4. THE EARTHQUAKE IN CHILE

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INTRODUCTION

Following the dictatorship of Augusto Pinochet (1973-1990), Chile has experienced stable democracy and is now considered as one of the most developed countries in South America and one of the leaders of the continent, though its economic inequalities are among the highest in the sub-continent.

Chile is geographically unique, as it extends from the Atacama Desert in the North to Cape Horn in the South, with a varying landscape of deserts, lakes, mountains, and glaciers in between. It is also highly prone to natural disasters: the country lies on top of the tectonic Nazca Plate and the South American plates, and therefore frequently experiences earthquakes. Because of its long Pacific coastline, these earthquakes can trigger tsunamis, as well.

Chile is therefore considered highly vulnerable to disasters related to climate change. The United Nations Framework Convention on Climate Change (UNFCCC) names Chile as a country of particular concern due to changes in prevailing global climate patterns (Government of Chile, 2010b:13), and the country has seven of the nine national characteristics that made up a "vulnerability framework" in the article 4.8 of the UNFCCC.

1. CONTEXT AND VULNERABILITY: OVERVIEW OF CHILE AND DESCRIPTION OF THE DISASTER

1.1. The 2010 Earthquake

On Saturday, February 27, 2010, at 3:34 am, an 8.8 magnitude earthquake hit central Chile. Its epicenter was situated 35 kilometers below the floor of the Pacific Ocean, 6.4 kilometers from the coastline, 115 kilometers from the city of Concepcion, and 325 kilometers Southwest of Santiago. It was the second largest quake ever recorded in Chile, and the fifth largest recorded in the world since 1900 (Beittel & Margesson, 2010:3). After the earthquake, the US Geological Survey (USGS) registered at least 150 aftershocks, of which nine had a magnitude of 5.0 or greater (Beittel & Margesson, 2010:3). The earthquake lasted more than two minutes; some witnesses described the duration as an "endless moment" (*BBC Mundo*, 2010). It was felt in Santiago and even in Western parts of Argentina.

Michelle Bachelet, the President of Chile during the event, quickly appealed for calm (*BBC Mundo*, 2010). At 5:00 am, she put in place an emergency committee and announced that the national authorities were trying to evaluate the damage caused by the earthquake and the number of victims. She recognized that it was a "major earthquake" but reassured Chileans that all the national institutions were operational. Rescue teams started to search for people trapped in their houses and buildings (particularly in elevators), giving priority to the most dangerous and urgent situations.

On Sunday, February 28, President Bachelet declared a state of constitutional exception for the two most affected regions (Bio Bio and Maule), for a period of 30 days in order to "guarantee the public order and the delivery of the first basic needs" (*El Pais,* 2010). This procedure, authorized by the Chilean Constitution,[7] empowered the Army and the policy, particularly to control looting. Meanwhile, national and international media began broadcasting the first images of the devastation

7. See Chilean Constitution (1980), amended en 2005; Article 32-5: "The special powers vested in the President of the Republic are the following: (…) 5 .- declare states of exception in the cases and forms listed in this Constitution."

caused to houses, hospitals, and highways, as well as people gathering in the streets in the quake zone (Ruiz, 2010).

As the earthquake cut communications in parts of the country, parts of Chile were isolated from vital information flows; in some places, it took days to reestablish the communications infrastructure. The radio and the internet (including social media networks, such as Facebook and Twitter) were critical in making announcements, searching for missing persons, and relaying information to and from the affected area (*La Nacion*, 2010).

