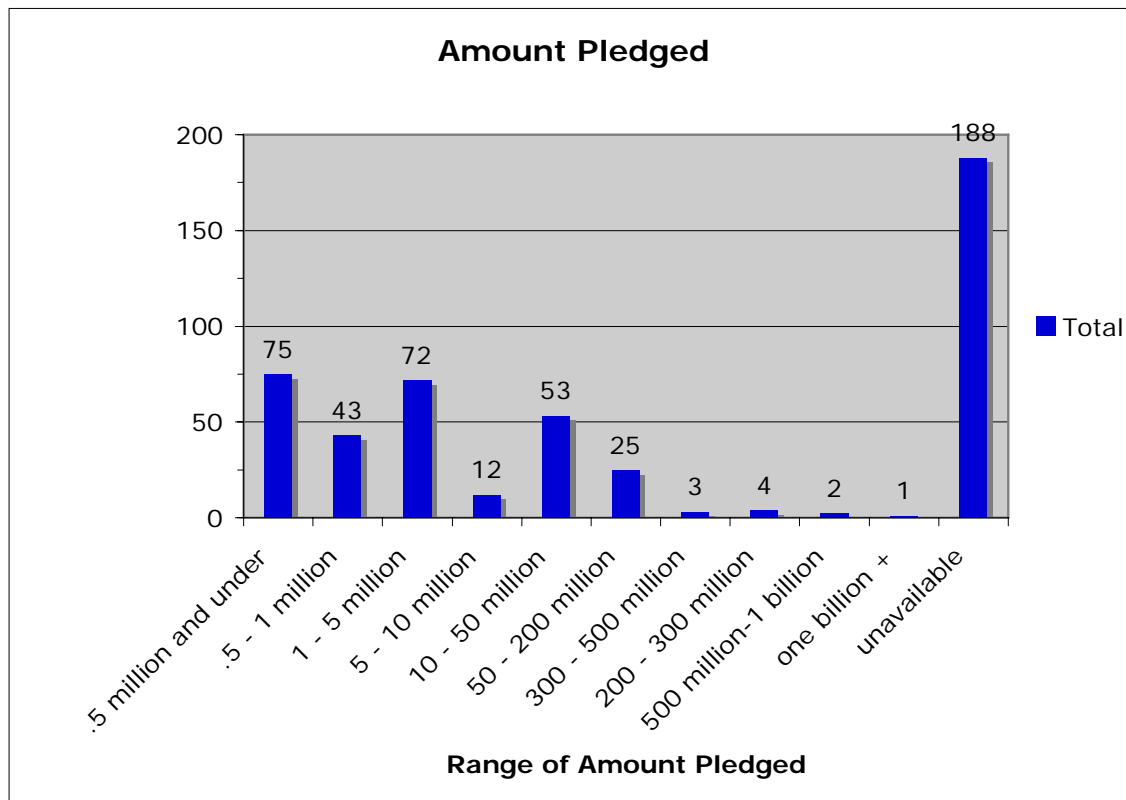


Tsunami donations need to support all phases of the disaster response—particularly the longer-term redevelopment phase. Fortunately, those responders with interests in the redevelopment predominantly received higher amounts of funds. 92% of global NGOs and 93% of global governments donated \$10 million or more, while only 8% of global private corporations donated in the same range. Financial records were unavailable online for 38% of organizations in the database, mostly locally based organizations. (See Figure 4: Amount Pledged)

The enormous influx of tsunami money into Sri Lanka has implications for the ethnic conflict. No full recovery is possible in Sri Lanka without confronting the struggle between the Sri Lankan government and LTTE. The American military is serving in a security advisory role to the Sri Lankan government. There are also donations by the Scandinavian governments in the

peace process. Nevertheless, these contributions must also be carefully coordinated and sequenced with the ongoing recovery if both streams are to be effective in the long-term.

Figure 4: Amount Pledged



U.S. Federal Government policies affected the decision of NGOs as to where in Sri Lanka to work. NGOs that have a relationship with the U.S. government felt constrained in their relief work because the LTTE is considered a terrorist organization under U.S. law. Therefore they do not want to risk the perception of aiding a terrorist organization. Groups that apply for federal funds as a source of their programs (mostly USAID funds) tended to shy away from Tamil controlled areas. This is an example of when adherence to political concerns or foreign policy

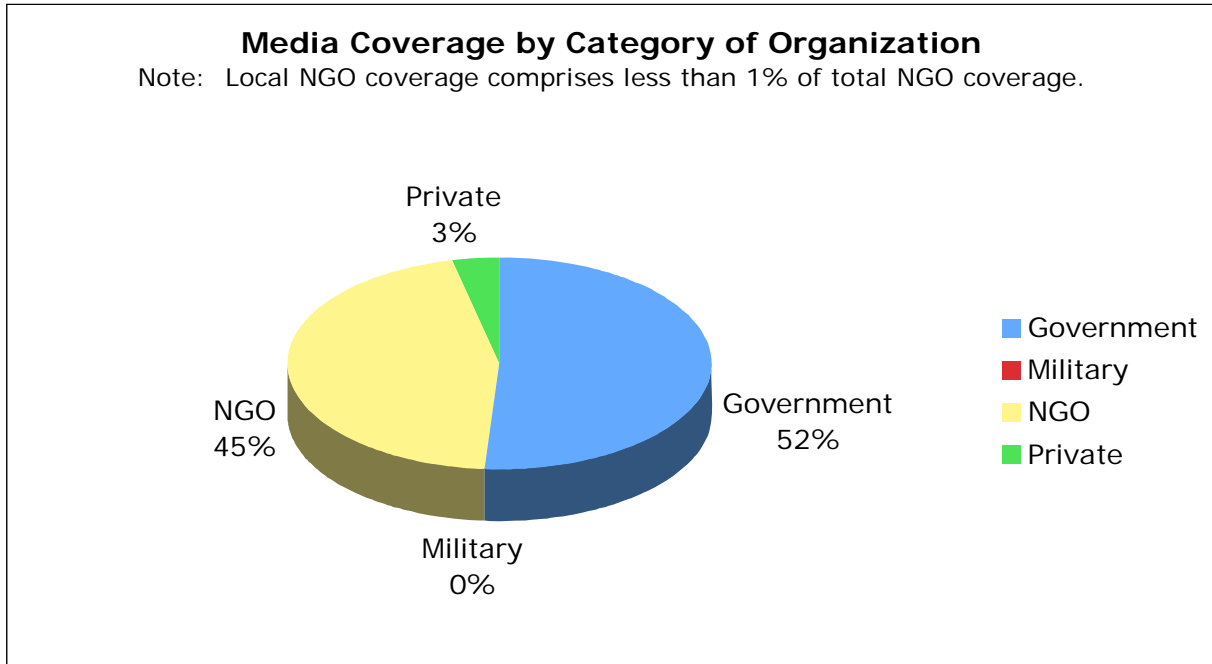
dictates emergency decision-making—even to the detriment of core humanitarian values of independence and impartiality.

More generally, external and global NGOs that accept government funding may feel constrained in their choice about where to conduct work if they are operating in countries with identified terrorist groups. Even if there is not an explicit government policy, these groups may not want to jeopardize their ability to receive government grants in current or future efforts. In disaster areas with ongoing conflict, there are additional complications. Emergency responders must create strategies to confront these complications including allegations of corruption due to lack of trust or accusations of misuse of resources to fuel the conflict. How monies are allocated among disaster-affected areas must be scrutinized and demonstrate sensitivity to the underlying ethnic strife.

Media Reports

The vast majority of media coverage concentrated upon global governments, global NGOs, and external governments. Five percent of the organizations in our database received the bulk of all media coverage. Organizations that received the least media coverage are all of local origin. Less than 1% of all media coverage focused upon local organizations, comprising 25% of organizations in the database. (See Figure 5: Media Coverage by Category of Organization; and Figure 6: Media Coverage by Location of Organizations).

