EENA Case Study

Public Warning in Chile

Resilient Culture

european emergency number association

Public Warning in Chile

EENA Case Study Document

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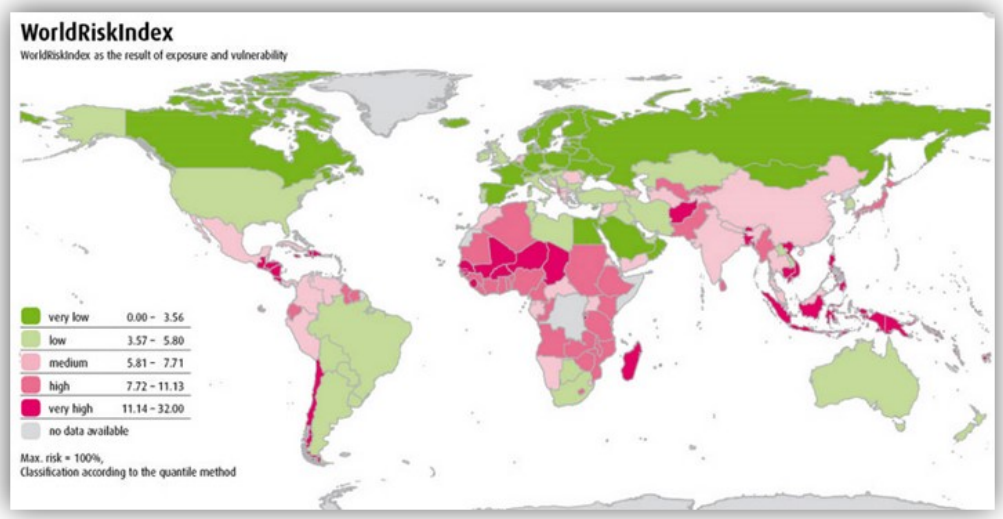
CONTENTS

This document is also available in Spanish. If you would like to receive the Spanish version, please contact Cristina Lumbreras: cl@eena.org.

Chile: one of the leading countries that best cope with major seismic events...

1. Executive Summary

The peculiarity of the geographical position and the Natural/Physical characteristics of Chile defines and explains that extreme natural events are part of the history and culture of this country.



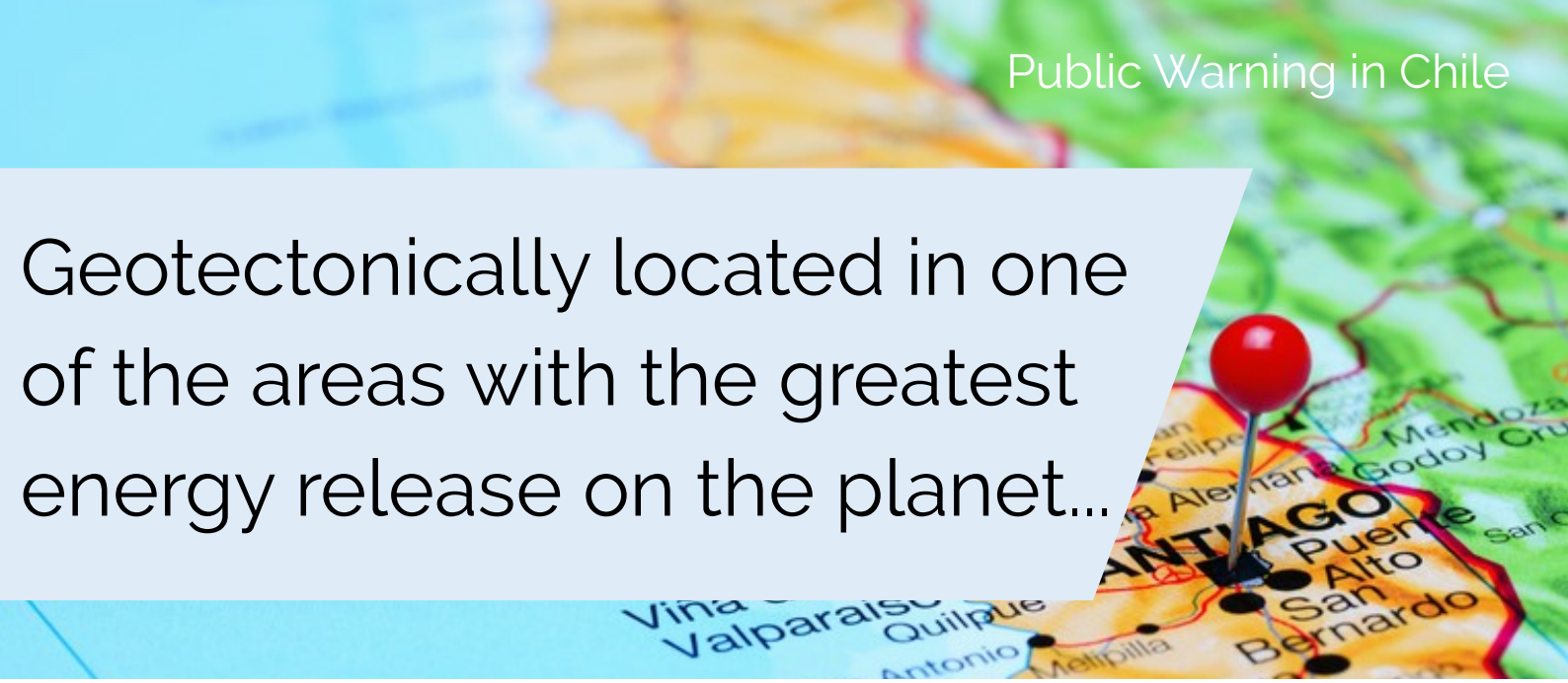
Map of Volcanoes by the World Risk Index – Source: United Nations

