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Socio-political goals and responses to the reconstruction of the Chilean city of Constitución

Socio-political
goals and
responses

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Abstract

Purpose – The purpose of this paper is to discuss the political and economic objectives sought by the government of Chile to understand the characteristics of the reconstruction process for housing damaged by the earthquake and tsunami of 27 February 2010, contrasted with the opinions of the target communities, the instruments that were utilized and the generation of new vulnerabilities.

Design/methodology/approach – The governmental objectives have been compiled from speeches publicized by the press and obtained from interviews with players from the public and community sectors. The areas of reconstruction in the city of Constitución have been represented in a geographical information system. The opinions of the community have been gathered through a survey conducted amongst the new residents.

Findings – Case analysis shows that the political and economic efforts during the reconstruction process were focused on proving the success of the methods used: public-private alliances and consultation with the communities to precede reconstruction of housing and urban infrastructure. However, the results of the reconstruction process do neither reveal good governance nor functionality of the reconstructed areas.

Research limitations/implications – The results cannot be applied to other localities devastated by the 2010 earthquake and tsunami in Chile, nor to other institutional or economic contexts. It is also necessary to observe the process of adaptation of the communities over a longer time period to verify the increase in vulnerability.

Practical implications – The paper constitutes a complete evaluation of the reconstruction process that prompts institutional changes.

Social implications – A contrast is offered between the objectives and actions of the diverse social and political actors, and the contradictions in their speeches and actions are shown.

Originality/value – An unprecedented process is analysed in which a developing country uses its own resources to undertake a reconstruction under a political rhetoric that is not necessarily shared by the local society that must finally assume the additional costs.

Keywords Disaster, Chile, Reconstruction, Post-disaster recovery

Paper type Case study

1. Introduction

The earthquake and tsunami of 27 February 2010 (27F), which affected the central and south-central parts of Chile, left a total of 525 dead and 25 disappeared, US \$30,000 million in economic losses and nearly 800,000 people homeless (EM-DAT, 2013). Among the most devastated cities was Constitución, located on the coast of the Maule Region, 250 km to the south of Santiago, the capital of Chile. In this city, more than half of the population (18,000 people) was affected, directly or indirectly, by this event, registering an economic loss estimated at US\$85 million and faced with the need to reconstruct more than 1,500 homes (Plan de Reconstrucción Sustentable (PRES), 2010).



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After the catastrophe, the efforts of various players were concentrated in the physical reconstruction of destroyed housing, facilities and urban infrastructure, an activity that occupied the majority of the resources and political focus on a national, regional and local level. The reconstruction was put forward as one of the main objectives of the government, which immediately after the disaster, in 2010 began its four-year term, representing right-wing political parties and replacing a centre-left government that had ruled the country for 20 years. The new administration set the task of newly designing disaster warning systems and management in Chile and of reconstruction of all the damaged homes in the country (around 223,000) by the end of its term (2014). This task was planned and executed as a joint effort between the private and public sectors.

In order to ensure an accelerated reconstruction process, one of the first steps was to replace the traditional instruments of management and urban land planning with exceptional procedures. Effectively, Constitución and other Chilean cities were required to expand their urban areas to accommodate new construction, especially when those must be established in safer locations than those devastated by the earthquake and tsunami. The traditional Communal Master Plans (the instruments that assign city limits, zoning of land use and city growth areas) require a long wait for approval, which was not compatible with the social and political urgency that was demanding solutions in the immediate future. Faced with this, disaster exception laws were applied to develop the so-called Master Plans for Sustainable Reconstruction in medium- and small-sized cities such as Juan Fernandez, Licantén, Pelluhue and Constitución (Observatorio de la Reconstrucción (OR), 2013; Ministerio del Interior y Seguridad Pública, 2014).

In the case of Constitución, a public-private partnership developed a Master Plan for Sustainable Reconstruction between the Ministry of Housing and Urban Development, the local municipality and Celulosa Arauco (pulp mill plant) the largest private forestry company in the city, belonging to one of Chile's strongest economic groups. In less than six months this plan was designed, defining a five-axis development matrix that included emergency actions as well as pushing forward general local development. Specifically, the first component focused on built infrastructure, the regularization of waterway borders and the construction of a mitigation park to confront tsunamis in the Maule River that borders the city. The second component addressed public spaces and services, and the reconstruction of emblematic public buildings. Third, economic diversification was strengthened (tourism development and regeneration of the timber industrial cluster). Fourth was the development of energy facilities in Constitución. If one only considers the reconstruction of 2,000 houses – budgeted for in the Plan – the cost exceeds US\$70 million, of which 63 per cent would be financed by public funds and the rest by the private sector (Plan de Reconstrucción Sustentable (PRES), 2010).

