



From Disaster Event to Political Crisis: A “5C+A” Framework for Analysis

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Why is it that some authorities, governments/administrations, and even entire regimes emerge from disasters more popular and politically stronger, while most appear to emerge less popular and politically weaker, sometimes fatally so? This paper argues that the often problematic political consequences of disasters can be understood more fully by seeing them as “Maslowian Shocks” with strong revelatory components where public estimation of government disaster response may be analyzed along six “5C+A” dimensions: capability, competence, compassion, correctness, credibility, and anticipation. The paper then illustrates the 5C+A framework with a set of cross-national examples and public opinion data from a 2001 post-earthquake survey in El Salvador.

Keywords: politics of disaster, crisis management

A Central Research Question for the Twenty-First Century

Why is it that some authorities, governments/administrations, and even regimes emerge from disasters more popular and politically stronger, while most appear to emerge less popular and politically weaker, sometimes fatally so? Or to put it another way: Why is it that some incumbent political leaders facing a disaster on their watch are able to avoid or ameliorate negative public reactions or even improve their public image, while most political leaders experience quite the opposite effect? While interesting and applicable retrospectively to many disaster events of the twentieth century, this question is taking on acute relevance to the twenty-first century, which is showing increasing signs of disaster losses unprecedented in modern times.

Despite the fact that some specific number is eventually selected for entry into official databases, it is never a good sign when the number of people killed in a disaster is commonly modified by the terms “estimated” or “approximately.” It is therefore very sobering to consider that we had four such events just between 2001 and 2008: in the 2001 Gujarat earthquake, at least 20,000 killed; the 2004 Asian tsunami, an estimated 240,000 killed; 2008’s Cyclone Nargis in Burma/Myanmar, at least 120,000 killed; and in the Sichuan earthquake in China

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the same year, at least 67,000 killed. Then, as this paper was being formatted for submission, Haiti was struck on January 12, 2010 by an earthquake that killed as many as 230,000.

The twentieth century's main characteristics were clearly massive population growth, intense urbanization, and uneven development. The problem is that those very pressures and characteristics put millions of people in harm's way by risky land use and/or inappropriate/shoddy building design or construction. The twenty-first century is shaping up as the century when we pay the price for that kind of growth, when the term catastrophe, not simply disaster, will be increasingly employed. That is, long recurrence interval hazards are now increasingly catching up with the short-term thinking that led to highly vulnerable cities, coastlines, and floodplains.

The stakes inherent in this lethal combination are high for both the research and practitioner communities. Academics must begin factoring major physical system shocks into any analyses of national and regime stability and "politics as usual." Practitioners will face urgent needs to prepare organizations, develop policy options, and advise leaders on strategies to deal with unprecedented loss levels and consequent political fallout. That is, both academic and practitioner communities must re-examine the comfortable assumption that the twenty-first century will be much like the twentieth. One place to start, and our focus in this paper, is with a better understanding of the political implications of disaster, and especially how disasters, primarily but not exclusively natural, become political crises.

Forming Up: A Promising Third Generation of "Politics of Disaster" Literature

While practitioners have long known how political a major disaster may become, the academic community has lagged in that appreciation. Only a relative handful of political science scholars have focused on what the disaster research community calls low-probability high-consequence events. Nonetheless, there is quite a history to the study of "the politics of disaster," and it has generations.

Almost completely forgotten, despite having appeared in the *American Political Science Review* (*APSR*), the first generation of what we would now call studies in the politics of disaster comprised two studies: (i) Barnhart (1925), who analyzed differential drought impacts across the US Great Plains and the associated rise of the Populist Party, and (ii) Walker and Hansen (1946), who focused on the difficulties of adapting local government models from the American East to the much larger and harsher environments of the American West. Research on the overtly political dimensions of disasters, however, then seemed to fall off the academic radar. In fact, most scholars interested in the subject generally start with an *APSR* research note by Abney and Hill (1966) that, contrary to the authors' expectations, reported non-effects of 1965's Hurricane Betsy on a local election in New Orleans.

If we take the Abney and Hill research note as a precursor, the hallmarks of the second generation of explicitly politically-oriented disaster research were (i) widely varying specific foci—from a bushfire in Australia to the Sahael drought and East African famine, to agenda salience and hazardous building abatement in southern California,¹ and (ii) an equally bewildering array of outlets.² The

¹This is not to say that "politics" was not mentioned in more general works on hazards and disasters, or that it did not appear as an issue or a consideration in policy and emergency management-oriented studies. It often did, but "politics" as the *specific* research focus was a very different matter.

²It is very difficult to find some of these works, much less assemble them all, but we have a reasonably complete "politics of disaster" bibliography available upon request. In addition, Boin (2008) has collected in three volumes a set of key articles on disasters and emergency management, some of which focus on the more political aspects of both.

major works of this second generation would certainly include: Shepherd (1975); Glantz (1976); Wolensky and Miller (1981, 1983); Wright and Rossi (1981); Rossi, Wright, and Weber-Burdin (1982); Drabek, Mushkatel, and Kilijanek (1983); Wyner (1984); Bommer (1985); May (1985, 1991); Alesch and Petak (1986); Robbins (1990); Blocker, Burke Rochford, and Sherkat (1991); Sylves (1991, 1998); Keller (1992); Albala-Bertrand (1993); 't Hart (1993); Birkland (1996, 1997); Wamsley, Schroeder, and Lane (1996); Mittler (1998); Olson, Olson, and Gawronski (1999); Platt (1999); Shefner (1999); and Olson (2000).