Earthquakes and tsunamis are historically at the head of the most outstanding figures in terms of casualties and economic losses, although the hydro meteorological events are reaching also great prominence due to the damage they are causing to infrastructure lately.

For the aforementioned reasons, Chile is recognised internationally among the countries with the greatest exposure to disaster risk.

This situation has made Chile a resilient country in terms of its ability to cope with major disasters and catastrophes, a quality that has been strengthened through the lessons learned after each major event they have suffered. It is observed that a culture that initially was exclusively reactive, turns towards a more preventive attitude. An example could be their risk management skills. Once an event occurs, new capabilities are set forth at different levels which take Chile as one of the leading countries that best cope with major seismic events.

This document was originally written in Spanish in October 2017.



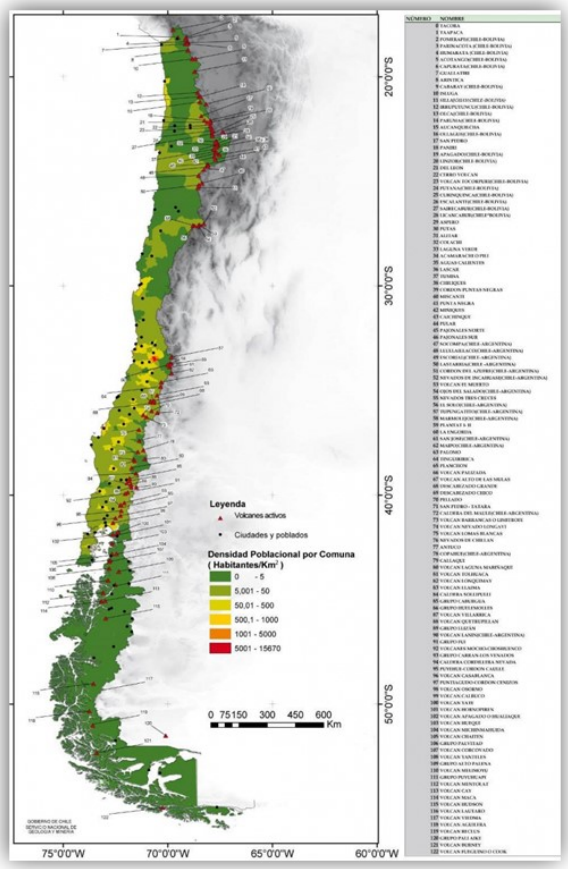
Geotectonically located in one of the areas with the greatest energy release on the planet...

2. Introduction to main risks in Chile

To understand the risks that are looming over Chile, it is first necessary to develop an analysis of the territory and the high degree of exposure to certain types of threats that are mainly of natural origin -although they are also present from different origins.

Due to its geographical characteristics, Chile collects a wide range of climatic scenarios along its more than 4000 kilometers in length. At its extremes, the following contrasts occur. In the North, there is the driest desert in the world while in the South, at the southernmost point, there are the coldest areas on the planet: this is where the continent is divided between islands and ice.

On the other hand, its geographic location must also be highlighted since Chile is within the so-called "Pacific fire belt". This means being geotectonically located in one of the areas with the greatest energy release on the planet due to the convergence of the plates of Nazca and South America. It is therefore a territory covered by more than one hundred volcanoes and with a high concentration of large-scale earthquakes.



Map of Volcanoes of Chile- Source: Sernageomin

If we look at its geomorphology, it should be noted that the natural border of Chile to the East is the Andes Mountain Range that extends almost parallel to the Pacific Ocean, from North to South. This circumstance results in a series of East - West oriented rivers that are able to save almost 7000m of unevenness in just 300 km of distance to their mouth, which characterizes them as rivers of great flow and much energy.

To the West, the Pacific Ocean acts as a natural frontier. The oceanic influence undoubtedly triggers meteorological events that sometimes generate large impacts such as intense rainfall concentrated in short periods of time, which leads to floods or landslides.

Demographically, Chile has about eighteen million inhabitants and has a constant and sustained growth rate that, since 2000, exceeds 1% . This population is concentrated mainly in the country's capital, Santiago de Chile, where there are more than seven million inhabitants (which is 40% of the total population of the country). It is followed by the Biobío Region with 12% and the Valparaíso Region with 11% of the total population, which in global terms means that 63% of the country's population is concentrated in only 3 regions.

The rest of the Chilean population is divided mainly by the sinuous coastal line of this immense country: more than 8000 km of coast, where man coexists between the intermediate Depression - located in front of the Andes Mountain Range - and the Coastal Range and the plains coastlines of the Pacific Ocean. All these factors imply a high degree of demographic exposure to events of marine origin.