Figure 5: Media Coverage by Category of Organization

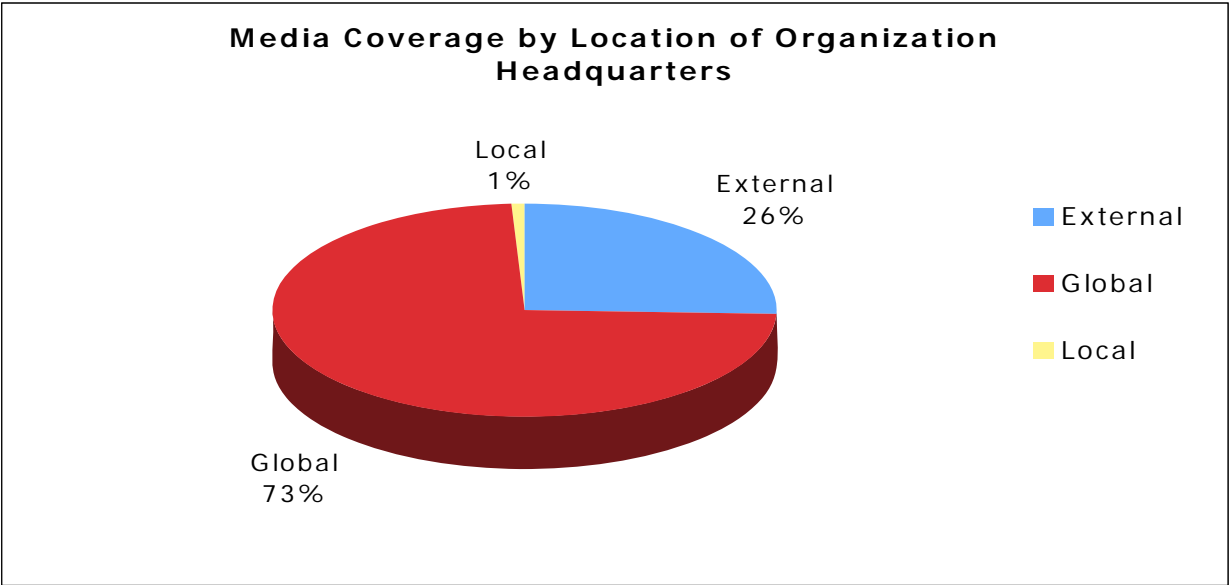


Media attention was skewed to organizations with higher amounts pledged to the relief effort. Approximately half of all media coverage targeted just five organizations: World Vision, UNICEF, Oxfam, World Bank, and CARE.

The tsunami received more media coverage in the first six weeks post-disaster than all other humanitarian emergencies combined had received in the previous year. In the immediate wake of the tsunami, the media succeeded in delivering critical information regarding the situation of the affected regions. While much of the coverage died in the ensuing months, the one-year anniversary triggered a reporting resurgence. Many of the anniversary stories were merely congratulatory messages to foreign donors where little attention was given to local responders. Such media coverage offered little analysis, reinforcing an image of the residents of the affected regions as perpetual victims.

International media sources have reported, however, on some of the inequities, challenges, and discriminatory practices taking place through the relief efforts. Local coverage has remained a reflection of governmental bias, sharing little coverage of the plight of Tamils and minority groups in the Eastern and Northern regions of the country. Moreover, each of the affected countries has limited local coverage to reports of the respective citizens. Information sharing across tsunami-affected countries through media outlets, which could have facilitated more rapid recovery, has been sparse. Mass media does not reach some of the most remote, rural areas of the affected regions. Other forms of communication, such as theatre and puppetry, have been employed in these rural areas to convey critical information.¹⁵

Figure 6: Media Coverage by Location of Organization



¹⁵ <http://www.tsunamiresponsewatch.org/trw/2005/12/23/communication-as-if-catastrophes-mattered/>
http://odin.dep.no/odinarkiv/english/bondevik_II/ud/032171-090435/dok-bn.html
<http://newton.uor.edu/departments&programs/AsianStudiesdept/tsunami.html>
<http://www.disasterwatch.net/tsunami.htm>

In an unprecedented effort to collect data that would help shape future humanitarian relief efforts, the Fritz Institute polled 2,300 recipients of tsunami aid from India, Sri Lanka, and Indonesia. Among the three nations, Sri Lankans consistently expressed the least satisfaction with their government's relief efforts.¹⁶ Sri Lankan government aid was viewed not only as slow in arrival, but also mired by bureaucracy and corruption. Most believed that corruption was rampant within the government. Communities in the Northern and Eastern regions of the country, mostly Tamil, expressed consistent frustrations regarding perceived discrimination within aid distribution. The unequal response and lack of information-sharing across communities catalyzed country-wide complaints of discrimination in government-controlled relief efforts.

While this general dissatisfaction with government-provided humanitarian aid is endemic of disasters in conflict ridden areas, the Fritz Institute does not disaggregate the data by ethnic group. Government satisfaction averages are likely to have been driven down by Tamil Hindu beneficiaries, given their ongoing conflict with the state of Sri Lanka. Further analysis of the Fritz data would allow for a more nuanced understanding of the potential effects of socio-cultural context upon ratings of responders.

Sri Lankans, like the beneficiaries in Indian and Indonesia, awarded higher ratings to international NGOs. This may reflect beneficiaries' appreciation of their perceived neutrality in providing relief services. Most Sri Lankan beneficiaries surveyed agreed that the quality and

¹⁶ "Recipient Perceptions of Aid Effectiveness: Rescue, Relief and Rehabilitation in Tsunami Affected Indonesia, India, and Sri Lanka," The Fritz Institute, 2005; <http://www.fritzinstitute.org/PDFs/findings/NineMonthReport.pdf>.

efficiency of the immediate tsunami aid provided by local organizations and individuals surpassed the later efforts of the government. Religious organizations were credited with being the second most effective provider of aid during the immediate 48 hours following the tsunami, particularly with food, water, clothing, and shelter. On the other hand, many beneficiaries conveyed anger towards NGOs who were viewed as more concerned with meeting funders' expectations than addressing the victims' needs. Members were wary of opportunism among the NGO community.¹⁷

Building upon these findings, we conducted in-depth field interviews with tsunami-affected families in Sri Lanka's Galle District.¹⁸ The interviewees were comprised of families who had moved into new permanent housing; families who are still living in temporary shelters; local individuals who are helping to oversee aid in the area; and individuals from abroad helping to oversee aid projects.

The interviews reveal that recovery after the tsunami has been slow for many families in the Galle District. Families expressed gratitude for the assistance, but also expressed a deep desire to get back to normal life as quickly as possible. This, however, has proven to be very difficult. For example, one family living on the coast before the tsunami hit lost two children in the tsunami and most of their neighbors did not survive. Now, they live in a housing project called the Salzburg Village, built by an Austrian NGO in a culturally inappropriate chalet style.

¹⁷ http://www.odi.org.uk/ALNAP/tec/pdf/Wageningen_tsunami_response_in_srilanka_20050314-.pdf
<http://www.fritzinstitute.org/PDFs/findings/NineMonthReport.pdf>;
http://www.lse.ac.uk/collections/pressAndInformationOffice/newsAndEvents/archives/2005/Tsunami_oneYearOn.htm;
<http://www.lse.ac.uk/Depts/global/Publications/HumanSecurityReport/Tsunami/Sri%20Lanka%20tsunami%20Response.pdf>

¹⁸ Sinhalese translator, Janaki Abeygunawardene, provided translation services for the field interviews.

Seventy-eight families from their community were moved to the Salzburg village six months after the tsunami. The mother has started a canteen for workers in the tea estate nearby but reports that it is hard to compete with others who have been in the area longer. The father was a fisherman but now helps selling at the canteen because they are live too far from the water to make a livelihood from fishing.