The leading edge of the third generation is Garrett and Sobel (2003) on political considerations influencing FEMA disaster declarations, after which a notable direct and indirect "Katrina effect" evidences, with Boin, 'tHart, Stern, and Sundelius (2005); Farazmand (2007); Eikenberry, Arroyave, and Cooper (2007); Malhotra and Kuo (2008); and, more broadly, Healy and Malhotra (2009). One must also include, however, the cross-national studies by Brancati (2007), Nel and Righarts (2008), Nur and Burgess (2008), and Boin, McConnell, and 't Hart (2009).

This new wave or third generation is very promising, and we would like to contribute by offering a fuller and more nuanced understanding of how publics evaluate governmental disaster responses and how disasters often, but not always, become political crises. To that end, we would like to start with a very different conceptualization of natural disasters in particular as politically-charged and politically revelatory "Maslowian Shocks," which we will use as a base to introduce an analytic framework we call "5C+A." We will then offer a set of brief case demonstrations of how the 5C+A framework contributes to better understandings of post-impact political environments, followed by an illustrative examination of Salvadoran public opinion after a pair of earthquakes in 2001, and then a conclusion.

Disasters as Maslowian Shocks and Politically Revelatory Events

A. H. Maslow certainly achieved iconic status with his "Theory of Human Motivation" and in particular his advancing of the concept of a "hierarchy of human needs"³ (Maslow 1943). To recall, Maslow identified the most elemental of basic human needs as "physiological," with a clear focus on food and water. If those are reasonably satisfied, he argued, the next set of needs revolves around "safety," where Maslow focused on personal security and a sense of familiarity, to which could logically be added shelter. When those two sets of needs are reasonably gratified, higher needs manifest, including "love, affection, and belongingness," followed by the need for "self-esteem" and "the esteem of others," and finally "self-actualization."⁴

When an earthquake, hurricane, flood, or other hazard occurs and interacts with latent human and community vulnerabilities, a disaster and sometimes a catastrophe results.⁵ From the perspective of a needs hierarchy then, a disaster, literally by definition, creates a large number of people, often concentrated in certain regions, areas, or neighborhoods, who have just suffered a traumatic reduction in their needs achievements and indeed their goals. That is, a disaster forces a large number of people who were taking food, water, and shelter

³The original article is worth reading for a host of reasons, not least because Maslow refers repeatedly to the sense of "emergency" when basic needs satisfactions are felt to be thwarted or endangered.

⁴Inglehart (1977) built on Maslow's needs hierarchy and coined the term "post-materialism" to describe those political, moral, and ethical values associated with self-actualization. His point was that long periods of basic needs satisfactions and material affluence generate a cultural and generational shift in values, with more emphasis placed on personal improvement, empowerment, and freedom as well as on more aesthetic or humanistic concerns, including the environment.

⁵Quarantelli (1987) makes this interesting distinction. We also note that the debate over research-useful definitions of "disaster" continues, particularly in Quarantelli (1998) and Perry and Quarantelli (2004).

relatively for granted, and who were pursuing higher order needs, abruptly down or back down to the search for basic needs.⁶ Even in more developed societies a disaster can rather suddenly make essential material needs satisfactions paramount and post-material values irrelevant. Given that a primordial function of the modern nation-state is protecting its population or, failing that, responding when protection fails, this sudden needs reduction (our “Maslowian Shock”) can rapidly become a political crisis.

In fact, Maslowian Shock-type disasters generate multiple effects. The direct effects are obviously on the surviving victims themselves, who expect and even demand help. The indirect effects, however, are also politically problematic for governments. A well resourced and managed response reassures both victims and the larger public, but a poorly resourced and managed response has the opposite effect. Indeed, how well a government or regime handles any type of large-scale crisis event will instill greater or lesser public confidence in specific political leaders and government institutions, and it can even affect the legitimacy of the regime itself.

In addition, modern media, including new social networking sites, seriously confound political problems for authorities because they cover disasters with extraordinary intensity and often in real time. The result is an almost constant stream of images, interviews, and commentary that bombard viewers in particular, leaving them with impressions that strongly influence their perceptions of the response. Moreover, the public is much larger and more attentive in the immediate aftermath of a disaster, which reinforces media coverage and often puts it into a 24-7 mode for extended periods.

The final politically problematic exacerbation of disasters is that they constitute “special time” occasions when both victims and the general public expect government to respond with particular diligence. Public officials who fail to grasp the dynamic nature of public expectations during a disaster and attempt to respond in normal ways create a disjuncture with their publics, a problem first identified by Wolensky and Miller (1981). That is, publics expect government officials to do their jobs, and to do them well, in times of crisis. Similarly, public officials who engage in or allow corruption in disaster “special time” also fail to see that public expectations of probity are higher during emergencies.