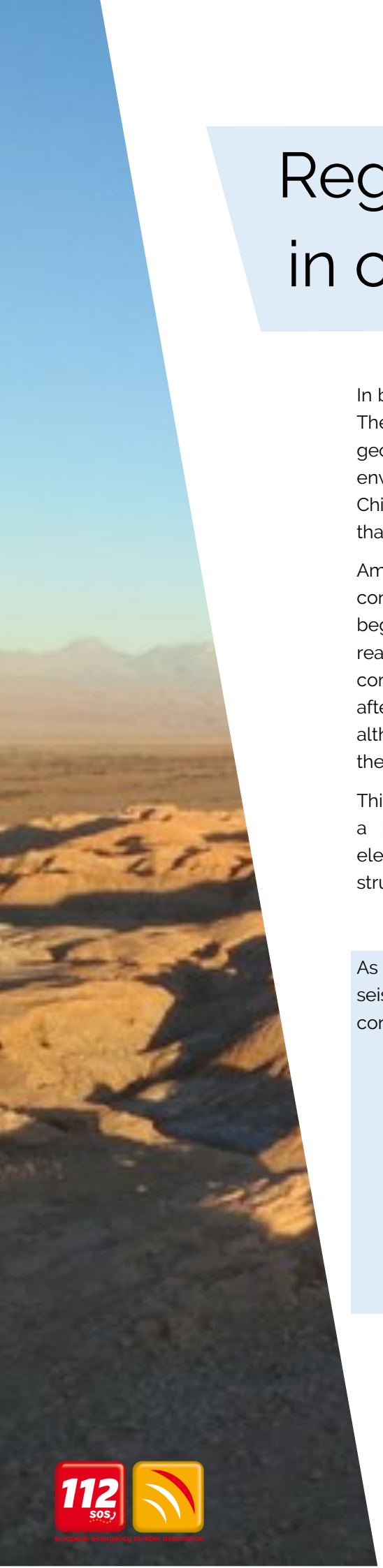
From the administrative point of view, Chile is a highly centralised country, where the main decisions of economic investment are taken from the Government of the Republic. As will be commented on further, the effort of decentralisation of capacities undertaken by the Ministry of the Interior and Public Security in recent years is important.

63% of the population is concentrated in only 3 regions

The official technical agencies that manage the main threats of natural origin in Chile are summarised in the following table:

Threat	Official organism
Earthquakes	National Seismological Center of the Seismological Service of the University of Chile - Centro Sismológico Nacional (CSN) del Servicio Sismológico de la Universidad de Chile
Tsunamis	Hydrographic and Oceanographic Service of the Chilean Navy - Servicio Hidrográfico y Oceanográfico de la Armada de Chile (SHOA)
Abnormal surges	General Directorate of the Maritime Territory and Merchant Marine -Dirección General del Territorio Marítimo y de Marina mercante (DIRECTEMAR)
Volcanic eruptions	National Service of Geology and Mining - Servicio Nacional de Geología y Minería (SERNAGEOMIN)
Forest fires	National Forestry Corporation - Corporación Nacional Forestal (CONAF)
Threats of Hydrometeorological origin: Frontal Systems, Floods, Alluvions, etc.	Chilean Meteorological Office - Dirección Meteorológica de Chile (DMC), General Water Directorate - Dirección General de Aguas (DGA), National Geology and Mining Service - Servicio Nacional de Geología y Minería (SERNAGEOMIN), among others
Droughts	Directorate General of Water - Dirección General de Aguas (DGA), Meteorological Directorate of Chile - Dirección Meteorológica de Chile (DMC), among others.

Regulation has always been in constant evolution...



In brief, the entire Chilean territory is exposed to one or several types of threats. They are mainly of natural origin and are combined with the degree of geographical exposure of the population, as well as with cultural, economic and environmental factors. All these aspects determine the degree of vulnerability of Chile and, together with the capabilities, preventive and corrective measures that the country has, the disaster risk map of Chile is configured.

Among the risk mitigation measures implemented in Chile, its anti-seismic construction regulations stand out and are internationally recognised. This began to be established after the Earthquake of Chillán in 1939, where fatalities reached more than five thousand people. The regulation has always been in constant change and evolution after each major earthquake, to the point that after the one that occurred on February 27, 2010, it was determined that, although the structures of the buildings had resisted perfectly, the rooms inside the buildings became uninhabitable in many cases.

This fact, detected as a lesson to be considered, resulted in the incorporation of a regulatory norm for non-structural elements (partitions, false ceilings, elevators, air conditioning systems, etc.) so that they could resist similarly to the structure of the building.

As a result of this continuous process of improvement of the Chilean anti-seismic constructive norm, three types of seismic scenarios and their corresponding objectives are foreseen to be achieved:

- Moderate earthquakes in which the building must be able to move and return to its original position without damage.
- Strong earthquakes in which small fissures are accepted and, as much, some punctual deformation.
- Severe Earthquake or Great Magnitude, where the main objective is that the building does not collapse. Although there is considerable damage that does not allow its rehabilitation, this measure avoids hurting people.

