Urbanising disaster governance
*The politics of risks in the foothills of Santiago*

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Methodology: Researching Urban Disaster Governance in Santiago
3.1 INTRODUCTION

This chapter presents the research methodology of the thesis. I begin by describing my urban research-based approach (3.2.1), presenting my questions and concepts (3.2.2) and reflecting on my ontological and epistemological stances (3.2.3). After that, I describe my research methods in detail (3.3). I then expand on the case of Santiago, setting the stage for the following chapters (3.4). Finally, I reflect upon ethical questions and my positionality (3.5.1), and how the COVID-19 pandemic has impacted my work (3.5.2).

3.2 RESEARCH APPROACH

3.2.1 PRACTICING URBAN DISASTER RESEARCH

This sub-section considers discussions in both urban and disaster studies literature to examine how they affect and/or constrain my methodology. Urban disasters constitute dramatic disruptions with considerable emotional weight. As such, ethics and responsibility must be central to research (Gaillard & Peek, 2019). It has been argued that post-disaster researchers must pay attention to issues such as language, logistics of accommodation and transport, methodological matters, positionality, fieldwork ‘blues’, and ethical concerns (Mukherji et al., 2014). While many of these are important, not all apply in my case. As a Chilean researcher studying a Chilean disaster area, I see myself generally as an ‘insider’ (with nuances, see 3.5.1), contrasting with other researchers in the field (Gaillard 2019). Moreover, while disasters are an interesting scientific and development issue, I concur with Gaillard and Gomez (2015) when they question the ‘gold rush’ to study them. By contrast, I approached the 1993 aluvión historically and according to an inductive logic, taking the ‘event’ as a starting point from which to explore the social and spatial factors that contributed to it and those that emerged in its aftermath. In accordance with my theoretical positioning described in the previous chapter, methodological lessons from critical urbanism are relevant here.

Analysis of issues such as urban restructuring, spatial transformations, urban marginality and informality requires a strategy for accounting for the multiple sites and scales of urban formations. While critical analyses of spatial data and policy documents are vital, these are insufficient to account for the negative impacts of
certain processes on urban dwellers. To properly approach the pernicious effects of urban disasters (but also, for example, of punitive, exclusionary, or austerity urban policies), the experiences of marginalised groups must be central to the analysis and not deduced or analysed statically. The need to look at things from the level of ‘the streets’ (Duneier, 1999; J. Jacobs, 1961) has for decades been positioned by urban ethnographers as the main tool for developing this kind of analysis (Fairbanks, 2012; Koster, 2020; McFarlane et al., 2014; Wacquant, 2012; Zeiderman, 2013).

Ethnographic approaches to everyday practices have been highlighted before in governance-related research (Bevir, 2013; Cornea et al., 2017). Even in his more theoretical work on governance, Bevir (2013, p. 157) stresses that ethnography in policy-in-action can help to blend the agendas of governance and Foucauldian governmentality, generating “historicist accounts of the assumptions, knowledge, and convictions embedded in present-day governance”. The critical explanatory power of urban ethnography is to understand processes and experiences at this level as an entry point from which to expand upon their true complexity. For example, Loïc Wacquant (2009) describes his approach to ethnography and social theory by explaining how urban phenomena have a scalar dimension that can be described ethnographically. In Wacquant’s view, in order to account for diversity in phenomena such as urban marginality, a common denominator must be found in relation to scale – in his case of urban marginality, the state and its neoliberal policies of urban restructuring (Wacquant, 2009, 2015). In my case, this means considering spatial issues not as local but incorporated into other ‘elsewheres’, extending to a multiplicity of sites within my research area in the foothills of Santiago and beyond its ‘limits’.

In acknowledgement of this scalar dimension, my research approach begins with a strategic focus on the everyday lives of people who experienced the disaster. Processes of urbanisation and transformation of ‘nature’ are driven by a multiplicity of state and non-state actors with particular interests, resources and practices. Their effects in relation to disasters and disaster management are best addressed by looking at the way in which they act and perform ‘on the ground’. My approach is inspired by anthropological work focused on the state. As Cornea et al. (2017, p. 5) assert, these works “recast the state as a heterogeneous assembly of actors, institutions, practices, and representations that is constantly reproduced through power relations as well as through deliberate performances”. Situating governance on the ground thus allows us to expand on practices of spatial production, moving attention away from the
formal aspects of city-making and its outcomes and towards processes. This strategy is consistent with my approach of power, space and justice, which I operationalise by going beyond top-down and purely formal governance structures, developing instead a situated, emergent and multi-scalar perspective.

### 3.2.2 unpacking my questions and concepts

Here I return to my research question and sub-questions, describing how they relate to the upcoming empirical chapters, each of which focuses on a particular interface between urban and disaster risk processes, which in turn are traversed by the urban political dimensions of power, space and justice. Table 3.1 illustrates this entanglement, which I proceed to describe in direct relation to my theoretical framework.

**Table 3.1 Operationalising questions and concepts**

<table>
<thead>
<tr>
<th>Question/ Chapter</th>
<th>CHAPTER 4 (housing recovery)</th>
<th>CHAPTER 5 (post–disaster spatial planning)</th>
<th>CHAPTER 6 (practices of disaster memory)</th>
<th>CHAPTER 7 (politics of risk management)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research question (short)</strong></td>
<td>How recovery reproduces historical vulnerabilities</td>
<td>How spatial planning produces injustices</td>
<td>How disaster memory reflects different narratives of risks</td>
<td>How distinct modes of governing risks can lead to more inclusive cities</td>
</tr>
<tr>
<td><strong>Sub–question 1 -Power</strong></td>
<td>‘Technical’ arrangements of recovery</td>
<td>Multi–level arrangements to implement land uses</td>
<td>Contested arena of remembering</td>
<td>Dynamics of de– and re–politicising</td>
</tr>
<tr>
<td><strong>Sub–question 2 -Space</strong></td>
<td>Long–standing inhabitation and contesting relocation</td>
<td>Spatial practices in risk governance</td>
<td>Production of a landscape of memorialisation</td>
<td>In–between marginal spaces</td>
</tr>
<tr>
<td><strong>Sub–question 3 -Justice</strong></td>
<td>Multiplicity of injustices produced</td>
<td>Institutionalising spatial injustice and marginalisation</td>
<td>Distinct narratives of root causation</td>
<td>Dissensus for more inclusive governance</td>
</tr>
<tr>
<td><strong>Sub–question 4 -Integrated</strong></td>
<td>Importance of egalitarian recovery</td>
<td>The limits of mainstream instruments for DRR</td>
<td>Critical role of community mobilisation in discussion of risk creation</td>
<td>Possibilities of contesting technocratic risk management</td>
</tr>
</tbody>
</table>

Source: author
My take on power critically interrogates the myriad joint political relations between urban and disaster dimensions. This relates to the intricacies of power in both processes and their outcomes – examining the actual (i.e., substantive, empirical) politics that emerge – and thus transcends a so-called social contract that should permeate governance arrangements. I am inspired by both anti-politics and post-political arguments, which help to question the emerging modes of governance in terms of how actors, institutions and instruments operate and what they produce. As such, I critically address the governance arrangements through which political issues are rendered technical during recovery (Chapter 4) and risk management (Chapters 5 and 7), while examining emergent politicisation of issues such as disaster memory (Chapter 6).

