BACKGROUNDER

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# Weathering the Worst-case Scenario

By Meredith Lilly

# Executive Summary


- Following a natural disaster, the road to recovery presents considerable communication and co-ordination challenges.
- Though the traditional conception of disaster aid emphasizes the role of government, large, public, centralized initiatives have repeatedly proven ineffective.
- The reason these centralized initiatives fail is not unique to the particular agency or crisis. It is inherent in the bureaucratic structure of the organizations. It is symptomatic of larger communication and co-ordination issues.
- Supporting and propagating decentralized, community-based disaster preparedness is essential for ensuring successful recovery. At its root, rebuilding is an individual enterprise.


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Over the past few months, we have witnessed enormous destruction in the wake of natural disasters. According to the Geneva-based Internal Displacement Monitoring Centre, around 42-million people were displaced worldwide by natural disasters in 2010.[1] Tornados, famines, tsunamis, fires and earthquakes are a fixture of the evening news, devastating communities and inspiring donations and volunteerism from onlookers. Every natural disaster draws a predictable reaction: there is compassion for those affected; there are stories of heroism from those stirred to act; and there is criticism of government responses.

Government bureaucracies are personnel- and resource-rich heavy-weights, but the nature of their decision-making process makes it difficult for them to act effectively. Though centralized disaster-recovery efforts are well-meaning, rebuilding is by nature an individual enterprise. Churches, neighbourhood associations and small companies have the advantage of specialized knowledge acquired through day-to-day operation and the immeasurable motivation of their own self-preservation.

Although we cannot control natural disasters, we can control our responses by preparing for known risks and by increasing our understanding of past crises.[2] Communication, low-level leadership and a renewed emphasis from government and media on the importance of bottom-up rebuilding are crucial in facilitating disaster recovery. Disaster relief is most successful when government and non-governmental organizations (NGOs) communicate with one another and act in a way that does not impede the grassroots efforts that are often the most-effective first responders.

## Centralized Decision-Making and "Bureaucratic Bungling"

In 2005, Hurricane Katrina touched down along the U.S. Gulf Coast, caused billions of dollars in damages and killed nearly 2,000 people.[3] By every measure, New Orleans was unprepared. Though it had always been a high-risk region for hurricanes, it lacked the proper physical barriers such as levees and floodwalls to keep the city safe. When authorities warned at-risk residents of the oncoming hurricane, pre-existing socio-economic conditions were not adequately considered, and this resulted in conflicting evacuation orders and instructions that assumed access to private vehicles in very low-income neighbourhoods.

Yet, city planning and infrastructure did not attract the bulk of criticisms. Instead, it was the "bureaucratic bungling" of the Federal Emergency Management Agency (FEMA) that caused the greatest upset. Confusing regulations and insufficient communication paralyzed relief efforts, while conflicting guidelines created crippling uncertainty for the would-be rescuers who chose to heed them.[4] Though the federal government appropriated $94.8-billion to flood recovery, the distribution of funds was such that few people received the help promised to them.

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FEMA micromanaged payouts and tightly controlled the volunteers. It chose a highly centralized approach that discounted outside knowledge and imposed an inflexible model of response on a diverse population: "Officials at all levels seemed to be waiting for the disaster to fit their plans, rather than planning and building scalable capacities to meet whatever Mother Nature threw at them."[5]

The problems that Hurricane Katrina revealed are not unique to FEMA. They are expected and anticipated in all heavily bureaucratized agencies. F.A Hayek wrote a brilliant analysis of the problems inherent in centralized planning. In his 1945 essay "The Use of Knowledge in Society," he argued that the need of knowledge organizations like FEMA to respond to crises "never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge …."[6]

This essential knowledge cannot be communicated statistically, is dispersed over a multitude of individuals and is often undervalued. Consider the example of failed evacuation attempts after the 1997 flood in Manitoba. Many rural residents did not care to co-operate with government orders, because they did not trust the authorities. They saw government failure to be the primary cause of danger, and determined that leaving their property unattended would expose them to more risk than enduring the flood.[7]

Attitudes, opinions and conventions change the way people behave and are largely inaccessible to outside actors. In cases where neighbourhoods fail to mobilize, it is rarely because of complete ignorance. More often, it is resistance to the government's methods of communication. Decentralized planning by neighbourhood associations and community organizations makes better use of conventional knowledge, and they are therefore more-effective communicators.