The structural resistance will be calculated from three elements: the characteristics of the structure, the type of soil and the seismic zone where the building is located. It will be the coastal zone which, in addition to having a lower quality soil, is exposed to greater forces.

Another great measure of mitigation against seismic events and their associated risks has been the work done in recent years in the field of education on issues of self-protection and self-care. In this sense, the National Emergency Office (ONEMI) has played a fundamental role through the dissemination of good practices, simulations and campaigns in educational centers, in communities, within the family unit, etc.

Chileans know how to act when earthquakes occur and choose safe places as well as how to safely evacuate buildings, identify the risk of tsunami and how to get safe.

> ONEMI has played a fundamental role through the dissemination of good practices...

The work carried out by structural engineers and civil constructors, together with the education of Chileans, has given Chile a great capacity for resilience in regard to earthquakes, allowing human lives to be saved efficiently. After the implementation of these new measures, several earthquakes have "tested" them: Earthquake of magnitude 8.2 in Iquique (2014), Earthquake of magnitude 8.4 in Coquimbo (2015), Earthquake of magnitude 7.6 in Chiloé (2016) Earthquake of magnitude 6.9 in Valparaíso (2017).

Educational Simulation of Major Earthquake - Source: Onemi

What triggered the launch of an emergency response structure?

3. How is emergency response structured in Chile?

It is necessary to emphasise that Chile participates in different international networks for risk management with clearly preventive nuances, therefore abandoning the old vision of believing that disaster management was exclusively reactive or focused exclusively on emergency and response.

This is how the emergency response is structured in the country:

- Inter-American Network for Disaster Mitigation: where different governments exchange technical information and best practices in disaster reduction.
- Pacific Tsunami Warning System: Chile is represented in this system by the Hydrographic and Oceanographic Service of the Navy (SHOA) as the only authority in the country responsible for issuing, evaluating or canceling messages in the operation of the Tsunami or Tsunami Warning System. It is also part of the Executive Council, whose main objective is the systematic study of those phenomena associated with abnormal variations in sea level (from intertidal study to tsunamis).
- Safe Hospital Action Plan: is represented by the Ministry of Health and its objective is to provide and adopt measures in the field of Disaster Reduction within the field of health. The measures include a project related to the safety and resilience of health facilities in the event of a disaster.
- Declaration of Panama on Disaster Risk Reduction in the Education Sector of Latin America and the Caribbean. Its main objective is to prioritise educational actions in schools to help reduce the impact of disasters.

But, locally, what triggered the creation and launch of an emergency response structure in Chile?

In 1960, after the great earthquake of Valdivia of magnitude 9.5 on the Mercalli scale, a tsunami was generated that reached various regions of the Pacific. It provoked 2,000 victims and more than two million affected.

These events generate the need to create an institutional structure that provided a response in telecommunications when large-scale events occur. Thus, finally, in March 1974, the **National Emergency Office (ONEMI)** of the Ministry of the Interior and Public Security was created.

At the beginning, the guideline that determined the ONEMI was framed in the logistics response to the disaster. But that mentality started to change in 1995, when Chile participated in the World Conference on Natural Disaster Reduction in Yokohama, Japan. Chile undertook to understand and adopt the principles and strategy set out there to protect human beings from damage and impact in disasters, incorporating prevention

messages and action plans with the objective of reducing disaster risks.

For this reason, Chile promulgated the Decree no. 156 of March 2002, where the First National Civil Protection Plan was presented. Although it was an indicative document, included the objectives and management of the current Civil Protection System.

The **Civil Protection Committee** was created at the national, regional, provincial and communal levels, and consisted of a work team with human, technical and material resources of the Civil Protection System for the Prevention, Mitigation, Preparation and fulfillment of plans and programs.

In the event of an event, it is the **Emergency Operations Committee** who, with its human, technical and material resources, coordinate the response and rehabilitation for emergencies, disasters or catastrophes.

The Emergency Operations Committee is constituted in the **Emergency Operations Center (COE)** where the operative representatives related in the activities focused on the attention and recovery, must have all the physical and technical facilities to centralize and collect the information, analyse it and evaluate the development of the event. That way, the most appropriate and precise decisions can be made, disseminating the information of the technical services and authorities to the affected population.

It is ONEMI who enables the qualification of the National COE, while its Regional Offices configure the Regional Emergency Operations Committees. The Municipalities must enable their corresponding Municipal Emergency Operations Committees.

The management and handling of Emergencies and Disasters is carried out through the planning of the so-called **ACCEDER**, which is a methodology that covers, through different stages, the main actions and measures to be taken into account:

A- Alarm- Emergency attention and warning systems must be well known by the community in order to communicate them in a timely manner to the responsible body.

C- Communication and Information- the communication chain starts with the organism that receives the alarm. From there, it goes to the primary response services.

C- Coordination- Each organisation, institution and service must previously establish their roles and specific functions.

E- Evaluation- Assessment of the consequences or impact produced by the emergency.

D- Decisions- the joint forces command will make the decisions of attention and regularisation of the situation in the shortest possible time and according to the information collected.

E- Secondary Evaluation - Explanation of the collected information and damages registered, with a follow-up of the affected community.

