

CET-09

The Social Policy Responses of the Chilean State to the Earthquake and Tsunami of 2010

Abstract

This paper examines the capacity of the Chilean state to respond to the social impact of the 2010 earthquake and tsunami. Decades of neoliberal policy have left Chile with a skeletal state, which administers social policy through targeting and a significant extent of outsourcing through public-private partnerships, which lack coordination. The reconstruction effort of the Chilean state largely responded to the emergency through these same principles. While official reports on the reconstruction effort show a state that is complying with its specified goals, evidence from qualitative fieldwork undertaken in the city of Constitución illustrates the extent to which this method proved to be highly inadequate in the context of a natural disaster. We conclude by arguing that 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.

Key Words: Chile, Earthquake and tsunami 2010, public policy for disasters, emergency, reconstruction.

1. Introduction

Most accounts of the Chilean earthquake 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 of the earthquake (CEPAL 2010a; Gobierno de Chile 2011 y 2012; Larrañaga & Herrera, 2010).

Analysts argue that Chile's material infrastructure withstood the earthquake so well because decades of work on building codes and their enforcement have led to earthquake safe constructions (Cámara Chilena de la Construcción, 2010; Bitar, 2010). In addition, experts highlight the rapid response of the Chilean government in reestablishing telecommunications services and road connectivity. By comparison, the social consequences of the earthquake and the institutional response to them have been studied very little.

During its history, Chile has experienced numerous socio-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 (Lawner, 2011). In fact, on previous occasions, the Chilean State improved its institutions and policies as a result (Arana, 2016). As Pelham, Clay and Braunholz (2011) argue, natural disasters must be considered in the context of the development process as a constituent part of it, and not as an exogenous event.

It is extremely important to ask about the institutional response in the context of the fact that decades of neoliberal policy have left Chile with a skeletal state, which largely administers social policy through targeted and very narrowly focused social programmes (Borzutzky, 2002; Solimano, 2012; and Atria et al, 2013; Ilgü Özler, 2012). The State therefore addressed the social impact of 27F by applying regular social programs and policies. There is a consensus that considers that social policy in Chile is based on three central elements: the 'selectivity and

targetting' of spending, the 'privatization' of service provision, and the 'decentralization' of the execution of social policy through municipal administrations (Taylor, 2003).

Selectivity and targeting are based on the selection of beneficiaries according to "poverty criteria". Until 2006, the national poverty line was used, which in that year was 13.8% of the population. After 2006, the targeted population was gradually increased to 20%, 40% or 60% depending on the policy.¹ In this sense, the State has become a distributor of subsidies in different areas of social policy (health, education, employment or housing, for example). One central element in the case of natural disasters is that these affect both the poor (or vulnerable) as well as the non-poor (or non-vulnerable) population. Due to the targeting criteria, a significant proportion of the population is therefore excluded from potentially receiving benefits, although the housing of low-income households did suffer greater damage, because of the precarious quality of their houses and because of their location in risk areas (Larrañaga, O. & Herrera, R., 2010). Among the poorest quintile 12% of housing was severely damaged as opposed to the 8.8% average for the affected regions. This situation is compounded by the fact that the same allocation criteria are also used for other benefits (such as income or child support), which may compound the exclusion of non-poor households from social policy.

However, natural disasters also produce new vulnerabilities (Arteaga y Tapia, 2015). If standard allocation mechanisms are used, these therefore do not take these new vulnerabilities into account.

This paper presents the hypothesis that the "real existing neoliberalism" (Brenner y Theodore, 2002) in Chile, has generated a social policy system based on minimal targeted benefits, which in terms of its execution relies on various NGOs which operate in a decentralized and

uncoordinated way, and which in turn limits the role of the state in a post-disaster emergency situation. Any change in this social policy model would have implied establishing a new balance between the State and private actors, an option which the Chilean government was always unlikely to countenance, especially in an emergency situation.

The application of this model implied, first, a deficient register and diagnosis regarding the social impact of the catastrophe. Second, the institutions themselves proved to be vulnerable, applying a social policy with a low level of coordination, based on fragmented actions that, above all, do not adequately confront the new vulnerabilities that came out of the consequences of the disaster. In fact, institutional infrastructure and response mechanisms that cannot deal with the social emergencies of earthquakes and other natural disasters, can be just as devastating as the material damage caused by the disaster (Hoffman and Oliver-Smith, 2002).

This paper is based on the review of academic and institutional literature on natural disasters and on the role of the Chilean State in the specific context of its social policy response. We relate this literature to the Chilean case and to the empirical evidence available on the impact of the earthquake and tsunami using data from the 2010 household survey, which was specifically designed to capture its impact. In addition, we relate it to the fieldwork that we undertook during 2013 in the city of Constitución, a coastal city in the Maule region that was significantly affected by both the earthquake and tsunami, where we interviewed civil servants at all levels of the public administration (municipal, regional, and central government) who were involved in the distribution of social benefits to families affected by the earthquake as well as local residents, who were affected by the earthquake and therefore had to deal with the procedures through which benefits were allocated.² This combination of interviews allowed us to gauge the ability of the Chilean government to respond to the social emergency created by the disaster.