Even though life is hard for those who have received permanent housing, a major barrier to most other tsunami-affected families is the slow rebuilding of permanent housing. Many families continue to live in temporary housing, also often located far from work and schools. A family from Hikkaduwa -- the site of the train wreck that killed over 1,200 people during the tsunami— continues to wait for government approval for housing. Initially, they moved into tents provided by a local NGO, the Sarvodaya Movement, but monsoons destroyed the tents. Then, the Danish government built one-room wooden structures where they have been housed. These structures do not have water, electricity, or cooking space. They complained that Hikkaduwa community ties have begun to unravel because of uneven aid allocations within the community. This family and others expressed concern for the injustice and charges of corruption by local officials regarding disbursement of aid.

Interviewees noted a variety of active responders. The Sri Lankan Red Cross was viewed as most active. It provided in-kind goods – such as bed sheets, kitchen utensils, and towels – and continues to provide clean water for temporary housing communities. External and international NGOs were active in building temporary housing. Temples were particularly noted for their generosity. For example, Mahaindarura Nalum Pokuna Permanent Housing Project received

money from Buddhists in Los Angeles, California and used it to build thirty-nine houses in six months. Most residents are believed to live in better houses than before. It seemed that a combination of overseas funds with local monitoring and oversight, in this case by the local temple leader, was key to success. The fact that all houses were the same seemed to provide a norm of fairness to resident families.

Interviewees saw the national Sri Lankan government as slow to grant the rights to build permanent housing. Families also expressed concern about the fairness of aid allocations controlled by local government officials. Additionally, Sri Lankan government bureaucracy has stymied relief efforts by NGOs. For example, obtaining government permission for rebuilding projects has become especially difficult. In one hospital rebuilding, an external US-based NGO had to obtain 62 signatures from various government departments and ministries. In addition, the existence of eight government ministries and over one hundred international and national organizations involved in livelihood restoration activities, pose significant challenges to inter-agency cooperation.

Lessons Learned

Referring back to the case questions, the Sri Lankan case highlights the political dimension to emergency response. This dimension is particularly visible in emergency response in conflict situations like Sri Lanka, Afghanistan, or Iraq. It is also present in the context of religious or evangelical organizations that may match their emergency response decisions to pastoral

objectives. These political or religious motives can blur even-handed analysis of the potential implementing actors.

Lessons that can be learned from the tsunami's impact in Sri Lanka are important for future disasters that occur in areas with ethnic or religious tensions and strife. In these cases it is essential to have tight coordination among responders. Initial needs assessments following the disaster must understand ethnic divisions, ensuring that assistance is tailored to the needs of a particular community or communities. The use of local expertise is critical in the initial stages of information gathering and provision of immediate relief services.

Power-sharing in managing the disaster response is crucial. This could be accomplished through representation of community members from varying regions of the country on a central relief coordinating body. Individual district representatives must be respected regarding funds and relief services in their area. Regular meetings with all representatives should help to monitor progress of relief efforts. These meetings should be informed by decentralized offices responsible for information sharing. These offices should be established across affected regions, with particular attention given to ethnic balance, to ensure that respondents and community members in all areas are receiving the same information regarding aid availability and progress. Relief organization staff from outside should be trained in the history of preexisting ethnic conflict and local partners should help to ensure aid distribution does not exacerbate current tensions.

Emergency responders should coordinate information through a uniform system for monitoring and evaluation after the disaster strikes. To avoid repetition of work, mission overreach of NGOs, opportunism among respondents, and general inefficiency, this system must include a strategy to ensure relief groups are fulfilling their specific roles and communicating effectively with one another. The system should include periodic “check-ins” with community members to ensure that intended missions of respondents correspond with actual needs of victims. Given the impending exits of many external respondents, effective capacity building for local groups must be incorporated into relief efforts from the onset. One positive potential legacy of the tsunami in Sri Lanka would be strengthened local leadership providing ongoing support to disaster-affected regions as well as working together across ethnic lines to address the overarching conflict.

Case Study 2: The Response to Hurricane Mitch in Honduras

When Hurricane Mitch struck in 1998, “[i]t was called the hemisphere’s most devastating disaster of the century.”¹⁹ Indeed, it was the deadliest Atlantic hurricane since the “Great Hurricane” of 1780.²⁰ The need and response were unprecedented for the time and place, and drew upon resources from governments, NGOs, militaries and private business. Focusing on the Hurricane Mitch response in Honduras is instructive both because of the breadth of devastation the country experienced, and because the country’s history of strife and weak governance provide interesting context for that response. Indeed, while this case documents a range of response data and activities, the lessons focus on disaster response in the context of weak governance at the national level.

Hurricane Mitch ripped through Central American and the Gulf of Mexico in October of 1998. Originating as a tropical wave off of Western Africa, Mitch was classified as a hurricane southwest of Jamaica.²¹ The storm continued westward towards the Honduran coastline, strengthening as it circulated offshore, sustaining surface winds of 180 miles per hour (155 knots) for 15 hours, the third longest period in hurricane records.²² Mitch crossed Honduran land on October 29 and weakened to a tropical depression as it continued to the Guatemalan

¹⁹ Thompson, Ginger and Nazila Fathi, “For Honduras and Iran, World’s Aid Evaporated.” *The New York Times*. The New York Times Co., 11 November 2005.

²⁰ United States Dept. of Commerce. National Oceanic and Atmospheric Association. National Hurricane Center. “Preliminary Report: Hurricane Mitch. 22 October- 05 November 1998.” By Guiney, John L. and Miles B. Lawrence. 28 Jan. 1999. Revised 04 May 2000. 25 May 2006 <<http://www.nhc.noaa.gov/1998mitch.html>>

²¹ “UN Report on Damage From Hurricane Mitch.” CQ Electronic Library, CQ Historic Documents Series Online Edition, hsd98-0000037481. Originally published in *Historic Documents of 1998* (Washington: CQ Press, 1999). 25 May 2006. <<http://library.cqpress.com/historicdocuments/hsdc98-0000037481>>.

²² United States Dept. of Commerce. National Oceanic and Atmospheric Association. National Climatic Data Association. “Mitch: The Deadliest Atlantic Hurricane since 1780.” 01 July 2004. 25 May 2006. <<http://lwf.ncdc.noaa.gov/oa/reports/mitch/mitch.html>>.

border. The storm's slow advancement and heavy rainfall wreaked havoc in the region.

Hurricane Mitch then passed over the Yucatan Peninsula of Mexico and eventually terminated in the southwest region of Florida on November 4, 1998.

Hurricane Mitch killed an estimated 5,757, injured approximately 12,000 others and left more than 8,000 people missing as of 2004.²³ An estimated three million were forced to leave their homes.²⁴ The economic and physical damage were extensive. Extreme poverty and degradation of the landscape increased vulnerability for both the population and the geography.²⁵ When extensive rains hit Honduras, both human and land defenses were already low; these weak protections, as well as the delicate interdependencies of the informal economy, were easily washed away in Mitch's tide. By one report, the hurricane destroyed 70% of the nation's agricultural lands.²⁶ The World Bank summarized the damage to Honduran health, landscape and economy as follows.

Health problems included gastrointestinal infections, acute respiratory infections, dehydration, and injuries caused by the floods. Leptospirosis (spread by rodent urine), which had been virtually non-existent in the previous year, reappeared.

Agricultural output dropped dramatically, as livestock were lost or drowned, and the land was eroded, stripped of fertile soil, or covered in mud. Roads, hospitals,

²³ Telford, John and Margaret Arnold and Alberto Harth with ANSONOG, "Learning Lessons from Disaster Recovery: The Case of Honduras." *Disaster Risk Management Working Paper Series No. 8*. The World Bank, June 2004, www.worldbank.org/hazards.

²⁴ "UN Report on Damage From Hurricane Mitch."

²⁵ Central American Country Management Unit and Latin American and Caribbean Region, "Memorandum of the President of the International Development Association and the International Finance Corporation to the Executive Directors on a Country Assistance Strategy of the World Bank Group For the Republic of Honduras." The World Bank. Report No. 20072 HO, January 27, 2000.