Thereby, the National Civil Protection Plan developed a response structure at the national level and provides attention to different administrative scales. Over a period of time, ONEMI, in terms of staffing, failed to grow at the same pace and had to rely on third-party services to cover all the necessary operations. Nowadays, this imbalance between plant personnel and services is much more equitable.

Starting in 2008, a project was launched to create Regional Emergency Offices throughout the country, decentralising capacities, starting with "macro regions" and providing a minimum of two or three personnel. This first step in the decentralisation of ONEMI.

After the Earthquake of February 27, 2010, a new set of ideas was incorporated with the collaboration of the United Nations, who made several recommendations among them the need to create a new institution whose starting point would be establishing a National Platform for the Disaster Risk Reduction.

ONEMI is currently strengthening the Emergency and Early Warning System...

In addition, a National Emergency and Civil Protection System was launched with the National Civil Protection Agency at the forefront of its implementation. This law was finally approved in May 2016, after having passed through various defense sessions and amendments. In these moments it is about to be promulgated.

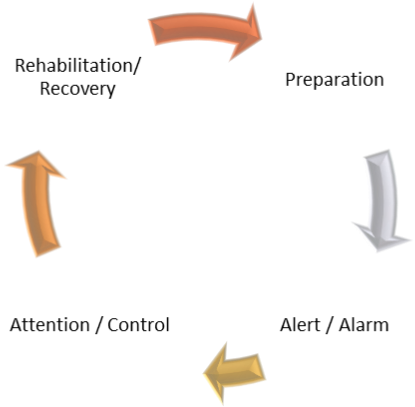
This is how Chile draws up the National Policy for Disaster Risk Management and subsequently a National Strategic Plan for Disaster Risk Management 2015-2018.

Today ONEMI is the technical agency of the State of Chile in charge of the coordination of the National Civil Protection System. Its mission is to plan, promote, articulate and execute prevention, response and rehabilitation actions to face situations of collective risk, emergencies, disasters and catastrophes both of natural origin and caused by human action. This is achieved through training and advice to different public administrations and the entire community, as well as developing methodologies and programs that allow continuous improvement in the area of mitigation and risk prevention.

ONEMI is currently strengthening the Emergency and Early Warning System, as well as constantly strengthening the Civil Protection System. In case of emergency, ONEMI attends and supports the situations derived from them, playing the main role of coordinator of all the services involved in the resolution of the emergency and launching preventive warnings to the population when necessary.

In August 2017, the National Emergency Plan was approved, where response actions were established in the different operational phases in the event of a disaster or catastrophe to provide protection through the National Civil Protection System -thus complementing the National Civil Protection Plan.

This National Emergency Plan includes the entire Risk Management Cycle:



It is understood that the activation levels for the response are based on the damage caused, the magnitude, the impact and the responsiveness. Therefore, the activation of the National Emergency Plan will be activated from a level III situation, based on the following descriptive table:

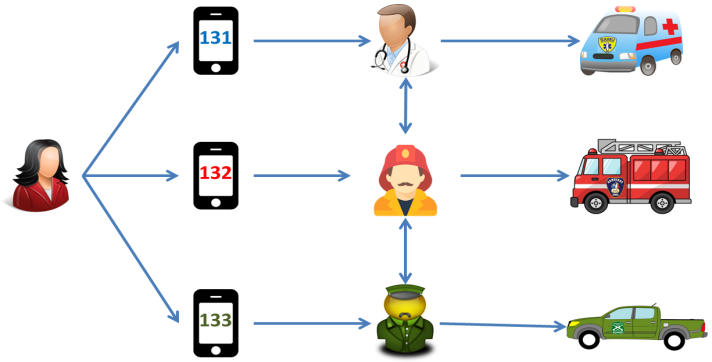
Level	Description	Coordination- Type of Committee	Rating
I	It is attended with local resources usually available	Local Level - Does not apply Committee	Emergency
II	It is attended with additional local resources prepared for emergencies, without exceeding its response capacity	Community Level - Community Emergency Operations Committee	Emergencia Emergency
III	It is served with resources "outside the local" when it exceeds its response capacity	Provincial and / or Regional Level - Provincial and / or Regional Emergency Operations Committee	Emergency (greater or complex)
IV	It is attended with resources outside the Provincial or Regional when it exceeds its response capacity	National Level - National Emergency Operations Committee	Disaster
-	Situation that exceeds the response capacity at the national level	International Cooperation - National Emergency Operations Committee	Catastrophe

Levels of Impact and Activation of COE, by levels

Joint training, exercises and drills generate cohesive and fruitful workspaces...

The relationship and coordination between ONEMI and the main responders in the emergency is constant although each one has its own procedures - and even different emergency call attention system.