Unfortunately, such resources did not prevent tragedy in the immediate aftermath of the quake. The (US) National Oceanic and Atmospheric Administration recorded a tsunami moments after the quake. However, the Chilean oceanography service, SHOA, initially declared (on Twitter) that no tsunami was imminent (Rivas, 2011). By the time they noted the NOAA warnings and changed course, critical response time had been lost. Fortunately, in some localities, port captains issued emergency warnings, and people were able to move out of the tsunami's path. However, owing to the contradictory information from the national authorities, many people were needlessly trapped by the tsunami and its eight-meter high waves. Earthquake and tsunami damage, aftershocks, shortages in basic needs, "and poor emergency management provoked panic and chaos in some areas in the days following the disaster. Desperate people turned to looting for food, though bigger items (including TVs) were also reported looted in some cases (*El Comercio Perú*, 2010). Because of memories of the dictatorial period, and because its term in power was days from ending, the Bachelet government was hesitant to send in the Army to restore security.[8] As a result, citizens organized their own protection, until the government finally instituted a curfew to curb looting. Police and Army forces were deployed against looters, sometimes resorting to tear gas and water canon (Long, 2010).

After the disaster, the government declared six regions of catastrophe: Maule, Bio-Bio, Araucania, O'Higgins, Valparaiso and the Metropolitan Regions. The Maule and Bio-Bo regions were the most affected; Concepción (capital of the Bio Bio region) and Talcahuano were the most affected cities (ECLAC, 2010).

The large number of missing persons created some confusion in counting the dead. On March 1, the death toll stood at 700 (*Fox News,* 2010), but government critics claimed that this figure was riddled with inaccuracies (*El mostrador*, 2010). As bodies were identified and communications improved, the death toll was lowered in many regions. A Chilean government report from March 5 counted 452 deaths (*El mostrador*, 2010); the US Government issued an estimate of 507 deaths on March 11 (Beittel & Margesson, 2010). All together, approximately 2 million people were affected by the earthquake, the resulting tsunami, or both.

1.2. Socio-economic and natural characteristics of the affected areas

The most affected areas were the Maule Region and the Bio Bio Region, in Central Chile (ECALC, 2010). Like much of the country, these regions lie at a significant distance from Santiago, and are isolated from the capital by large areas of wilderness.

The regional capital of Maule Region (VII Region) is Talca. According to the last census in 2002, Maule was home to 908,097 people[9]; the region is approximately the size of Belgium. The population density of the region is quite low (32 per square kilometer), and it is the least urbanized region in the country (with 35% of the population in rural areas). Its major economic activities include agriculture and livestock, including the production of rice, beets, wines, and forestry products. The energy sector is also quite important, as Maule is a major source of hydroelectric production.

The Bio Bio Region (VIII Region) is to the South of the Maule Region. The region has nearly 2 million people in just more than 37,000 square kilometers; the regional capital is Concepción[10]. This region is more rainy and colder than the Maule Region. Consequently, fishing and forestry are more developed than agriculture, manufacturing and services. Its capital, Concepción, is the economic center of the region, with 1 million inhabitants and a variety of commercial, touristic and educational services.

Both regions score poorly on national CASEN studies, which measure poverty based on the number of people unable to afford basic needs (Ministry of Planification, 2009). While the national poverty rate is 15.1%, Bio Bio has a rate of 21% (second worst in the country) and Maule a rate of 20.7% (third).

8. The change of government took place on the 11th of March. The center-left alliance government of Michelle Bachelet was replaced by the center-right alliance government of Sebastián Piñera, after 20 years of center-left alliance since the fall of the Pinochet's dictature.

9. Website of the Maule Administrative Division: http://www.intendenciamaule.gov.cl/geografia.html

10. See Bio Bio Administrative Division website http://www.intendenciabiobio.gov.cl/

2. THE DISASTER AND ITS AFTERMATH

2.1. Preparations

Because of its timing (just two months after the devastating Haiti earthquake), its magnitude (much larger than Haiti), and its consequences (much less catastrophic than Haiti), the Chilean earthquake of 2010 provoked significant debate about the nature of Chile's preparations for natural disasters. Many of these debates focused on Chile's governance structures, especially on its prevention-oriented building codes, which were credited with a key role in minimizing the damage (and thereby, the displacement) caused by the event (Reuben, 2010).