²⁶ Raghavan, Sudarsan, "For Hondurans, a Struggle to Retrieve Relief Supplies." *The Philadelphia Enquirer*. KRTBN Knight-Ridder Tribune Business News, 12 November 1998

even prisons were damaged or destroyed on a massive scale. The loss to the economy has been estimated at some US\$4 billion.²⁷

Honduras gained its independence from Spain in 1821. It then witnessed a combination of weak, party-controlled governments with strong military influence throughout the 19th century and much of the 20th. Following a coup d'état in 1963, Honduras remained under complete military control for nearly twenty years until a new constitution was established in 1982 with US support.²⁸ (See Figure 7: Map of Honduras²⁹)

Figure 7: Map of Honduras



²⁷ Telford et al, page 8.

²⁸ "Honduras" *A Dictionary of Contemporary World History*. Jan Palmowski. Oxford University Press, 2003. Oxford Reference Online. Oxford University Press. Boston College Libraries. 29 August 2006 <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t46.e1056>>

²⁹ http://www.lonelyplanet.com/mapshells/central_america/honduras/honduras.htm

United States presence in Honduras extended throughout the eighties, and by the middle of the decade the country served as a full base for US-backed contras fighting the Sandinista government in Nicaragua. Then, under a series of presidents elected in the late 1980s and 1990s, Honduras denounced US influence,³⁰ reduced Honduran military power, abolished compulsory armed service, and began addressing past human rights abuses. However, the election of Ricardo Maduro Joest (2002-2006) from the conservative PN has resulted in increased security measures in order to crack down on crime. Some claim that the amplification of military and police power during Joest's term has caused a return to street killings and frequent human rights abuses.³¹

Honduras is one of the poorest countries in Central America.³² One fourth of its population lives below the poverty line and 28% of the workforce unemployed.³³ The wealthiest 10% of Hondurans receive 44% of the income, while the poorest 10% receive 0.5%.³⁴ Agriculture remains the main source of income in the country, despite the presence of only 15% arable land.³⁵ Following Hurricane Mitch, nine members of the Paris Club forgave Honduran bilateral

³⁰ *Ibid*

³¹ "Honduras" *A-Z of Countries of the World*. Peter Stalker. Oxford University Press 2004. *Oxford Reference Online*. Oxford University Press. Boston College Libraries. 29 August 2006
<<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t42.e93>>

³² Honduras is widely considered to be the original "banana republic." American author O. Henry coined the phrase in his book *Cabbages and Kings* in reference to a fictional republic widely believed to be modeled after Honduras. Two US multi-nationals in particular, Standard Fruit (under the Dole brand name) and Tela Railroad Company (under the Chiquita brand name) dominated the Honduran economy, as well as its politics and infrastructure (*see* Stalker). Palmowski reports that by the 1920s, 90% of all country exports consisted of bananas cultivated by the three largest US companies in the region. Hurricane Mitch devastated company holdings at the end of the 1990s, destroying more than 70% of cultivatable land. Yet even with much of their land destroyed, two companies continue to collectively employ 15% of the country's workforce.

³³ "Honduras." *The New York Times Almanac 2004*.

³⁴ Stalker.

³⁵ http://travel2.nytimes.com/2004/07/15/travel/NYT_ALMANAC_WORLD_HONDURAS.html?ex=1156910400&en=958cf29032889544&ei=5070

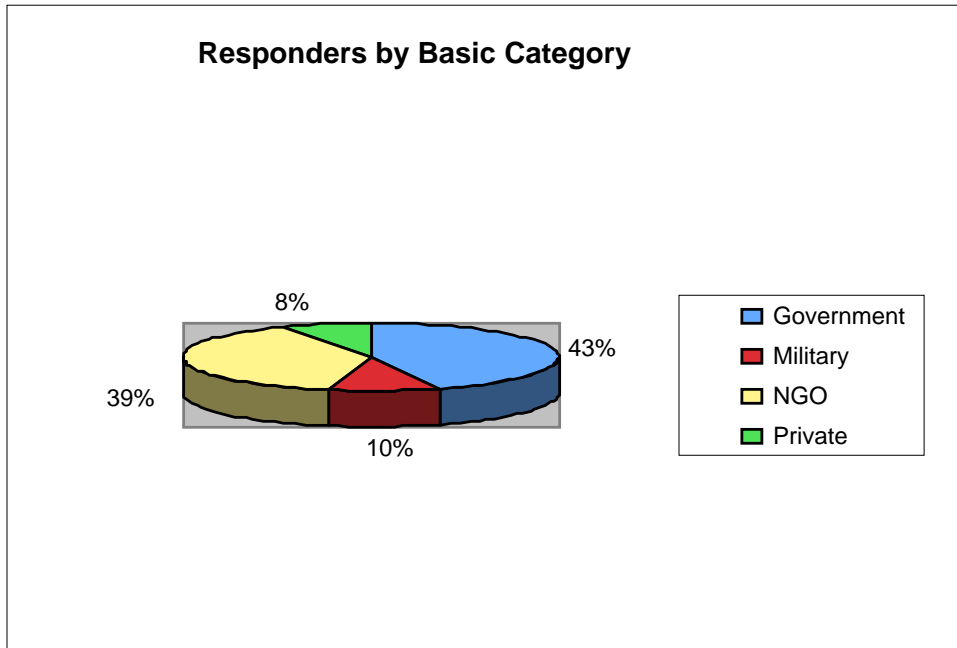
debt, totaling \$150 million. In 2005, Honduras met the Heavily Indebted Poor Countries (HIPC) debt initiative standards and was awarded \$556 million of additional debt relief by the IMF and World Bank.³⁶

Our database covers 155 institutions active in the response to Hurricane Mitch in Honduras. These organizations spread their activities across rescue, relief, recovery and rebuilding. Each organization is sorted by type, location of headquarters, mode of relief, date of formation, amount pledged to hurricane relief, and post-hurricane media coverage. The dominant categories of organization involved in the response were governmental bodies (43%) and NGOs (39%). Military presence (10%) and private, for-profit responders (8%) round out the count. (See Figure 8: Responders by Category)

The three most prevalent types of organizations were 1) external governments (23%); 2) external NGOs (17%); and 3) global governments (17%). (See Figure 9: Responders by Type) It is important to note that the availability of government resources and their stipulated uses can bolster NGO response or create incentives for NGOs to work in new areas.

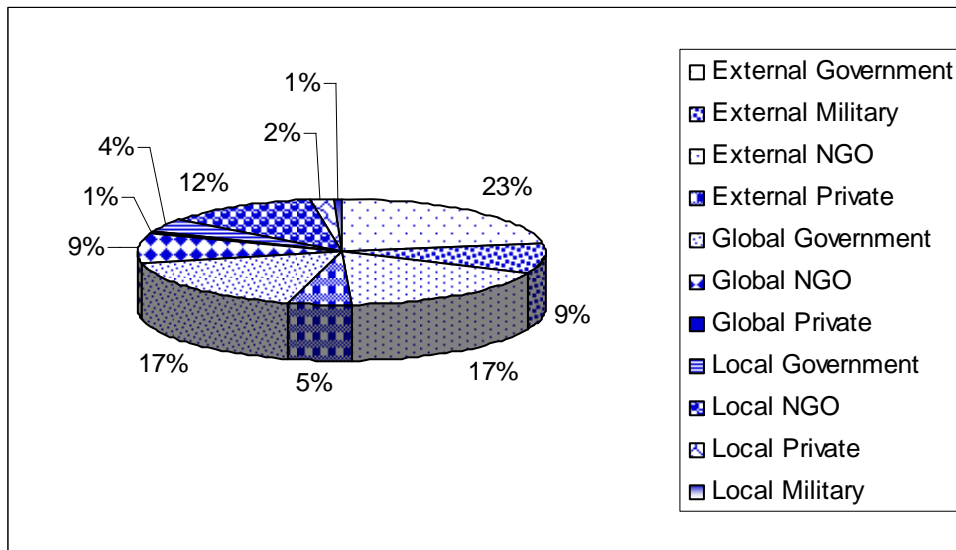
³⁶ International Monetary Fund Press Release: April 5, 2005.
<http://www.imf.org/external/np/sec/pr/2005/pr0576.htm> 29 August 2006.

