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RESPONDING TO DISASTER: NEGLECTED DIMENSIONS OF PREPAREDNESS AND THEIR CONSEQUENCES

KEY POINTS

- Disaster responders must develop communications strategies that clearly identify both what is and is not known in a timely way, and provide, if at all possible, a basis for risk assessment by individuals, communities, national authorities and international contributors.
- Responders must search for ways to provide urgently needed public goods without undermining public authority.
- Responders must address the psychological as well as the physical needs of victims.
- Greater steps must be taken to improve global and regional disaster preparedness.

INTRODUCTION

The international community has become adept at responding to disasters. When a disaster hits — whether natural or as the consequence of human activity — humanitarian relief can be on the ground almost anywhere in the world in less than 24 hours. The international community has developed an elaborate network to respond to catastrophes involving the collaboration of international agencies, humanitarian relief organizations, national governments and concerned individuals. The collective ability to help save lives quickly is unprecedented in human history; the problem remains, however, that one never knows in advance where disaster will strike, what the immediate needs of those affected will be or what conditions the first responders will confront. Given these uncertainties, how can disaster-response planners best position themselves to take action?

It is natural, inevitable and desirable to look to past disasters in order to improve responses to future ones, but lesson-drawing, in such cases, is rarely systematic, as responses to disasters are, by their very nature, typically ad hoc.

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The **Japan Futures Initiative (JFI)** is a network of scholars and practitioners dedicated to the promotion of the policy-relevant social scientific study of Japan, with an eye toward better understanding challenges that Japan, Canada, and other OECD countries face in the future, and to the identification of opportunities to enhance Canada-Japan cooperation. On December 5, 2011, a distinguished panel of experts convened at the Embassy of Canada in Tokyo for the purpose of drawing lessons for first responders from the experiences of the Haiti earthquake of January 12, 2010 and the East Japan earthquake and tsunami of March 11, 2011. The audio files are available at: www.cigionline.org/articles/2011/12/responding-disaster-lessons-learned-haiti-and-japan-earthquakes.



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This is true both for countries prone to disaster and international responders. Ad hoc lesson-drawing is problematic primarily because, while no two disasters are ever precisely the same, the natural tendency to draw lessons from the most recent case generally results in changes to policies and procedures suited only to a case of that kind. We have all heard the aphorism that “Generals are always preparing to fight the last war”; similarly, governments generally prepare to respond to the last disaster.

This policy brief is based primarily on the findings of a distinguished panel of experts who met at the Embassy of Canada in Tokyo on December 5, 2011 to draw lessons for first responders from the experiences of the January 2010 earthquake in Haiti and the March 2011 earthquake and tsunami in Japan. This brief’s primary purpose is to leverage a comparison of responses to the two disasters in order to identify neglected dimensions of preparedness. Moreover, the brief also aims to demonstrate a technique for systematizing **response preparedness updating**, an exercise that yields more than just useful “lessons about lessons.” Disasters test the collective ability to coordinate humanitarian relief efforts, but they are also political tests for the affected communities. Some societies are better able to withstand and rebound from catastrophe than others; some are more resilient than others. The question to ask is why is this so?

The international community’s disaster responses to Haiti and Japan reveal that effective reaction to natural disasters has both technical and political components. A successful response requires not just the rapid mobilization of supplies and personnel, but sensitivity to the levels of economic development, the local political capacity and the social cohesion of the affected communities. Successful response also requires that due

attention be given to psychological and physical needs of not only the victims, but also their fellow citizens and diaspora.

HAITI AND TŌHOKU: INCOMMENSURABLE CRISES?

The natural disasters that struck Japan and Haiti were highly dissimilar, as were the responses. With a magnitude of 9.0 on the Richter scale, the Great East Japan Earthquake was the fourth largest on record. It shook the Tōhoku region with lateral tremors three times the acceleration due to gravity, and released total energy equivalent to 600 million Hiroshima A-bombs. At magnitude 7.0, the Haiti earthquake was large but not unusual, had a peak acceleration of only 0.5 g, and released only 1/1,000th as much energy. The Tōhoku disaster was also multi-dimensional. The earthquake itself was, in some respects, the least problematic dimension; far more deadly was the tsunami it triggered and far more challenging still was the management of the Fukushima nuclear crisis caused by the tsunami. In Haiti, however, the earthquake damage alone was the issue, yet the Haiti earthquake was far deadlier. A precise death toll will never be known, but estimates range from almost 50,000 to more than 300,000.