In this sense, the system called **ABC** is implemented in Chile. That is, A (ambulance), B (Fire) and C (Police - *Carabineros*), the three institutions that usually participate in the initial phase of many emergencies as we see in the following scheme:



National Indicator	Body	Role	Emergency Phone Number
A	**Servicio de Atención Médica de Urgencia (SAMU) / Ambulance** Dependent of the Ministry of Health and with national coverage	Prehospital care since an event that threatens health is reported until patients are admitted to the Emergency Unit	131
B	**Firefighters** Each Fire Department is a private corporation, with its own legal status although it always follows established procedures	Attention to multiple types of emergencies: fires, landslides, rescues, etc.	132
C	**Carabineros de Chile** Dependents of the Ministry of the Interior and with National coverage	They guarantee the public order and the internal public security, collaborating with their different special areas in all the emergency situations in which they are required	133

National Indicators -ABC- and Emergency Telephones

The staff of the *ABC* that attend emergencies support each other and adapt with flexibility and criteria to any incident. It is essential that everyone know the tasks performed by the others, understanding their objectives, the methods they apply and the difficulties they face. To achieve this, joint training, exercises and drills generate cohesive and fruitful workspaces that are put into practice when they have to face a real complex situation.

As we have observed in the methodology called ACCEDER, the first fundamental step is the Alarm and that is why we will explain how the main alert networks emerge.

Levels of alert are established in 3 types

4. Public Warning

The high degree of exposure of Chilean territory to threats of natural origin of difficult or impossible prognosis highlights the need to strengthen the Early Warning to the population as a measure to save human lives.

That is why, in the event of a major threat or disaster, the tasks to be developed mainly by the Emergency Operations Committee (National COE) and the Early Warning Center (CAT) stand out.

4.1 Procedures

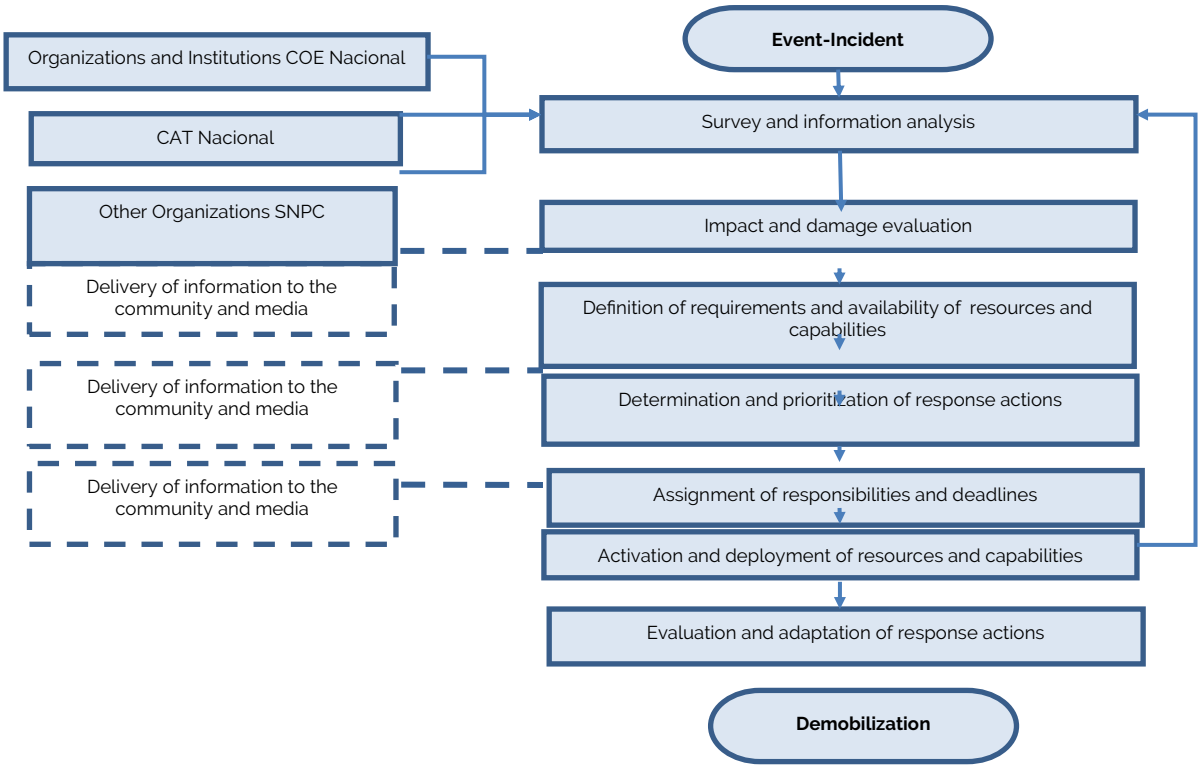
As indicated in the methodology ACCEDER of the National Civil Protection Plan, the alert to the population and the emergency warning systems must be well known by the community. The levels of alert to the population are established in three types:

Level of Alert	Description
Green	Permanent monitoring of risk scenarios, establishing the Early Warning Alert (ATP), reinforcing surveillance conditions, monitoring in greater detail the warning conditions and all threats underway.
Yellow	It is established when the threat grows in extent and severity. The impossibility of being controlled with the usual local resources is evaluated.
Red	It is established when the threat grows in size and severity, requiring the mobilization of all necessary and available resources.

Alert declarations are established and released to the population by ONEMI and are based on information timely provided by scientific or technical bodies, such as agencies and institutions of the National Civil Protection System (SNPC).

This information is communicated constantly between the agencies and the National Early Warning Center, together with the Early Warning Centers spread throughout the national territory. It is responsible for launching alerts to the population through different communication channels based on the alert and the type of threat and always in constant communication with the National COE.