Disasters like earthquakes and tsunamis always demonstrate the lack of human control over natural hazards, but at the same time reveal the socially constructed nature of a catastrophe. Disasters tie directly into political and economic processes (Middleton and O'Keefe, 1998; Reed, 2008; Pelling and Dill, 2010). In the aftermath of large catastrophes, it can be observed that due to political interests, national governments strive to reconstruct physical spaces and re-establish livelihoods in the devastated regions as quickly as possible. There are social pressures to be addressed (housing, access to food and financial resources). On the other hand, it is a legitimate action by the authorities, demonstrating their presence in the affected areas and their

concerns for the well-being and safety of the population. Additionally, governments are interested in demonstrating the effectiveness of their disaster management to the international community. Businesses, leaders and communities feel that reconstruction provides an excellent opportunity to increase economic growth and social welfare, offering security to relevant foreign investors in the global economy. However, reactive responses are in many instances not the most efficient in economic, social, environmental and social terms, augmented in some cases by the long-term vulnerability of the social groups that are supposedly benefitted by the reconstruction (Ingram *et al.*, 2006; Boano, 2009).

The results seem to call into question the principles of a just and sustainable reconstruction, supported by politically correct discourses of the authorities.

In this sense, we can say that there is a gap between rhetoric itself, the measures taken and the results of these processes. In this sense, Lizarralde *et al.* (2010) go further, stating that these processes have a number of complexities that deal with organizational (management and governance of the reconstruction process) and functional aspects of housing and reconstructed spaces (comprehensive recovery, access to multiple services, livelihoods and social networks, among others).

With regard to the organizational dimension of the reconstruction, the central questions are “who will participate?” and “how does this process develop?” In this aspect, the literature shows that there is a need, strengthened through the organizational relationships between the different actors and scales involved that are considered central to the capabilities of the local level expressed by local authorities and community-based organizations (Davidson *et al.*, 2007; Ganapati and Ganapati, 2008; Boano and García, 2011; Hutanuwatr *et al.*, 2012). It is precisely at this point that governance becomes relevant, which in this context is understood as a complex process involving stakeholders in constant pursuit of a common good, which itself must be expressed at different times of recovery, from the planning and implementation of projects to the focus on long-term results (Guarnacci, 2012).

Thus, the functional level is strongly determined by the organization of the reconstruction process since this dimension goes beyond the physical-structural one. The functional is understood here as the full recovery of spaces (household and public), access to resources and livelihoods, or the sense of belonging that exists in community spaces (Button and Oliver-Smith, 2008; Zetter and Boano, 2010). Precisely in this respect, Nakabayashi (2012) argues that reconstruction does not only mean physical-structural components, which he refers to as hard-ware, such as the devastated areas, but also the re-articulation of families and communities (Human-ware), restoration of their sources of income, social networks and the community itself (Community-ware). It is important to also recognize the need to reduce vulnerability and long-term risk by appropriate planning (Ingram *et al.*, 2006; Boano, 2009; Boshier, 2011), and to improve the socio-spatial justice of the populations benefitted for reconstruction processes (Schilderman and Lyons, 2011; Sandoval *et al.*, 2014; Dwyne Barenstein, 2015).

This paper addresses this discussion, taking into the account the political intentions, public-private partnerships, and the visible results four years after the disaster of 27 February 2010. To that end, we analyse the role of the private sector, which has resulted in the modification of institutional guidelines to address public events. These guidelines at this point discuss how to proceed with community and governance processes that were supposedly undertaken, the lack of territorial instruments and social, economic and environmental impacts which have undergone favoured families with calls for housing solutions.

2. Area of study

The city of Constitución is located on the south bank of the Maule River; therefore, the city was one of the most devastated by the tsunami, which consisted of three waves of over 11 metres' height at 3:49, 4:17 and 4:50 a.m. on the morning of 27 February 2010. However, the urban area of Constitución (Figure 1) is not directly connected to the sea. Since the installation of the Arauco pulp mill in 1975, the coastline has been primarily occupied by industry (Otero, 2006). This, together with the existence of coastal cliffs and hills in and around the city, provided a first line of defence against the impact of the chain of waves, at the same time facilitating the spontaneous escape of the population to areas of higher elevation. The flooding that devastated parts of the city originated from the tsunami waves over the flow of the Maule River. The devastating effect of the direct waves was concentrated on a small island called Orrego Island, which at the time of the tsunami was packed with tourists and locals celebrating an end of summer festival who perished in high numbers.