In sum, public estimation of government is especially volatile in post-disaster situations because (i) a substantial portion of the population has been suddenly and visibly reduced to the search for the most elemental material needs; (ii) the media are covering the disaster and then the response with unusual and sustained intensity, essentially putting all aspects of the losses and of the response under a public microscope; and (iii) the general public is unusually attentive, at least for a time. This combination explains why disasters often become so politically problematic for authorities, governments, regimes, and in extreme cases, even to the concept of the nation-state itself, because disasters are *revelatory* not only of vulnerabilities that have just become loss sites but also of the actual values, qualities, and operational codes of the responding political leadership.⁷

⁶We are hardly the first to note the disaster-needs hierarchy connection. In their still classic treatise Blaikie, Cannon, Davis, and Wisner (1994: 63) briefly discuss Maslow’s needs hierarchy as it pertains to coping mechanisms in the wake of disasters: “Coping in the face of adverse circumstances therefore may be seen as a series of adaptive strategies to preserve needs as high up the hierarchy as possible in the face of threat. [...] However, it is possible that what we broadly call ‘disasters’ forces a retreat down the hierarchy.” In our paper here, we are simply attempting to expand on the connection and tie it more conceptually to political outcomes.

⁷Although in a different context, R. Dynes many years ago made a similar argument about disasters “stripping away” rhetoric and symbolic actions.

These observations and our nearly 50 combined years of disaster research and field experience led us to reflect more deeply on how publics evaluate government disaster response. Our conclusion was that public estimation of government disaster response always seems to devolve down to issues or problems along six conceptually distinct dimensions, which we call “5C+A.”

A “5C+A” Analytic Framework with Cross-National and Cross-Case Illustrations

The Framework

The first two of our 5C+A dimensions are relatively fixed in the short-term: *capabilities* (resources at hand or latent-mobilizable), which are often revealed to be surprisingly, if not scandalously, deficient in a major disaster event, and *competence* (efficient and appropriate application of whatever resources are in fact available or mobilizable), which is also often revealed as deficient in major events. A type of political cost-benefit analysis explains why these first two dimensions are so frequently shown lacking. Because financial resources are always limited, incumbent political leaderships tend to strategically allocate them for short-term projects and gains, in essence betting that a low-probability high-consequence disaster event will not happen on their watch, which is true of course—until it does.

The next three analytic dimensions are much more variable, even in the short-term: *compassion* (demonstrated concern or affect for the victims), *correctness* (honesty, fairness, and transparency in assistance), and *credibility* (consistent and reliable provision of disaster information). To these one may also add, in circumstances where a disaster was partially or largely avoidable (and given that disasters derive from vulnerabilities, most are), a perception of the quality of governmental *anticipation*. This “A” dimension is in fact a combination of pre-event hazard mitigation and disaster preparedness, which is now more commonly called “disaster risk reduction.” The total is the six dimension 5C+A framework, which leads us to the brief case reviews.

In his paper “Toward A Politics of Disaster” (2000), Olson used four examples to show how and why disasters become so rapidly political: first-century BC Imperial China, 1972 Nicaragua, 1985 Mexico City, and early twentieth-century California. Let us briefly review the Mexico and Nicaragua cases using the 5C+A framework, and then deploy it to analyze (i) a much more modern China case, (ii) a 1970 cyclone case from the then-Pakistan, (iii) a surprisingly positive outcome case from Germany in 2002, and (iv) the contrasting US cases of the Bush Administration in the 9/11 terrorist attack in 2001, and Hurricane Katrina in 2004.

Case Illustrations

Disaster and Regime Change: Revisiting the Mexico City 1985 and Nicaragua 1972 Events

While the moral legitimacy of the PRI-State system in Mexico began eroding with the 1968 massacre of hundreds of student protestors by government forces, the financial and organizational hollowing of that system started with the 1982 Mexican economic collapse. Initially, however, few appreciated the depth and breadth of the organizational damage. In the 1985 disaster, however, many Mexicans were stunned to see a PRI-State, which had governed Mexico since the late 1920s, as a mere shell of its former self, lacking both *capabilities* and the ability to rationally deploy even the available resources, *competence*. These negative perceptions were then exacerbated by an absurdly low official death toll, a *credibility* problem, and the low public visibility of the de la Madrid administration for

almost a week after impact, a type of *compassion* failure.⁸ In fact, it took the Mexican government several days to fully recognize the extent of the earthquake disaster, which seriously delayed both official Mexican, and proffered international, search and rescue efforts.

Very neatly reflecting an implicit 5C+A framework, but with some slightly differing terminology, M. A. Centeno (1994:10) offered the following assessment of the 1985 disaster's impacts on Mexican politics:

The earthquake of September 17, 1985, not only demolished a considerable part of the capital but also did irreparable damage to the government's prestige. Instead of taking advantage of what could have been a marvelous opportunity for the president to establish a personal link with the population and restore the legitimacy of the system, de la Madrid appeared confused by and, to some, even indifferent to the suffering of thousands of citizens. On less symbolic grounds the government and the army demonstrated that they were, at best, incapable of managing the response to the disaster and, at worst, quite capable of profiting from it. While Mexicans had come to expect a *morrida* (demand for bribe) from policemen or clerks in government offices, the rumors of international supplies being sold on the black market further fueled dissatisfaction. The failure of the government also gave rise to grass-roots organizational and coordination efforts, many of which came to replace the traditional PRI patronage machines as the political centers in poor neighborhoods.

Aggravating the political problems for the Mexican government in the post-impact period, particularly in Mexico City, was media coverage of obvious failures in supervising and inspecting the construction of major modern concrete structures, many of them government-built, in pre-event decades. Indeed, revealed failure in the honest supervision of code-aware building construction is a compound negative from a 5C+A perspective: The public sees shortcomings in both *correctness* and *anticipation*.

