

# **NOPOOR POLICY BRIEF**



## Nopoor Policy Brief Nr.19: SOCIAL POLICY RESPONSES TO DISASTER SCENARIOS OF THE CHILEAN STATE TO THE **EARTHQUAKE AND TSUNAMI OF 2010**

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This policy brief illustrates that the reconstruction effort carried out by the Chilean state for the 2010 earthquake and tsunami was inadequate in the context of a natural disaster. Chile should establish a social policy structure for natural disasters that allows for a rapid response to a social emergency based on universal or near-universal allocation criteria.

#### INTRODUCTION

Most accounts of the Chilean earthquake and tsunami of 2010 begin with an enumeration of the losses that it caused: the number of lives lost, the percentage of housing lost, and the economic cost. Analysts argue that Chile's material infrastructure withstood the earthquake so well because decades of work on building codes and their enforcement had produced earthquake-safe structures. In addition, experts highlight the rapid response of the government in reestablishing telecommunications services and road connectivity. By comparison, the social consequences of the earthquake and the institutional response to them have been very little studied.

Chile has experienced numerous natural disasters. On many occasions, the processes of reconstruction that followed have provided a significant impetus for local development and for the establishment of social policies. In fact, on previous occasions, the Chilean state has improved its institutions and policies as a result. As Pelham, Clay, and Braunholz argue in their 2011 Discussion Paper 'Natural Disasters: What is their Role for Social Safety Nets?' that natural disasters must be considered as part of the development process and not as exogenous events. It is extremely important to question the institutional response in light of the fact that decades of neoliberal policy have left Chile with a skeletal state that administers social policy largely through targeted and very narrowly focused social programmes. As a result, the state addresses the social impact of the 2010 earthquake by applying usual social programmes and policies in a very unusual emergency situation.

The reconstruction after the 2010 earthquake and tsunami responded to the emergency largely according to the principles of targeting and outsourcing in an effort to achieve efficiency that was largely uncoordinated. While official reports on the reconstruction effort show a state that is complying with its goals, evidence from the Encuesta Post Terremoto (Post Earthquake Survey – EPT) and fieldwork in the city of Constitución illustrate that this method is highly inadequate in the context of a natural disaster. Chile should establish a social policy structure for natural disasters that allows for a rapid response to an emergency based on universal or near-universal allocation criteria.

### **EVIDENCE AND ANALYSIS**

In Chile, there are protocols for preventing disaster but not for dealing with them after they occur, therefore the institutional response in each particular situation is designed by the government in office. The only risk management institution that exists is the Oficina Regional de Emergencias (National Agency for Emergencies – ONEMI), but it has very limited resources, limited capacity for dealing with large-scale disasters and no institutional mandate to manage a reconstruction process. As a consequence, with the exception of some minimal microcredit programs for fishermen, many rural communities located far from urban centres managed the 2010 emergency on their own.

The principal mechanism for allocating reconstruction aid was the Ficha de Proteccion Social (the Social Protection Form—FPS), which is based on principles of targeted rather than universal criteria and generally does not contemplate the option of cash transfers. The FPS is a central tool in the process of targeting spending on which the Chilean social protection system is based. Its origins are related to the Washington Consensus' policy recommendations of targeting resources on only the most vulnerable. The privatization of social security provisions, instituted by Chile's military dictatorship, eliminated any aspiration, to achieve universal social rights. The replacement of social security systems that shared risk among their beneficiaries with privatized systems and minimal state guarantees was accompanied by the concept of rigorous targeting: individuals not covered by the new privatized social policies would receive minimum benefits from the state.