A key reason that Haiti was affected so much more than Japan was its relatively low level of disaster preparedness (not to be confused with response preparedness). Japan was in a much better position to deal with a major seismic event not only because it experiences them more often and has the economic resources to afford sophisticated warning systems, cutting-edge safety systems and strict building codes (which it can also afford to enforce), but also because it enjoys crucial advantages in literacy, education,



Crew recovers earthquake survivor, Port-au-Prince. (UN Photo by Marco Dormino)

social cohesion and norm compliance. Tellingly — and remarkably, as far as much of the rest of the world was concerned — Japan experienced no looting or other mass anti-social behaviour even in the hardest hit regions at the time of peak emergency. Moreover, Japan's national governance structures were largely unaffected by the earthquake and tsunami, enabling public authorities to respond. In contrast, the majority

of the government ministries in Haiti collapsed, and many crucial personnel — both Haitian and international — died, crushed in the rubble. Most of the response to Haiti was international, whereas Japan, a wealthy, developed country with ample domestic capacity, responded largely with its own resources.

What might we possibly learn from a comparison of such different cases? Unless responders only ever plan to operate in a well-prepared or ill-prepared context, they must be ready to operate in both. Even when they do expect to operate only in one kind of context, the specific features of a disaster may render much of their planning moot. Fungibility and adaptability are crucial attributes of a disaster response strategy. By attempting to draw lessons jointly from dissimilar cases, it is possible to identify generally neglected tasks and context-independent challenges that responders should be especially concerned to address in their contingency planning.

Put another way, disaster response planning should hedge the context bet.

RESPONSE PREPAREDNESS UPDATING: AN ANALYTICAL FRAME

Haiti and Tōhoku provide a number of useful examples for figuring out how to hedge the context bet. By comparing responses to these widely dissimilar cases, it can be observed whether or not patterns emerge. A good place to begin is by asking four questions that help to identify the gaps in expectations and performance in each disaster response:

- What could have been expected to go well and did?
- What could have been expected to go well but went badly?
- What could have been expected to go badly and did?
- What could have been expected to go badly but went well?

TABLE 1: DISASTER RESPONSE EXPECTATIONS AND PERFORMANCE*

HAITI		Performance		JAPAN		Performance	
		+	-			+	-
Expectation	+	Vertical coordination (international forces)	Public communications (GOH and international forces)	Expectation	+	Vertical coordination (SDF)	Public communications (GOJ, TEPCO)
	-	Sea supply	Air and land supply		-	Horizontal coordination (SDF and USFJ)	Nuclear containment

*Acronyms: GOH — Government of Haiti; GOJ — Government of Japan; SDF — Japan Self-Defense Forces; TEPCO — Tokyo Electric Power Company; USFJ — US Forces Japan

In both cases, the vertical coordination among responding forces worked well, as indeed it should for any properly trained professional military. Moreover, in both cases public communications fell short of expectations, even accounting for the fact that people always crave more and better information than is typically available in a disaster. The shortfall in Haiti was less from a lack of technical capacity to gather and disseminate information than it was the faulty prioritization and slower-than-necessary coordination between domestic and international actors. In Japan, the failure of both the Japanese central government and the Tokyo Electric Power Company (TEPCO) — the operator of the stricken Fukushima Daiichi nuclear power plant — to communicate effectively with the public was, in contrast, primarily a result of their unwillingness to admit uncertainty and error. In both cases, the public wanted an honest account of what the authorities did and did not know, and in both cases, this was not made available throughout the disaster.

In the immediate aftermath of these disasters, there were tasks that responders did not expect would go well. In some cases they were pleasantly surprised, while in other cases their fears were unpleasantly confirmed. Examples of pleasant surprises were, in Haiti, the speed and effectiveness with which international responders staged supplies by sea. Haiti only had a few good-quality deepwater ports and the best among them (at Port-au-Prince) was heavily damaged. In the face of such challenges, however, on-the-fly innovation, particularly at Jacmel, worked remarkably well. In contrast, the delivery of supplies by land and air routes was frustratingly (but predictably) slow. Haiti had only one runway capable of handling heavy aircraft and road links to the Dominican Republic, a source of incoming supplies, were few and of low quality.