My approach to space heeds theoretical warnings from critical urban theorists (e.g., Lefebvre, Harvey) that we should avoid viewing space as a passive container of society. Instead, we should explore its active production through social practice. In that sense, the chapters that follow use this notion to reveal how different actors produce space through long-term processes of inhabitation. This requires attention to the political usages of urban space, the bureaucratic operation of the state, the attachment of people to certain places, and the intervention and elaboration of symbols that help communities to make sense of their disaster experiences. Hence, in my empirical analyses I expand on how long-time settlements are spatialised and emerge as vulnerable to particular risks (Chapter 4), how spatial practices implement risk governance (Chapter 5), how landscapes of memory are produced (Chapter 6), and the role of marginalisation in emerging political claims (Chapter 7).

Lastly, my consideration of justice involves a focus on the specificities of disasters. As mentioned in the previous chapters, I focus on the injustices suffered by long-standing foothill communities as revealed by their experiences with disaster processes. The presence – and reproduction – of disaster vulnerabilities is per se a matter of justice (Verchick, 2012). In my approach I extend the sole distributional dimension of justice in order to account for recognition and representation. The latter describes how, for instance, communities demand participation but also attempt to change the terms of discussion. The following chapters consider the need to understand (in)justices by ‘excavating’ their multifaceted character (Chapter 4) and the spatial (in)justices resulting from institutionalised disaster risk management initiatives (Chapter 5), but, more critically, which justice claims emerge from below,
how they are contested, and how they politicise certain conditions of living (Chapters 6 and 7).

3.2.3 ONTOLOGY AND EPISTEMOLOGY

Research is affected by decisions that occupy a meta-theoretical position. Awareness of the philosophical foundations of social science research makes its practice more robust and honest in regard to its underlying assumptions. Bearing this in mind, I reflect upon and frame my research in terms of both its ontology and its epistemology.

Ontology, or reflection on the nature of reality, has many positions, including realism, materialism, critical realism and idealism (Snape & Spencer, 2003). These hold different views on how independent social reality is from our interpretation, how common or multiple that reality is, or how universal or mutable are the laws governing that reality (see Snape & Spencer, 2003, pp. 11-13). My own ontology throughout my research is weak constructivist, which I frame within the idealist and materialist positions. Starting from the idea that society is governed by laws that are different from those of the physical world, I approach urban disasters not as ‘objective’ entities but as belonging to a reality accessible through culturally constructed representations. In that sense, what we call disasters represent entities that can be described and are shared by a collective, but which are always embedded in particular social rather than universal conceptions of the world.

Epistemology, on the other hand, refers to the assumptions and conditions through which it is possible to know the world. Again, there are various positions regarding “the relationship between the researcher and the researched”, the assumptions surrounding the ‘truth’ in science, and the actual “way in which knowledge is acquired” (Snape & Spencer, 2003, pp. 12–13). Epistemology influences particular methodological tools, and while positivism and post-positivism are typically associated with quantitative research, other stances like critical theory, phenomenology, post-modernism or social constructionism underpin qualitative research (Savin-Baden & Howell Major, 2013). Within the field of disaster studies, Wisner et al. (2004, pp. 18–19) expand on three positions regarding risks: a ‘realist’ position where risk is something that exists objectively and hence “can be measured independently of social and cultural processes”; a ‘weak constructionist’ position that understands hazards as objective but...
“always mediated through social and cultural processes”; and a strong constructionist position in which “nothing is a risk in itself” but instead the outcome of historical, social and political ways of seeing.

Of these different stances, my research conforms more closely to critical and social constructionist perspectives. This means that I do not think there is knowledge ‘out there’ to be gathered through value-free activities of scientific inquiry. Instead, knowledge is constructed and produced dialogically through a contextual and situated process of research. In addition, following a tenet within critical epistemologies, I see reflexivity as a crucial feature of scientific practice. This way of understanding science acknowledges that researchers influence their environment and thus develop a responsible relationship with it. Scientific practice is therefore not only in conversation with other forms of knowledge production (e.g., indigenous, traditional, non-expert) that complement it, but is also concerned with normative objectives such as social justice and transformation. The role of science is still theory, seen as a set of “concrete abstractions” (Lefebvre, 2003a, p. 275). Such endeavour, however, suggests from a critical and reflexive point of view that society can and must be changed through its actions. As Marx (1888) states, “the point is to change it” (see also Castree et al., 2009).

My positioning regarding these meta-philosophical questions is, despite everything, flexible rather than purist. In other words, I see the tools of research from a pragmatist perspective that maintain its self-reflexive character. While I am aware of how theories and science work as incommensurable paradigms (Kuhn, 1962), this does not mean that these questions are unimportant – far from it. Considering these philosophical issues is highly relevant for my project. As argued by Castree (2001), the interaction of society and nature makes their separation impossible, and one should speak instead of a unified socionature. This is not to deny the physical existence of what “we routinely call natural – be they trees, rivers, animals, or anything else”, but instead to reinstate that the “physical opportunities and constraints nature presents societies with can only be defined relative to specific sets of economic, cultural, and technical relations and capacities” (Castree, 2001 p.13, emphasis in original). In that sense, distinguishing whether disasters are ‘constructed’ or ‘produced’ (Sun & Faas, 2018) is a relevant theoretical question, but understanding them as ‘objective events’ that are

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21 While science is often mired in personal, political and/or religious interests, it is far from irrelevant or even equitable to other forms of knowledge precisely because it is reflexive.
22 Noel Castree goes on to explain that “…the same ‘chunk’ of nature – say the Amazon rainforest – will have different physical attributes and implications for societies, depending on how those societies use it. In this sense, the physical characteristics of nature are contingent upon social practices: they are not fixed” (2001, p. 13, emphasis in original).
'outside of social order' (as held by physicalist or structural functionalist views, see 2.2) entails ontological and epistemological positions that I do not share. Instead, my thesis prioritises the socially constructed structures and discourses that produce and govern urban disaster risks, always accessed through ideological and personal experiences.