In sum, in the aftermath of the 1985 disaster the Mexican government was widely perceived as lacking on all six of the 5C+A dimensions, which directly and most immediately contributed to a type of regime change for Mexico City itself, from a centrally appointed "regent" to a popularly elected mayor. In the longer term it also contributed to that larger ongoing legitimacy crisis that culminated in the electoral defeat of the PRI in the 2000 presidential elections and a full regime change, from authoritarian to democratic.

The 1972 Managua, Nicaragua earthquake remains a modern classic in the "politics of disaster" when, from our 5C+A perspective, massive government corruption in relief and reconstruction led to a withdrawal of even minimal toleration for the Somoza regime by first the Catholic Church, then by the business elite not part of the Somoza insider group, and finally by the general public. The rejuvenated Sandinista movement then capitalized politically on these withdrawals of support, eventually opening up a military campaign in 1975 that, after a brutal civil war, overthrew the regime in 1979.⁹ That is, the political aftermath

⁸One is tempted to contrast de la Madrid with the "I feel your pain" presidency of Bill Clinton, who was ubiquitous after many US disasters, having seen what happened politically to the George Herbert Walker Bush administration in the aftermath of Hurricane Andrew in 1992.

⁹The January 12, 2010 Haiti earthquake evoked flashbacks for many to Managua in 1972, including by Sandinista historian Aldo Diaz: "When the earthquake destroyed Managua, we knew immediately it was our moment. An earthquake reveals what's been covered up In normal conditions, the injustice of the system seemed 'tolerable.' But in the face of the earthquake, it became intolerable. And it caused the population to explode." This quote is from an article by Glenn Garvin in the *Miami Herald*, February 13, 2010, page 4.

of the 1972 Nicaragua earthquake was essentially an overwhelming “1C” failure by the Somoza regime: *correctness*.¹⁰

Disaster and Dynastic/Regime Change: Late Nineteenth–Early Twentieth-Century China

With its long history of disasters, China provides a fertile ground for 5C+A analyses, including the following by Reischauer and Fairbank (1965: 156–157), where they described the role of a great flood in the eventual fall of China’s last dynasty, the Ch’ing:

By the late 1840s, the general condition of China was plainly conducive to rebellion. Population ... had continued to increase. Administration, judging by selected cases, had continued to deteriorate under the pressure of widespread official self-seeking in the face of ever-mounting administrative problems. Thus, for example, the accumulation of silt in the Yellow River and Grand Canal was not offset by the maintenance of dikes ...

In 1852, the Yellow River broke loose with great damage and began a long, disastrous process of shifting its main stream from the south to the north of the Shantung peninsula, the first such shift since 1194. Pressure of numbers, flood, famine, poverty, corruption, and the resulting ineffectiveness of government were demonstrated in the increase of banditry, riots, and minor outbreaks in many areas.

That is, from a 5C+A perspective, the Ch’ing Dynasty clearly demonstrated failures in *capability* (administrative deterioration), a combination of *anticipation* and *competence* (effective dike maintenance), and *correctness* (self-seeking and corruption). While we lack data on Ch’ing *compassion* and *credibility*, subsequent history indicates that they were likely deficient there as well, because the entire dynastic system ended with the fall of the Ch’ing.

Disaster and the Violent Dissolution of a Nation-State: Pakistan 1970

In 1970, a cyclone tracked up the Bay of Bengal and struck what was then East Pakistan. Killing perhaps 500,000 people, and together with inland flooding, the storm surge swept over hundreds of the low lying barrier islands where many of the country’s poor had gone to eke out a living. The government in Karachi, in West Pakistan, responded neither quickly nor generously, which proved to be a focusing event for even larger forces, as disaster expert Fred Cuny (1983:54) observed:

The failure of the Pakistani government to respond to this disaster with massive aid highlighted many of the inequities inherent in the relationship between East and West Pakistan. Using the disaster as a rallying point, a major political movement took control of the Pakistani government in the general election that followed several months later. The West Pakistani clique in power refused to relinquish control and ... civil war erupted. Fierce fighting and reprisals against the Hindu minority led to a massive exodus of refugees from East Pakistan into eastern India. The burden placed on the Indian government ... led India to invade East Pakistan to help create the independent state of Bangladesh.

That is, the 1970 cyclone was clearly causal in the sense that it helped focus larger East Pakistani and principally Bengali resentment against West Pakistan,

¹⁰Of course, this presupposes that the Somoza regime also demonstrated very little *compassion*. But the level of corruption—that is, the outright theft of humanitarian relief supplies and then the private redirection of reconstruction funding—was so blatant that it makes any discussion of other government failures associated with the Managua earthquake disaster essentially irrelevant.

and was therefore a trigger. The lack of much response to the disaster on the part of the Karachi government, however, was a stand-alone political mistake and, in the vernacular, a blown opportunity to improve East Pakistan-West Pakistan relations. In retrospect it was a massive “1C” failure: *compassion*.