Whatever the criticism of this mechanism for targeting social policies, it most certainly is not an appropriate tool for allocating benefits in the wake of a natural disaster, as it is insensitive to new conditions of vulnerability caused by the natural disaster and far too time consuming to implement effectively. This problem became so evident in the postearthquake context that the affected population immediately demanded its abandonment. However, in the absence of a social policy infrastructure specifically designed for dealing with the consequences of natural disasters, the government had to use established policy instruments for dealing with the reconstruction process rather than experiment with new and untested policies. Bureaucrats in state agencies therefore never questioned the decision to apply policy tools designed for the allocation of social benefits under normal circumstances to a disaster situation.

Regarding the impact of the earthquake on well-being and according to the information gathered by the Encuesta Post Terremoto (Postearthquake Survey – EPT), one of the most dramatic consequences of the earthquake was the damage to and destruction of housing. Approximately 8.8 percent of the residents of the affected areas experienced either major damage to or the complete destruction of their houses. In the three regions most affected by the earthquake, Libertador Bernardo O'Higgins, el Maule, and Bío Bío, the percentage affected was 17.3 percent. Predictably, the impact of the earthquake on the housing of low-income households was the highest. Overall, 12 percent of the households in the lowest income quintile lost their homes compared with 4.6 percent in the highest income quintile.

Another area in which the survey showed a significant impact was mental health. The survey incorporated the Davidson Trauma Scale, which measures the symptoms and the severity of posttraumatic stress disorder. Even three months after the 2010 earthquake, 12 percent of the population in the affected regions suffered symptoms associated with posttraumatic stress. This percentage was, again, much higher in the three regions most affected, where it varied between one-fifth and one-fourth of the population. Posttraumatic stress was also more prevalent among people from lower income households, either because they were more affected by the earthquake in terms of its material impact or because they were less likely to be treated for the symptoms. The survey also asked about people's health status in general, but the questions were so vaguely phrased that government reports ignored this dimension.

The EPT also measured the effect of the earthquake and tsunami on the education of children in the affected regions. A delay in the beginning of the school year affected 24.6 percent of schoolchildren and 70 percent in the three regions that were most affected. Schools in these regions were relatively equally affected by the earthquake whether they catered to high- or low- income households.

Between 2009 and 2010, 10.5 percent of households fell below the poverty line and 7.4 percent rose above it, generating a net increase in poverty at the national level from 16.4 percent to 19.4 percent. Poverty was measured by means of an absolute measure, a monetary amount associated with a food basket that dated to the late 1980s. Monetary income below the equivalent of one food basket per person in the household was considered to constitute extreme poverty and income below two food baskets per person absolute poverty.

The number of employed workers nationwide fell by 1.7 percent during this period, but individual regional experiences were very different: The regions of Libertador Bernardo O'Higgins and Bio Bio presented the most significant declines in employment, with negative figures of 10.2 percent and 5.7 percent, respectively. The Maule Region had a smaller decline, only 1.5 percent, and the Araucanía Region exhibited a remarkable job growth of 8.2 percent. However, within regions, individual communities were affected very differently. For example, in the Maule Region, Constitución was one of the towns most affected, together with Cauquenes and Pelluhue. Overall, the region lost 28,090 jobs, of which 87 percent were those of small businesspeople or self-employed workers. At the same time, earnings did not show great changes in the three most affected regions, mainly because of income growth among lower-skilled workers and a decline among more skilled workers.

To analyse the institutional response to the earthquake, we undertook fieldwork in the city of Constitución in the Maule Region, a city with 37,000 inhabitants of whom 8,236 were directly affected by the earthquake and tsunami. During this part of the process we discovered that the response of the Chilean State to the earthquake and tsunami can be divided into two phases: the immediate response (the emergency reaction phase), which consisted principally of the distribution of emergency aid and the establishment of emergency

shelters, and the reconstruction phase, which in the sphere of social policy dealt mainly with the allocation of subsidies for the rebuilding of housing.

Because of the interruption of communications during the hours following the disaster, the initial public response to the earthquake was both ad hoc and chaotic. Municipal and local officials of Constitución state that they were not equipped to provide help in any systematic way and had to respond to the crisis spontaneously, prioritizing the most urgent needs of the moment, with the result that during the first days people had to survive with their own and their communities' limited resources.