A more dramatic illustration of the importance of decentralized knowledge is found in Somalia. The 2011 Somalian famine is a prime example of how some "natural" disasters are not very natural. The reoccurring drought in the horn of Africa is only partially to blame for the crisis. The primary cause of the famine is the brutal reign of insurgent groups, particularly al-Shabab, that have denied food and other aid to the starving masses. The famine is a crime, purposefully created and consciously perpetuated.[8/9]

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Even in such desperate situations, however, those in the trenches deliver the most-effective aid. While governments have their hands tied by the risk that their aid will end up funding al-Shabab, NGOs like the Red Cross have the freedom to station long-term aid workers in the region. Because of their familiarity with local people, these workers have been better able to deliver aid to those who need it most, complying with local customs to win the people's trust and set up pipelines to remote regions.[10] Though outside organizations like the UN have ample resources, they simply do not have the access necessary to deliver the goods to their intended recipients, resulting in trucks of food sitting idle for days. In violent, lawless cases like mob-ruled Somalia, local, independent organizations are crucial.[11]

Naturally, limited knowledge is not unique to government. Every person and organization, regardless of size or structure, can only ever know so much. That said, when it comes to disaster responses, there are two essential differences between private and public enterprise. The first is market sensitivity. Hard budget constraints motivate companies to learn from past disasters and to act quickly to protect their interests. The second is flexibility. Without market indicators, public bureaucracies rely upon procedures and codes of conduct to ensure that bureaucrats behave in the desired way. These control mechanisms slow the decision-making process.

Russel Sobel and Peter Leeson argue that the bureaucratic system of control creates a "knowledge wedge" between bureaucratic decision-makers and the world around them. In other words, *"Unavoidable bureaucracy inherent to government management creates a separation between what might be called 'private knowledge' of disaster and 'political knowledge' of the same disaster."*[12]

For example, "for political actors charged with relieving disaster, no disaster exists until the president, who is reached in the final stage of the bureaucratic procedure, has officially declared it."[13] This "knowledge wedge" is part of the reason FEMA-coordinated rescuers were so late to arrive on the scene.[14] The complexity of the processes used in bureaucratic decision-making means that centralized disaster-response organizations create many of the communication problems they are meant to solve.

Another term for this "knowledge wedge" is "silo building," where "each agency is so busy with its own agenda" that it "cannot see beyond its own limited parameters."[15] "Silo building" is the term used to describe disaster relief efforts in rural Manitoba. In 1997, an unusually severe flood soaked farmers around the Red River. Flooding is common in Manitoba, and flood-plain farming is nothing new (the plains tend to be fertile, flat areas of land perfectly suited for agriculture save for the high risk of drowning one's crop), yet there seems to be little progress in managing the inevitable.

Once again, the problem is in the insulated complexity of the decision-making process. Sajjad Ahmad and Slobodan Simonovic note that "in many cases, responsibility for identifying and constructing flood control structures, flood forecasting, and operation of flood control structures are carried out by separate organizations with limited interaction."[16] In other words, to avoid disaster, Manitoba's flood-management plan relies on the ability of several public agencies to communicate not just with the outside world, but also with each other. Like all good bureaucracies, they have each developed agendas so watertight that knowledge is stymied.

The Red River floods raise another interesting point about communication: When communicating with the public, distinctions matter. The practice of referring to the statistical likelihood of flooding in terms of years, i.e., the popular practice of calling the 1997 flood a "three-hundred year flood" instead of a flood with a .03 per cent chance of reoccurring is misleading and gives a false sense of certainty to predicted weather patterns.

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## Red Tape and Government Mismanagement

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Mismanagement characterizes the disaster responses from centralized, bureaucratic agencies. Hard budget constraints mean that individuals and independent organizations manage their resources more carefully than their public counterparts do. This is true even for non-profits, as the quality of their work determines the number of donations they are able to attract. As noted by Sobel and Leeson, "Individuals are simply not as careful with other people's resources as they are with their own."[17]

For governments, there is no easy way to ensure that funds will be used responsibly once they are dispersed. As Daniel Rothschild (2007) notes, "Because of legitimate fears that money will be squandered, mismanaged, or lost to fraud, the money sits unused."[18] Rothschild found that two years after Hurricane Katrina, only a small portion of the appropriated funds had been spent, and the Department of Housing and Urban Development had failed "even [to] *allocate* 15 per cent of its Katrina-specific budget, much less disperse it."[19]

The bureaucrats often wasted the aid that did reach the ground. Beyond the supplies that were purposefully turned away because FEMA was unaware of the level of need in affected areas, skilled workers were underutilized and donations were not coordinated.[20] For example, more than a thousand fire fighters were sent to New Orleans expecting to relieve the exhausted local crews. Instead, they went to work as "community-relations officers" who handed out fliers and distributed FEMA's phone number.[21] At other times, communication completely broke down. In a *New York Times* article from 2005, Dr. Ross Judice describes an incident where "unable to find out when helicopters would land to pick up critically ill patients at the Superdome, [I] walked outside and discovered that two helicopters donated by an oil services company had been waiting in the parking lot."[22]

# Grassroots Disaster Responses in Action

Thankfully, where government failed, grassroots initiatives thrived.[23] In 1998, eastern Ontario and southern Quebec were hit with one of the most brutal ice storms on record. The storm wiped out power for 3.6-million people, led to 25 deaths and cost an estimated $3-billion in damages.[24] Though it could have been much worse, the storm revealed a lack of preparedness. Kerry et al. (1999) wrote that "of the 350 municipalities in Quebec that experienced prolonged power outages... only one-half had emergency plans in place-and only 50 of those were up to date and functional."[25]