Figure 8: Responders by Category



Of the 88% of our database entries for which date of founding was available, 135 of the 137

Figure 9: Responders by Type



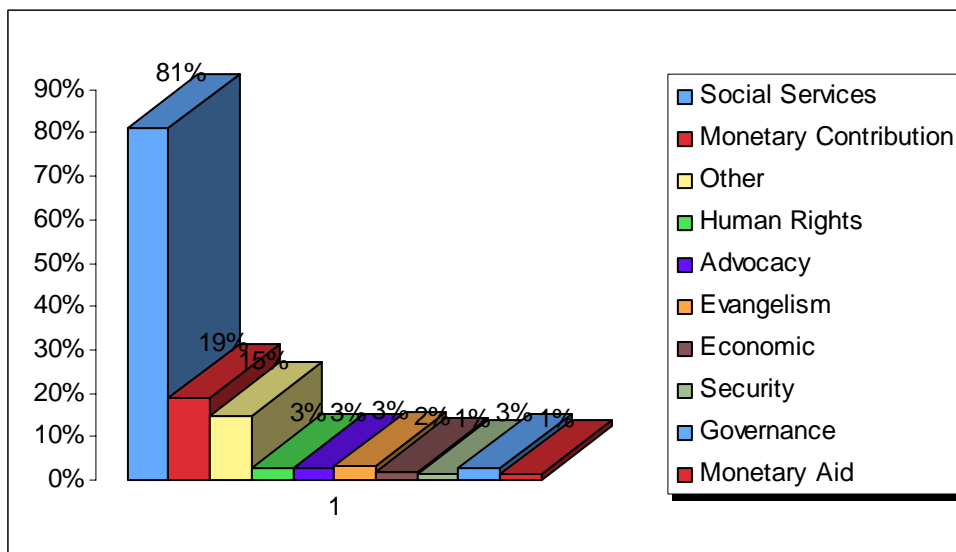
were founded prior to Hurricane Mitch.³⁷ That means any entrepreneurial start-ups, or organizations established specifically for responding to Mitch, were a) small; b) non-existent; and/or c) predominantly local. Of the 155 organizations in our data set, data regarding whether the organization had been present in Honduras prior to the hurricane were available for 93 (60%). Of those, organizations entering Honduras after the disaster outnumbered those already present by nearly two to one (60 versus 33), reinforcing that the greatest number of responders was external. Numbers are not necessarily, however, concomitant with impact. These numbers do not tell us whether those on the ground prior to the hurricane did more work or less work—or did that work better or worse—than their counterparts who entered later. Indeed, data later on suggest that those already on the ground played a critical role.

Ninety-eight of the organizations involved in the Mitch response (63%) stated publicly whether they considered themselves to be engaged in a multi-purpose/long-term response, or just engaged in immediate disaster relief and recovery. Of those 98, 43 claimed to be multi-purpose and long-term (44%) and 55 were focused on immediate relief and recovery (56%). Notably, not a single private or military responder expressed an interest in Honduran development in the long term. It makes sense that external militaries would not see themselves as engaging in the long-term reconstruction of a foreign, sovereign state. Private corporations that do business in Honduras, on the other hand, would seem to have a vested interest in the long-term redevelopment of the country, even well beyond their own production capacity.

³⁷ Of the two organizations in our database created post-Mitch, one was the National Emergency Committee of Honduras (CONE), designed solely to coordinate the government's ministries involved in the response, rather than to do any on-the-ground work.

NGOs often market themselves as having a comparative advantage because they invest in communities in multiple ways, and over the long term. Of those who expressed a multi-purpose, long-term response, 70% were NGOs. External governments also can invest in the long-term, but a range of forces—from limited resources, to impatient citizens, to issues of sovereignty—understandably create pressure to invest in the more immediate needs and then step out. The data support these ideas.

Figure 10: Focus



Providing social services was by far the dominant mode of relief in Honduras. “Social Services” encompasses a broad range of activities such as search and rescue missions, food security projects, health initiatives, and resettlement plans. The next most common mode of relief in Honduras was to provide financial support: Monetary Contribution. (See Figure 10: Focus) Given the high percentage of external responders, it is not surprising that Monetary

Contributions would rank high. While most organizations listed multiple modes of relief activity, the vast majority (84%) were limited to Social Services, Monetary Contributions, or “Other.”³⁸

Recall that data regarding presence in Honduras pre- or post-disaster were available for 93 of the organizations in the database, with 33 present before the hurricane, and 60 after. Of the 33 present in Honduras prior to the hurricane, 94% (31) claimed Social Services as a focus. Of the 60 that entered post-hurricane, only 72% (43) focused on Social Services. One possible explanation for the difference is that organizations already on the ground in Honduras had capacity and on-the-ground networks more suited to social services. Given Honduras’ political and military history, it is likely this strong social service presence formed by necessity, to supplement what the government itself could not provide.

There are differences between organizations that had been previously operating in Honduras and those who entered strictly to respond to the hurricane. That virtually all of the organizations already in country focused on social services, suggests that those organizations with a standing investment in Honduras emphasized welfare infrastructure. Those entering post-hurricane were more than three times more likely to give direct monetary contributions—often associated with immediate charity, or the relief stage of response, rather than with longer-term investment.

Those who had found a need, or niche, to build capacity on the ground before the disaster struck, were more invested in Honduras’ long-term infrastructure and stability.

³⁸ The areas of focus are standardized across a range of cases that will be developed in this research project. For Honduras, the bulk of the organizations with Other as a focus were doing civil defense assessment and/or emergency coordination.

Indeed, it is possible that the Hurricane Mitch response in Honduras highlights an often inverse relationship between a weak state and a strong religious presence. This tension between the offsetting roles of church and state in providing for the needs of a citizenry has historical precedent.³⁹ Honduras had its own tradition of churches stepping in to provide social services, and to do so with moral legitimacy, where the government could not. Consider this quote from Christian Aid, a faith-based agency involved in the Mitch response.

Then, a month on from Mitch, with over 200,000 people still living in temporary shelters, the government turned to the Honduran churches to take over the task of caring for them. 'Faced with the widespread image of corruption, [the Honduran government] turned to the only institution in the country with any moral capital....' Churches were already full of refugees. They had ready-made local networks to deliver relief even in the smallest, most isolated communities.⁴⁰

Examples in the American context bear the same indications.⁴¹ Comparison across a range of disaster responses could demonstrate that churches and church-related organizations have a comparative advantage in disaster response where the official governance structures are weak.

Hurricane Mitch frequently features as an example of successful use of external military forces to provide humanitarian response:

³⁹ Hamburger, Philip, *The Separation of Church and State*. Cambridge, MA: Harvard University Press, 2002: Chapter 1.

⁴⁰ *In Debt to Disaster: What Happened to Honduras after Hurricane Mitch*. Report by Christian Aid, October, 1999. Chapter entitled "How Fragile We Are..." <http://www.christian-aid.org.uk/indepth/9910inde/indebt1.htm>

⁴¹ Pipa.

Mitch was considered an unparalleled natural disaster back then, and like the killer tsunamis, it stirred an enormous response. Mexico established a special air route to the affected areas and sent airplanes, helicopters and military ships to transport medicine and food. Canadian air force crews shuttled daily to deliver aid. The United States promised more money than it had for any previous disaster- some \$900 million- and sent a military relief force of a scale not seen since the Berlin airlift 50 years earlier.⁴²

External militaries from fourteen countries were involved in the disaster response after the hurricane. Of those, only the United States reported a regular military presence in the country prior to the hurricane. Indeed, Hurricane Mitch was the first time Japanese soldiers were deployed outside Japan in disaster relief since World War II.⁴³

Financial Contributions

Financial contributions in response to Hurricane Mitch “exceeded the total committed to natural disasters by all donors for the previous five years.”⁴⁴ Because we ultimately are interested in comparative advantage in disaster response, our research considered the financial contributions only of organizations that also had some kind of response presence on the ground. We made one exception, for contributions made by external governments.⁴⁵ What follows represents the best

⁴² Thompson and Fathi .