A Political Win Counter-Example: Germany 2002

Based on the number of failure accounts, we do not seem to spend as much analytic time and effort searching for and documenting cases where disasters, or more accurately governmental disaster responses, have little or no political effect or actually turn out positively for political leaders. A relatively recent example of the latter, however, came in Germany, where then-incumbent Chancellor Gerhard Schröder was destined, by all accounts and polls, to lose the September 2002 general parliamentary Bundestag elections—until the worst floods in 500 years struck the eastern part of the country less than two months before the vote was to be taken. *The Economist* (August 22, 2002) opined at the time:

Mr. Schröder’s handling of the flood may have revived his flagging chances of winning the general election.... As the waters rose, the chancellor and his ministers sloshed around afflicted areas [primarily in Saxony], being seen and promising aid. His conservative challenger, Edmund Stoiber, remained on holiday on a North Sea island.

From a 5C+A perspective, with Schröder appearing both “decisive and sympathetic” in the words of *The Economist*, the response was first politically symbolic, with government leaders “sloshing around” and promising aid. The second part was more substantive, when the government executed a rapid damage survey and announced a rebuilding plan, financing it by postponing year-end tax cuts and reordering the transportation budget. That is, the Schröder government managed to connect simultaneously with the German public via the disaster on multiple 5C+A dimensions: *capability*, *competence*, *credibility*, and *compassion*.

In the end, although the Bundestag margin was “razor thin” for his SPD-Greens coalition, Mr. Schröder remained as chancellor until 2005, and the analytic consensus is that two factors gave him those additional three years: (i) his opposition to the looming US-led invasion of Iraq, and (ii) his and his government’s response to the flooding. As Rohrschneider and Wolf (2003) subsequently offered about the flood response:

[Schröder] emerged as a statesman during a period of national purpose. The chancellor and other officials quickly appeared at flood sites, and later Schröder took a leadership role at emergency flood-related European Commission meetings. Stoiber, on the other hand, could not match the chancellor’s official role or personal skill in this crisis.

In the same volume, Roth (2003) concurred, but with even more detail (and neatly reflecting a 5C+A perspective):

Just when the first positive results of [a major campaign push by Schröder and his SPD-Greens coalition] could be seen, the flood disaster hit eastern Germany. This was a chance for the government, and they capitalized on it. The chancellor, vice chancellor, secretary of the interior, and all the top politicians went to the east and demonstrated their ability to manage the crisis and to show compassion for the people in the region.

Winning, Losing: The Bush Administration in 9/11, but then Katrina

While involving very different disaster causes and more accurately intergovernmental in nature, comparing the responses of the George W. Bush administration to the September 11, 2001 terrorist attacks and to Hurricane Katrina in 2004 further demonstrates the utility of our 5C+A analytic framework.

Following the 9/11 attacks, the Bush administration received generally high marks from the public on its emergency response, as evidenced in a wide array of polls. The public was reassured by the relatively swift control of air traffic, the flow and effectiveness of assistance to New York City in particular (*capabilities* and *competence*), the obvious emotion of the president (*compassion*), especially during the first national address, and the caution with which casualty estimates were being made (*credibility*). Typical in most US disasters, concerns over corruption and equity in assistance did not surface. In other words, the Bush administration scored well on four of the 5C dimensions, with the remaining one C irrelevant. The issue of “who knew what and when” about Al-Qaeda (an *anticipation* question) did not immediately surface, but it did later, in 2004, when it was revealed that the FBI had detected “patterns of suspicious activity in this country consistent with preparations for hijackings.”¹¹ Nonetheless, in the short to middle term the president’s approval ratings were among the highest in history and included positives from outside his Republican core.

Three years later, public estimation of governmental response to Katrina was an entirely different matter. The Bush Administration in particular was widely faulted for an under-resourced, slow, and inept response, which brought into question both *capabilities* and *competence*. This negative impression was exacerbated by a low visibility and apparently uncaring presidential attitude when Mr. Bush stayed at his Texas ranch during the initial response, which was taken as a *compassion* failure. President Bush did manage a flyover visit to the coastal region three days after Katrina’s impact, but the photo of Bush gazing out the window of Air Force One at the devastation below did more political harm than good, demonstrating more apparent detachment than compassion.¹²

In the Katrina case, the question of political and even racial disfavor (a type of *corruption*) also arose, the victims being predominantly poor and African-American and historically voting Democratic. Furthermore, the *credibility* of the administration was severely undermined when it was discovered that the then-director of FEMA, Michael D. Brown, was a purely political Bush appointee with no relevant disaster management experience. The credibility problem was further exacerbated when officials were caught being obviously disconnected to realities by their reassuring interview statements being juxtaposed on television with real time scenes of acute distress, desperation, and even social breakdown in both the city of New Orleans and at its Superdome.

Finally, when it became known that Max Mayfield, then director of the National Hurricane Center, had been warning literally everyone, including the White House, for more than two days prior to impact that the forecast models showed Katrina on a very dangerous track, the entire intergovernmental system and the Bush Administration were severely questioned (the *anticipation* dimension).

The extent of the political damage and loss of self confidence suffered by the Bush Administration in Katrina was made very clear in February 2008, when *Vanity Fair* published excerpts from its compiled oral history of the

¹¹This information was provided to President Bush in his daily security briefing one month before the 9/11 attacks. The now-infamous briefing was entitled, “Bin Laden determined to attack inside the United States.”