The following diagram shows the processes adopted by the National COE for disaster response management:



As explained above, the Emergency Plan works throughout the cycle of risk management and therefore has permanent Technical Work Tables directed from the Civil Protection Area of ONEMI. These are spaces where potential emergencies are analysed in order to establish the necessary coordination and support in making relevant decisions.

When a Preventive Early Warning is declared 3 or 5 days in advance - due to some meteorological warning, for example - a Technical Board is set up headed by the National Director of ONEMI. From here, the different associated organisms within the National Civil Protection System jointly analyze the risks and take the necessary preventive measures by proposing a strategy to strengthen both the preventive measures or those to be taken in the event of activation of the COE.

The Strategic Command is under the responsibility of the Authorities and the Tactical Command under the Emergency Operations Committee. On the other hand, the Operational Command is under the direction of the Joint Land Command, coordinated by the Regional Director of ONEMI and participated by all those human, technical and material resources necessary for the resolution of the incident.

Each agency that participates in the ABC work under its own internal protocols, while the Regional Director of ONEMI is responsible of activating the mobilization of the necessary resources -from technology, machinery, vehicles, etc.-

In case of State of Exception declaration, the Strategic Command remains to be under the responsibility of the Authority, but the Army (as support to the State Security Forces) contributes in the situation to guarantee the safety of the people.

CAT National is responsible for constant & real-time monitoring of risks

4.1.1 Early Warning Centre

The National Early Warning Center (CAT National) is responsible for the constant and real-time monitoring of risks and all threats that may occur in the national territory.

This center is part of the ONEMI, operates 24 hours every day of the year and is the first link in the information system between the technical agencies of the National Civil Protection System and the community. This system coordinates the available resources in order to mitigate the risk of the different threats, consolidating the information and presenting it to the National COE so that the appropriate decisions can be made.

The CAT manages the information on emergencies and threats, establishing and disseminating the appropriate Alerts to the Civil Protection System. This allows the response to be coordinated properly. To fulfill this mission, it has redundant, radial and satellite communication systems.

CAT Nacional-ONEMI

To guarantee maximum reliability and agility in this information exchange process, ONEMI has signed different collaboration protocols with the three main technical organizations of the National Civil Protection System:

- ONEMI- Navy Hydrographic and Oceanographic Service (SHOA), which establishes information flow procedures for Tsunami risk
- ONEMI-National Service of Geology and Mining (SERNAGEOMIN), where information procedures are established regarding geological and volcanic risk, as well as risk areas and alerts.
- ONEMI- National Seismological Center (CSN), where the communication protocols between both organisms are established in case of seismic event.

2.2 Technologies & Channels

Since ONEMI is the organism that coordinates the SNPC in case of emergencies, disasters and catastrophes, it has a telecommunications system in emergencies, disasters and catastrophes with its own technology coming from both private entities and organizations of the National Protection Civil System (Army and Carabineros de Chile).

The Telecommunications System has wired, wireless and satellite technology, all with regional and national coverage. That way, communications are guaranteed with the regional offices and with the agencies of the system and with the community.

SNAM and PTWC interact permanently monitoring those factors that may indicate a possible tsunami

4.2.1 National Tsunami Alarm System

The Hydrographic and Oceanographic Service of the Navy (SHOA) officially represents the State of Chile in the International Tsunami Warning System of the Pacific, whose center of operations is the Pacific Tsunami Warning Center (PTWC) located in Hawaii (United States) and is the organism that operates the National Tsunami Warning System (SNAM).

Both systems, the SNAM and PTWC interact permanently monitoring those factors that may indicate a possible tsunami.

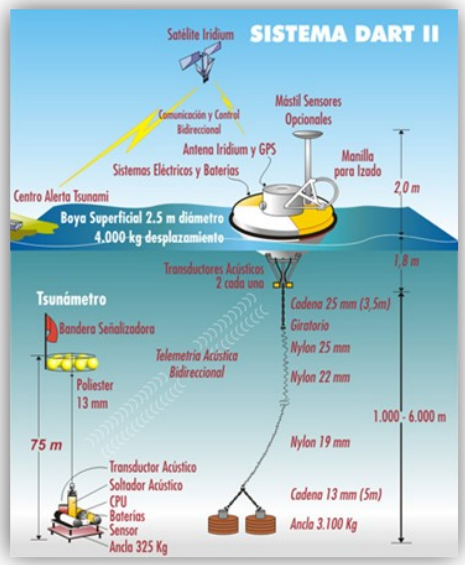
The monitoring carried out by the SHOA is done through a network of buoys distributed in the Pacific Ocean. The DART II buoys (Deep Ocean Assessment and Reporting of Tsunami), is composed of a buoy and a bottom pressure recorder that constantly measures the sea level, thus detecting any variation due to the possible arrival of a tsunami.

When the sensor is activated, the buoy on the surface retransmits the data through the satellite system and these are collected by the National Data Center of Buoys (NDBC) and the Hydrographic and Oceanographic Service of the Navy (SHOA).

The network of stations, composed of 38 digital satellite platforms along the coast of Chile and island territories, will constitute the last confirmation phase of a tsunami.