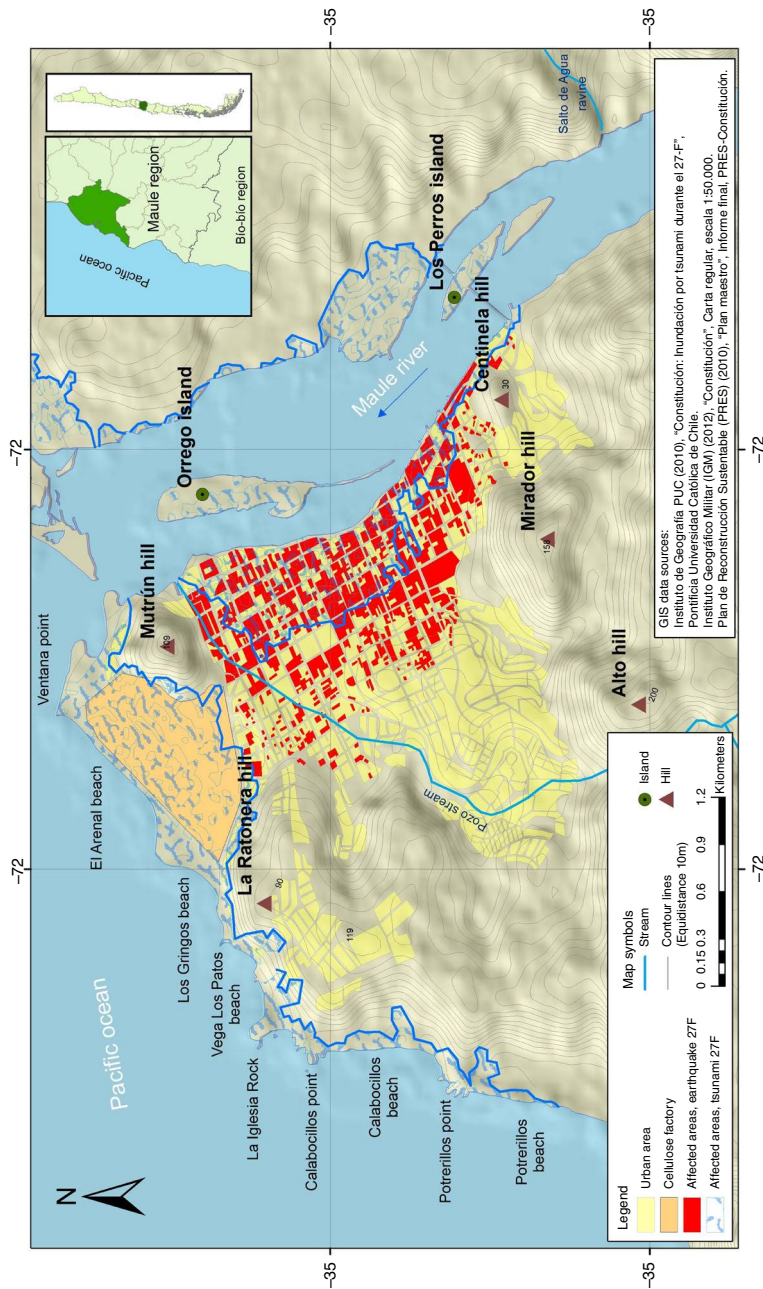
The city of Constitución was founded in the Spanish colonial era in 1794 with the name Nueva Bilbao, specializing in the manufacture of marine ships using wood from nearby native forests, which explains the historical preference for occupying the edge of the Maule River (Benavides *et al.*, 1994). The majority of the homes flooded by stagnant Maule River water were the oldest in the city, build on a relatively flat terrain with an average height of 7.3 metres above sea level and surface area of nearly 1.4 km², surrounded by mountain ranges that emerge from the Coastal Mountain Range (Veloza, 1973), which have been partially inhabited for many years.

By the 1980s, Constitución had experienced urban growth, advancing towards the slopes of the hills that surround it, which has resulted in the application of a Communal Master Plan (legal instrument for land use zoning and urban development), dating from 1987, which restricts tall buildings in the flat area corresponding to the historic shell of the city. Therefore, the peripheries absorbed the sharp increase in population of the last 30 years, expanding from 21,045 to 31,957 inhabitants from 1982 until 2012 (Instituto Nacional de Estadísticas, 1982, 2012). For this reason, and due to the urgency with which the reconstruction of permanent housing was undertaken, instead of modifying the Master Plan to increase the density of the downtown areas, it was decided to continue occupying the slopes of the surrounding hills to accommodate housing reconstruction.

3. Methodology

Between the months of September 2013 and March 2014, interviews were conducted with different public and private officials in Constitución and with community leaders who were directly involved in the reconstruction process. The main goals were to analyse the points of views of each of the actors involved in the reconstruction of the city, in order to contrast the expectations created about the Plan of Sustainable Reconstruction and the social, economic and territorial reality produced by the implementation of that plan.

Additionally, in order to evaluate quantitatively the perceptions of the population benefitted by the reconstruction process and its results, in April 2014 a questionnaire was given to the beneficiaries of the housing reconstruction. The survey included 43 questions, relating to general population data, characteristics of the received housing, urban mobility and the level of local awareness prior to the disaster, including its impacts on recovery and reconstruction. The survey consisted of a total of 120 participants, the questions were answered exclusively by the heads of a household. In this context, it was possible to obtain spatial information of the study area and to develop the maps presented in this document.



Source: Created by the authors

Figure 1. Location of the city of Constitución and the areas affected by the earthquake and tsunami flooding of 2010

From a methodological point of view, the housing reconstruction in this case was classified into two types: “reconstructed *in situ*” and “reconstructed in other areas” (Figure 2). The former consists of those houses built on the same land where they were standing before the earthquake and/or tsunami, which corresponds to the neighbourhoods called Bernardo O’Higgins, Manuel Francisco Mesa Seco, Los Aromos and La Poza (with its sectors Felipe Cubillos and shores of the Maule River). Those “reconstructed in other areas” correspond to those located in urban areas such as Villa Verde, Altas Cumbres and Bicentenario. Two other neighbourhoods that fall into this category, Quinta Gaete and Vista Hermosa, were not considered because they were still uninhabited at the time of the survey.