Our conclusions express that the pillars on which Chile's sociopolitical model is built are fragile in a post-disaster context. The way in which targeting, outsourcing and uncoordinated actions are carried out produces tensions and new inequalities in the affected territories. This is why we suggest mechanisms of universal or near universal allocation criteria and permanent coordination in circumstances of natural disasters, as does the international literature.

However, before engaging with an analysis of these processes, we would like to emphasise that this article limits its analysis to the social policy response of the Chilean state to the emergency situation. Although we appreciate that the private sector (both in the form of private corporations and NGOs) played a significant role in the execution of the reconstruction process, they were not connected to the social policy infrastructure that managed the post disaster situation that is the focus of our work.³

2. The Role of the State and its Institutions in Dealing with Natural Disasters

Most countries are ill-prepared for dealing with the traumatic and destructive consequences of disasters. This fact is true for both developed and less developed countries, but especially for less developed ones. Governments generally do not prioritise policies that prepare for potential natural disasters, and tend to respond only when circumstances force them into action. After a catastrophe, public and political attention focuses on the mitigation of damages as well as on supporting victims, who acquire a protagonistic role in the media. This interest in the disaster and its victims gradually declines in the period following the disaster and governments return to “politics as usual” until the next disaster happens (Birkland, 1996).

This process also means that planning for potential disasters is often relegated to the backburner. This vicious circle is compounded by the fact that governments get little political credit for preventing a disaster. However, once a disaster occurs, political credit depends on how well a government responds to it (UN, 2002; Pelham et al. 2011).

According to Vakis (2006), the institutional systems used to deal with disasters vary significantly, depending on the socio-economic and cultural contexts of each country. However, some common principles must be included, such as a permanent institution for risk management, which must exist prior to the occurrence of a disaster. In Chile, the relevant institution for this is the Oficina Nacional de Emergencias (National Agency for Emergencies, ONEMI), but the ONEMI does not have an established infrastructure for the management of all phases of the disaster cycle. The ONEMI is an agency with very limited resources, a limited capacity to coordinate risk prevention programs, and no institutional mandate to manage a reconstruction process.⁴ The ONEMI’s capacities concentrate principally on organising the emergency response

to natural disasters, but in this paper, we argue that its response to the emergency was extremely ad hoc.⁵

This is an important aspect of the disaster that must be analysed because low income households dispose of fewer means of their own for dealing with the consequences of a disaster. In general, these households are more inclined to reduce the consumption of basic goods such as food, health, and education after a catastrophe, which only ends up worsening their vulnerability.

Vakis (2006) argues that a system of social protection must be considered as an integral part of any risk management strategy. In this context, a social protection system can be complementary to and synchronised with other emergency response mechanisms, as well as constituting a pre-existing system, which can be adapted to the occurrence of unexpected natural disasters, and which has the capacity to coordinate efforts from the public, non-public, and private sector. Such a system must also be based on a system of analysis and information that allows policymakers to identify clearly the risks to which a particular population is subjected, as well as serving as part of a strategy that manages emergency situations. Along these lines, Pelham et al. (2011) suggest social safety nets that are integrated with the more general social protection system that should consist of unconditional transfers of goods or money, and are activated in the case of a natural disaster, especially to protect the most vulnerable households.

In Chile, there are no protocols for dealing with post-disaster situations, so that the institutional response in each particular situation is designed by the respective government in office. The only risk management institution that exists is the ONEMI, but its lack of resources and political influence means that it has a limited operating capacity for dealing with large scale disasters, such as 27F. Many rural communities, located far away from urban centres therefore managed

the emergency situation on their own as the state was not capable of undertaking direct actions in their territories (Imilan et al. 2015) with the exception of some minimal microcredit programs for fishermen in the coastal areas.⁶

The principal tools through which the government allocated reconstruction aid was through a mechanism called the Ficha de Proteccion Social (the Social Protection Form, FPS), which is based on principles of targeted rather than universal benefits, 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 (Taylor, 2003). The origins of the FPS relate to the many ways in which Chile's neoliberal military regime reduced the role of the state, in part by privatising social security provisions. This eliminated any aspiration to establish universal social rights that previous governments had (Borzutzky, 2002; Solimano, 2012; and Illanes and Riesco, 2007). The replacement of social security systems that shared risk among their beneficiaries with privatised systems and minimal state guarantees was accompanied by the concept of rigorous targeting: those individuals not covered by the new privatised social policies would receive a minimum level of benefit from the state⁷. To determine whether an individual was eligible for a potential benefit, a local government official visited the household to undertake a survey of its general situation (e.g. the materials and quality of housing, whether a household possesses a television, refrigerator or telephone, and who is employed and the income level of the family), called a Ficha CAS, which would translate a household's level of need into a point score. Based on this score, benefits would be assigned, such as access to social housing, cash or in-kind benefits.