Due to its long history of earthquakes, Chile has developed a special building code called "strong columns weak beams". Such codes are considered essential in a country that registered the world's most violent recorded earthquake (a 9.5-magnitude event in 1960 that killed 3,000 people and left 2 million homeless), and that is likely to experience a quake of magnitude 7.0 or higher every five years (Lafsky, 2010). Chilean authorities have also developed extensive seismic studies and technology, and population-level awareness about earthquake safety is quite high. These policies (particularly in the area of building codes) are strictly enforced (Padgett, 2010). Enforcement in turn is aided by very low levels of corruption; Chile ranks 25th in the world in Transparency International's Global Corruption Index (Padgett, 2010).

2.2. Displacements

Partly as a result of these preventative steps, the number of displaced people was significantly lower than it might have been had a large number of structures collapsed. Still, a large number of people were on the move in the aftermath of the disaster. For one thing, approximately 500,000 people sought safer ground in the days immediately following the disaster. Many of these people departed from the cities of Concepción and Talcahuano, and the villages of Dichato, Pullay and Tregualemu, seeking refuge in improvised camps in nearby hills. Fearing further aftershocks and tsunamis, they made do for days with basic tents and blankets (Wurgaft, 2010). The Army tried to convince these "People of the Hills" to come back to the city in order to receive more significant aid, yet some remained in the hills as many as ten more days (*Terra,* 2010).

The disaster caused the displacement of many people whose houses were genuinely damaged. It is difficult to state a number of such displaced persons with certainty. Immediately following the disaster, it was announced that 1.5 to 2 million people suffered from the effects of the quake and were "*potentially* displaced people" in need of shelter and basic needs (Barrionuevo & Robbins, 2010), but no number of *actually* displaced people was announced. Therefore, it is possible that the "potentially displaced" figure includes both "People of the Hills" (who fled for safety reasons) and those whose homes were damaged but did not migrate at all (Barrionuevo & Robbins, 2010).

A more precise displacement figure can be determined based on the number of people relocated to temporary camps (first in tents and then in wooden houses) after the disaster. A newsletter from the International Organization for Migration (IOM), issued in late March, reported that around 200,000 houses had been destroyed by the earthquake and 70,000 to 120,000 persons needed urgent shelter relief (IOM, 2010c). These were the people who had truly lost everything, and thus were priorities for national and international aid efforts in the aftermath of the disaster (as well as in the reconstruction phase of the recovery effort).

The Chilean Government, IOM, local authorities and local NGOs worked together to help the victims and provide housing. The construction of shelters for people left homeless (including 1,500 emergency shelts in Maule and Bio Bio) probably avoided larger flows of displaced people out of the affected region. (IOM, 2010a). The IOM also helped migrants living in the Santiago metropolitan area, including 1,300 persons severely affected by the disaster and needing shelter or other basic needs (IOM, 2010b).Others needed assistance, but were afraid to leave what was left of their homes and thus refused to relocate for assistance.

2.3. Response of governmental and non-governmental actors to those affected

2.3.1. Rights

The earthquake created two basic categories of displaced: those who fled in fear in the immediate aftermath of the disaster, and those who were forced into long-term displacement by the destruction of their homes. People in each group had a very different profile of needs, and were granted very different legal rights. For example, those who fled in fear needed basic needs in the days following the disaster, but were eventually able to return home; those in the other category required resettlement and related long-term social support.

Regardless of typology, all the internally displaced people (IDPs) in Chile lived in a vague legal

context following the quake. Chilean law regulates migration on the basis of classical paradigms of migration.[11] For example, Law 1094 of 1975 serves as the basis of migration law in Chile. Importantly, it only considers international migrants arriving in the country, and refugee or asylum status is only extended to those who flee their home countries for political reasons (as set forth in international refugee conventions).

Environmental migrants—and especially environmental IDPs—are not accounted for in Chilean law. They are not tourists, migrant workers, refugees, or asylum seakers, and moreover, in the case of the quake, migrants were native Chileans, rather than foreigners. In 2010, the Chilean Parliament approved Law 20,430, which further clarifies refugee protection law. However, the updated law still lacks a classification for victims of natural disasters and IDPs (UNHCR, 2010).