4. Results and discussion

4.1 Social governance of the reconstruction plan

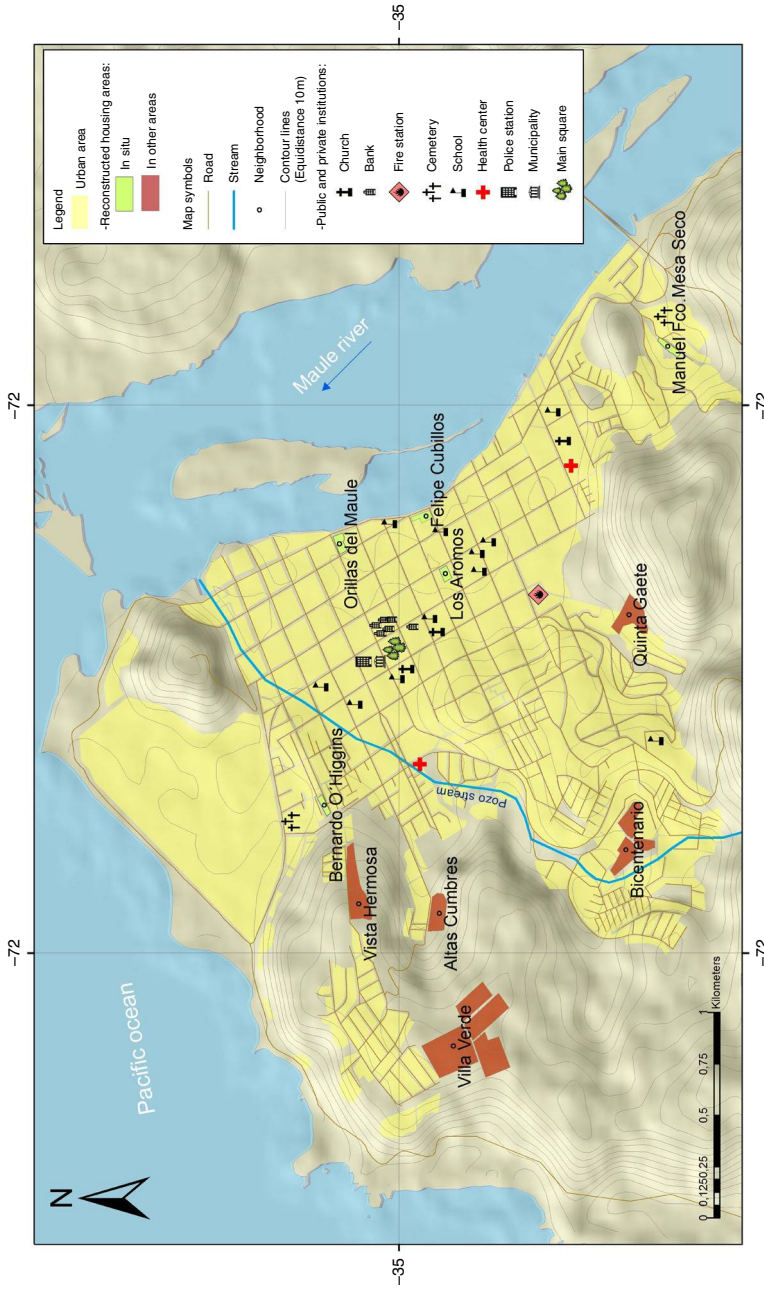
The Sustainable Reconstruction Plan-Constitución (PRES) was developed under a social participatory concept, which used a popular referendum process to validate the selection of projects. This process managed to convene over 4,200 voters (Plan de Reconstrucción Sustentable (PRES), 2010). After this, the Plan itself continued to work on the so-called Citizen Information Process, including the installation of an Information Centre in the middle of the central square of the city, in order to inform the community about the progress of the different activities. According to some neighbourhood leaders, periodic meetings with housing committees (organized group of people with public entities to obtain housing find) were also convened, and open to the public.

The governance process proposed for the legitimization of the public-private partnership by the citizens ended up referring only to the reconstruction of the housing projects themselves, abandoning the set of axes that had initially been considered for a sustainable development of the city in favour of reconstructions that were isolated and decontextualized from the social and spatial reality of the community of Constitución, whose participation ended up being merely advisory. Political criticism can be found in the example of the constant struggle of the social organization “Movement for Fair Reconstruction”, which advocated the implementation of a reconstruction process focused on the development of the people, their traditional socio-economic activities and the delivery of decent housing solutions, which became marginalized in the decision-making process. In the words of one community leader:

At first the reconstruction process seemed a very good initiative, especially since we were called to meetings. Over time this opportunity for dialogue was lost. Finally, it was presented to us the reconstruction projects, at which point we realized it was an imposition and that many neighbours in the area would be affected (Anonymous community leader of La Poza area, 2014, personal communication).