⁴³ LaFranchi, Howard. “After the floods, a tide of help The world responds to Central America's hurricane Mitch disaster as if to the family next door.” The Christian Science Monitor. 25 November 1998.

⁴⁴ “Global Humanitarian Assistance 2000.” UK: The Inter-Agency Standing Committee, May 2000, <http://www.globalhumanitarianassistance.org/2000.htm>

⁴⁵ Arguments for the exception include a) that contributions from external governments frequently form such a significant portion of total giving to natural disasters that leaving them out would skew the analysis too much; and b)

available information regarding discreet financial contributions. While the research methodology took precautions to avoid double-counting where possible, readers should note that it is impossible to thoroughly “scrub” these numbers of any double counting. According to Jed Hoffman of Catholic Relief Services, who supervised Catholic Relief Services’ Mitch response as Regional Director for Latin America and the Caribbean:

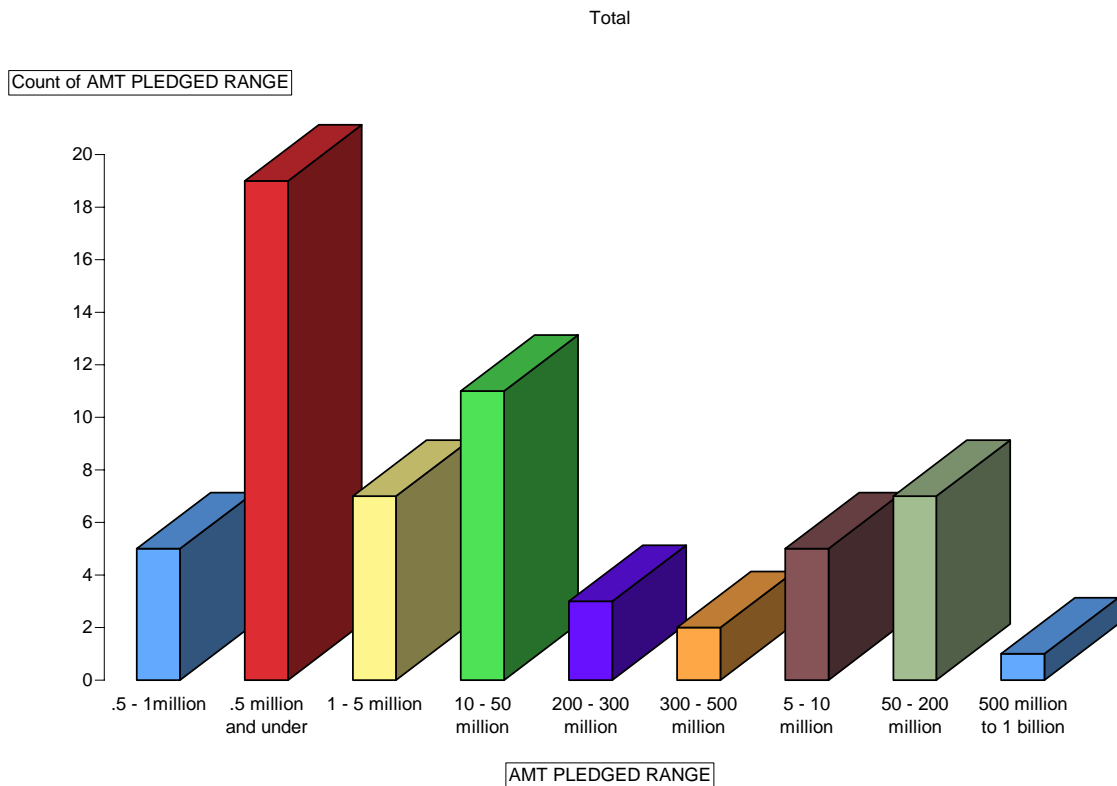
The fact, for example, that many local NGOs are funded by international NGOs, external governments, and even ‘global governments’ presents a practical problem, say, in tracking resources, and often distorts investment or other data which purport to reflect intent or nature. There is a lot of double-reporting as resources come down through, for example, the US Agency for International Development, CRS or CARE, to a local NGO or, alternatively, from the European Union to a local government, to a CRS or CARE, to a local NGO or community organization.

Indeed, one improvement in the gathering of disaster response data and information would be common methods for financial reporting that would help eliminate double counting and give a clearer accounting of the financial flows associated with short- and long-term disaster response. Given that caveat, however, an analysis of the data as available can help reveal both trends and orders of magnitude among different kinds of financial responders.

that this would be especially true for Hurricane Mitch given that it was, until then, a watershed moment in international giving to disaster relief.

Governments, NGOs and private corporations with disaster response presence in Honduras after Hurricane Mitch pledged approximately \$2.7 billion in monetary contributions. According to our research, Governments gave 87% of that, or \$2.4 billion.⁴⁶ According to the Embassy of the United States of America in Honduras, “The total amount of financial assistance pledged to Honduras for post-Mitch reconstruction and transformation from both bilateral and multilateral sources at the Stockholm Consultative Group Meeting in May 1999 was USD 2.7 billion.”⁴⁷ Therefore, we know the \$2.7 billion total does not over-count. It is a conservative number.

Figure 11: Total Pledges by Gift Range



⁴⁶ This number does not capture dollar amounts dedicated exclusively to debt relief—a key piece of the financial relief package for Honduras.

⁴⁷ (http://tegucigalpa.usembassy.gov/english/mission/sections/eco_12.htm).

Within our database, the average amount pledged was roughly \$46 million. The median gift amount was just under \$6 million. NGOs made up 39% of responders to the Hurricane Mitch disaster, and governments comprised 43%. Yet, according to this data, governments accounted for 87% of financial contributions, while NGOs constituted about 5% of direct financial contributions. Figure 11 plots total pledges by gift range.

Governments seem to have some comparative advantage in mobilizing financial resources for disaster response. Nevertheless, it is well demonstrated that delivering on amounts pledged is not guaranteed. After making a \$900 million pledge to Honduras for relief and reconstruction, for example, the US Congress limited its aid to the first two years after the hurricane. Whatever was not spent after those first two years would not be spent.⁴⁸

Note that this data does not include dollars pledged by private corporations that responded after Hurricane Mitch. Recall, too, that by design it does not capture contributions made by external or global corporations with no on-the-ground presence in the disaster response. We found one global company, eight external corporations and three local corporations involved in the response. A handful claimed that they provided monetary contributions. Closer examination revealed, however, that their investments actually focused either on write-downs, or on regaining production capacity. The two for-profit corporations for which we found the write-down and production capacity investment numbers were Chiquita Brands, International and the Dole Fruit Company.

⁴⁸ Thompson and Fathi.

Pledge patterns between governments and NGOs remain consistent when divided by those investing in multi-purpose, long-term efforts and those investing in immediate relief. Of the 98 organizations that self-classified, only governments and NGOs had publicly stated pledge amounts that actually counted as monetary contributions. Among those doing multi-purpose, long-term investment, governments gave \$1.9 billion, while NGOs gave \$127 million. Among those investing in immediate response and relief, governments gave \$55 million, while NGOs gave \$11.5 million.

Media Reports

Hurricane Mitch occurred in 1998, a time when though the internet had emerged, the 24-hour news cycle did not yet truly exist, and print media remained the primary source of coverage.