Internationally, protections for IDPs (such as the environmental migrants in the wake of the Chilean quake) are enshrined only in guidelines, such as the "Guiding Principles of Internal Displacement" from the UN Department of Economic and Social Affairs. In addition, the Inter-Agency Standing Committee (IASC) Operational Guideline on the Protection of Persons in situation of Natural Disaster was created by the IASC to advise countries on how to react in case of natural disaster and how to insure full protection of affected population (IASC, 2011).These guidelines put primacy on the protection of life; Chile did well in this regard as the death toll was limited, given the magnitude of the quake (though the government's management of the tsunami warnings did come in for criticism).

Secondarily, the guidelines emphasize the protection of displaced rights in the aftermath of disaster, and the assurance of displaced quality of life in the long-term rebuilding phase of recovery. Thus, the guidelines cover not only the humanitarian response, but also the long-range policy response from the national government. Such governments are responsible for the protection of the rights to housing, land and property, livelihoods, and education (including secondary and higher education), as well as facilitating legal documentation, freedom of movement and the re-establishment of family ties, freedom of expression and opinions, and the right to participate in democratic elections.

11. Decreto Ley Nº 1.094, DE 1975 Establece normas sobre extranjeros en Chile. Publicado en el D.O. Nº 29.208 de 19 de Julio de 1975. And especially "Parrafo 5, de los asilados políticos o refugiados", http://www.extranjeria.gov.cl/filesapp/manual_aspectos_normativos.pdf

2.3.2. Services provided

The national government reacted quickly in the days following the quake, with the exception of the tsunami early warning debacle.[12] An emergency committee was created, and a national rescue team composed of firefighters, emergency workers, and the Army, was deployed for search-and-rescue, as well as the identification of the bodies of victims. Within 36 hours, a State of Emergency had been declared (Moloney, 2010).

After the declaration of a State of Emergency, national authorities and local NGOs distributed basic goods (drinking water, three rations of food daily, blankets, sanitation equipment) quite efficiently to those in the affected area. For example, by March 2, the government had mobilized 5 million food rations, and was distributing 65,000 rations daily to the regions of O'Higgins, Maule, and Bio Bio (OCHA, 2010:50); areas outside of the immediate quake zone (including the city of Valparaiso) were also receiving food assistance (*ibid*.).

Still, the immense scale of the disaster created tensions in the food delivery system. Though the emergency response prioritized those most in need, 2 million people were affected by the disaster, and the government came in for criticism among those who were not prioritized by the distribution system (Wade & Cambero, 2010). In particular, critics contrasted the outpouring of rapid support from Chilean civilians with the slow reaction from national authorities (*ibid*). In the case of the city of Dichato, cargo ships could not come ashore and stopped short 30 kilometers from the village, which slowed down the delivery of food and water.

Meanwhile, in larger cities in the quake zone (such as Concepción), Army troops were sent in to provide security. The lack of food, water, and gasoline provoked looting, which resulted in the imposition of a month-long curfew. Still, victims of the looting argued that the looting was preventable, and that the delay in the arrival of government troops had led to a security vacuum (*CBS News,* 2010).

With the quake occurring at the beginning of the rainy season, shelter was a major concern during the emergency response phase. Forty-five camps opened in the quake zone, furnishing tents to those who had lost their homes. However, the vast majority (more than 80%, by some estimates) of those who lost their homes went to live with family and relatives. Such strategies reduced pressure on the camps, but made it difficult to estimate and plan for housing needs among the affected population (OCHA, 2010:50).

12. President Bachelet later admitted the failure of the monitoring system. See Moloney, 2010.

2.4. International response: mobilizing funds

Despite Chile's relatively high level of development, international assistance was still needed to respond to the earthquake. President Bachelet postponed it for two days, but finally called for international help on March 1. Her first request was for human resources (search-and-rescue teams and emergency aid workers), as well as water, food, and satellite cell phones (Franklin & Smith, 2010).