In the absence of an adequate centralized response, the community stepped up to form a vital part of the relief effort. Then-Premier Lucien Bouchard characterized the condition of emergency shelters as "barely adequate," stating, "[T]he best solution is to go to live with friends and family."[26] Many did just that, wrote Kerry: "[H]omes with electricity became hostels for families who had lost power," while "donations of money, food, and clothing poured in from around the country."[27]

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The events of the Quebec ice storm reinforce a positive and fundamental change in Canadian disaster response, an evolution "from a heavily paternalistic and protective" crisis management agenda to one "in which a more informed citizenry is enabled to reduce its own vulnerability to emergencies."[28]

In the aftermath of Hurricane Katrina, many people stepped in to help their neighbours. Individuals conducted rescue missions and provided food and shelter. The Mary Queen of Vietnam Catholic Church lobbied governments for supplies and kept communication and aid lines open for residents in their neighbourhood through their services.[29] High schools became makeshift hospitals and shelters, and internet domain hosting sites helped facilitate communication.[30] New schools were established, businesses started and communities pulled together.[31]

Rodriguez, Trainor and Quarantelli (2007), citing the Disaster Research Center, found that the public reaction to Hurricane Katrina was "overwhelmingly" positive, or "pro-social." Even incidents of looting were not all signs of lawlessness, as the example of Dr. Gregory Henderson shows. In co-operation with police, Henderson "raided pharmacies for needed medication and supplies and set up ad hoc clinics in downtown hotels."[32]

Kathleen Tierney, Christine Bevc and Erica Kuligowski tell a similar story of social order and note that the mischaracterization of the social response to Katrina is an example of a larger body of disaster "myths"

that have skewed media analysis and popular discourse since the 1970s.[33] The faulty narrative casts victims as predators, violent and unbound from social norms as they fend for themselves.

With this Hobbesian view of the population in mind, it becomes easy to see why conventional disaster response largely consists of applying predetermined solutions to restore order for the people affected, rather than working *with* them. In reality, rebuilding is an individual task and can only be achieved by decentralized action. If governments are to help, they must find ways to maximize the use of knowledge that will never be held by just one agency or individual.

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## Preparing Individuals and Communities: What We Can Do

All of the examples in the disaster situations examined above present common themes that underscore the importance of open and honest government and an involved and informed population. In sum:

1. Centralized agencies ought to focus less on rehearsing potential scenarios and more on improving the responsiveness of organizations.[34] Bureaucracies in Canada suffer from a lack of leadership. Barry Cooper writes, "[W]hen process and networks replace decisions and hierarchy, when institutions become borderless, it becomes next to impossible to determine responsibility." In disaster scenarios, quick decision-making is paramount. Someone must bear the weight of responsibility.[35]
2. Government ought to communicate risk to the population. There has been a tendency, quite deliberate at times, to downplay the worst-case scenario out of a fear that it may incite panic, but panic is rare.[36] As Thomas Glass notes, "Panic happens in disaster movies, but typically not in real disasters."[37] Similarly, Pearce argues:

   > Officials have not wanted to reveal hazards and risks to their respective communities, fearing the panic would prevail or that people would flee. Yet, the widespread success of HEROS, and other similar neighbourhood programs... demonstrate the contrary. Community members have the right to know and to understand what hazards to expect, and they also have the right to participate in making decisions.[38]

3. Government ought to work with the community. In disaster situations, the speed of response can mean the difference between life and death. Canadian governments need to do all they can to prevent "yellow tape" from getting between volunteers and the victims that so need their help.[39] As Pearce notes, "Historically, disaster management planning in North America has been viewed from a para-military perspective... that is, it has been conducted for, not with, the community."[40] It is time to change this dependent mentality and frankly assess the limits of centralized planning in disaster response.
4. Groups such as neighbourhood associations ought to take the lead in disaster preparedness. The Broadmoor Project, a recovery guide for post-disaster neighbourhoods, stresses the importance of "community-driven" planning models to fortify communities by encouraging individual involvement to maximize preparedness.

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The report affirms that individuals "are best suited to planning for their own community... they are the stakeholders willing to fight to bring their neighborhood back."[41] Neighbourhood associations serve the dual purpose of providing structure and leadership while remaining sensitive to the knowledge each member brings to the table. They "bring diverse opinions together in order to build a consensus."[42] Organizations of this kind are intended to be permanent fixtures, designed to deal with numerous issues, not just crises. They have the potential to ease communication while providing a convenient point of contact for local governments, churches and corporations.

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In order to affect change, disaster preparedness must form a part of public dialogue outside of crises. From a political point of view, the problem with disaster planning is that, outside of crises, it is an unpopular topic with voters. Once the disaster is forgotten, the goal is no longer preparedness, but normalcy. Similarly, while post-disaster commissions and task forces are not uncommon, they tend to be too specialized to offer in-depth recommendations with the potential for broad application.[43] They seek merely to analyze a particular event rather than to create policy alternatives for future crises, thus we never fully learn from past mistakes. To improve our approach to disaster management, it must become a fixture in public discourse. Governing agencies must realize the limitations of centralized disaster management and loosen their grip on information so that individuals outside the bureaucratic decision-making process can assist in the communities that they know better than anyone else does.

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## FURTHER READING

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