On the other hand, the focus groups revealed that the mechanisms of information on projects included in the PRES were considered by the community as tactics to convince them to accept decisions that had been previously agreed upon without their participation. This had resulted in a growing lack of awareness about such decisions, which the survey also addresses, since over 60 per cent of survey respondents indicated that they did not know about the PRES, with only 35 per cent being able to relate it to the programs of reconstruction proposed and implemented in the district (Figure 3).

In this specific case Boano and García (2011) argue that the government, in its attempt to carry out the physical reconstruction of the city, systematically ignored the diverse needs of the socio-cultural groups, which varied over time. Indeed, the



Source: Created by the authors

Figure 2.
Locations of the reconstructed residential areas in the city of Constitución

partnership strategy with the community, proposed by PRES, included no attempts to assess the progress of projects and their relation to social expectations. Local communities were not involved in decisions about the location of reconstruction projects or neighbourhood programs for inhabitants of the new residential areas of the city. This last argument and these empirical results contradict the government position that the reconstruction plan was successful, because of a virtuous combination of the public and private sectors as well as for its citizen participation (Comerio, 2014). For Tapia (2014) and Fuentes and Schüler (2014) the roles that regional and central governments and private agents played in the ambitious original development programme were unclear, which would account for the levels of improvisation with which this phase was developed and the degree of dissatisfaction of local people.

4.2 *The dilemma of functionality: locating new residential areas*

The Sustainable Reconstruction Plan (PRES) of Constitución’s main objective was to achieve a rapid restoration of more than 20 per cent of the destroyed or damaged houses located within the urban area of the city. The PRES was in practice an impromptu organization (not an official institution within the state organization), in which representatives of the public sector (from the Ministries of House and Urban Development, Public Works and Economy, Development and Tourism and the Municipality of Constitución), as well as the private sector, mainly represented by the pulp mill factory, participated (Plan de Reconstrucción Sustentable (PRES), 2010).

The Plan proposed an increase in the city’s urban space from 507 to 541 hectares as well as an increase in the construction of tall buildings by 20 per cent in the old town area, as a way to ensure the availability of space for the construction of new homes. As indicated above, this was done without amending the Municipal Land Use Plan, which not only assigns land use and the location of infrastructure, but also prevents the use of areas at risk and provides environmental assessments, which in turn require public participation. The reconstructions in peripheral and central sites, which constituted the primary part of the reconstruction process, were therefore not only lacking the necessary evaluations, but also proper urban planning, especially with regard to the availability of public services to meet the needs of these new residential areas, their accessibility, and due consideration of social, economic and

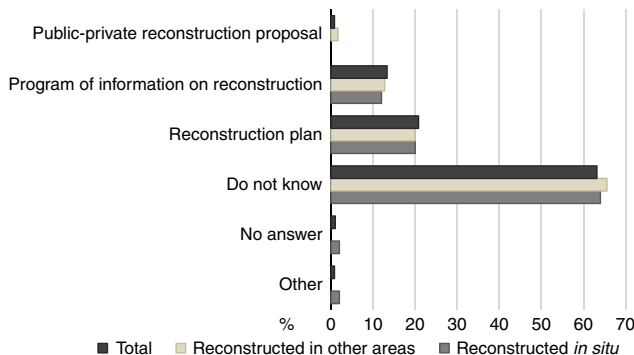


Figure 3. Knowledge and participation in the Sustainable Reconstruction Plan (PRES) by residents of the reconstructed areas in Constitución

Source: Created by the authors

environmental costs to the relocated populations. This dilemma is well explained by a municipal professional:

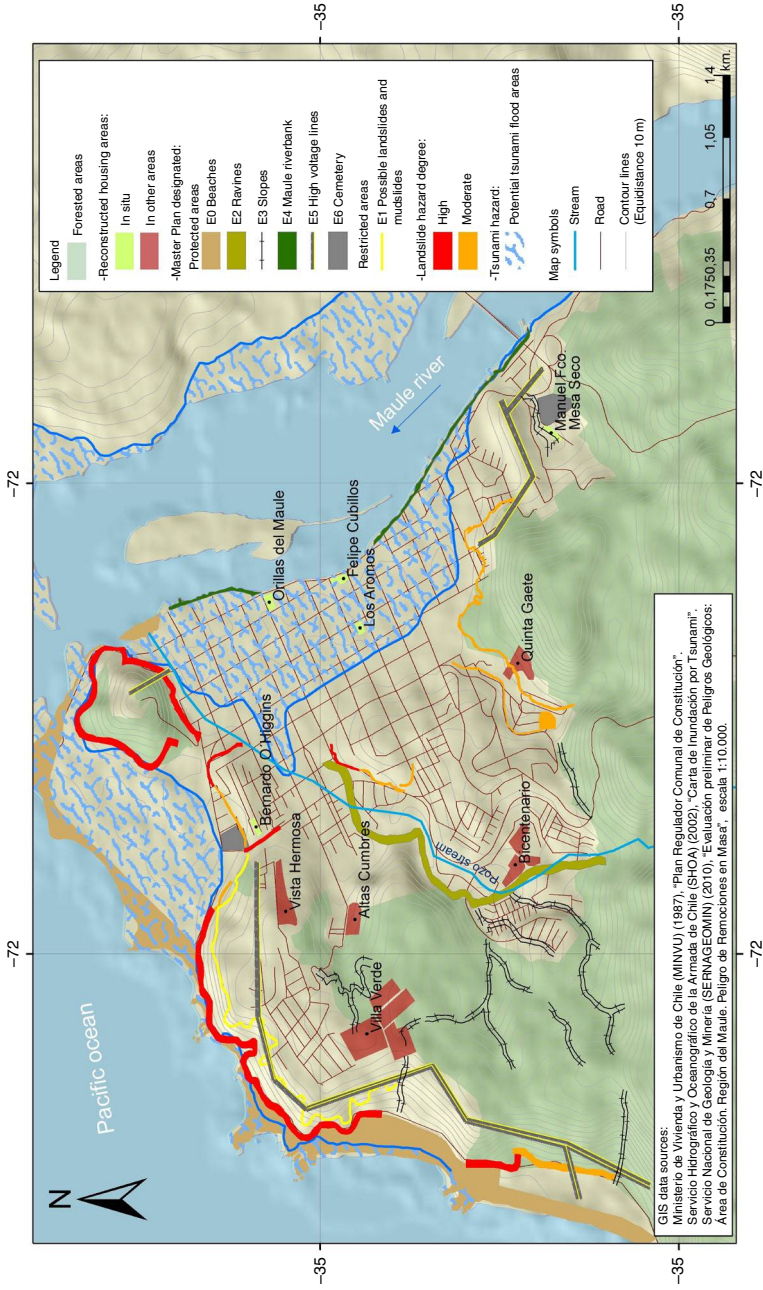
The demands of the residents for a speedy reconstruction and the ideas of the central government to accelerate the process, because of a real need for housing, meant wasting the opportunity to update our Communal Master Plan [...] However one must consider that under the time it takes the upgrade, which often involves years, it was easier to find solutions in an exceptional reconstruction plan (Anonymous municipal professional, 2013, personal communication).

4.2.1 Relocation and new threats. The Communal Master Plan of Constitución, created in 1987 and still in effect, classified the area on the northern edge of the Ratonera Hill (known as Acantilado Hill therein) adjacent to the shoreline as a “high risk zone” (Figure 4), and considered the banks of the Maule River as a “protection zone for high risk settlement”. Also considered as “protection zones” were the beaches and shoals, the edges of the hills (due to the risk of landslides and rock falls) as well as the banks of natural streams, springs and waterways (Figure 4). The Master Plan did not consider the risk zones for earthquakes nor for tsunamis, which had been identified and classified on the charts of the Hydrographic and Oceanographic Service of the Navy in 2002. The availability of this public information did not imply, however, any modification of the regulatory instrument (Romero *et al.*, 2011). While these restricted areas and protection against certain natural hazards were apparently respected in the selection of reconstruction areas, this does not mean that the Master Plan had been updated or modified, which at the time of the 2010 disasters had already been delayed due to the available scientific information, land use and structural claims, and city functions. Neither was attention given to locating areas prone to natural hazards and listed by the Geology and Mining Service of Chile (SERNAGEOMIN), which produced numerous reports after the 2010 disaster. Consequently, some of the reconstruction sites not only continued to be threatened by these risks, but also others, such as exposure to landslides or forest fires:

An upgrade of the Communal Master Plan is very expensive for a municipality, and it is even more expensive to conduct a study of natural hazards. When for the first time, as a result of 27F, a hazard assessment for tsunamis, landslides and other hazards was conducted this was an opportunity to include these studies about the location of new residential areas [...] But if questioned about perceived risks, the public in reconstructed areas is unaware of them or thinks they are safe now (Anonymous local urban planner, 2014, personal communication).

For example, the Altas Cumbres housing development was located on a hillside. The same was true of the Quinta Gaeta village, which was in a danger zone for landslides on the border of the Mirador Hill (Servicio Nacional de Geología y Minería, 2010). To that effect, personal communications indicate that some of the reconstructions in these housing projects have been flooded by small mudflows caused by winter rains (Plate 1(a)). Fortunately, there has not been any occurrence of landslides, although neither has been done any predictions of the impacts that heavy rainfall or an earthquake of magnitude would provoke.

A new threat that affects some of the reconstructed housing developments is related to the forest fires that may affect the neighbourhoods Quinta Gaeta, Altas Cumbres and Villa Verde (Plate 1(b)), because parts of these developments were built within 50 metres of forested land. Indeed, in January 2014 a large forest fire occurred southeast of the city that, although no residential areas were affected, displays the vulnerability to this danger.