On March 10, United Nations Secretary-General Ban Ki-Moon toured the country and declared that the UN would play a role in the reconstruction effort. He also devoted $10 million from the Central Emergency Response Fund to support the response (*UN News Center,* 2010). Meanwhile, the International Federation of the Red Cross/Red Crescent launched a $13 million fund raising campaign for emergency needs (IFRC, 2010), and an international telethon raised a further $60 million to support quake relief (*Huffington Post*, 2010).

As part of its mission to help children in emergency settings, UNICEF also contributed to the effort (UNICEF, 2010). The organization re-opened schools in the affected area, distributed school supplies, and provided psychological support for child victims, especially in Maule and Bio Bio. Such efforts were particularly necessary as the quake coincided with the end of summer vacation (originally slated for March 15, but rescheduled after the quake to April 5).

On March 7, the World Food Program sent 35 tons of food (including high-energy biscuits and "meals ready to eat", or MREs) to the quake zone. Their supplies fed 35,000 people for five days; a further 70 tons of food had arrived within a week (WFP, 2010).

A number of foreign governments also contributed to relief efforts in different ways. For example, the United Kingdom provided tenting for 3,000 people (DFIP, 2010), while the United States provided technical advisors for humanitarian needs assessments (USAID, 2010). Japan sent medical teams, power generators, and water purification equipment (Government of Japan, 2010), while a number of other nations (including India, Indonesia, Norway, and Vietnam) sent cash assistance.[13]

Despite the diverse forms of assistance from many international actors, it is important to keep in mind that the overall cost of recovery and rebuilding far exceeded the aid provided for emergency relief. The American risk assessment firm Eqecat estimated that the disaster would cost $15-30 billion (10-20% of Chilean GDP) (Long, 2010); other firms similarly projected total costs of around $30 billion (US) (Associated Press - *News 24,* 2010). Many of these costs were related to critical infrastructure. For example, the Chilean Ministry of Health estimated that the cost to rebuild hospitals and health facilities in the quake zone would be approximately $3.6 billion (Government of Chile, 2010a).

2.5. Situation today

The Chilean government projects that reconstruction in the quake zone will last until 2014 (Government of Chile, 2011). When this article went to press, the government was reporting that 61% of income subsidies and 90% of housing payments had been made for 2011 (*ibid.*). Meanwhile, it reported that 70% of educational facilities had been repaired and that the majority of public infrastructure (roads, water systems, bridges, airports) was again functional (*ibid.*).

Despite these rosy figures, many victims of the disaster have expressed frustration to national and international media. For example, reports have highlighted housing reconstruction has not been sufficiently rapid to prevent more than 120,000 families from going homeless in the wake of the quake (Associated Press – *News 24,* 2010). Meanwhile, Claudio Arriagada, president of the Chilean Association of Cities, claims that, despite the large number of payments that the government claimed to have made, "only one percent" of recipients had been able to use the money to find new housing (*ibid.*). Some of the discrepancy may be due to the slow pace of physical reconstruction. Arriagada claims that only 1,570 homes had actually been built, one year after the quake, while more than 135,000 subsidies had been granted (*Cooperativa,* 2011).

Indeed, even on the first anniversary of the quake in February 2011, many victims in the most affected areas were still living in huts (Nelsen, 2011). Many had first been housed in leaky, rat-infested tents in the four months following the disaster, at which point they were moved to wooden huts. Several residents spoke to the *Christian Science Monitor*, stating that they were still in search of permanent homes and that they had suffered from water and sanitation shortages and ill-defined plans for reconstruction (*ibid.)*.[14] In part

13. See for instance Government of India, 2010; Jakarta Post, 2010; Government of Norway, 2010; Government of Viet Nam, 2010.

14. Another camp, near Tacahuano, was also accused by the National Health Services of being out of compliance with regard to basic sanitation. See Tauran, 2010.

due to these breakdowns, the anniversary visit of (newly-elected) President Sebastian Piñera to the quake zone in March 2011 elicited protests from thousands of families upset with the management of the reconstruction process.