It was in this context that neighbourhoods and communities spontaneously organized themselves collectively and held meetings to attend the most urgent needs of the community, such as finding accommodation for people who had lost their houses, obtaining food, water, and basic supplies, enforcing security in the neighbourhood, and organizing meetings with the local authorities in the hope of accelerating the assignment of subsidies.

The EPT shows that 21.9 percent of heads of households in the Maule Region and 36.9 percent in the Bío Bío Region implemented collective strategies to deal with the problems generated by the earthquake and tsunami. This social capital became very important to the organization of the emergency response. However, local governments lacked the fiscal and human resources to capitalize on this grassroots organization or engage it in a sustained dialogue or program for action. In part, this incapacity reflects the fact that pre- and postdisaster planning is generally undertaken at the regional and central government level and not in the municipalities, whose human and fiscal capacities are generally scarce and extremely diverse.

The absence of coherent protocols for action was also evident, as an official from the Ministry of Housing in the Maule Region pointed out. This view was echoed by officials from the central government (interview, Santiago, May 2014): "I think that, as a country, we lack a logic of formal protocols. The whole thing worked on a case-by-case basis, almost as if, when there was a good relationship between the mayor of the moment and the municipality's housing staff and the regional or central government, then everything worked well, while if they didn't get on with whomever, then it didn't."

Once the emergency had been overcome, one of the most complicated policy issues was the selection of beneficiaries for the various reconstruction programs that were instituted, especially those related to housing destroyed by the earthquake and tsunami. This is where the discussion of targeted benefits in an emergency situation becomes very relevant, since most of housing reconstruction programs required an FPS and not every household affected by the earthquake had one. One senior representative at the Ministry of Housing (interview, Santiago, May 2014) defended the use of the FPS, arguing that the majority of Chilean households had been interviewed for an FPS and therefore this information was readily available.

However, according to our interviews, families that had not applied for any form of state benefits or aid prior to the earthquake had to overcome a series of obstacles to access reconstruction programs. A number of problems related to timing and information made the allocation of benefits more difficult. An employee from the municipal administration confirms this complication (interview, Constitución, 2013). Additionally knowledge and information about how the FPS system worked was also unequally distributed among the population and, furthermore, the fair allocation of the benefits was questioned by many residents.

Other problems emerged that derived from the application of a public policy tool designed for normal circumstances to a postdisaster reconstruction process. The FPS is an instrument that is applied by municipalities at the local level. Municipal administrations

tended to inflate the damage that their communities had incurred and then use the funds received to obtain political support from their voters—a clientelistic practice that exacerbated the lack of transparency and fairness in the allocation of funds. In addition, the circumstances of families change abruptly as a result of such a natural disaster. Because the FPS could not measure the complexity of this change in circumstances, the government decided to freeze the point scores obtained through the FPS at preearthquake levels.

Another weakness was the lack of coordination among institutions dealing with the impact of the earthquake and tsunami and the lack of empowerment of local institutions both in terms of the size and professionalism of their staffs and in terms of their capacity to make independent decisions. This process was compounded by the change of government that occurred only a few days later.

The reconstruction phase was initiated with the Plan de Reconstrucción Sustentable (Sustainable Reconstruction Plan) which was funded by Celulosa Araucom, one of the main forestry conglomerates in the Bío Bío region. The support of Arauco was highly valued by the residents but also produced conflict. A piece of land was donated by the company on the condition that half of the houses built be for Arauco employees affected by the catastrophe. The difference between Arauco workers and the rest of the inhabitants generated a series of problems. Some local residents were sceptical of the company's motives, which they considered to be a form of "image laundering" by a firm that had "ruined a once fine seaside resort" and caused widespread environmental devastation in the area.