### 3.3 RESEARCH METHODS

In this section, I describe the set of methodological tools developed for my research. My approach to the politics of urban disaster governance focused on four different interfaces, corresponding to the empirical Chapters 4–7. While each of these chapters includes its own discussion of methods, my doctoral research followed the design described here. Before addressing the tools and stages of my research, I describe two general attributes: its case study feature, and the adoption of a mixed methods approach.

My research is a case study. According to Yin (2003, p. 8), these are preferred when research questions ask “how” or “why”; when there is no control over behavioural events; and when research focuses on “contemporary events”. All of these are features of my design. This differentiates my research design from others, including surveys, archival analysis, and history. As such, my thesis should not be evaluated under the logic of quantitative research; for example, informant selection is not unbiased, and is not solely aimed at representativeness. My case study design has three features:

(a) The relation between theory and evidence in my project aims to advance generalisations concerning the politics of urban disaster governance. Certain concepts link evidence and theory, advancing knowledge on the issue through an analytic generalisation that uses a previous theory as a template to compare the empirical results. This contrasts with statistical generalisation, in which inferences are made for a population by sampling certain units of observation. Hence, while my analysis may help to explore other similar cases, the goal of my research is to generalise certain conceptual interconnections (which in turn can help to describe other empirical contexts).

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23 Although I was studying a disaster in the past, research participants recounted their own ongoing experiences. I therefore approach it as a current process as opposed to an historical ‘event’ that came to an end.

24 Although, according to Small (2009), ethnographic-oriented research involving case studies should not imitate statistics or other scientific languages, it still requires explanation of the logic of case selection and the issue of ‘generalisability’ (see 3.3.5).
(b) As mentioned, my research focuses on the foothills of Santiago and particularly the comuna of La Florida. However, I chose this urban area because of a relevant urban disaster that occurred in 1993, and because of the existence in close proximity to it of marginalisation and risk management processes. My case – or unit of analysis – is therefore this area as an example of a post-disaster urban context.

(c) Following Yin’s (2003, p. 46) typology of research designs, I characterise my project as single-case embedded. The design is embedded because, given the nature of the phenomena investigated, I need multiple sources of evidence, i.e., different data collection units or units of observation (see the next sub-sections).

Accordingly, my project achieves greater insight through its mixed methods design involving both qualitative and quantitative techniques (Creswell & Plano Clark, 2011). The reasoning behind it is theoretical: as I work in the interstices of disciplines, domains and scales, it is better to combine different sources and types of analysis. However, it is also practical, as a number of empirical issues are not covered by a single tool. My project nevertheless maintains the primacy of qualitative over quantitative methods25, making my design an ‘embedded’ one in which the latter supplements and enhances the qualitative phase (Creswell & Plano Clark, 2011). Furthermore, as shown below, my process of collecting primary data is solely through qualitative techniques.

### 3.3.1 Qualitative Phase

The main research tools of my thesis come from qualitative methods. This is because my research problem entails variables and processes that are better understood in the context that produces them and from the perspective of those affected. In particular, I used ethnographic methods26 (Hammersley & Atkinson, 2007; Murchison, 2010). I understand these as contextual techniques that aim to study people’s experiences and interpretations in their ‘natural setting’. As such, ethnography sees a distinctive field in which the researcher is embedded, making him/her the main research tool. Moreover, as this research

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25 Hence, my epistemological position and assumptions are consistent with those of qualitative design (Creswell & Plato Clark, 2011).

26 Although these constitute the main tool used in my thesis, I do not claim to deliver an ‘ethnography’ in the anthropological sense; rather, it is a case study.
logic is inductive in nature, it allows space for things to emerge during fieldwork. While always guided by research questions, these worked more like flexible guidelines that allowed for unexpected issues. This distinctive and experiential approach leads to questions of positionality and reflexivity: as a researcher, I understand that the collection of experiences and evidence is influenced by my presence (see 3.5.1).

Within the wider scope of qualitative and ethnographic research, I used specific key methods: semi-structured interviews, participant observation, and document analysis. I explain the latter as part of my policy analysis (3.3.3), but first I describe the fieldwork involved.

Fieldwork
I conducted fieldwork in two distinct phases totalling 10 months between January 2018 and February 2019. The first stage (January – May 2018) was introductory and exploratory. I then assembled a number of secondary documents and gained access to the foothills of Santiago thanks to a serendipitous situation. While reading about community-based environmental organisations in Santiago, and especially protests that had been staged in relation to conservation issues in the foothills, I obtained the number of an informant who became crucial to my fieldwork. An initial interview with her helped me to connect with local inhabitants and experts on the area. As such, she operated as my gatekeeper in the field, and thereafter the snowballing principle allowed me to meet other potential informants.

During this phase, I conducted 18 interviews focused on achieving a broader historical understanding of people’s arrival in the foothills and their experiences of the 1993 disaster. I also attended different settings as a participant observer; for instance, on the evening of 3 May 2018, a number of my participants invited me to attend an event at CIQMA (see section 3.4 and Chapter 6) commemorating 25 years since the *aluvión*. Another example was an invitation from a long-term resident to visit different parts of the foothills by car, during which she offered me her recollections of the historical transformations that occurred in the area, including beyond the urban limits and up into the Andes. Engagements such as these began to shift my initial focus away from the 1993 disaster itself and towards wider urban transformations and their implications for local dwellers.

27 For my PhD, I also conducted fieldwork in two other Chilean cities: Concepción and Valparaiso, where I held an additional 22 interviews and other participant observation sessions. The two cases are not included in my thesis, however, as explained in section 3.5.2.
The second phase (October 2018 – February 2019)\textsuperscript{28} centred on achieving an in-depth understanding of my area. A number of topics began to make more sense to me and new ones emerged. I conducted 30 more interviews and attended other events in order to develop an ethnographic account. During this longer period in the foothills, I was invited to a number of private meetings about emergency preparation and health-related issues. I also contacted a recently founded emergency organisation who helped me to achieve new perspectives of the foothills (see Chapter 7). In January 2019, my supervisor visited Chile to conduct fieldwork with me, and this intensive week helped me to develop some of the ideas presented in my thesis.

