DEBATES

"Small Earthquake in Chile: Not Many Dead"

by Patricio Navia | New York University | pdn200@nyu.edu

To fully comprehend the effects of Chile's recent earthquake, we must also analyze two other events that resulted from the 8.8, nineteen-second quake that struck central Chile at 3.34 AM on the summer night of February 27, 2010. In addition to the *terremoto* itself, the tsunami that hit coastal areas less than an hour later and the looting that took place a day after in Concepción, Talcahuano and other towns are now inseparable elements of the strongest earthquake to hit Chile in fifty years. The three combined have redefined politics and offer an opportunity for Chile to learn from its mistakes and shortcomings.

The Quake

The earthquake itself should not have made as much news. Chile suffers from earthquakes. Wikipedia counts thirty-two reported tremors of magnitude six or higher since 1575. Because Wikipedia is much better at recording recent events, nine of those reported events have occurred this year alone. *Revista Enfoque*, published in the area most heavily hit, listed, in its April 2010 issue, twenty tsunami-causing earthquakes since the Spaniards arrived. The Spaniards arrived in Chile in 1536, built their first settlement in 1541 and a fortress in Penco, near Concepción, in 1550. Twelve years later, Spanish *conquistadores* experienced their first *terremoto* on October 28, 1562, in Concepción. Ten years later, in 1572, conquistadores in Concepción reported—exaggerating—that the sea retreated ten kilometers before the tsunami hit. During colonial years, recordkeeping was not the most accurate. Thus, it probably did not last the reported fifteen minutes, but the May 13, 1647 earthquake that hit Santiago is still considered the most devastating during the colonial period.

The list of earthquakes of magnitude seven or higher is long: Valparaíso in 1730, Concepción in 1751, Concepción in 1835, Arica in 1868, Valparaíso in 1906, and Vallenar in 1922. None seems to have left as lasting an impression as that of Chillán in 1939 (magnitude 7.8) and Valdivia in 1960 (magnitude 9.5, the strongest on record in the history of the world). The Chillán earthquake killed some 30,000 people. The cities of Concepción and Chillán suffered major damage, including the destruction of the Catholic cathedrals. The center-left Popular Front government of Pedro Aguirre Cerda—with his young health minister, Salvador Allende—spent heavily to rebuild the region. But with its sleek modernist Catholic Cathedral, Chillán (*nuevo*, as opposed to the destroyed and rebuilt Chillán Viejo) is a living testimony to the destructive power of quakes.

Though the Valdivia earthquake and tsunami of May 22, 1960 took place before Chile's television era, and in a less densely populated area, the memories of that quake—which jeopardized Chile's bid to host the 1962 World Cup tournament—are a constant feature in Chile. The 1991 film *La Frontera*, directed by Ricardo Larraín, is about a teacher who was relegated to Southern Chile for his opposition to the Pinochet dictatorship. In the town of Puerto Saavedra, he meets friends and foes whose lives were marked by the 1960 earthquake and tsunami. The film ends not with the end of the dictatorship but with another earthquake/tsunami. During the dictatorship years, *canto nuevo* music duo Schwenke y Nilo combined their protest songs with nostalgic accounts of the city of Valdivia before and after the devastating earthquake and tsunami. In a country of earthquakes, only one big earthquake can begin to erase the memory of previous ones. Perhaps that is why "Small Earthquake in Chile: Not Many Dead," a phrase attributed to British journalist Francis Claud Cockburn (1904-1981), is supposed to have been coined as an example of a highly accurate and highly boring newspaper heading, reflecting the undeniable truth that Chile and earthquakes are inevitably bound and will be so forever.

The 2010 earthquake was felt in most of Chile, but different parts of the 4,000-kilometer long country felt it with different intensity. The most heavily hit areas were the O'Higgins, Maule and Bio-Bio regions, which account for 23 percent of the nation's population. The earthquake also caused some damage in the Santiago metropolitan area, which contains 41 percent of the population. The government estimated that the cost would mount to US$30 billion (19 percent of GDP), though some private estimates put the figure at a much lower US$10 billion (still a sizable 6 percent of GDP).

Chile is a sparsely populated country. With its 22.6 inhabitants per square kilometer, it ranks 192nd in the world. In contrast, Haiti ranks 31th, with a density of 361.5. Yet, even in a sparsely populated country, strong quakes kill people. Given that the death toll in Chile only reached 521, the earthquake was not a devastating tragedy—certainly not when compared with the Haitian earthquake of January 12, with its 300,000 deaths. In fact, the Chilean earthquake was among the strongest earthquakes with the lowest number of casualties in recent years.

Given the strength of the quake, the cost in lives and infrastructure was limited. This is because Chile had learned from past experience. Building and construction codes are strict and, for the most part, enforced. The scandals generated by occasional faulty construction—some apartment buildings in Santiago, Concepción and other cities, and overpasses on recently built highways in Santiago—and reckless construction

companies is evidence that, for the most part, Chile was well prepared for such a strong magnitude quake.

Countries can minimize the costs in lives and infrastructure by preparing for earthquakes. The limited number of deaths caused by the earthquake is a powerful testimony to a well-designed and well-implemented regulatory framework. Because there is state regulatory capacity and successive governments have designed and implemented sound policies to cope with earthquakes, Chile resisted fairly well what would have been a devastating earthquake elsewhere. The earthquake itself was not the news.