In the case of Japan, a task that went surprisingly well was the coordination between the US and Japanese forces for “Operation Tomodachi.” While the two



From left: Andrew S. Thompson, Makoto Iokobe and David A. Welch. (Photo courtesy of Embassy of Canada to Japan)

allies are accustomed to operational integration in traditional security tasks, there was neither a history of, nor planning for, integrated operations in disaster response. Nevertheless, traditional military operational integration “spilled over” into timely and effective burden sharing and coordination, particularly with respect to monitoring and prioritizing response activities. A task that went poorly was TEPCO’s attempt to bring the Fukushima Daiichi nuclear plant under control and contain the release of radiation. This went predictably poorly quite simply because the necessary equipment (particularly functioning power generators for backup cooling systems) was unavailable.

WHAT COULD AND COULD NOT BE HELPED?

There is no point worrying about the things that can be expected to go well and do, or the things that can be expected to go badly and do. As long as certain

standards of recruitment and training are maintained, everything that can reasonably be hoped is being done to ensure the integrity of the chain of command and the professional discharge of allocated tasks. If there is only one major runway and few passable roads into a disaster zone, there is no prospect of building more in the hours and days immediately following a disaster. Surprises, however, are crucial clues. Unpleasant surprises point to things in need of attention; pleasant surprises point to things that can be potentially leveraged. Pleasant and unpleasant surprises that are evident in two highly dissimilar cases provide particularly valuable clues for response preparedness updating.

SPECIFIC LESSONS FROM THE HAITI-JAPAN COMPARISON

Several specific lessons emerge from a detailed examination of the Haiti and Japan cases. Four, in particular, are identified below:



Port in Soma, Japan, devastated by Tsunami. (UN Photo by Evan Schneider)

The importance of a communications strategy that clearly identifies in a timely way both what is and is not known should not be underestimated. Disaster response is not merely a technical exercise of matching material supplies to material demands; it is also an exercise in maintaining public confidence in the responders, whether they are domestic authorities in the case of Japan, or international authorities in the case of Haiti. The public's confidence — and, by extension, the public's willingness to comply with authorities' advice or directives — can be undermined by insufficiently frequent communication or by communication that misstates decision makers' confidence in their own information and judgment. In both Haiti and Japan, domestic and international audiences craved, and would have responded positively to, frequent briefings by authorities clarifying their impressions about the state of affairs on the ground, the basis for those beliefs, the level of confidence in what they believed to be true, and any crucial information that they had not yet managed to acquire. One of the things audiences — individuals, communities, the nation as a whole and international contributors — craved most was intelligible and useful information that they could use to assess risk. Disaster-response communications strategies should include explicit risk-assessment protocols.

International and civil society actors must face the challenge of providing public goods without undermining local public authority. Public confidence and compliance require the provision of good-quality information and tangible supplies and services; however, it is important that international or civil society actors not overshadow public authorities, including local actors who are closest to the disaster, in this regard. If they do, the consequences for local self-respect, morale and public engagement can be considerable. In Haiti, this challenge was illustrated

by the very public incapacitation of the Haitian state, the visibly high-handed (if operationally necessary) takeover of the functions of public authority by international actors (particularly the United States) and the well-meaning but largely uncoordinated (and occasionally ham-handed) initiatives of international non-governmental organizations and other civil society actors. Collectively, these actors left an impression of violated Haitian sovereignty and neo-colonial humiliation. In Japan, the failure of both public authorities and TEPCO to provide timely, accurate accounting of information led international and civil society actors to attempt to fill the breach, in many cases providing information or analysis directly contradicting Japanese officials. While perhaps less damaging to morale and national self-esteem than the international takeover of relief efforts in Haiti, this nevertheless complicated Japanese authorities' efforts to maintain public trust. In both cases, mechanisms for enabling domestic authorities to claim credit for the provision of goods would have been extremely valuable.

Disaster responders must acknowledge the importance of addressing psychological as well as physical needs. Responders are understandably concerned to ensure the timely and effective delivery of food, water, clothing, blankets, shelter, and medical supplies and services. Both cases, however, illustrated the importance of providing comfort and counselling, not only for victims but also for responders themselves. Fortunately, the mental health challenges in disaster zones are now garnering sustained attention from analysts and policy makers alike. Addressing these challenges must be integrated into first-responder contingency planning.

Global and regional disaster preparedness must be improved. Disaster responders can only use the tools that are available to them at the time of need. But if Haiti and Japan tell us anything, it is that disaster response is easier

to manage when disaster preparedness is high. Many aspects of disaster preparedness are entirely dependent upon domestic resources and domestic initiative, but in all cases — though of course, particularly in cases involving disasters in developing countries that lack the domestic capacity — the international community can lay the groundwork for more effective disaster response.