¹²According to former Presidential Press Secretary Scott McClellan (2008: 274–275), release of the photo was a mistake because it came to symbolize the administration’s “botched” response to Katrina.

administration. Dan Bartlett, White House Director of Communications under Bush and later presidential counselor, was quoted as saying, “Politically, it was the final nail in the coffin.” Matthew Dowd, Bush’s pollster and chief political strategist, offered the following very blunt retrospective:

Katrina to me was the tipping point. The president broke his bond with the public. Once that bond was broken, he no longer had the capacity to talk with the American public. State of the Union addresses? It didn’t matter. Legislative initiatives? It didn’t matter. P.R.? It didn’t matter. Travel? It didn’t matter.

In sum, as the contrasting US cases of the 9/11 attacks and Hurricane Katrina make especially clear, public opinion is key for a better understanding of the politics of disaster—and a prime future research area. Fortunately, we already have 2001 post-earthquake public opinion data from El Salvador to illustrate several parts of our 5C+A argument.¹³

Salvadoran 2001 Post-Impact Public Opinion

Central America is a complex multi-plate tectonic zone, and El Salvador suffers major periodic earthquakes. In 2001, however, it received a double impact with two major earthquakes only 30 days apart. The first was on January 13 and had a magnitude of 7.6. The second occurred on February 13 and had a magnitude of 6.6, which turned out to be not an aftershock from the earlier event but rather a separate earthquake. The death toll from the two events was near 1,200, and the total number injured was more than 8,000. With nearly 150,000 homes destroyed, the number of people suddenly homeless was at least 1 million—out of a total Salvadoran national population of approximately 6 million, at the time.

The dual earthquake disaster affected all of El Salvador, either directly or indirectly, and between April 5 and April 11, 2001, the well respected *Instituto Universitario de Opinión Pública* (IUDOP) of the *Universidad Centroamericana “José Simeón Cañas”* in El Salvador (UCA-ES) fielded a national public opinion survey of 110 items with a final valid n of 1,222. The survey instrument had five sections or “blocks”: (i) standard demographics, (ii) losses suffered, (iii) physical and psychological effects suffered, (iv) “sociopolitical” views, in particular about the disaster response of various institutions,¹⁴ and (v) how and to what degree the respondents were involved in helping the disaster victims.

Question 12 in the UCA-ES survey asked if respondents had lost family members or close friends in the earthquakes, and the data reveal the national impact: 10% (rounded) answered affirmatively. Closely matching the epicenter locations and shaking intensities, 15% (rounded) of the respondents in metropolitan San Salvador answered affirmatively, with 11% of the “paracentral” area (the center-interior region of the country) also responding affirmatively. The data from a later item, Question 86, which asked if the earthquakes had forced respondents to change domiciles or move out of their previous communities entirely, again confirmed the national impact: 14% overall said “Yes.”¹⁵

¹³A full test of the 5C+A framework will require multiple regression analyses of the results of a carefully designed set of public opinion survey questions. Those papers are in progress.

¹⁴To give due credit, the IUDOP battery of questions, under the direction at the time of José Miguel Cruz Alas, helped concretize our thinking on the politically revelatory nature of disasters and on how our 5C+A framework should be formalized. The original hard copy presentation of their findings appeared as the IUDOP *Encuesta sobre los efectos de los terremotos, Serie de Informes 87* (May 2001).

¹⁵The data also show especially marked impacts in the paracentral area, where nearly 32% reported having to change domiciles or communities.

TABLE 1. El Salvador 2001, Magnitude of Earthquake Losses, Why? (Percentages by Education)

<i>Education level</i>	<i>Unforeseeable event</i>	<i>Lack of preparedness</i>	<i>Both</i>	<i>Don't know</i>
None	54.2	15.3	18.6	12.0
Primary	50.7	22.4	20.2	6.7
Basic plan	48.7	29.0	20.9	1.4
Secondary	43.0	27.3	27.0	2.7
Post-secondary	32.1	34.5	32.1	1.3

The Anticipation Dimension

In 2000, Olson argued that disasters become politicized by two interrelated questions that are always highly problematic for governments: “Why were the losses so great and/or the response so inadequate?” The UCA-ES survey’s Question 28 captured this, exploring the extent to which respondents believed that the magnitude of the losses was (i) “unforeseeable” (*imprevisible*), (ii) the result of a lack of preparedness (*falta de preparaci3n*), or (iii) both. Again rounded, 26% of the national sample attributed the losses to a lack of preparedness, essentially faulting the government for a lack of, in our 5C+A terms, *anticipation*. On the other hand, 46% held the losses to be unforeseeable. Twenty-four percent attributed the losses to a combination, and 4% offered that they didn’t know.

This Question 28 was obviously designed to probe fatalism, and the breakdown by education levels presented in Table 1 confirms that education leads to a more critical perspective on responsibility for disaster mitigation and preparedness. As may be seen, while only 15% of those with the lowest levels of education attributed the losses to a failure of anticipation, 35% of those with the highest level of education blamed the losses on the lack of anticipation, which again is implicitly but strongly the province of government, as it is broadly understood.

The Credibility Dimension

Public confidence in government statistics and reports is not high in Latin America generally, where “*mitos y poesía*” is a common characterization, which translates better to English as “smoke and mirrors.” In line with this perspective, the UCA-ES survey’s Question 51 asked respondents for their “level of confidence” in official information about the earthquakes, in effect probing government *credibility*. On the national level, 18% said they had “none at all” (*Nada*), 30% said “little” (*Poco*), 25% opined “some” (*Algo*), and 25% offered “a lot” (*Mucha*), with less than 2% saying that they “didn’t know.” That is, and not particularly reassuring, nearly half of all respondents said either none at all or only a little, and the credibility problem reaches 73% if we add in those who offered just “some” confidence.