Finally, a word on the research participants. Immersion in the field allows social research to be conducted \textit{from the setting} itself, which, in the case of post-disaster urban areas, leads to a focus on the neighbourhoods and communities affected by disasters, and on public officials and other actors engaged in recovery and risk management.\textit{Ethnography of the state} approaches (Bernstein & Mertz, 2011) offer a means of analysing the deployment of bureaucratic norms, rules and practices within the field itself. This means that in my selection of research informants I also sought to diversify their profiles. Along with affected communities, members of local organisations, and local activists, I invited municipal and national public officials, policymakers and professionals to participate, most – although not all – of whom were very willing to be involved. I acknowledge and am thankful for their interest and commitment, as many contributed considerably during fieldwork and analysis.

\textit{In-depth interviews and participant observation}

My ethnographic-oriented tools consisted of in-depth interviews and participant observation. Through the interviews I gained perspectives on the experiences and discourses of the research participants regarding the 1993 \textit{aluvión} and associated urban processes. In total, I conducted 48 in-depth interviews, and Table 3.2 presents a general profile of interviewees. A general list of questions was used for each interview, although with variations (see Annexe A for full details).

\begin{footnotesize}
\footnotesub{28} Between fieldwork phases (June – September 2018), I conducted initial and exploratory qualitative analysis at the University of Amsterdam.
\end{footnotesize}
Table 3.2 *Interviewee profiles*

<table>
<thead>
<tr>
<th>PROFILE</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community representatives</td>
<td>5</td>
</tr>
<tr>
<td>Local emergency organisations</td>
<td>8</td>
</tr>
<tr>
<td>Long–term residents</td>
<td>18</td>
</tr>
<tr>
<td>New residents</td>
<td>3</td>
</tr>
<tr>
<td>Politicians</td>
<td>2</td>
</tr>
<tr>
<td>Members of public organisations (e.g., urban development, risk management, healthcare services)</td>
<td>5</td>
</tr>
<tr>
<td>Academics and NGO–based urban experts (architects, planners, geographers)</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

Interviewee selection followed a snowballing logic, but this was not intended to be representative of foothill inhabitants. For analysis of governance, however, I was interested in interviewing people from different backgrounds, including multi-level public organisations. For this, I surveyed the various institutions and sampled certain groups more closely. The majority of interviews took place at informants’ homes or offices. I accompanied some informants to field sites so that they could tell me about their environment. These interviews and visits lasted between 40 minutes and 2 hours and 40 minutes. With the help of an assistant, I recorded, transcribed and analysed these interviews using Atlas.Ti (see next sub-section).

In terms of *participant observation*, during both fieldwork phases I was invited to 15 local activities, both public and private, and my aim was to observe people’s behaviour. The fact that my presence would inevitably have been a factor highlights the traditional difference between *participant* and *non-participant* observation. An overview of the various settings is provided in Annexe B. The main research tool was detailed fieldnotes: after attending each setting, I transcribed the fieldnotes on my laptop, enabling me to capture additional elements that I had not managed to note down at the time, and to explore and reflect upon my data with theories and concepts.
Finally, field visits and participant observation also involved photos taken with my smartphone. These were taken with the consent of my informants and helped by providing a record, visual support, and the basis for discussion of particular issues in more detail with interviewees. A selection of these photos is provided in Figure 3.1, showing the CIQMA community centre (a), mitigation infrastructure (b), public spaces in the Macul Ravine (c) and new gated developments (d).

Figure 3.1 *Example photos taken during fieldwork*

![Example photos taken during fieldwork](image)

**Data analysis**

The qualitative data collected was subject to thematic analysis, i.e., “a method for identifying, analysing and reporting patterns (themes) within data” (V. Braun & Clarke, 2006, p. 79). For this I used Atlas.ti – software which facilitates the management of large numbers of documents and permits selection, extraction and comparison of specific
sections thereof according to certain principles. In order to develop the themes that emerge, Atlas.ti uses ‘codes’, that is, a “word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2009, p. 3 emphasis added). The coding process can seek to establish examples, delineate patterns, or reveal underlying themes or meanings in the documents.

Figure 3.2 General model of qualitative analysis

In accordance with the specialised literature (Boeije, 2010; Saldaña, 2009; Spencer et al., 2003), I used a three-step coding strategy. I began by identifying primary themes and concepts in order to produce a list of codes with which to label or ‘tag’ a portion of text that provides a basic description of these themes. In a second, more advanced coding step, I sought to achieve a more detailed sorting using abstractions that emerged from the codes in order to generate categories or meta-codes and thus achieve more complete description. In the final post-coding phase, where patterns and associations exist not only between codes but also between concepts, I sought generalisation and inferences in order to construct meaning and develop explanations regarding my concepts. Figure 3.2 provides a visualisation of this exercise. Throughout the process, I was in control and Atlas.ti was simply a tool. It is important to note that the analysis
was neither automated nor linear, and the distinction between the stages was analytic. A list of codes that emerged during the analysis are presented in Annexe C.

My reasons for explaining this process are threefold: to make my use, management and development of the qualitative information more transparent; to enhance the reliability of my analysis by describing the steps involved and thus the potential for replicability; and to reflect the number of steps required in qualitative analysis and thus advance on the validity of my results (see 3.3.5).

3.3.2 QUANTITATIVE AND SPATIAL ANALYSIS

My thesis also used quantitative and spatial data. In both cases, I relied on secondary data provided by official sources. I used quantitative methods to complement my qualitative research, for example for describing or contextualising certain issues. Chilean statistical information is fairly high in quality, publicly available, and transparent. I collected and analysed some publicly accessible databases, such as population censuses and official socio-economic surveys (see Annexe D). To process the data I used Excel and SPSS – the former to prepare the analysis, clean the databases, and make certain specific calculations; the latter for descriptive statistics. For example, I processed census data in order to obtain an up-to-date population count for my field site. Use of this data provides greater context on a number of issues arising in the fieldwork stages, helping to triangulate information (e.g., to corroborate certain development patterns) and offering key information in some chapters (e.g., Chapter 5, to specify the number of people living in certain situations).