On July 20, 2011, a wave of violent protests broke out in the Bio Bio Region. They denounced the Chilean government for the slow process of housing reconstruction, and were met with water cannon and tear gas from the police (*Chilevision*, 2011). As the news spread via social networking sites, supporting protests broke out around the country, even at government facilities in the capital, Santiago (*Terra*, 2011). The protestors' claims were supported by Clemira Pacheco, a member of the House of Deputies. She noted that, 17 months after the disaster, many families were still being deprived of basic living conditions, and that there had been a lack of citizen participation in reconstruction planning (*El Concecuente*, 2011).

In response to the protests, the government met with community leaders to find solutions to the housing reconstruction crisis. A number of new measures were proposed by government representatives, including an increase in subsidy payments to affected people (Guerrero & Paz Nuñez, 2011). At the time that this article went to press, no final solution had been found, and the issue remains highly sensitive in the quake zone.

CONCLUSION

Among the many disasters worldwide in 2010, the case of Chile stands out both for the enormous magnitude of the earthquake, and for the relatively low number of resulting deaths. The low death toll can be attributed to the array of prevention measures put in place by the Chilean government before the quake struck, and to the rapid deployment of humanitarian response in the quake zone. International financial assistance also helped avert a humanitarian disaster.

Nonetheless, the quake highlighted a few significant problems with Chile's disaster response system. Specifically, the failure of the tsunami early warning system and the extremely slow pace of reconstruction of housing in the quake zone have earned warranted criticism. The government should also consider the degree to which it is prudent to have people settling in quake- and tsunami-prone "danger zones" along the coast. Lastly, the government should consider that flaws in its legal code led to a situation where environmental migrants out of the quake zone lived in legally ambiguous situations, as Chilean law makes no provision for internally displaced persons.

RECOMMENDATIONS

In light of the findings of this case study, I would recommend the following:

1. The Chilean Parliament should take up legislation to codify international guidelines on IDPs and IDP protection into Chilean law.

2. The Chilean government should strengthen its emergency warning systems especially for tsunamis, and ensure strong lines of communication between national agencies and local agencies, as well as among national agencies themselves.

3. Having codified IDP rights in Chilean law, the Chilean government should move to improve mechanisms for reconstruction in the wake of natural disasters. These plans would help ensure that aid to IDPs extends beyond the emergency phase, to the recovery and rebuilding. In particular, special attention should be paid to local governments, who were responsible for camp management in the aftermath of the quake, and to the Home Ministry, which had administrative responsibility for the reconstruction effort. Such agencies should also be subject to higher levels of transparency.

4. The Chilean government should also begin a dialogue in quake- and tsunami-prone coastal areas about plans for future development and planning in the region. Any planning in this regard should have full public participation, including the voices of local representatives and associations.

5. The Chilean government should also consider the potential impact of climate change on the country, and plan risk management accordingly. Though the earthquake was a seismic, rather than a climatic, event, Chile is vulnerable to natural disasters caused by global warming. Both public actors (ministries and local governments) and private actors must have a role in climate planning, to ensure maximum efficiency and transparency. Climate risk reduction efforts should take place alongside, rather than in place of, the country's traditional risk reduction measures related to seismic activity.

BIBLIOGRAPHY

Beittel J. & Margesson R. (2010), « Chile Earthquake: US and international response", Congressional Research Service.

CASEN 2009, Encuesta de caracterización socio-económica Nacional, Gobierno de Chile, Ministerio de Planificación, http://www.mideplan.gob.cl/casen2009/RESULTADOS_CASEN_2009.pdf

Government of Chile (2011), Balance de la reconstrucción a un año del terremoto, Website of the Chilean Government, 22/02/2011. http://www.gob.cl/especiales/balance-de-reconstruccion-a-un-ano-del-terremoto/

Government of Chile (2010a), "Chile: Ministro Erazo evalúa en US$3.600 millones reconstrucción de la red hospitalaria », 08 March 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.17.

Government of Chile (2010b), « National Climate Change Action Plan 2008-2012 », Comisión Nacional de Medio Ambiente, 2010.