Since 2007 the Ficha CAS has been replaced by a more modern version called the Ficha de Proteccion Social (the Social Protection Form, FPS), which takes into account a household's

capability to generate income (the number and age of family members, their educational level, and their employment situation) (Herrera et al., 2010). It was this instrument that was used for allocating social benefits during the reconstruction process following the 27F earthquake and tsunami.

Whatever the criticisms of such a mechanism for targeting social policies may be (and there are many), a mechanism such as the FPS most certainly is not an appropriate tool for allocating benefits in the wake of a natural disaster. However, in the years following the 2010 earthquake, the FPS became one of the main social policy instruments used to deal with the consequences of the earthquake and tsunami. The problem with using this instrument is that it is insensitive to new conditions of vulnerability caused by the natural disaster. This problem became so evident during the post-27F context that the affected population immediately demanded its destitution as a policy-making instrument.⁸ However, in the absence of a social policy infrastructure specifically designed for dealing with the consequences of natural disasters, the government has 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 in a disaster situation.⁹ In fact, the only self-criticism that policymakers put forward during interviews and at public events with regard to the reconstruction process was that they had generated unrealistically high expectations among the population affected by the disaster by promising rapid and efficient solutions to housing problems, which they were then unable to deliver.¹⁰

3. The impact of the earthquake on well-being and the standard of living of the affected population

Understanding both the long-term and short-term impact of the 2010 earthquake and tsunami on the affected regions in Chile has not been an easy task. Affected communities had a difficult time in the period immediately following the disaster with establishing precise statistics on the extent to which their material infrastructure (including private housing) had been damaged. Even more difficult was ascertaining the impact of the disaster on the labour market, on the population's health, or on education. As a result, different government agencies produced widely differing statistics on the damage caused by the earthquake, which in some cases were vastly inflated by the pressures exerted by local communities - who together with regional governments are responsible for applying the FPS - to declare the greatest possible extent of damage with the objective of obtaining the greatest possible share of reconstruction resources.

In fact, both the data on the disaster's original damage as well as subsequent data on the reconstruction process were so confusing that the centre-left Bachelet administration, which assumed office in March of 2014 from the centre-right Piñera administration, had to commission a special delegate, who was then charged with preparing a report on the state of the reconstruction efforts, as well as with generating a new roadmap for the reconstruction process going forward.¹¹ The report concludes that "the official data available lack updating and correct referencing; the data is inconsistent, incomplete, and measurement standards differ within the same sector; multiple instruments exist that register damage, but that do not "converse" with each other, which results in differences between communal, regional, and national data that

surpass any fluctuations that could be explained through statistical error” (Ministry of Interior, 2014).

Given these statistical problems, we have used data from a specific survey, the Encuesta Post Terremoto (Post- earthquake Survey, EPT), which the Ministry of Social Development undertook in the regions of Valparaíso, Metropolitana, Libertador Bernardo O’Higgins, Maule, BíoBío y 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, which represents a subset of the sample surveyed by Chile's regular household survey, the Encuesta Casen (Casen survey) that had previously been applied in 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 analyse how the well-being 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 the concept of multidimensional poverty.

According to the information gathered by the EPT, one of the most dramatic consequences of the earthquake was the damage to and destruction of housing. According to the EPT, approximately 8.8% of the population living in the affected areas experienced either major damage or the complete destruction of their houses. In the three regions most affected by the earthquake, Libertador Bernardo O’Higgins, Maule and BíoBío, the percentage of people affected was even greater at 17.3%. Predictably, the impact of the earthquake on the housing of low income households was the highest. On average, 12% of the households in the lowest income quintile lost their homes compared with 4.6% in the highest income quintile. The higher rate of damage among lower income households can partly be explained by the low quality and precariousness

of the housing itself, and partly can be attributed to the fact that they are built in areas that are subject to greater risk.

Another area in which the post-earthquake household survey showed a significant impact is mental health. The survey incorporated the Davidson Trauma Scale that measures both the symptoms and the severity of post-traumatic stress disorder. Even three months after the 2010 earthquake, 12% of the population in the affected regions (based on the percentage of people who responded to the service module on psychosocial impact) suffered symptoms associated with post-traumatic 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. Post-traumatic 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 are less likely to be treated for the symptoms. The EPT survey also asked about people's health status in general, but the questions were so vaguely phrased that government reports ignored this dimension.¹²

The EPT also measured the effect of the earthquake and tsunami on the education of children in the affected regions. The beginning of the school year was delayed affecting 24.6% of schoolchildren, a proportion that increases to 70% in the three regions that were most affected (Libertador Bernardo O'Higgins, Maule y Bío-Bío). Schools in these regions were relatively equally affected by the earthquake, regardless of whether they catered to high or low income households.

If we look at the earthquake's effect on poverty levels, the EPT shows that between its two applications in 2009 and 2010, 10.5% of households fell below the poverty line while 7.4% rose above it. This generated a net increase in poverty at the national level from 16.4% to 19.4%¹³.

Poverty is measured by means of an absolute measure of poverty that uses a monetary amount associated with a food basket that dates back to the late 80s. Monetary income below the equivalent of one food basket per person in the household is considered to constitute extreme poverty, while income below two food baskets per person constitutes absolute poverty.