I used spatial data to provide further information for other primary analysis using visualisation of some of the trends explored. I also made use of databases and remote sensing from censuses, government ministries, and public services. Sources for the latter were the *Infraestructura de Datos Geoespaciales* (Geospatial Data Infrastructure, IDE) from the *Ministerio de Bienes Nacionales*, which offers a reliable and updated network of spatial information (www.ide.cl); and the IDE from the Pontificia Universidad Católica de Chile’s *Observatorio de Ciudades UC* (OCUC). Both offer, free of charge, multiple shapefiles for Chile in regard to social, environmental, territorial, planning, economic, health, transport and other issues.

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29 There are, however, ethical concerns in relation to anonymity – in short, that the people involved in my fieldwork were my informants. In the case of replicability, therefore, all trace of information that would allow connection of my data to a real person must be eliminated.
In Annexe D I also describe the specific databases used. This data and the maps were processed in QGIS, which is a free and open-source software.30

In some cases, in order to geolocate particular phenomena not covered by public databases, I complemented this raw data with information from my fieldwork phase. For instance, spatial analysis helped me to elaborate maps concerning post-disaster management practices (e.g., Figure 5.2), incorporating ‘official’ land use and census information, along with other more ‘informal’ – and not state-sanctioned – data such as neighbourhood boundaries defined by me using information from my interviews. Finally, I digitised certain spatial data published in previous scientific research (e.g., Corvalán et al., 1997) using the QGIS Raster tool.

3.3.3 POLICY ANALYSIS

My thesis focuses on governance and therefore requires a strong strategy for analysing policy-related documentation. Besides including certain questions in my interviews, I also developed a systematic means of collecting and processing relevant sources. I assembled documentation from four main sources: digitised public records available online (e.g., institutional documents and media31); public records in libraries (e.g., the Chilean National Library and ministry and university archives); documentation obtained with the help of informants during fieldwork (e.g., relating to their engagement with public institutions or in social movements); and documentation accessed via transparency of public information requests. See Annexe E for examples.

I invested particular effort in analysing policy instruments relating to urban planning and disaster risk management (see Table 3.3), following the same thematic analysis strategy as for my qualitative data. This involved reading, extracting and summarising policies in accordance with my aims, and applying Atlas.ti in a similar fashion to that explained above. On a secondary level, I applied an ethnography of texts approach (Ahmed, 2006). This entailed a search for archival material unavailable in libraries and documentation centres but potentially maintained by informants, and led to the discovery of how emergent concepts and texts are ‘grounded’ in the field. This textual ethnography highlights the diverse significations and usages of documents that together

30 Unlike ARCGis.
31 Including newspapers and television content, some of which is available on YouTube.
make their contents unstable. In light of this, some of the content was contrasted with information from other documents and field informants in order to provide a clearer perspective and reveal how their inherent meanings change or travel.

Two examples help to explain this. First, certain normative issues, when looked at ‘on the ground’, proved to be more challenging and complex. The construction of a post-disaster relocation project (Chapter 4) and the formulation of land use protection measures (Chapter 5) grew in complexity when the focus was shifted to the movable meanings of state-sanctioned initiatives. Second, some public documentation accessed through transparency requests were contradictory, proving the strategic use of policies within public governance. For instance, one official document from an office of the Ministry of Public Works stated that mitigation infrastructure might help in modifying land use restrictions along the Macul Ravine. However, another policy document – a communication from the same Ministry to the Housing Ministry – collected during fieldwork contradicted this, advising that this exclusion zone would be maintained or expanded (see Chapter 5). It is in this sense that I view documents as part of an ‘ethnography’, as they represent not the static implementation of rules and actions in certain governed spaces, but a more complex arrangement of policy and tools deployed in non-linear ways.

3.3.4 LITERATURE REVIEW

As a doctoral thesis, my work must stand on the cutting edge of knowledge on the topic of urban disaster governance. This was ensured by means of a systematic literature review, that is, guided by my research questions and aims, and following explicit methods for searching, appraising, analysing and synthesising relevant research (Booth et al., 2012). The interdisciplinary character of disaster studies posed a challenge to approach the literature, as there are multiple perspectives from natural and social sciences. In order to develop a social perspective within human geography and urban studies, my focus centred on particular journals covering urban and disaster issues, although many more sources emerged – particularly inter- and multi-disciplinary.32 The literature search followed three strategies:

32 In addition to the search results, I conducted a more detailed review of papers published in certain disaster (IJDRR, DPM, Disasters, Natural Hazards, IJDRS), urban studies (Urban Studies, IJURR, Urban Geography, Environment and Urbanization, Urban Planning, EURE), and other disciplinary and interdisciplinary journals (Geoforum, Progress in Human Geography, Journal of Political Ecology, Politics and Governance).
(a) Combinations of keywords in the scientific indexing database Scopus, which retrieves sources containing those terms in the title, abstract and keywords. Scopus is an excellent index of scientific sources, including journals, academic books and monographs. However, a bias exists here, as other relevant work such as grey literature and, most critically, articles published in some Spanish-language journals, are not necessarily indexed in Scopus.

(b) I therefore complemented my search with Google Scholar, a much broader but more chaotic and less consistent database. It is particularly useful for checking materials not covered by Scopus, such as non-indexed articles, working papers and even policy documentation. Unlike Scopus, results include sources containing the specified or similar keywords. Given the millions of resulting hits, I employed certain features such as limiting results to the last ten, five or two years, or adding “” around certain commands.

(c) In addition, I searched literature using both back- and forward-citation tracing for particular key sources. Respectively, this means checking literature referenced in relevant articles and those articles that cite certain key references (the latter being a tool available in Scopus and Google Scholar). This helped to establish the relative importance of a published document as well as to find new materials.

I appraised each of the resulting sources to produce an aggregative review: the aim is to achieve exhaustive knowledge of a topic by adding individual results. Although some sources were analysed in more detail as hinted in (c) (had ‘extra weight’, as expressed by Booth and colleagues), the literature was generally treated equally. The analysis and synthesis followed a thematic strategy.

Atlas.ti and Mendeley were used to manage different types of literature: policy documentation (widely understood) and scientific publications, respectively. The strategy entailed assessment of the information and results of previous studies, and extraction of the themes that emerged. Thus, the result of the literature review is saturation of particular themes, identification of gaps and establishing of priorities for investigation of the politics of urban disaster governance.

33 In particular, main keywords and combinations thereof, e.g., urban AND disaster AND governance; urban AND “disaster governance”; urban disaster risk governance; “urban disaster* AND justice”; “urban disaster* AND power”.