The Tsunami

The immediate state response to the quake showed gigantic limitations in state capacity. After the quake, the state emergency protocols failed to work. Coordination between the National Emergency Office (ONEMI) and the Navy Oceanographic Services (SHOA) was clearly insufficient. SHOA faxed —yes, faxed!—a tsunami warning to ONEMI with vague information. ONEMI failed to issue a public warning before the tsunami. Even if it had issued a warning, it had no protocol in place to evacuate populations at risk. The destructive power of the tsunami cost more lives than the earthquake itself. The coastal towns of Constitución, where eighty-seven people died, Pelluhue (thirty-two deaths) and Talcahuano were devastated by the tsunami.

Little can be done to prepare for a tsunami. Refraining from building near the ocean is not an option for coastal towns whose livelihoods depend on fishing, tourism or, in the case of Talcahuano, naval operations and port activities. An earthquake with an epicenter in the ocean will irremediably destroy infrastructure and housing in nearby coastal cities, but deaths caused by tsunamis are preventable. The absence of an appropriate emergency protocol to inform the population and evacuate before a tsunami reflects a deadly shortcoming of the Chilean state. Lack of preparation, insufficient funding, and inability to coordinate are responsible for most of the tsunami-related deaths. An ongoing investigation in the Chamber of Deputies will assign political responsibility for the ineffective immediate response by the government. Right-wing legislators, however, seem more interested in putting the blame on former President Michelle Bachelet, a likely contender for the presidency in 2013, than in accepting that there was insufficient and inadequate state capacity to prepare and deal with a natural disaster of such magnitude.

True, there is political responsibility as well. The Navy failed to do its job properly. The National Emergency Office was not in control, nor did it have all the information easily available on the Internet. The Pacific Tsunami Warning Center, an Internet site that belongs to the U.S. government, was offering more information than Chilean authorities. In fact, a couple of hours after the earthquake, President Bachelet herself and other government officials discarded the possibility of a tsunami, not knowing that one had already devastated a few coastal towns. Lack of communication seriously impeded the government's ability to react adequately in the first hours after the quake. Lack of planning made the government excessively dependent on cell phone communication and electrically operated equipment. When electricity and cell phone networks went down, the government was left blind and deaf, incommunicado with its regional offices in the hardest hit areas and an official government warning would have helped little.

Fortunately, most people in at-risk areas fled to high areas immediately after the earthquake, thus reducing the number of fatalities. But the insufficient state capacity to provide information and an immediate response after the earthquake shows the limitations of an economic model that relies too heavily on private initiative and restricts the state to a regulatory function. The regulations themselves worked well. But governments need a well-functioning, strong and agile state apparatus to fulfill their public-safety obligations and to lead a rapid, effective and efficient response immediately after a natural disaster.

The Looting

The third component of the earthquake experience was the most surprising, graphic, and politically charged. Less than one day after the earthquake, in the city of Concepción, the second largest in the country, and other smaller towns, people went into supermarkets and stores—which had remained closed due to lack of electricity, running water, gas and telecommunications—to get food, water and other supplies. Rather than delivering those goods in an orderly fashion, government officials and the police were confronted by mobs of people moving into supermarkets. Soon, the need to access potable water and food turned into looting. People walked out of mega supermarkets with high definition televisions, clothing, jewelry and electronics. The *carabineros* were outnumbered. Media crews were covering the story and the earthquake aftershocks soon turned into lawlessness.

The earthquake came at a most inconvenient political moment. President-elect Sebastián Piñera was due to take office on March 11. He had already appointed his cabinet, but the transition was not going smoothly.

NAVIA *continued…*

Many officials in the outgoing Bachelet administration had already stepped down; others were on vacation. After all, most Chileans vacation in February. As the six-day, highly popular Festival de la Canción de Viña del Mar was about to end the night of February 27, many politicians were also on vacation. There is little political news in the summer—none when the Festival de Viña del Mar is on. Despite clamors to send the Army onto the street to help guarantee order, President Bachelet hesitated. According to some, she did not want to leave power with the troops patrolling the streets. Most likely, she did not know how devastating the earthquake and tsunami had been in many towns. More than fear of the military, Bachelet's indecision was caused by lack of awareness. Both are problematic, but fear of the military reflects an unfinished transition and unconsolidated democracy, while lack of awareness reflects an ill-functioning state.

Eventually, Bachelet sent the army out to patrol the streets. People in Concepción cheered the tanks and the troops. In a well-functioning democracy, that is normal. It is not nostalgia for military rule. With the army on the streets, looting stopped and emergency aid began to arrive to the hardest hit areas. But the damage was done. The earthquake and tsunami were inescapably associated with the subsequent looting.

The Aftershocks

When he was inaugurated on March 11, twelve days later, President Piñera became Chile's first right-wing president since Pinochet—and the first democratically elected conservative in fifty-two years. His own inauguration was almost interrupted minutes before it began by a 6.9 aftershock. The images of highly troubled—if not openly scared—foreign leaders circled the world. Spanish Prince Felipe joked, saying that one should only be concerned with earthquakes when Chileans get scared. The February 27 earthquake gave Chileans reasons to not be scared but to be concerned. On the positive side, the infrastructure resisted well, and few lives were lost. On the negative, the insufficient capacity of the state to provide immediate response, including an adequate tsunami-warning protocol, to secure order and to provide basic needs to those most affected by the disaster highlights the limitations of the Chilean model. In its most basic and oversimplifying form, while the regulatory state worked well, the hands-on and immediate response state failed. As Chileans learn lessons, they should take note. A strong and effective regulatory state is not sufficient. Earthquakes and other natural and social emergencies do happen. If the state is not sufficiently prepared and strong enough to deal with them, the end cost can be very high. ■