Government of India (2010), « Indian PM condoles loss of life in Chilean earthquake, pledges five million dollars towards relief », 05 Mar 2010 in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p. 65.

Government of Japan (2010), « Earthquake Disaster in the Republic of Chile (Dispatch of Japan International Disaster Relief Medical Team) », 01 March 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.42.

Government of Norway (2010), « Norway provides emergency relief after earthquake in Chile », 05 Mar 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.58.

Government of Viet Nam (2010), « Vietnam provides 150,000 USD to Chile's quake victims », 05 Mar 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.33.

Economical Commission for Latin America (ECLAC), "Recomendaciones para una estrategia de reconstrucción y recuperación del terremoto de Chile del 27 de febrero de 2010", Draft for discussion, 17/03/2010, available at: http://www.eclac.org/cgi-bin/getprod.asp?xml=/publicaciones/sinsigla/xml/4/41564/P41564.xml&xsl=/desastres/tpl/p10f.xsl&base=/desastres/tpl/top-bottom.xsl

IASC, Operational guidelines on the protection of persons in situation of natural disaster, The Brookings Bern Project, January 2011. http://ochanet.unocha.org/p/Documents/Operational%20Guidelines.pdf `

International Federation of Red Cross And Red Crescent Societies (IFRC) (2010), « Terremoto en Chile: llamamiento revisado para financiar una asistencia más intégral » 09 March 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.14.

IOM (2010 a), "L'IOM construit 1500 abris d'urgence dans les zone durement touchées par le séisme de février dernier", Notes pour la presse, IOM, 28/02/2010. http://www.iom.int/jahia/Jahia/media/press-briefing-notes/pbnAM/cache/offonce?entryId=27444

IOM (2010 b), "Chile-IOM, local partners help vulnerable, earthquake- affected migrants in Chile", Report of the IOM for ReliefWeb, 05/03/2010, http://reliefweb.int/node/347226

IOM (2010 c), "L'IOM aide les familles touchées par le séisme dans les provinces de Maule et Bio Bio », OIM, Notes pour la presse, 30/03/2010

http://www.iom.int/jahia/Jahia/media/press-briefing-notes/pbnAM/cache/offonce?entryId=27164

United Nations Children's Fund (UNICEF) (2010), « UNICEF Intensifies Cooperation with Organizations Working with Chilean Children », 08 Mar 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.21.

United Nations High Commissioner for Refugees (UNHCR) (2010), "Chile adopta ley de protección de refugiados", 10/03/2010 http://www.acnur.org/t3/noticias/noticia/chile-adopta-ley-de-proteccion-de-refugiados/

United Kingdom Department for International Development (DFID), « UK sends tents for Chilean families », 05 March 2010, in ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010, 10/03/2010, p.38.

United Nations Office for the Coordination of Humanitarian Affairs (OCHA) (2010), « Chile Earthquake, Situation Report n°4 – 05 March 2010 » in *ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010*, 10/03/2010, pp.49-51.

United Nations World Food Programme (WFP) (2010), « Llegan alimentos del PMA para ayudar a las víctimas de terremoto en Chile », 07 Mar 2010, in *ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010*, 10/03/2010, p.36.

United States Agency for International Development (USAID) (2010), « Chile – Earthquake Fact Sheet #6, Fiscal Year (FY) 2010 », 06 Mar 2010, in *ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010*, 10/03/2010, p.40.

Law references

Chilean Constitution, 1980, updated in 2005.

DECRETO LEY Nº 1.094, DE 1975 Establece normas sobre extranjeros en Chile.