At the country level, the number of employed workers fell by 1.7% during this period. However, individual regional experiences were very different: The regions of Libertador B. O'Higgins and Biobio presented the most significant declines in employment, with negative figures of 10.2% and 5.7%, respectively. Instead, the Maule Region has a relatively smaller fall in employment of only 1.5%. Furthermore, the Araucanía Region exhibits a remarkable job growth of 8.2%.

However, with regions individual communities were affected very differently. For example, in the Maule region, Constitución was one of the most affected towns together with Cauquenes and Pelluhue (ILO, 2010). Overall, the region lost 28.090 of which 87% were small businesses or self-employed workers. At the same time, earnings did not present great changes in the three most affected regions, mainly because of positive income growth among lower-skilled workers and negative growth among more skilled workers.

From this brief overview, we can see that the 27F earthquake and tsunami had a significant impact on many dimensions of the well-being of the population in the affected regions. First and foremost, was the material damage suffered in terms of housing and infrastructure (including hospitals and educational establishments). As the following section will illustrate, the government's social policies responded primarily to these issues. The significant effects of psychological stress were not – or were barely – addressed by public policies. As regards the loss of physical capital, there were, for example some minor programs including some small

microcredit programmes for fishermen, who had lost their boats, but the government mainly relied on the reconstruction effort itself to deal with the effects generated by the earthquake.¹⁴

4. Chile's Social Policy Responses to the Earthquake: The response of a neoliberal, subsidiary state in Constitución.

The response of the Chilean State to 27F can be divided into two phases: the first was the immediate response to the earthquake (emergency reaction phase), and consisted principally of the distribution of emergency aid (water, food and fuel), as well as organising emergency housing shelters. The second phase began approximately one month after the earthquake and tsunami with the planning of reconstruction, which in the sphere of social policy dealt mainly with the allocation of subsidies for the rebuilding of housing.¹⁵

To analyse the institutional response to the earthquake, we undertook fieldwork in the city of Constitución in the Maule region. Constitución is a small city with 37,000 inhabitants, of whom 8,236 were directly affected by the earthquake and tsunami (MINVU, 2011).

Despite the fact that people in Chile are generally quite well-informed about basic emergency protocols, the scale of the 2010 earthquake and tsunami was nevertheless unexpected, and the country proved to be ill-prepared in terms of its capacity to respond to its immediate consequences. Due to the interruption of communications during the hours following the disaster, the initial public response to the earthquake was both ad hoc and chaotic (Imilan et al, 2015).

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, prioritising the most urgent needs of the moment, so that during the first days people had to survive with their own and their community's limited resources.

One resident of Constitución's Cerro O'Higgins, a low income neighborhood, which suffered extensive damage, stated that: *"the earthquake was on the 27th February, the mayor and one person from the municipality showed up on the 30th. Although they knew from the beginning what had happened to us, because the next day they listed the people who had died. But nobody came from the municipality to ask us what we needed, how we were, nothing. They arrived on the 30th."* (Resident of Cerro O'Higgins, interview, Constitución, 2013)

It was in this context that neighbourhoods and communities spontaneously organised themselves collectively, and organized 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, or organizing meetings with the local authorities in the hope of accelerating the assignation of subsidies (see Simon and Valenzuela, this issue for a more detailed discussion).

"At first it was every day, every day we met in the morning, in fact this is how I got to be a community leader ... where I felt more engaged, and began to talk about what could be done to fix things, what we were going to do, where... placing homeless people with the less affected neighbors, thinking about how to help children to cope with this situation." (Resident of Cerro O'Higgins, interview, Constitución, 2013)

In terms of social participation, the EPT shows that 21.9% of heads of households in the Maule region, and 36.9% in the Bío-Bío region implemented collective strategies to deal with the problems generated by the earthquake and tsunami. This social capital became a very relevant factor in the process that organised the emergency response to the earthquake. However, local governments did not have the ability to capitalise on this level of grassroots organization, nor to engage it in a sustained dialogue or program for action due to their lack of fiscal and human resources (Irazábal et al, 2015). In part, this inability reflects the fact that pre-and post-disaster planning is generally undertaken at the regional and central government level, and not in the municipalities, which have extremely diverse levels of human and fiscal capabilities.¹⁶

The absence of coherent protocols for action was also evident, as expressed by one official from the Ministry of Housing's office in the Maule region:

“That's why I'm saying, the subject of reconstruction, where we failed as a ministry and as a country ... we don't have a protocol for this sort of stuff. Because sometimes the river floods, and everything falls apart (queda la escoba), the volcano and everything falls apart (queda la escoba), the tsunami and everything falls apart (queda la escoba). I think that there is no protocol, so you have to act on the fly, and often acting on the hop takes a lot of time, because you have to start asking a lot of questions.” (Coordinator Housing reconstruction, Serviu, interview, Maule, 2013)

This view is echoed by officials from the central government, who described a similar state of being overwhelmed:

“I think that as a country we lack a logic of formal protocols. The whole thing worked on a case-by-case basis. Almost like if there was a good relationship between the mayor of the moment and

the municipality's housing staff with the regional or central government, then everything worked well. In other cases, if they didn't get on with whoever, then it didn't." (Representative of the Ministry of Housing, interview, Santiago, May 2014)

In general terms, the municipal administration was the institution that organised the emergency response to the disaster, while the central government and its regional agencies took on a more active role in the reconstruction process. The tasks of the municipal administration consisted of surveying the damage caused by the earthquake, distributing food and clothing, organising emergency housing, providing emotional support to neighbours, and even managing a makeshift morgue. The level of commitment of municipal officials in the emergency situation was highly valued, even when people described the lack of organisation in the response to the emergency during the first few days. The Dirección de Desarrollo Comunitario (Department of Communal Development, DIDECO), Municipalidad de Constitución (Constitución Municipality) said:

"Well, in reality, I could tell you about four or five functions that were clear, but at the same time they were also diffuse, because there was so much demand for everything and from everybody that things were difficult. For example, I can tell you specifically that during the first days even though I was in charge of education, the next day, I was in charge of the transitional morgue, or in charge of distributing water. I was also involved in distributing food. We ended up giving out 21,000 daily rations. ... I took on the job, I think, even though it didn't correspond to what I was supposed to be doing."(Representative of DIDECO, interview, Constitución, 2013)

The lack of coordination and direction meant that many resources received from NGOs and international organisations often did not correspond to the immediate needs of the population, or did not reach the population in a timely manner. The confusion and helplessness at the municipal

level was compounded by the fact that the earthquake occurred just two weeks before a change in government. Municipal officials complained that after the handover they lost their networks in the public administration:

“Before the handover, you knew who to call. We all had networks that extended to other communities, and to the regional government. Even to people in Santiago. But when Piñera took over, everything changed. Many positions weren’t even filled. You didn’t know who to call to get anything done. It was a mess. All new people. And they were clueless. You have no idea how this slowed things down.” (Municipal official in charge of planning, interview, Constitución, 2013)

From the perspective of the inhabitants of Constitución, the emergency efforts were uncoordinated, ineffective and basically chaotic. 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 as most of the programmes directed at the reconstruction of housing required the existence of an FPS, the household survey discussed in section 2 of this paper.

The first problem with this system of allocation was that not every household affected by the earthquake also had an updated FPS. Yet one senior representative at the Ministry of Housing defended the use of the FPS by arguing that the majority of Chilean households have been interviewed for an FPS, so that this information was readily available:

“Many of these families didn’t have an FPS, but the majority did. In Chile, there are about 5 million households 3.8 million of which are covered by the FPS. If you look at this by quintile,

it's pretty obvious: the first quintile is almost fully fully covered by the FPS, almost 100%, and after that the proportion declines. In the fifth quintile it's pretty low. The FPS wasn't really a limitation, because in the cases where people didn't have it, we worked on a case by case basis. It wasn't a limiting factor for us in getting to lower middle-class or middle-class families who did not have the FPS.” (Representative of the Ministry of Housing, interview, Santiago, May 2014)

In practical terms, families which 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 series of problems related to timing and information made the allocation of benefits more difficult. One employee from the municipal administration confirms:

“People would say: "I can't apply, I suffered damage but I was living with so-and-so", and that's where the problem happened with the FPS. They simply didn't have their own form. So they had no right or simply didn't go to the housing department so that they could analyse the state of their housing, and declare them inhabitable. From there you had to go to the SERPLAC (Regional Secretary for planning and coordination) so that they would emit a certificate of damage. So a lot of people didn't know what to do. Then they went back to housing with a certificate of inhabitability, they'd come here and say: “look, here I have my certificate of inhabitability, but I can't apply..., By then the application deadline had passed, and that's when they'd find out that they had to go to the SERPLAC” (Municipal official, interview, Constitución, 2013).

Knowledge and information about how the FPS system works was also unequally distributed among the population:

“... it was all completely disorganized. In the sector of La Poza¹⁷, people know the benefit system,.. So there were people who knew how this worked and they worked the system very well, but there were loads of people who had never in their life [applied for a benefit], who've always worked and have always bought stuff with their own efforts who didn't know anything. So they were abandoned” (Local coordinator of the MNRJ-Movimiento por una Reconstrucción Justa, Movement for a fair reconstruction, Interview, Constitución, 2013).

The fair allocation of the benefits was questioned by many residents of Constitución. One woman from Villa Verde, a middle class neighborhood, for example, said:

“For example there are lots of people who were left out, I know of two women, who are the same as me. They live off their wage and nothing else. And here you see quite a few people who have two cars. Here in our little street, my neighbours have two tremendous cars, stupendous. That is, you can tell they're not for this kind of housing, so how the hell did they end up here? She's a policewoman. I don't know how much a policewoman earns, she's really well off, and everyone looks at her thinking mmmm.”(Resident of Villa Verde, Interview, Constitución, 2013)

However, in addition to the problems relating to fairness of allocation, other problems emerged that derive from the application of a public policy tool designed for normal circumstances in the context of a post-disaster 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, as this would increase the funds they would receive from the central government for reconstruction. Municipal administrations would then use these funds to obtain political support from their voters, thus engaging in clientilistic politics that would exacerbate the lack of transparency and fairness in the allocation of funds.