Other private or nongovernmental organizations also participated in the reconstruction process and filled gaps in the public provision of goods. However, these entities acted independently, mostly without linking their actions to the master plan, to provide quick solutions for specific problems. Private organizations in general had the ability to respond quickly and appropriately to the most pressing population needs, as opposed to the government, whose processes were delayed by bureaucracy and inefficiency.

The evidence presented illustrates the extent to which the precarious institutional capacity of Chile's municipal administrations was overwhelmed by the 2010 earthquake and tsunami. Municipalities had no administrative protocols for dealing with emergency situations and lacked the capacity to execute reconstruction efforts, and they could not take advantage of the local NGOs, private donors, and organized citizen groups that were operating in the area of Constitución at the time because they lacked both the resources and the expertise to coordinate their activities. In addition, relying on the same social policy tools that were applied under normal circumstances proved extremely complicated and ineffective. As a result, even though the reconstruction plan for Constitución had an integrated vision for the reconstruction of the territory, most of this plan was not executed.

#### POLICY IMPLICATIONS

Chile is not well prepared for dealing with the effects of a disaster both in the first phase of emergency response and in the second phase of long-term reconstruction. Administrative decentralization for the postdisaster response has been shown to be inefficient. The way in which local institutions coped with the earthquake and the subsequent reconstruction process illustrates that they were ill equipped to deal with an emergency at the local and regional levels, as they were not empowered to act independently of the central government and lacked independent resources. The complications generated by a change in the central and regional governments during the period immediately following the earthquake further illustrates the need for a permanent and independent civil service structure.

The fact that the state used established mechanisms for benefit allocation in those social policy areas where it did intervene points to a lack of institutional capacity and planning for social emergencies. In particular, this logic ignores the fact that it is not only the poor who are vulnerable in a natural disaster. Higher-income groups, in particular Chile's emerging middle class, are equally vulnerable, and the targeted approach to reconstruction benefits by definition excludes the middle class. That public officials did not question the logic of targeting resources in a postdisaster situation shows that this logic is deeply ingrained in Chile's institutional framework. This also explains why the Chilean state has not established an alternative regime for allocating social benefits in an emergency situation. The expansion of the engagement of the private sector through public-private alliances such as the reconstruction plan for Constitución also highlighted the limitations imposed by a lack of clear institutional structure. The reconstruction initiative was unsustainable financially and in terms of human resources and therefore ended up as a failed attempt to involve a private business in the functions of the state.

Thus, although the Chilean state has had the capacity to enforce strict earthquake resistant building codes, it has never had the capacity to deal adequately with the reconstruction process that must follow a disaster. While we are dealing with an atrophied state that was born out of a neoliberal legacy, we are also dealing with a modern state that has not invested adequately in its own development. The expectations of the Chilean population therefore significantly exceeded the capabilities of the state. A future social policy infrastructure for natural disasters should consider the recommendations made by the international literature:

- As a first emergency response suggests establishing cash transfers for victims of natural disasters that can be disbursed rapidly on the basis of the damage suffered by a particular town or geographical area.
- A second level of institutional response must focus on preventing poverty and declines in employment. This means organizing the reconstruction effort with labour force participation in mind rather than simply leaving the allocation of jobs to the market.
- Procedures for reconstruction grants and loans should be simplified: a single certificate of damage should automatically entitle a household to benefits.

By 2014, government indicators show that 90 percent of lost housing infrastructure in the affected regions had been rebuilt or repaired through the normal procedures for building social housing in Chile. However, the evidence also shows that the application of the principle of social policy in Chile results in profoundly flawed outcomes in the context of postdisaster emergency and reconstruction processes. In Chile, disasters happen on a regular basis, and institutions that are equipped to deal with them are much needed.

#### RESEARCH PARAMETERS

The objective of this research was to understand both the long-term and the short-term impact on well-being of the population in the affected regions in Chile as well as to understand the social policy responses of the Chilean state to the 2010 earthquake and tsunami.