Publicado en el D.O. Nº 29.208 de 19 de Julio de 1975. And especially "Parrafo 5, de los asilados políticos o refugiados", http://www.extranjeria.gov.cl/filesapp/manual_aspectos_normativos.pdf

Press articles

AFP, ANSA y DPA Agencies, "El rol clave de Twitter y Facebook", La Nación, 28/02/2010 http://www.lanacion.com.ar/1238200-el-rol-clave-de-twitter-y-facebook

Associated Press, “Protests in Chile a year after quake », *News 24*, 28/02/2011. http://www.news24.com/World/News/Protests-in-Chile-a-year-after-quake-20110228

Barrionuevo A. & Robbins L., “1,5 million displaced after Chile quake”, New York Times, 27/02/2010, http://www.nytimes.com/2010/02/28/world/americas/28chile.html

EFE Agency , “Bachelet decreta el estado de excepción en las regiones más castigadas por el seísmo » *El Pais*, 28 February 2010.

Franklin Jonathan and Smith R. Jeffrey, “Chile reels in aftermath of quake, emergency workers provide aid », The Washington Post, 01/03/2010 http://www.washingtonpost.com/wp-dyn/content/article/2010/02/28/AR2010022800062.html

Guerrero A. & Paz Nuñez M. (2011), “Con nueva propuesta termina reunión entre damnificados de Dichato y autoridades”, La Tercera, 22/07/2011, http://www.latercera.com/noticia/nacional/2011/07/680-381394-9-con-nueva-propuesta-termina-reunion-entre-damnificados-de-dichato-y-autoridades.shtml

Lafsky Melissa, “The power of building codes: Chile death toll less than 1% that of Haiti”, The Infrastructurist, 01/03/2010, http://www.infrastructurist.com/2010/03/01/the-power-of-building-codes-chile-death-toll-less-than-1-that-of-haiti/

Long Gideon, “Chile counts cost of earthquake as tsunami fear raise », BBC News, 28/02/2010 http://news.bbc.co.uk/2/hi/americas/8541546.stm

Moloney A. (2010), « MediaWatch: Chilean authorities come under fire over tsunami alert », in *AlertNet,* 04 March 2010, accessible from *ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010*, 10/03/2010, p. 80.

Nelsen A. (2011), “Chile earthquake anniversary puts President Piñera in the hotseat », *The Christian Science Monitor,* 27 February 2011.

Padgett Tim, “Chile and Haiti: a tale of two earthquakes », Time, 01/03/2010 http://www.time.com/time/world/article/0,8599,1968576,00.html

Reuben A., “Why did fewer die in Chile’s earthquake than in Haiti’s?”, BBC News, 01/03/2010 http://news.bbc.co.uk/2/hi/americas/8543324.stm

Rivas R. (2011), “Lecciones del terremoto-tsunami en Japón: errores y aciertos en Chile”, El Observatodo, 14/03/2011, available at: http://www.elobservatodo.cl/noticia/politica/lecciones-del-terremoto-tsunami-en-japon-errores-y-aciertos-en-chile

Ruiz B. Carlos, “Terremoto en Chile, portada en todo el mundo”, El Observatodo, 28/02/2010, http://www.elobservatodo.cl/admin/render/noticia/16500

Tauran E. (2010), “Seremi culpa a municipio de Talcahuano por crisis sanitaria en campamento de Tumbes”, *BiobioChile,* November 26th 2010.

Terry Wade and Fabian Cambero (2010), « Some Chile quake survivors wait for aid a week on » , in *AlertNet,* 06 Mar 2010, accessible from *ReliefWeb Report : Briefing kit for Chile Earthquake- February 2010*, 10/03/2010, pp. 43-44.

Wurgaft R., « La gente de los cerros » , *El Mundo,* 01/03/2010 http://www.elmundo.es/america/2010/03/01/noticias/1267481641.html

Visual Supports

Chilevision, “Violentas manifestaciones en Dichato”, 22/07/2011 http://www.chilevision.cl/home/index.php?option=com_content&task=view&id=371174&Itemid=81

Terra (2011), “Realisan protesta en apoyo a pobladores de Dichato”, 21/07/2011 http://megagalerias.terra.cl/galerias/actualidad/galeria.cfm?id_galeria=60311

Websites

Website of the Maule Administrative Division, Informacion geografica, available in: http://www.intendenciamaule.gov.cl/geografia.html

Website of the Bio Bio Administrative Division http://www.intendenciabiobio.gov.cl/