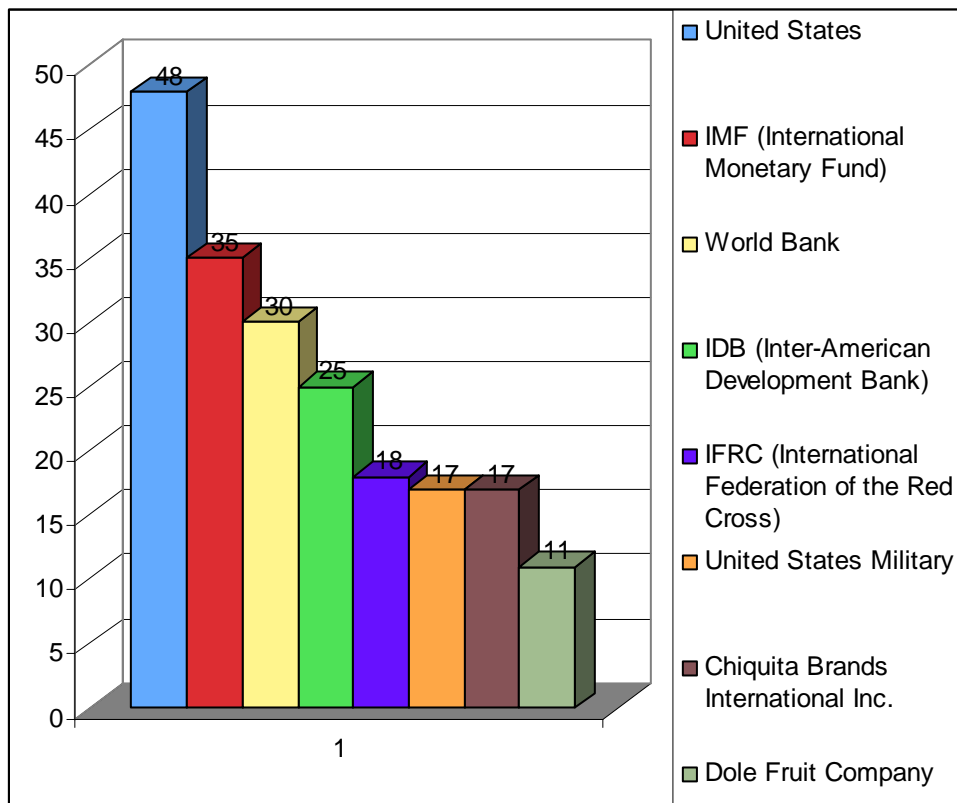
Therefore, it is likely that internet-based research will have missed some media coverage.

Combined use of Lexis-Nexis and Factiva, however, does allow for a reasonable accounting of coverage among major international and regional news sources.

When considering Hurricane Mitch responders by their origin – global, external or local – we found that, in all cases, the majority of responders did not receive media coverage. Fully 57% of global responders in our database received no coverage, 60% of external responders, and 79% of local responders. Note that local responders were less likely to get international or regional media coverage than their external and global counterparts.

Of the 155 organizations in the database, only 58 (37%) received any media hits at all. Nine responders received 60% of those hits. When considered by type of organization – government, military, NGO, private – the majority of governments, militaries and NGOs responding to Hurricane Mitch received no media coverage. Conversely, 75% of private responders did receive media coverage. Both external fruit companies received high media hits for their activities. The United States was the only external government to receive substantial media coverage. Figure 12 illustrates the media hits received by the most active responders.

Figure 12: Media Hits Received by the Top Nine Responders



Lessons Learned

Disaster responders know well that man-made factors can turn a natural disaster into a human disaster. Poor infrastructure, poverty, weak governments, environmental degradation, etc., all contribute. Indeed, there are strong ties between human vulnerability, the strength of the government, and its ability to provide for the needs of its citizenry. The Hurricane Mitch disaster suggests that perhaps we can make another tie to the gaps that cause human vulnerability. Perhaps those very gaps also help determine who is in place to respond, the extent to which they can respond, and whether they have a comparative advantage in that response.

External governments gave several times more to the disaster response, but NGOs—local, external and global—were closer to parity in actual on-the-ground response. The Honduran people had been dependent upon outside support for a long time already, so that NGO infrastructure was in place. Hurricane Mitch was not an “entrepreneurial disaster.”

Religious organizations had a strong presence in Honduras prior to Hurricane Mitch. Churches there were strong responders in part because they had to build social service expertise long before the hurricane struck. Consider also that the US government and military were key players in the disaster response partly because Honduras’ tumultuous history—and the US’s role in it—had led to a pre-existing presence and commitment to Honduran stability.

Consider all of this, and then paint the landscape. Honduras had a weak central government. The US military and government had long used its presence and finances to help keep the

country stable. Presumably due at least in part to the US presence, other external militaries were not involved with Honduras, arrived after the hurricane, and engaged only in immediate disaster response.⁴⁹ A strong network of churches provided moral credibility and social service capacity the state itself lacked. Private companies were few and, arguably based at least in part on the historically exploitative relationship between commerce, the Honduran government, and the Honduran people, emphasized reconstruction of their own production capacity. NGOs at all levels already were engaged in Honduras, and demonstrated a clear long-term commitment. Finally, social service was the clearly dominant mode of disaster response.

When considered in total, the data does in fact suggest that weakness of the Honduran state, combined with sufficient openness to allow outside involvement and the emergence of some kind of civil society left gaps in the infrastructure that led to human vulnerability. This vulnerability created more demand for other types of institutions to build the capacity to fill those gaps and drew those kinds of responders in before Hurricane Mitch ever struck. Finally, the existing vulnerability helped to determine what kinds of responders might have a comparative advantage in this particular response. Recent history abounds with examples of weak states with precedent for intervention and support by NGOs, governments and militaries that are devastated by a natural disaster.

⁴⁹ This observation is not intended to suggest that other kinds of external military intervention should have happened, or that external militaries, once arrived, should have made themselves at home. It simply goes to what kinds of responders might have a comparative advantage in the given environment.

III. Conclusions

Looking at these two cases through the theoretical framework we outlined offers both some general and some more specific lessons. Beginning with general lessons, better disaster response means saving more lives and restoring opportunities more fully for the survivors. During a disaster response, policymakers must simultaneously balance competing needs which include early action to save lives, transparency to determine aid based on demonstrable needs, and continued attention to under-funded, ongoing, or ignored crises.

Both case studies demonstrate the importance of addressing vulnerability before a disaster strikes. Inevitably, an emergency response in a fragile or conflict ridden state is handicapped by challenges that existed long before the water or the drought or the earthquake strikes. We believe that by better categorizing the strengths of actors that wish to be engaged in emergency response, there may be a way to encourage the most suitable prospects to get involved proactively with disaster prevention. We recognize that this is a long-term process.

Additionally, the realpolitik of international aid cannot be ignored. Political factors at work can be seen in the way emergency grants often run through NGOs instead of local government actors who have “misbehaved” in one way or another; or rewarding good economic and political behavior through grants; or even development financing linked to a country’s fiscal and other policy performances. There has been concern voiced over wealthy, non-democratic countries

undermining international development policy with 'rogue' aid programs.⁵⁰ Political intent tied to aid cannot be taken lightly. During emergency response there is often less politicization of aid in the relief stages. Political concerns grow over time as relief efforts turn to long term recovery. An examination of tied aid in aftermath of emergency response may provide another avenue for furthering this work.

Regarding more specific lessons, recall the four questions we posed for the case studies.

- Do different kinds of emergency responders have demonstrated advantages?
- Does the political, social and economic context in which the disaster happened drive a preferred set of responders?
- Does that change depending on the stage of disaster response?
- Do the lessons from the case suggest that planning, or at least responding after the fact, with the concept of comparative advantage in mind would improve the effectiveness of a response?

Different kinds of actors did, indeed, offer different kinds of advantages in both cases.

Governments proved to be strong sources of cash. Military bodies were able to mobilize quickly and function with strong command and control. NGOs often had local knowledge and networks, and for-profit responders were able to marshal resources quickly and rely on their own the-ground infrastructure.

⁵⁰ Refer to debate surrounding China's offer of \$9 billion to rebuild Nigeria's corrupt, inefficient rail network, without any string attached – notably lacking anti-corruption measures that World Bank had demanded. Naím, Moisés “Help Not Wanted,” *New York Times*, Op-Ed, p. 29, February 15, 2007.