Source: Created by the authors

Figure 4. Zoning of natural hazards areas and protection and restricted use zones indicated by the Master Plan of Constitución



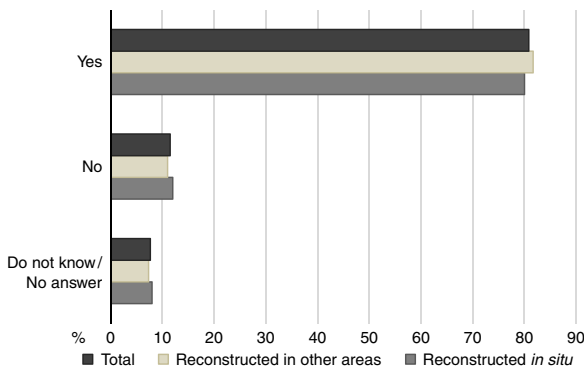
Notes: (a) Quinta Gaete, constructed on a steep slope; (b) Villa Verde, surrounded by forestland

Source: Created by the authors

Plate 1.
Exposure to
hazards of the
reconstructed areas

The results were obtained from personal communications with planners or the neighbours. The impression was always the same, that new residential areas were well located with respect to exposure to the threat of tsunamis. In fact, to include this question in the survey, the majority of the population living in reconstructed housing (81 per cent) considers them safe from diverse natural hazards. In total, 12 per cent say they are not safe, and 7 per cent do not know or did not answer (Figure 5). Feedback from those who indicated that their homes were not safe, for example those living in Manuel Francisco Mesa Seco, indicated a fear that the building structure might collapse in an earthquake, similar to that indicated by those living in Los Aromos and Bernardo O'Higgins, areas that had suffered that type of destruction during the 27 February 2010 event. Another threat perceived by community residents is that of forest fires, especially among inhabitants of Villa Verde, which is located in the vicinity of a forest belonging to Celulosa Arauco. The threats of collapse or landslides were rarely considered by those surveyed, which could be due to their low occurrence in the city, especially due to the drought affecting central Chile.

The fears of the public coincide perfectly with the lack of zoning instruments to ensure that the homes constructed are built in truly safe places, due to the lack of an updated Master Plan. The fact that they are operated under exception instruments has not



Source: Created by the authors

Figure 5.
Public perception of
the security provided
by the new housing
against natural
hazards

improved the perception of the security levels by the target population. One of the most notable examples is the reconstruction of homes in the area directly flooded by the tsunami on the banks of the Maule River. In this case, municipal authorities delegated to the people the responsibility of reinstalling themselves in the devastated zones, which is clearly an insufficient public policy (Tapia, 2014). Specifically, Wiek *et al.* (2010) pointed out that with an inadequate preparation phase, critical in the reconstruction process, problems arise later in the recovery due to the inadequate institutional response.

4.2.2 Problems of the new sites in the urban periphery. The location of the largest residential complexes in the urban periphery has significant implied costs for the most socially vulnerable population. The fact that they have been installed in areas far from the city centre where public services are located, has hampered access to education and health, as well as commerce and other relevant offices for family welfare. This is the case of the new developments Villa Verde, Altas Cumbres, Quinta Gaete and Vista Hermosa, whose residents must now travel further and pay transportation costs that did not exist when living near the city centre. The fact that reconstruction implies only housing construction made the need for urban facilities more obvious, to which the lack of public transportation and mobility difficulties caused by limited roads or their permanent congestion (Plate 2) only adds. The lack of connectivity has particularly affected Villa Verde, a residential complex that is experiencing high levels of social segregation, having been installed in the neighbourhood of Villa Los Copihue, an exclusive housing area for professionals from the Celulosa Arauco plant. A comment for this is offered by one of the locals:

Neighbours really are grateful for homeownership, however, for those who earn a minimum wage, it has a great impact on the wallet [family economy] to have to travel daily to the lower part of the city, because here we have no services [health, education, recreation areas, etc.] (Anonymous community leader of Villa Verde neighbourhood, 2014, personal communication).

The residential complexes reconstructed on sites that were occupied before the disaster, such as the Manuel Francisco Mesa Seco population (Centinela Hill sector) or the Bernardo O'Higgins neighbourhood, have more and better access to the centrally located urban services, as well as to public transportation. The leaders of these communities were



Plate 2.
Prieto Street, the only means of access to the towns located in Ratонера Hill (high Constitución)

Source: Created by the authors

satisfied with the reconstruction plan, in the sense that it allowed them to keep their homes in their original locations. Another similar case is the central neighbourhood Los Aromos.

The higher economic costs faced by the inhabitants of reconstructed areas located on the urban periphery compared to those in their previous central locations are complemented by social costs resulting from the loss of social networks formed by neighbours and family contacts as a consequence of the greater distance that now separates them (Figure 6).