METHODOLOGY
3.3.5 SYNTHESIS AND DATA QUALITY

The process of assembling all of the tools and techniques described in this section was neither a linear nor a direct endeavour. On the contrary, many of these methods were intertwined, simultaneous and interactive. Given the multiple sources, flexibility, critical usage and systematic nature of methods, I argue that my research is robust and reflexive in nature. Figure 3.3 provides a summary of method integration. To reflect on the quality of my data, I will now expand on the validity and reliability of my results for the analysis presented in the coming chapters.

Figure 3.3 Synthesis of research methods

I describe data quality measures for validity, reliability and generalisability (Mason, 2002). In relation to validity, the concepts and theoretical discussions described in the previous chapters, guided the process of primary and secondary data collection. As empirical research, the analyses presented here emerged from the evidence and the contexts in which this was constructed. This poses the question of how appropriate the methods are for this kind of research. That is why this methodological chapter began with a description of the operationalisation of my main concepts throughout the empirical phase and has described thoroughly the decisions taken in the collection and analysis of the 'evidence'.

Source: author
Second, regarding reliability, I argue that many procedures make my methods and data accurate for my objectives. For instance, use of different sources and techniques helps with triangulation of information. The ethnographic nature of the research makes it an emergent and reflexive process: both in the field and when writing up notes, I double checked many issues that came up in interviews and other settings. Thus, more than a set of ‘standard’ tools to check the reliability of my research, the self-reflexive nature of my research enhanced the accuracy of my thesis.

Finally, the issue of generalisability relates to the extent of the claims made in the thesis. Qualitative methodology should not be assessed on a quantitative basis, and thus the selection of interviewees was not intended to generalise the foothill population. However, research of this kind is not idiosyncratic in nature, as it informs future research and other cases in concrete ways. My thesis aims in particular to extract knowledge on urban disaster governance processes that exist in other settings. Thus, as argued in relation to its case study configuration, generalisation is analytical, i.e., extrapolating results on disaster governance to other post-disaster urban contexts.

### 3.4 Conducting research in the foothills of Santiago

In this section, I expand upon the case of the foothills of Santiago. Map 3.1 presents my research area in relation to Chile and Santiago. While I demarcate my research location within the area affected by the 1993 aluvión, its historical and current state are affected by structures and institutions beyond its limits. Thus, my engagement with this urban disaster is multi-sited and requires the consideration of historical, socio-spatial and environmental phenomena. This section describes some of these, providing context for subsequent chapters. In particular, I contextualise urban development of the foothills in relation to Santiago, expand on the hazard related to the aluvión event, and introduce relevant regulatory institutions and empirical sites.
I hinted earlier at the deep inequalities that exist in Santiago. Previous urban geographical work has described this, attending to historical factors (Morales & Rojas, 1986), as well as socio-economic (Garreton, 2017; Sabatini, 2000), housing (Rodríguez & Sugranyes, 2004), and urban amenities patterns (Romero et al., 2011, 2012). Work on environmental hazards also exists (Ebert et al., 2010; Fuentes, 2009; Romero et al., 2009, 2010). This research reveals empirical differences that are relevant to my study. For instance, Ebert et al. (2010) analyse GIS data to see how land use changes affect flood risks in a pre-Andean district, arguing that although this urban transformation has increased hazard exposure, this is evenly distributed across socio-economic groups. Fuentes (2009) also uses GIS, but incorporates rainwater runoff data, showing that lower-income groups are less able to reduce their vulnerability to floods than higher-income groups due to their location. Similarly, Romero et al. (2009) address mitigation infrastructure as another critical variable and show that higher-income groups are better protected by these. Thus, by incorporating more variables and moving away from static analyses, it becomes clear that socio-economic groups in Santiago are unequally distributed in relation to natural hazards.

This unevenness of risks is something the inhabitants of my research area have experienced for decades. The presence of the Andes exposes the entire piedmont of Santiago. This is especially critical along the Macul Ravine (Figure 3.4) considering both its geophysical and potential climatological characteristics, which together formed the essential natural hazard trigger for the 1993 disaster. Aluviones (debris flows) are “the
most important type of landslide hazard in Santiago” (S. Sepúlveda et al., 2006, p. 4), and relevant reports have analysed them as a source of hazard in the foothills (Corvalán et al., 1997; Hauser Y., 1985; Muñoz, 1990; Naranjo & Varela, 1996; S. Sepúlveda et al., 2006). The primary factors that explain the occurrence of debris flows in Santiago are geomorphological and climatic, and anthropic factors are also mentioned.

Geomorphology refers to the form and characteristics of the foothills that render them hazardous. The Andes range in this area features high mountains and steep slopes. The upper section of the ravine contains sediment accumulated over the course of millennia, and there is an ‘ejection cone’ at its lower end. These geological formations
do not represent an everyday hazard, as only in combination with climatological factors contributing to local hydro-geological formations do they produce landslides. Research on this combination existed before 1993. Hauser (1985) studied different mud flow events in the pre-Andean zone of Santiago, establishing that these are frequent when intense rains occur, especially over 60 mm within 24 hours. The morning of 3 May 1993, a frontal system brought heavy rain which, according to witnesses and researchers, started to fall around 11:00. Researchers found that 10 mm of rain fell in just over an hour, with a maximum intensity of 12 mm per hour (Garreaud & Rutllant, 1996; Naranjo & Varela, 1996), a rainfall intensity with a return period of 25 years (Garreaud & Rutllant, 1996).

In addition, there were exceptionally high temperatures for a May morning. Garreaud and Rutllant (1996, p. 260) explain that “a mass of tropical air” with high temperatures affected the whole central zone of the country, raising the snowfall level (i.e., the isotherm of 0°C) to over 3,000 metres, with rain falling in basins that usually receive snow. These intense rains and high temperatures significantly increased the watersheds draining the whole eastern part of Santiago, extending “between three to four times the contributing pluvial area to the Andean basins” (Garreaud & Rutllant, 1996, p. 260). Other factors indicated include ‘anthropic’ ones. Corvalán et al. (1997) observed that some local inhabitants used the bank of the ravine for dumping rubble and refuse, along with extraction of building materials such as caliche. The latter is mentioned by informants as a source of economic subsistence for some families. Besides these interventions, Corvalán et al. (1997) find that the urban infrastructure was also a problem, as the bridges in the ravine also worked as dykes during flood events and increased flows. These hazardous conditions, in combination with existing social vulnerability, produced the 1993 disaster, images of which are presented in Figure 3.5.