These advantages did not always hold true, however. For example, the nature of the existing ethnic conflict in Sri Lanka ruled out being able to take advantage of a military mobilization in the same way it could have happened in a country not engaged in active conflict when the Asian tsunami struck. Similarly, one might have anticipated that private corporations would support long-term redevelopment following Hurricane Mitch to rebuild their consumer base. Their lack of interest, at first perplexing, makes more sense in light of the economic context where powerful corporations continued to view Honduras as a “banana republic” or a damaged export hub. The two cases reinforce the idea that the context in which the disaster occurs matters.

The opening of this paper asserts the hypothesis of comparative advantage. Pursuing the case studies has suggested an additional set of hypotheses about what situational factors can affect the relative advantage of NGOs, governments, military bodies and for-profit actors. First, it seems that the strength of the in-country government matters. Its openness to a vibrant, or at least functioning civil society prior to the disaster also has an effect on the effectiveness of the disaster response. Second, the presence of armed conflict changes the nature of who can respond, when and how. Third, the extent to which corrupt practices –by governments or for-profit actors, for example – have already weakened an area’s environmental, social, and economic infrastructure will also help determine which types of organizations have are most effective, and when.

While not as obvious, it appears that comparative advantage also did, in fact, shift in these cases depending on the stage of the disaster response. Military mobilization was important in Honduras early on, for example, but the nonprofit organizations that already had programs

focusing on the long-term welfare of Hondurans were critical as the response continued.

External governments were essential for mobilizing cash and financial commitments during the rescue phase. As the response wore on, however, their staying power weakened, and a good portion of the pledged money never materialized.

To continue to explore these emerging hypotheses, it is our hope that interested researchers and practitioners could apply our case development methodology to other disasters. We welcome and encourage these additional cases. They not only will test further the hypotheses, but also add significantly to the codified data available regarding key disaster responses. We were struck in our research by how rarely one could find information consistently reported across a disaster response. The absence of comparable data was exacerbated when one looked across types of responders or over time, during the various stages of a response. Such information is essential to understanding both what has happened, and what should happen. We suggest that two cases to pursue next would be the 2000 earthquake in Gujarat, India and the 2005 hurricanes Katrina and Rita in the United States.

That being said, we believe that the two cases presented above provide support for the idea that comparative advantage exists across types of disaster responders. Furthermore, by categorizing types of responders, disaster planners in governments, militaries, NGOs and the for-profit sector may begin to consider how to leverage comparative advantages in their work. We also believe that embracing “all comers,” and pro-actively attempting to sequence and coordinate them in order to maximize their strengths, behooves greater, more deliberate and more regular cross-sector preparation and collaboration.

Appendix A: Definitions for Database Fields

The table below provides definitions for the database fields employed in the case studies.

Field Title	Field Definition	Sub-Categories
<i>Organization/Entity</i>	The name of the organization or entity	
<i>Type/Classification</i> ⁵¹	The combination of the “ Nature ” of the actor and the “ Scope and Origin ” (Please refer to Tables 1 and 2 in the text). For example, “Global NGO,” “Local Government,” or “External Military” ⁵²	NGOs <ul style="list-style-type: none"> • Global • External • Local⁵³ Government <ul style="list-style-type: none"> • Global (i.e. UN) • External • Local Military <ul style="list-style-type: none"> • Global • External • Local Corporate/Private <ul style="list-style-type: none"> • Global • External • Local
<i>Location of Headquarters</i>	Name of headquarters country	
<i>Stated Focus of Response</i> ⁵⁴	Organization’s purpose in participating in tsunami relief efforts, and/or target of the organization’s response	Security Evangelism Human Rights Advocacy Economic/Investment Monetary Contribution ⁵⁵ Social Services <ul style="list-style-type: none"> • Education • Health • Development • Basic needs (food, water, shelter) • Resettlement • Other⁵⁶

⁵¹ In cases where various country offices of global and external NGOs contributed to a relief effort, we collapsed them under the umbrella organization’s name.

⁵² For purposes of data analysis, it is useful to add two fields that break out Nature from Origin.

⁵³ University contributions (i.e. University of Sri Lanka) fall under the category of local NGO.

⁵⁴ The organization’s stated focus of response may not capture its full reason for engagement in the disaster or country in question.

<i>Organization Formation</i>	Date of organization's formation relative to the date of the disaster	Formed pre-disaster Formed post-disaster
<i>Organization Presence</i>	History of the organization's presence in the target country relative to the date of the disaster	Entered/present pre-disaster Entered/present post-disaster
<i>Organization Commitment</i> ⁵⁷	Extent of the organization's programmatic commitment to the country in question	Immediate disaster relief/recovery Multi-purpose/long-term response
<i>Number of Media Hits</i>	Media coverage of the organization regarding the disaster in question	Major news sources Regional news sources
<i>Amount Pledged</i> ⁵⁸	Total amount of money pledged to disaster efforts	
<i>Sources</i> ⁵⁹	The consistent set of sources used to collect the data	Organizational presence, formation and commitment Media Hits Amount Pledged

⁵⁵ Monetary Contribution captures organizations that both had some presence on the ground and donated funds. The dollar amount donated might or might not be available. For the Hurricane Mitch case, we tracked, but did not use in the final analysis, "Monetary Aid," to capture entities with known contributions but no known presence on the ground.

⁵⁶ Researchers would be advised to keep a list of possible categories under "other" for each disaster case.

⁵⁷ When a disaster strikes a region rather than a particular country or local, it can be difficult to gather data about an organization's presence and response to the disaster in a single or specific country. Where gleaning such information was impossible, researchers should err on the side of inclusion, capturing contribution, commitment and presence in the region as a whole, unless it is specifically known that the organization did not respond to the disaster in the country in question.

⁵⁸ In some cases, organizations in the database pledged support publicly, but the actual dollar amount was not available. In those cases, the organizations were counted but we did not attempt to estimate their actual financial contributions under Total Amount Pledged.

⁵⁹ Where multiple sources were necessary to gather data across the fields, researchers selected the fewest number of sources with the greatest overlap of data recorded. For example, sources for media hits were limited to Factiva and Lexis/Nexis.

Appendix B
Field interviews in Sri Lanka

1. Ana Hammock-Isen, Field Officer, Catholic Relief Services, Colombo, Sri Lanka
2. Chief Radiologist, Karapitiya National Teaching Hospital in Galle District
3. Dr. C.D. Pathirage, Medical Officer of Maternal and Child Health for the Galle District
4. Dr. Risintha, National Epidemiologist, Colombo, Sri Lanka
5. Dr. Shelton Perera, Deputy Director, Karapitiya National Teaching Hospital in Galle District.
6. Eric Woods, DFID Consultant on Early Childhood Education, seconded to Save the Children International to provide strategy for their work in Sri Lanka.
7. Foreman, Chinese Red Cross Permanent Housing Construction in Galle
8. Hussein Ibrahim, Country Director for International Medical Corps, No. 15 Greenland Avenue, Colombo-05, Sri Lanka
9. P.H. Champa Gangiani, Temporary Housing Camp, Makadugoda, Thalpe, Sri Lanka
10. Mr. and Mrs. Gunasena Koggala Galle, Singha Deewara Gama, Permanent Housing
11. Mr. And Mrs. W. Udulani, Hikkaduwa, South Pereliya Temporary Housing Camp
12. Mrs. Wimala de Silva, Sri Lankan Diaspora Living in Sydney, Australia
13. Mrs. W. M. Pramawate Temporary Housing Camp, Kapuwatta, Thalpe Sri Lanka
14. Tsunami survivors, 102C Siyamabalagaha Wetta—Sea Breeze Tent Camp
15. Tsunami survivors, Hikkaduwa, North Pereliya Temporary Housing Camp
16. Tsunami survivors, Mahaindarura Nalum Pokuna Permanent Housing Given by Los Angeles, United States Buddhist Community
17. Tsunami survivors, Makalanduwa Permanent Housing
18. Tsunami survivors, Mirihana Watta and Kataluwa Permanent Housing
19. Tsunami survivors, Petagawata Temporary Housing Provided by the Government
20. Tsunami survivors, Salzburg Village, Permanent Housing Provided by the Austrians