The Correctness Dimension

At least since the 1972 disaster and the Somoza debacle in Nicaragua, Central Americans in general have been sensitive to issues of honesty and transparency in the delivery of disaster assistance, and the UCA-ES Question 57 probed the degree to which respondents believed that the relief provided by CONASOL was free from “political manipulation.”¹⁶ The national level results were not

¹⁶CONASOL was a legally autonomous private institution created by the ARENA government immediately after the first 2001 earthquake, specifically charged to manage emergency relief and donations.

auspicious, with 54% believing that there was “manipulation,” while only 24% saw relief efforts as “transparent.” Twenty-two percent said that they didn’t know.

The Capabilities and Competence Dimensions—and the Military

It is a fact of life in Central America that given resource limitations, major disaster events require multi-institution and multi-sector responses, and the UCA-ES survey’s Questions 69–80 probed the sample’s assessments of the quality of disaster response by institution or sector (“*Notas del desempeño de [named institution or sector] ante los terremotos*”).

To assess perceptions of the quality of disaster response, the survey asked the sample to rate various institutions and actors using a 0–10 scale where 0 was “awful” (*pésimo*) and 10 excellent (*excelente*). The UCA-ES team used individual questions for each institution or actor, and Table 2 presents our summary of the results across the 12 questions, which we ranked from highest to lowest.

These Table 2 data are noteworthy for two major reasons. First, although the ratings are not particularly low for any particular actor, group, or institution, *not a single part of the disaster response that could be attributed to “government,” as broadly understood, was in the top half of the scores.* In fact, various parts of what is commonly associated with government occupy the *lowest* five spots of the 12 listed. In contrast, the top seven spots in public estimation were all occupied by institutions not closely associated with government per se. While one might consider first responders, search and rescue, and EMTs to be the exception, in Latin America they tend to be viewed as stand-alone professionals, not so much as “government.”

The UCA-ES team subsequently simplified and recoded the scoring, and Table 3 presents the percentages of favorable responses, ranked in percent order, for various governmental actors/institutions, “other” actors/institutions, and for the military. In order to test for differences between respondent evaluations of governmental versus other institutions, and to see if they were statistically significant and indicated real differences in public esteem, we calculated the average percent of favorable responses for the five explicitly governmental institutions in Table 3 and compared it to the average of the other six institutions. The average favorable rating for governmental actors/institutions, including government overall, President Flores, CONASOL, local government, and political parties, was 69%. For the other actors/institutions, specifically international relief agencies, first responders, media, the Catholic Church, non-governmental organizations, and the private sector, it was 88%. A paired sample *t*-test

TABLE 2. El Salvador 2001, Quality of Disaster Response Scores (0–10 Scale) (By Actor/Institution)

<i>Institution</i>	<i>Mean average</i>	<i>Standard deviation</i>
Media	8.56	1.98
International agencies	8.54	1.95
First responders-rescue/medical	8.49	2.10
Armed forces	8.26	2.22
Catholic Church	7.78	2.54
Private sector	7.34	2.43
NGOs	7.33	2.35
Government “overall”	7.28	2.66
President Flores	7.09	2.87
CONASOL	6.43	2.73
Local government	5.91	3.14
Political parties	5.56	2.86

TABLE 3. El Salvador 2001, Evaluation of Disaster Response by Governmental and “Other” Actors/Institutions and the Military (By Actor/Institution)

<i>Actor/institution</i>	<i>Percent favorable evaluations</i>	<i>N</i>
Governmental actors/institutions		
Government (overall)	80	1145
President Flores	74	1153
CONASOL	71	899
Local government	62	1131
Political parties	55	1070
Average for governmental	69	1139
Other actors/institutions		
International agencies	93	1095
First responders-rescue/medical	93	1164
Media	92	1163
Catholic Church	85	1117
NGOs	83	972
Private sector	82	1074
Average for other	88	893
Salvadoran armed forces	90	1177
Differences in favorable evaluations between:	<i>t</i> -test*	<i>N</i>
Average for governmental and other	-21.99	888
Average for governmental and Salvadoran armed forces	-20.67	1129
Average for other and Salvadoran armed forces	-1.89	892

(Notes. The percentage of favorable evaluations is calculated as the percent coded by the IUDOP team as above average to outstanding; *significant at p less than .001.)

of difference in means for these two groupings was statistically significant ($t = -21.99$), indicating that the respondents rated disaster response of “other” actors/institutions more favorably than that of governmental actors/institutions.

Second, the very high percentage of favorable evaluations for the military (90%) in Table 3 is noteworthy, surpassing the evaluations of many other actors, including the Catholic Church, the private sector, and even NGOs. Clearly, the Salvadoran military was a 2001 post-disaster “winner” in public esteem, especially relative to the various civilian governmental institutions. Again, a significant t -test reveals that public evaluations of the Salvadoran Armed Forces were much more positive than for governmental actors ($t = -20.67$).