The foothills or piedmont constitute the pre-Andean urban space, and have been systematically incorporated into Santiago’s urban development. Many institutions regulate this space, including its hazards, vulnerability and community exposure. I describe these in Table 3.3 and make reference to them throughout the thesis. Finally, I would like to summarise this space in more practical terms. As shown in Map 3.1, I focused on a particular area of the foothills of Santiago that relates to the 1993 aluvión. Examination of the socio-spatial features of the disaster led me to investigate various sites (see Table 3.4) upon which I expand in subsequent chapters.
There is one caveat regarding the foothill inhabitants. Throughout the thesis I refer to the historical or current inhabitants as a ‘community’. This concept should be interpreted with care and should not be understood as implying the existence of unity among the people that live in the foothills (Faas & Marino, 2020). The majority of inhabitants who have lived there for decades share certain commonalities, for example, a common upbringing, histories of social relations, or a shared rural and marginal space. However, there are differences between the neighbourhoods in terms of class- and place-based identities, and, more critically, of time spent inhabiting the foothills. Many of these differences are significant and the relations between neighbourhoods and spaces is not free of conflict. Hence, when speaking of a ‘community’, I refer to specific groups of people in certain contexts (e.g., those living in a certain place or who experienced a particular situation or event).

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34 This is also addressed in an anthropological study of the area by Biskupovic (2015a).
**Table 3.3 Relevant urban disaster-related institutions and organisations**

<table>
<thead>
<tr>
<th>INSTITUTION / ORGANISATION</th>
<th>SECTOR AND LEVEL</th>
<th>GENERAL FUNCTION OR OBJECTIVE</th>
<th>RELEVANT POLICY INITIATIVE(S)</th>
<th>TYPE OF INSTRUMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINVU (Ministry of Housing and Planning)</td>
<td>Public / National and regional</td>
<td>Formulates national housing and urban policies</td>
<td>Programa de Vivienda Básica (Basic Housing Programme) (1982); Programa Quiero mi Barrio (I love my neighbourhood programme) (2006)</td>
<td>Economic, suasive and cooperative</td>
</tr>
<tr>
<td>SERVIU (Service of Housing and Planning)</td>
<td>Public (operates through private companies e.g., construction) / National</td>
<td>Implements housing policies, including coordination of urban development</td>
<td>Implementing Programa de Vivienda Básica (Basic Housing Programme) (1982)</td>
<td>Economic, suasive and cooperative</td>
</tr>
<tr>
<td>ONEMI (National Emergency Office)</td>
<td>Public / National</td>
<td>Coordinates emergency situations</td>
<td>Coordinated and assessed 1993 emergency; coordinates ongoing emergency initiatives</td>
<td>Suasive, Management / technological and cooperative</td>
</tr>
<tr>
<td>GORE (Regional Government)</td>
<td>Public / Regional</td>
<td>Second tier of government: governs and develops the Santiago Metropolitan Region</td>
<td>Plan Regulador Metropolitano de Santiago (PRMS), 1994 and 2015</td>
<td>Regulatory, suasive and cooperative</td>
</tr>
<tr>
<td>Municipality of La Florida</td>
<td>Public / Local</td>
<td>Third tier of government: governs and develops the district of La Florida</td>
<td>Plan Regulador Comunal (PRC) 2001</td>
<td>Regulatory, suasive, economic and cooperative</td>
</tr>
<tr>
<td>Real estate developers</td>
<td>Private / Various (Macalto, Gesterra, Sinergia)</td>
<td>Construct real estate and housing projects in accordance with regulatory bodies</td>
<td>Ley (DFL 458, 1976) and Ordenanza (DS 47, 1992) General de Urbanismo y Construcciones</td>
<td>Regulatory and suasive</td>
</tr>
<tr>
<td>Network for the defence of the foothills</td>
<td>Social / Local</td>
<td>Founded in 2006: protects the foothills and defends the area against real estate development</td>
<td>Protests and lobbying in local government</td>
<td>Suasive and cooperative</td>
</tr>
<tr>
<td>Neighbourhood associations</td>
<td>Social / Local</td>
<td>Historical and institutionalised organisations representing the interests of inhabitants of a particular neighbourhood</td>
<td>Law 19,418</td>
<td>Regulatory, suasive and cooperative</td>
</tr>
<tr>
<td>Brigada de Emergencia Alto Florida (BEAF)</td>
<td>Social / Private and local</td>
<td>Founded in 2013 for local emergencies and preparedness</td>
<td>No institutional basis (training and work with ONEMI and CONAF)</td>
<td>Suasive and cooperative</td>
</tr>
</tbody>
</table>

Source: author’s elaboration
### Table 3.4 List of significant sites of fieldwork in the foothills