This qualitative appreciation of the allocation of funding coincides perfectly with the more rigorous analysis carried out on this topic by the Delegación Presidencial para la Reconstrucción (Presidential Delegation for Reconstruction), which concluded: "the FPS became the main gateway through which beneficiaries could go to obtain support. In this context, innumerable reports from the affected population highlight the lack of rigour in its application. This situation has been recognised by the current government." (Delegación Presidencial, 2014)

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 point scores obtained through the FPS and maintain them at pre-earthquake levels.¹⁸

Another weakness that must be mentioned in the context of the Chilean earthquake and tsunami is the lack of coordination between those institutions dealing with its impact, as well as the lack of empowerment of local institutions, both in terms of their actual capacities (quantity and professionalism of their staff) as well as their capability to make independent decisions (Mella, 2011). As discussed above, this process was compounded by the change of government that occurred only a few days after the emergency.

The second phase phase of the reconstruction in Constitución was initiated with the formulation of the Plan de Reconstrucción Sustentable (Sustainable Reconstruction Plan). The formulation of this plan was funded by Celulosa Arauco (Arauco Cellulose), which is one of the main forestry conglomerates in the Bío Bío region. Arauco hired architecture and public relations firms to establish a plan, which was to guide the territorial reconstruction of Constitución, as has been

documented in detail by Tironi (2014) and Irazábal et al (2015). The government then funded the necessary investment in reconstruction itself (Ministerio del Interior, 2014).¹⁹

The support by Arauco was highly valued by the residents but also originated some conflicts. A piece of land was donated by the company under the condition that half of the houses built had to be for Arauco employees affected by the catastrophe, and the other half could be distributed among the rest of the neighbours. The difference between Arauco workers and the rest of the inhabitants generated a series of problems of coexistence. 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 (Tironi, 2014). In our interviews, one community leader argued:

"Yes, Arauco is mixed up in all this. ... If you look carefully, there are lots of things where Arauco has invested money, like in the football field ... that was built by Arauco who then gave it to the municipality. They're building a cultural centre, Arauco is also in on that one. They will begin to build a library, also Arauco. So there's a lot of stuff where Arauco is involved.... But in reality what they're interested in is the road, in expanding the road, making it wider for the transport of wood. We all know that that's the reality. Arauco's involved in that too."

(Community leader, interview, Constitución, 2013)

Other private or non-governmental organisations 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, which offered quick solutions for specific problems.²⁰ Private organizations in general had the ability to respond quickly and appropriately to the most pressing population needs, as opposed to the Government where the

processes were delayed by bureaucracy and inefficiencies. One municipal official from Constitución, for example, described his contact with the head of the foundation Levantemos Chile (Rebuild Chile) as follows:²¹

“After a few telephone calls, I got hold of his number, I called him [Felipe Cubillos] quite a few times, like 11 times, he answered. That's when I met him, we greeted each other and he said: “Which school was destroyed?” We went to see the school, which is the Enrique Donn School, and he said to me: “And where do we put a modular school?” And we went to the place, and after half an hour he said: “Okay this is where we put the modular school.” ... Much quicker, that is, imagine, in half an hour and he decided all these things.... And after that it's a well-known story. On 27 April, if I remember correctly, around that time they inaugurated the modular school, with a capacity for 1000 students, because Felipe understood that if the the children had a place to go to, where they could eat and be looked after during the whole day, it would give parents the chance to rebuild their house, get rid of the debris etc etc.” (Municipal Official, interview, Constitución, 2013)

The qualitative evidence presented in this section illustrates the extent to which the precarious institutional capacity of Chile's municipal administrations was overwhelmed by the 2010 earthquake and tsunami. Municipalities lacked administrative protocols for dealing with post emergency situations, they lacked the capacity to execute reconstruction efforts, and they could not take advantage of local NGOs, private donors, and organised citizen groups who were operating in the area of Constitución at the time because they lacked both the resources and expertise to coordinate their activities. In addition, having to rely on the same social policy tools that are applied under normal circumstances in a disaster situation (the FPS) proved to be extremely complicated and ineffective. As a result, even though the reconstruction plan for

Constitución had an integrated vision for the reconstruction of the territory, the majority of this plan was not executed (Irazábal et al., 2015).

6. Conclusions

Chile is very well prepared for natural disasters in terms of preventing material damage. The establishment and effective enforcement of appropriate earthquake resistant building codes illustrates the strength of Chile's institutions for regulating and enforcing legislation when political will and attention is directed towards a particular issue. This is a very important conclusion as the policies that prevent material damage save lives and also contain the social emergencies that follow a natural disaster. However, the country is much less well prepared for dealing with the effects of a disaster, both in terms of the first phase of the post-disaster emergency response, and in terms of the second phase of long-term reconstruction.