Given statistical problems related to other official data that is inconsistent and incomplete as well as measured differently and with different instruments, we have used data from the Encuesta Post Terremoto (Postearthquake Survey—EPT) that the Ministry of Social Development undertook in the regions of Valparaíso, Metropolitana, Libertador Bernardo O'Higgins, el Maule, Bío Bío, and Araucanía to understand the extent of the social

emergency that the earthquake and tsunami generated. The EPT gathered data during May and June of 2010 from 22,456 households, a subset of the sample surveyed by Chile's regular household survey, the Encuesta de Caracterización Socioeconómica Nacional (National Socioeconomic Characterization Survey) of 2009. This makes the EPT a longitudinal survey with two applications, one in 2009 and another in 2010. The survey is representative both nationally and regionally, and it allows us to analyze how the wellbeing of the population was affected by the earthquake and tsunami. Although well-being is a very broad concept, the survey includes many variables, including those pertaining to multidimensional poverty.

To analyse the institutional response to the earthquake, we undertook fieldwork in 2013 in the coastal city of Constitución in the Maule Region, a city with 37,000 inhabitants of whom 8,236 were directly affected by the earthquake and tsunami. Our interviews of civil servants involved in the distribution of social benefits to families affected by the earthquake and of local residents who had to deal with the procedures through which benefits were allocated allowed us to gauge the ability of the government to respond to the social emergency created by the disaster. The 18 interviews included a high-level representative of the Housing Ministry, a researcher specializing in reconstruction and urban planning, 11 residents and community leaders, 2 representatives of the municipal administration, 2 representatives of regional government agencies, and the representative of a large company in the region. They were carried out during August and September 2013 by members of the Observatorio de la Reconstrucción (Observatory of the Reconstruction) and the Centro de Investigación de Vulnerabilidades y Desastres Socionaturales (Research Centre on Vulnerability and Socio-natural Disasters) of the Universidad de Chile. The principal objectives were to reconstruct the response to the earthquake in Constitución, identify critical junctures in the process, and explore experiences of collaboration and conflict.

#### **FURTHER READINGS**

Kirsten Sehnbruch, Nurjk Agloni, Walter Imilan and Claudia Sanhueza (2016): "Social Policy Responses of the Chilean State to the Earthquake and Tsunami of 2010", *Latin American Perspectives*.

#### PROJECT IDENTITY

NOPOOR - Enhancing Knowledge for Renewed Policies against Poverty **PROJECT NAME** 

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CDD The Ghana Center for Democratic Development - Accra, Ghana CONSORTIUM

CDE Centre for Development Economics – Delhi, India

CNRS (India Unit) Centre de Sciences Humaines - New Delhi, India

CRES Consortium pour la Recherche Économique et Sociale – Dakar, Senegal

GIGA German Institute of Global and Area Studies - Hamburg, Germany

GRADE Grupo de Análisis para el Desarrollo - Lima, Peru IfW Kiel Institute for the World Economy - Kiel, Germany

IRD Institut de Recherche pour le Développement – Paris, France

ITESM Instituto Tecnológico y de Estudios Superiores de Monterrey -

Monterrey, Mexico

LISER Luxemburg Institute of Socio-Economic Research - Esch-sur-Alzette,

Luxembura

OIKODROM - The Vienna Institute for Urban Sustainability - Vienna, Austria

UA-CEE Université d'Antananarivo – Antananarivo, Madagascar

UAM Universidad Autónoma de Madrid - Madrid, Spain UCHILE Universidad de Chile - Santiago de Chile, Chile

UCT-SALDRU University of Cape Town - Cape Town, South Africa UFRJ Universidade Federal do Rio de Janeiro - Rio de Janeiro, Brazil

UNAMUR Université de Namur - Namur, Belgium

UOXF-CSAE University of Oxford, Centre for the Study of African Economies -

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VASS Vietnamese Academy of Social Sciences - Hanoi, Vietnam

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