Among the many common lessons of Haiti and Japan is the value of international coordination prior to the disaster. In both cases, offers of international assistance poured in and thus the level of assistance greatly exceeded the (damaged) capacity of the affected areas to absorb it. What the international community did not provide in either case was a pre-planned division of labour and mechanisms of coordination, particularly with local state and non-state actors; instead, these emerged organically, on-the-fly. While it is impossible to know the opportunity cost involved, it is clear that pre-planning would have reduced friction among actors and it is plausible to suggest that such planning would have enhanced the speed and efficiency of relief delivery.

In Haiti, friction and lack of coordination in both state-to-state interactions and state/civil society interactions were observed, owing to this lack of international pre-planning and coordination. The United States, for example, seized control of air traffic operations in Port-au-Prince, prioritizing inbound US flights, much to the consternation of the French, whose planes circled while waiting to land; stories of non-governmental organizations and international actors working entirely independently of each other, and occasionally at cross-purposes, also abound. These issues were less acute in the case of Japan, where domestic authorities set the terms and conditions of international assistance. Nevertheless, the lack of pre-planning still resulted in unnecessary grievances: Japan rebuffed offers of aid

from Russia, for example, not because historical or ongoing bilateral tensions made them unwelcome (as the Russians surmised), but because they could not physically be accommodated at the time.

In both cases, local officials and non-state actors were excluded from decision-making processes. The result was a rise in the public's disillusionment and distrust toward both the state and international actors. Consequently, the respective relief efforts, although well-intentioned, undermined the social contract between governments and their citizens. Future disaster response planning — including the initial humanitarian response and short- to long-term reconstruction phases — must include provisions for the participation of municipal authorities and domestic civil society leaders and organizations, not just the national and international players.

CONCLUSION

National governments and international organizations have developed sophisticated coordination mechanisms that allow for the timely and efficient mobilization of relief. Still, more can — and needs — to be done to improve relief operations and mitigate the damage caused by disasters. Greater attention must be paid to disaster preparedness, privileging open communication, the physical and mental well-being of victims and inclusive decision making. Otherwise, international responders risk alienating the very people they are trying to assist, something that could lead to a less-than-optimal execution at best, and a complete breakdown of the response plan at worst.

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CIGI was founded in 2001 by Jim Balsillie, then co-CEO of Research In Motion, and collaborates with and gratefully acknowledges support from a number of strategic partners, in particular the Government of Canada and the Government of Ontario.

Le CIGI a été fondé en 2001 par Jim Balsillie, qui était alors co-chef de la direction de Research In Motion. Il collabore avec de nombreux partenaires stratégiques et exprime sa reconnaissance du soutien reçu de ceux-ci, notamment de l'appui reçu du gouvernement du Canada et de celui du gouvernement de l'Ontario.

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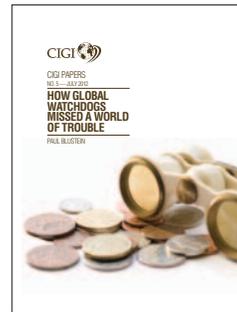
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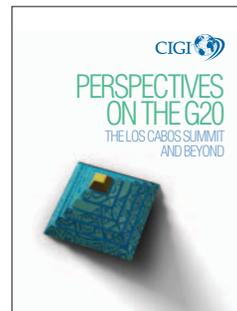
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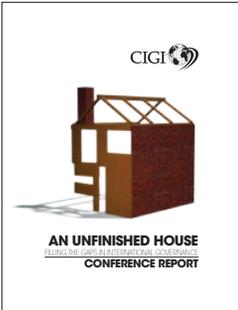


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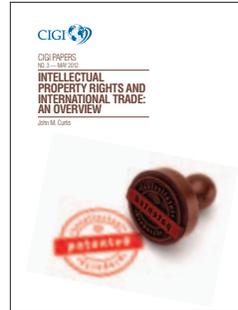
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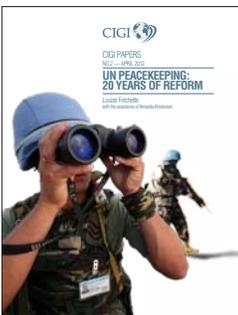
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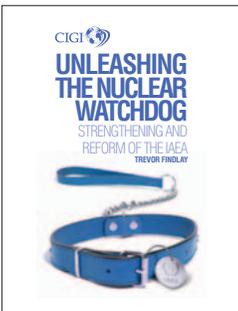
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