An interesting reinforcement of this point was a separate t -test comparing people’s views of the performance of the other (that is, not governmental) actors/institutions with the Salvadoran Armed Forces, which turned out to be not statistically significant ($t = -1.89$), indicating that the respondents’ evaluations of the military in the disaster were similar to their evaluations of other actors/institutions not associated with government. Our interpretation here is that unlike the civilian governmental institutions or actors, the Salvadoran military appeared to incur little blame for the scope and effects of the event, and similar to the other institutions not commonly associated with government, they appeared to receive much credit for their response.

Our 5C+A framework helps make particular sense of these civilian-military findings. First, the military is essentially a response institution, so it receives little or no opprobrium for shortcomings in *anticipation*, which as noted above was a problem for the government, especially among the more educated. Secondly, the military is expected to be professional in its disaster work and therefore not particularly prone to overt *compassion*, so it isn’t really vulnerable on that dimension either. In fact, the military is much more of a “4C” institution, being

evaluated principally on *capabilities*, *competence*, *correctness*, and *credibility*. Politically, that is quite an advantage over civilian authorities.

Denying/Constraining International Disaster Assistance—and the 5C+A Framework

The 5C+A framework also helps us understand why some governments, most recently the authoritarian government of Myanmar in the aftermath of Cyclone Nargis, but reaching as far back as the governments of Ethiopia in the 1970s and Sudan in 1983–1984, refuse or at least severely constrain international disaster assistance. First, while international assistance may appear to add to the *capabilities* (resources) of the government in question and to images of *compassion* for the surviving victims, the political downside for a government is that the very need for external assistance underscores its original lack of capabilities.

Second, international disaster assistance donors generally insist on doing their own damage assessments and needs analyses, or they use assessments from autonomous bodies such as the UN, a regional institution, and/or NGOs. The dilemma for a receiving government then is that it cannot control the damage, loss, and needs data and their release, potentially undermining their *credibility*. This is especially problematic if the government was previously overstating the event's effects to leverage more assistance, or understating them to avoid admitting to high levels of loss. As noted above, an extreme version of this phenomenon is when a government will simply deny that a disaster is occurring or has occurred, in part to keep externals and their assessments out of the country.

In addition, international disaster assistance generally comes with norms and procedures that limit the ability of the receiving government to control and “brand” it, thereby reducing the government's ability to gain domestic political credit. In that sense, accepting large-scale international disaster assistance is a mixed blessing: positive from a humanitarian viewpoint, potentially negative from a narrowly political perspective.

Third, especially in recent decades, international disaster assistance donors have largely worked through NGOs, churches, or other organizations relatively insulated from government control. This choice of autonomous delivery institutions again highlights the weaknesses of a government, but it also sets up a clearly parallel system where surviving disaster victims and the more general public may compare both the relative *competence* and the *correctness* of the deliveries. The alternative for a government is simply to turn over disaster assistance to the international community and its in-country networks, and/or to create an independent body. From a political viewpoint, however, all that does is exacerbate the problem noted above—the demonstrated lack of the government's own underlying *capabilities*.

Fourth, if the severity of the disaster was the result of various *anticipation* problems, for example warning-alert failures, demonstrably risky land use, and/or poor building codes and construction practices, the influx of international disaster assistance professionals will sooner or later make those failings public knowledge. That is, once the international disaster assistance community is on the ground in a disaster-stricken nation, eventually the full causal story underlying the disaster will emerge—which circles back to, and reinforces, any government *credibility* problems.

Conclusion

To echo the classic Kingdon argument, three streams appear to be coming together as we move deeper into the twenty-first century. The first is a hard-fought acceptance that disasters are inherently and immediately political events, not merely policy and management problems susceptible to relatively painless

technical and organizational “fixes.” This is crucial because it focuses attention on disasters as values problems and the closely associated issues of authority, power, interest, influence, and accountability. That is, human and community hazard vulnerabilities do not arise accidentally. They result from decisions and governance capabilities—or more often inattention and lack thereof.

Obviously related to the first, the second stream is the very promising new generation of political science literature on disasters now appearing in widely read and cited outlets, indicating a more coherent research mainstreaming of “the politics of disaster.” This is crucial because for many years political science was relatively underrepresented in the disaster research community, which contributed to consistently underestimating the inherently political nature of disasters and disaster response.

The third stream derives from our conviction that the hazard events of the last 10 years are harbingers of the future, as acute human and community vulnerabilities increasingly manifest from the population, urbanization, and development dynamics of the twentieth century. While Haiti is a spectacular recent example, many countries have put millions of people in harm’s way, their long-term vulnerabilities not taken into account because short-term thinking dominated national, regional, and local attempts to cope with growth. In that sense, risk calculations were seldom on the political or policy agenda, and periodic disasters were not severe enough to force rethinking. If we are correct about more hazard events passing from the disaster into the catastrophe category, the human and community costs of short-term twentieth century thinking will become glaringly obvious as we move deeper into the current century, with major political implications for authorities, governments, and even regimes.

Seeing these three streams converging literally impelled us to reflect on, and try to make sense of, our decades of disaster experiences, and then to formalize the 5C+A framework. We see the 5C+A approach as a cross-case and cross-nationally applicable contribution toward more fully capturing the substance, symbols, and subtleties of the political dimensions of disasters. Our hope is that it will have practical as well as theoretic value in a twenty-first century where, unfortunately, we believe it will prove increasingly useful.

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