Administrative decentralisation for the post-disaster response has now been shown to be inefficient. The way in which local institutions coped with the earthquake and the subsequent reconstruction process illustrate that they are ill-equipped for dealing with an emergency at the local and regional level as they are not empowered to act independently from the central government, and also lack independent resources. The complications generated by a change in the central and regional governments during the period immediately following the earthquake further illustrate the need for a permanent and independent civil service structure. At present civil servants in leading positions at all levels of government, but even more particularly so at the local and regional level, are appointed according to political criteria, and often also according to

the role they played in the most recent local elections, rather than according to their actual capacities and administrative experience and capability (Sehnbruch and Siavelis, 2014).

Second, 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 not only the poor are vulnerable in a natural disaster situation. Higher income groups, in particular Chile's emerging middle class, are equally vulnerable. Yet 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 post-disaster 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.

Third, the expansion of the engagement of the private sector through public-private alliances, such as the reconstruction plan for Constitución, also showed up the limitations imposed by a lack of clear institutional structure. The reconstruction initiative was not sustainable (financially or in terms of human resources), and therefore ended up as a failed attempt to involve a private business in the functions of the State.

So although the Chilean State has had the capacity to enforce strict earthquake resistant building codes, it has never had the capability 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 outpaced the capabilities of the Chilean State.²²

A future social policy infrastructure for natural disasters should consider the recommendations made by the international literature, which as a first emergency response suggests establishing cash transfers for victims of natural disasters that can be disbursed rapidly based on damage suffered by a particular town or geographical area. A second level of institutional response must focus on preventing poverty and falls in the employment participation rate. This means organising the reconstruction effort with labour force participation in mind, and not simply leaving the allocation of jobs to the markets, which particularly affects women, who often leave the labour force following an emergency situation and do not want to work in reconstruction. Procedures for reconstruction grants and loans should also be simplified: a single certificate of damage should automatically entitle households to benefits rather than the endless bureaucratic procedures that currently characterise this process.

In terms of the resulting outcomes of these social policy mechanisms, government indicators show that by 2014 90% of lost housing infrastructure was rebuilt or repaired in the affected regions.²³ However, the evidence also shows that the application of the three principles of social policy in Chile - targeting, decentralisation and privatisation - result in profoundly flawed allocation mechanisms in the context of post-disaster emergency and reconstruction processes. In Chile, disasters happen on a regular basis, so that it is extremely necessary to design and implement institutions that are equipped to deal with catastrophic events.

A note on the fieldwork undertaken for this paper

The interviews for this paper were undertaken in the city of Constitución (VII region, El Maule), which was selected because of the extent of the damage that the city experienced as a result of both the earthquake and tsunami due to its coastal location. Most of these interviews were carried out in Constitución itself during 2013 by the Observatorio de la Reconstrucción (Observatory of the Reconstruction) established by the University of Chile.

Interviewee	Number	Location	Date
Interview of housing ministry representative with a high level of responsibility	1	Santiago	Mayo, 2014
Interview of research are specialised on the subjects of Reconstruction and urban planning	1	Santiago	Mayo, 2014
Interviews with neighbours and community leaders	11	Constitución	2013
Interviews with representatives from the municipal administration	2	Constitución	2013
Interviews with representatives from regional government agencies (SERVIU, SERPLAC)	2	Constitución	2013
Interview with representative of a large company in the region	1	Constitución	2013
TOTAL	18		

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Endnotes

¹ This change in the targeting criteria was due to the findings of a longitudinal survey (Casen 1996-2001) which showed that although only 13% of the population fell under the official poverty line, while 40% of households were vulnerable and had at some point fallen under the poverty line. A description of the policy instrument used to define who is poor and eligible for a subsidy can be found in Herrera et al. (2010).

² Details on the interviews and focus groups carried out can be found at the end of the bibliography. 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, CIVDES) both at the Universidad de Chile (University of Chile). The principal objective of the fieldwork was to reconstruct the emergency response and reconstruction process that followed the earthquake in the city of Constitución, to identify critical junctures in these processes, as well as experiences of collaboration and conflict within the city.

³ For a more detailed discussion of the role of the private sector in responding to social needs following the earthquake, see Imilan *et al.* and Arana articles in this issue.

⁴ See Vargas (2002) for recommendations on the different stages of risk prevention.

⁵ Historically, the Corporación de Fomento y Reconstrucción (Chilean Economic Development Agency, CORFO) was charged with reconstruction issues after the 1939 Chillán earthquake. However, CORFO's mission has since expanded to broader development issues, which has led to the neglect of reconstruction policies.

⁶ The program "Return to the Sea" (Volvamos a la mar) that was designed to help local fishermen had a very limited impact. According to official reports, the maximum subsidy that was received by 67 beneficiaries was 2.100.00 Chilean Pesos (Approximately 3.500 USD at the time), depending on the damage incurred by individual fishermen. The subsidy was designed to help them replace their boats, engines and fishing equipment, and covered between 25% and 50% of the total cost of the required fishing equipment. Equipment that fishermen required that was not covered by the subsidy had to be acquired either through personal funds or bank loans (Imilan and Fuster, 2013). Official statistics show that between 2010 and 2011, the total amount of active fishing boats declined for the first

time since 2004 by 19.7% (Contreras and Winckler, 2013).