Once the imminent arrival of a tsunami is confirmed, the SNAM sends information to ONEMI and the Armed Forces about the estimated time of arrival.

The ONEMI regional office, through its regional CAT, will activate the Tsunami alarm system through the network of sirens installed on the coastal edge. The siren emits a rising alarm tone accompanied by "Tsunami Alarm and Evacuation to Safe Area" messages that are broadcasted by loudspeaker systems.



Sistema Dart II-SHOA

4.2.2 Emergency Alert System (SAE)

Since during the Earthquake and Tsunami of February 27, 2010 there was no mass communication system to alert the population, the Emergency Alert System (SAE) was created as a complementary system to alert the population.

In 2011, the Ministries of the Interior and Public Security (through ONEMI) and the Ministry of Transport and Telecommunications (through SUBTEL) began to define a model that could achieve the following objectives:

- Massive and localized alerting to the entire population
- Operating 24 hours a day, every day of the year
- Ability to integrate with other dissemination platforms
- Robust and including wide geographical coverage

It is Decree 60 of April 2012 that added the Regulation for the Interoperation and Dissemination of the Alert Messaging, Declaration and Safeguard of the Critical Infrastructure of Telecommunications and Information on Failures in Telecommunications Systems. It also included the Regulation for the Interoperation and Dissemination of the Alert Messaging, Declaration and Safeguard of the Critical Infrastructure of Telecommunications and Information on Failures in Telecommunications Systems. In this regulation, all technical obligations to Telecommunications Operators are collected. Thus, the messages of the SAE must be a priority and a mechanism has to be guaranteed to ensure that alerts are received and disseminated to users, with nothing altering the priority of such alert notifications.

It is also regulated in terms of terminal. All of them have the ability to interoperate and meet the technical specifications for receiving messages. Since 2017, all mobile telephone terminals must have a technical verification seal that guarantees their compatibility with the SAE.

In order to guarantee that telecommunications providers operate the SAE correctly, the SAE Homologation Room has been recently created, where real-time messaging is tested from a test field created in the southern zone of Chile (Campo Hielo Sur.)

Mensaje SAE- Simulacro ONEMI

At the beginning, this system was created to notify the population in case of need for evacuation due to tsunami danger. However, little by little its use was extended to other types of events that also required diffusion of evacuation warning: volcanic activity, forest fires, etc. and was also used to launch preventive notices.

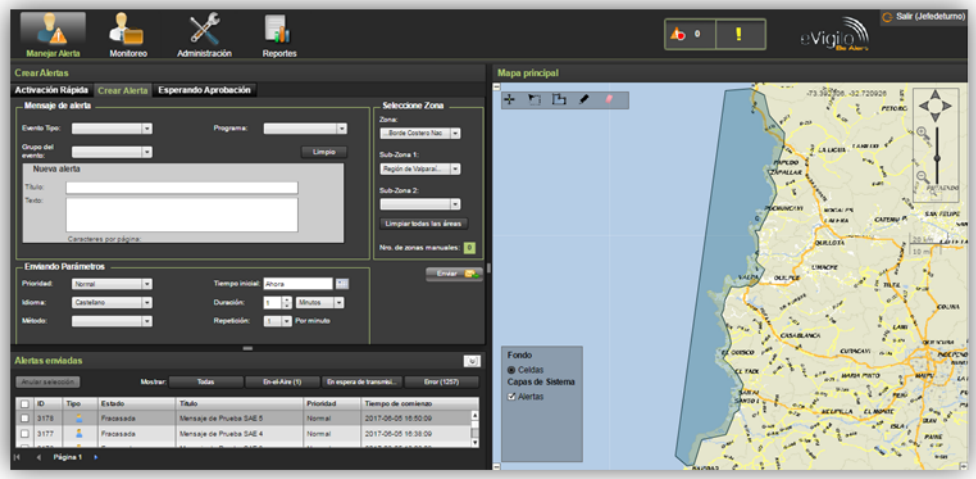
The activation of the SAE is also included in the big drills, which allows not only to test the system, but to make citizens familiar with its application and even with its peculiar alarm sound - which only stops when the message is seen by the user.

Alert messages are sent with the title Emergency Alert and have a maximum length of 90 characters. They are sent and stored in the SMS mailbox of the mobile phone (although they are not SMS, but a radiofrequency.)

The messages are sent in Spanish and English in order to cover the reception and understanding by the Chilean population but also by tourists.

Messages are sent in both Spanish & English...

The National CAT of ONEMI is the center from where the SAE operates, and where previously corresponding warning zones have been determined. It also has predefined special warning zones, such as the coastal edge in the



Plataform IADC- CAT Nacional ONEMI

The SAE operator sends a warning to the antennas of the telecommunications operators in the area, and from these, it is responsible for spreading the message to all the mobile devices connected to the network (2G, 3G and 4G) in the selected area.

5. Conclusions

Chile is aware of its characteristics and capabilities. Therefore, the management of disaster risk reduction is today a premise that is being internalized more and more by society.

This is a long and complex road in which there is still much to be done. In addition, it is expected that the synergies of all the actors involved in the National Civil Protection System are aware of the need to continue strengthening and applying the best national and international practices.

Annex: References

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