Regarding the concept of functionality, the reconstruction has only focused on the restitution of housing and was based on political and electoral purposes, having contributed to increased levels of socio-economic vulnerability for those relocated. It can be corroborated that socio-environmental injustice and the spatial distribution of risk are strongly influenced by political decisions (Schilderman and Lyons, 2011). In Constitución, the post-disaster reconstruction has been the cause of a process of social and territorial exclusion of local communities, which has maintained or accentuated the socio-spatial segregation of the urban population, dismantling neighbourhood communities and generating or increasing social, environmental and economic costs for the local society, as well as exposing them to new natural hazards (Romero *et al.*, 2014; Contreras and Beltrán, 2015).

According to Fuentes and Schüler (2014) and Tapia (2014), there was a sort of programmed withdrawal by the state in the reconstruction process, and a relevant transfer of its responsibilities to the private business sector, establishing a sort of “disaster capitalism” which, when applied to the housing reconstruction – despite not being a key area of the neoliberal project – sought to establish the option of “private solutions for public problems” in Chile (Farías, 2014).

Conclusions

The rush to reconstruct the infrastructure during the time of the previous Chilean government was not only down to social and political factors, but also aided by the

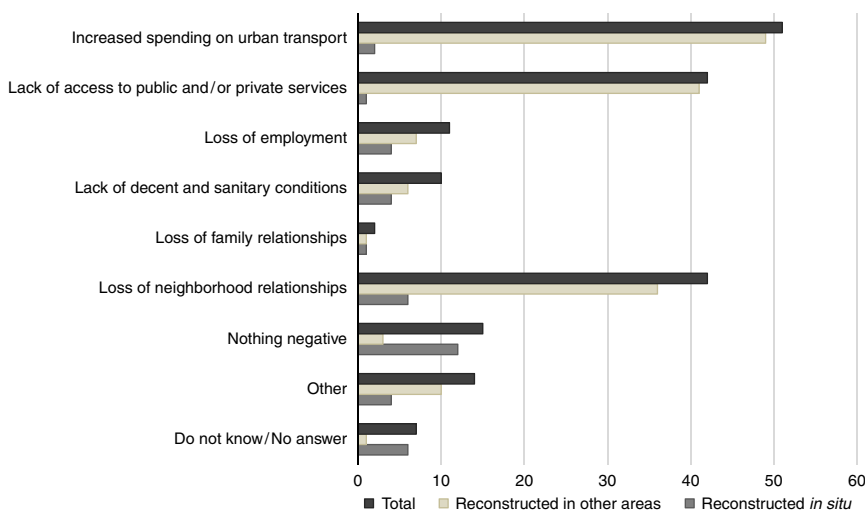


Figure 6. Perception of social and economic losses by the inhabitants of the reconstructed housing complexes in the city of Constitución

Source: Created by the authors

availability of vast financial support obtained by very positive circumstances such as the high price of Chilean commodities in the international market, the establishment of an extraordinary mining production royalty, implementation of temporary taxes and the reallocation of sectorial fiscal budgets, all of which ensured an abundance of resources – not usually the case in developing countries.

Nevertheless, the reconstruction focused only on infrastructure, but did not provide the socio-political reforms to ensure binding participation of the local society in decision making, nor the creation of development plans to strengthen the social and human capital to introduce changes in the economic and cultural systems that modernize cities through the implementation of regulatory instruments to manage and adapt structures and urban functions, and especially to provide sustainable conditions for flagship projects. On the contrary, the decision was to present the reconstruction plans on the fringes of a real urban sustainable purpose, in a process of isolated real estate projects located in the urban periphery, in areas with limited access and connectivity, areas with natural and social risks, all of which have increased levels of vulnerability to future disasters.

The right-wing government that took office just days after the earthquake and tsunami focused on discrediting the actions of the preceding government and establishing the fundamental principles of neoliberalism that, as a model, has directed the development of Chile over the past 40 years. The prominence given to the public-private alliance, the reduction of the State role, the speed afforded to the massive reconstruction of hundreds of thousands of homes, the availability of huge economic resources, the use of exception mechanisms instead of the usual regulatory instruments as well as an interest in legitimizing their actions by allowing limited citizen participation all characterize an unprecedented process in the country, which is difficult to find in other developing countries.

It is also clear that the reconstruction process analysed did not consider the functional dimension of reconstruction, as a space recovery: physical, human and communitarian. In the responses and perceptions of the inhabitants show that several criticisms are found that deal especially with the lack of consideration for additional economic, social and cultural costs caused by the transfer of communities to periphery zones, devoid of urban infrastructure. The new neighbourhoods created by the reconstruction process failed to consider natural hazards, such as landslides and the danger of forest fires, or the socio-spatial segregation and economic and social decline that the installation of people far from service centres and neighbourly relations has caused.

This study leaves open the investigation into possible connections between this process of reconstruction, where the private world had a strong participation – at least from the level of funding of projects – and the neoliberal model. Moreover, monitoring the long-term impacts of this reconstruction process is pending, not only in Constitución but also in the other areas affected by the disaster. In this sense, it is necessary to evaluate the adaptation processes of the communities in both the occurrence of the disaster as the problems resulting from post-disaster recovery processes, arranged by public and private institutions.

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Further reading

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