⁷ In addition to being targeted, these benefits were also restricted in their number, which created a system of *cupos* (roughly translated as a quota). Potential beneficiaries had to apply for benefits and would be put on a waiting list to receive them. If a *cupo* did not become available for them, they would not receive the benefit, thus waiting indefinitely.

⁸ For more information on this debate, see Pulgar (2014).

⁹ This issue is discussed in detail by Atria et al. (2013). One example that the book gives is the fact that when policymakers began to think about reforming Santiago's bus system (which later became known as Transantiago), they did not even consider the possibility of establishing a public transportation system, but instead worked with a fragmented private system in which multiple providers need to be regulated and monitored. It is hard to see how the city-wide transportation system can be considered a "private issue" Rather it is a public issue given a privatized solution.

¹⁰ This statement is based on a presentation made by the Subsecretaría de Vivienda (Undersecretary of Housing), Andrés Iacobelli, on the 27th November 2012 during the third session of the Plataforma Regional para la Reducción de Desastres en Las Américas (Regional Platform for the Reduction of Natural Disasters in the Americas, UNISDR) in Santiago. On 25th September 2013, Andres Gil Santa Cruz, at the time the Coordinator of the National Reconstruction Programme, during a debate at the Universidad de Los Andes (Los Andes University), made the same point. Neither of the two representatives of the government at the time in any way questioned the use of normal policy tools during a post-disaster situation.

¹¹ Paula Forttes, under the jurisdiction of the Ministry of the Interior, was named the special presidential delegate for undertaking a comprehensive study of the reconstruction process.

¹² Although Sanhueza et al (2011) found that the earthquake and tsunami particularly affected the health of the older population.

¹³ Sanhueza, Contreras y Denis (2011) analysed the effects of the earthquake based on a difference on difference methodology for five dimensions of well-being: education, health, housing, income and employment. They used the Alkire and Foster (2007) methodology to construct an aggregate indicator of multidimensional poverty focused on specific age groups (children, adults and the elderly). They found that the earthquake negatively affects children in terms of the aggregate multidimensional poverty levels of households, while older people are affected in the dimension of health.

¹⁴ Issues of post-traumatic stress, even though the data shows that this is where the earthquake had a significant impact, were not addressed in any way by specific public policies.

¹⁵ The Chilean state also had to deal with organising the re-establishment of schools and hospitals during this time. This process, however, was dealt with by the Ministries of Education and Health and did not use the same mechanisms of social policy allocation as we discuss in this paper.

¹⁶ The fragile state of Chile municipal administrations in terms of their limited human and fiscal resources can be explained by the fact that the Chilean central government, following a neoliberal logic, does very little to redistribute resources between rich and poor municipalities. Although there is a fund for such redistribution, Fondo Comunal Municipal (Commonal Municipal Fund), its redistributive abilities are extremely limited so that individual municipalities have to rely on the taxes that they themselves can raise. Wealthy municipalities with high income households and a higher density of economic activities therefore end up being very wealthy, while poor municipalities with little economic activity remain poor (Valenzuela, 2012).

¹⁷ La Poza is a historic borough of Constitución where local fishermen live

¹⁸ See: <http://www.eldinamo.cl/2012/01/24/ficha-de-proteccion/> and <http://www.biobiochile.cl/2011/04/30/fps-mideplan-congela-puntajes-y-conserva-indices-previos-al-terremoto.shtml>

¹⁹ The role of the private sector in the reconstruction process was highly controversial: while residents valued the greater efficiency of the private sector, they also recognised that local companies used the reconstruction process to shore up or launder their corporate image. For a more detailed discussion of the interaction between public and private sector, see Tironi (2014), Arana (2016, this issue), and Imilan et al. (2016, this issue).

²⁰ In July 2010, the Chilean government established the Fondo Nacional de Reconstrucción (National Reconstruction Fund, FNR), Law number 20.444, which brought together all private donations to the reconstruction effort that would be tax deductible. The fund was administered by the Ministry of Finance, independently of the master plans that were being elaborated, as every donor could specify where they wanted the money to be spent. In Constitución, a total of 16 projects were financed by this fund to pay for investments in equipment and infrastructure, but only one of these was linked to the city's master plan (Imilan et al., 2015).

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²¹ The foundation Levantemos Chile, (Rebuild Chile) is a private NGO that was founded during the time following the earthquake with intention of supporting local communities affected by the tsunami. It was headed by the businessman Felipe Cubillos, who tragically died in an airplane crash in 2011 while on his way to visit reconstruction efforts on the island Juan Fernandez in the Pacific Ocean, together with all other 20 passengers on board the plane.

²² We propose to insert an analysis of the current institutional changes being proposed here as soon as the final legislation has been submitted. Current political discussions show that the arguments presented in this paper have been taken into account by the current Bachelet administration and the new legislation will address many of the institutional criticisms that we make in this paper.

²³ Only in remote rural areas was the reconstruction process still incomplete