<table>
<thead>
<tr>
<th>INSTITUTION / ORGANISATION</th>
<th>TYPE</th>
<th>RELEVANCE</th>
<th>STATE</th>
<th>FOCUSED CHAPTER(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macul Ravine</td>
<td>Natural and human-made creek</td>
<td>The main source of hazard in the foothills of the Andes</td>
<td>At the research site: a channel receiving rainwater drainage (upward, it is a public park)</td>
<td>All</td>
</tr>
<tr>
<td>El Esfuerzo</td>
<td>Neighbourhood (population 2017 = 210)</td>
<td>Historical working-class settlement affected by the 1993 disaster</td>
<td>Still standing; formalised after the 1993 disaster despite some risks of eviction</td>
<td>4, 5, 6</td>
</tr>
<tr>
<td>Fernando Domínguez</td>
<td>Neighbourhood</td>
<td>Formal neighbourhood established in the 1960s; very close to the south bank of the Macul Ravine</td>
<td>Destroyed in 1993</td>
<td>4</td>
</tr>
<tr>
<td>El Progreso</td>
<td>Neighbourhood</td>
<td>Informal settlement established through squatting; at the south bank of the Macul Ravine</td>
<td>Destroyed in 1993</td>
<td>4</td>
</tr>
<tr>
<td>La Higuera and Ampliación La Higuera</td>
<td>Neighbourhoods (population 2017 = 3,570)</td>
<td>Long-standing working-class settlements on the north bank; affected by the 1993 disaster</td>
<td>Still standing but remains semi-informal due to land use regulations</td>
<td>5</td>
</tr>
<tr>
<td>Las Perdices</td>
<td>Neighbourhood (population 2017 = 1,018)</td>
<td>Middle- and higher-income neighbourhood south of the ravine</td>
<td>No significant damage in 1993; remains a ‘rural’ space</td>
<td>4, 6</td>
</tr>
<tr>
<td>Lo Cañas and Santa Sofia</td>
<td>Neighbourhoods (population 2017 = 1,728)</td>
<td>Middle- and higher-income neighbourhood south of the ravine</td>
<td>No significant damage in 1993; remains a ‘rural’ space</td>
<td>4, 7</td>
</tr>
<tr>
<td>Santa Teresa</td>
<td>Neighbourhood (population 2017 = 2,883)</td>
<td>Main housing project in the aftermath of the 1993 disaster; officially named ‘3 de Mayo’</td>
<td>Result of 1990s housing policies; has been involved in urban enhancement programmes (e.g., QMB)</td>
<td>4, 6, 7</td>
</tr>
<tr>
<td>Alto Macul and new real estate developments</td>
<td>Neighbourhood (population 2017 = 4,260)</td>
<td>Represents the pro-growth landscape of the foothills, favouring real estate developers and attracting higher-income residents</td>
<td>Homogeneous condominiums and gated communities; still expanding in the higher areas</td>
<td>4, 6, 7</td>
</tr>
<tr>
<td>Public park along the Macul Ravine</td>
<td>Public park</td>
<td>Empty area affected by the aluvión; partially turned into a green public park</td>
<td>Only a portion transformed; the rest remains abandoned</td>
<td>4, 5</td>
</tr>
<tr>
<td>CIOQMA</td>
<td>Community centre</td>
<td>Long-standing church in Fernando Domínguez that remained after the aluvión</td>
<td>Initially squatted, now a formalised centre managed by long-standing inhabitants</td>
<td>6</td>
</tr>
<tr>
<td>BEAF headquarters</td>
<td>Local and voluntary emergency brigade</td>
<td>Newly formed brigade to deal with wildfires and other risks in the area</td>
<td>A growing organisation with a headquarters, vehicles and a watchtower</td>
<td>7</td>
</tr>
<tr>
<td>Debris mitigation ponds</td>
<td>Mitigation infrastructure</td>
<td>Ponds created by Ministry of Public Works along the Macul Ravine, in parallel to real estate developments</td>
<td>Seven ponds constructed in phases; require systematic maintenance from national government</td>
<td>All</td>
</tr>
</tbody>
</table>

Source: author based on fieldwork
3.5 ETHICS AND SELF-REFLECTION AS RESEARCHER

3.5.1 ETHICS AND POSITIONALITY

My PhD research reflects on power with the express aim of contributing to a more progressive world. This entails a number of ethical principles. Trained in the social sciences, I have developed a particular mode of self-reflection regarding the role of scientific research within society. This is clear at the level of universities and academia and their own production of knowledge, but it also emerges in the field. My months of fieldwork were framed in accordance with ethics of care, with consequences in terms of my own wellbeing and that of others. For instance, aware that my interviewees have experienced long-term suffering from both disasters and urban marginalisation, I consciously avoided re-exposing potential traumas. However, some participants did share their emotions and even cried during interviews. The trauma they have experienced forced me to become more aware and tailor my conversations to avoid further grief.

My own positionality entails reflection on how my personal experiences and practices affect my research. Along the lines of postcolonial research, I frame my project explicitly among those of local researchers studying their own disasters (Gaillard, 2019). I was six years old when the aluvión occurred, but living in a more privileged area of Santiago, it did not affect me strongly. I therefore recognise how both my age and class affect how my informants see me. Although I am Chilean, I am a male in my thirties, and my mode of speech likely betrays my origins. Nonetheless, despite being an ‘outsider’ to the foothills, my access to the area was facilitated by its continued marginality and the lack of research conducted there. Through my work, I also came to meet other social scientists researching this part of Santiago.

From this positionality, I was able to build rapport with my informants. In some cases, when I presented myself as a doctoral student from the University of Amsterdam, people asked me questions that made me reflect on my role as a researcher. For example, a number of times I found myself explaining the natural hazard associated with the aluvión, which, albeit an important element of the research, does not constitute my primary expertise as a social scientist. In other cases, especially with more marginalised inhabitants, they asked for my help with certain issues, such as lobbying the municipality to develop road or infrastructure works. While I explained my role in detail, as well as my lack of resources, this kind of interaction illustrates a
particular relationship between communities and public authorities: given the long
time they have been waiting for these urban development projects to be implemented,
they hope that any relationship with educated individuals will enhance their access
to policymakers. This people-policy interface, which has been widely studied (e.g.,
Auyero, 2012), enhanced my commitment to carrying out more engaged research.

3.5.2 RESEARCH IN TIMES OF COVID–19

The COVID–19 crisis constitutes a disaster according to my definition in section
2.3. As a global pandemic, its impacts are multiple, overarching, compound, heavily
traversed by political dimensions, and ongoing. Although it was not possible to
incorporate in any significant way what this meant for the inhabitants of my research
site (see e.g., Acuña Bravo et al., 2020), in this short sub-section I offer an initial
reflection on how it affected my doctoral experience.

The writing of a doctoral thesis about disasters during a global pandemic takes
a physical and emotional toll that is hard to address. The bulk of the text was
written during lockdown in Amsterdam in 2020 and in Chile in 2021. Although the
still-evolving COVID–19 pandemic has dealt a critical blow to millions of lives around
the world, I feel fortunate that I and my loved ones are healthy. The pandemic has,
nonetheless, had some consequences for me. In a pragmatic sense, and given the
uncertainty this time entails, I took the radical decision to drop two case studies in
Chile: the 2010 Earthquake in Concepción and the 2014 urban wildfire in Valparaíso.
The amount of time and energy invested in the two studies – not only by me but also by
my informants and participants – is significant, and for that I feel true disappointment.
Nonetheless, COVID–19 made me take decisions (that I do not regret at all) as to which
was the most straightforward way to finish my PhD. Given the quantity of empirical
details, stage of analysis, and other contingent conditions, I realised the case of the
foothills of Santiago was sufficient for my research objectives. That is why, again in a
pragmatic state of mind, I discussed it with my supervisors and decided to focus solely
on one case. I am hopeful that my work on the other two cases will eventually pay off.

Relationships with some of my informants also shifted during the period. Based on
my position as a researcher on urban disasters, some participants approached me
to ask my opinion on certain issues. In times of uncertainty, they saw me as a source
of knowledge. This included providing my critical opinion on conspiracy theories concerning COVID-19, as videos and information claiming a hoax exploded during the months of lockdown. The period has therefore reaffirmed my conviction regarding the role of scientific reflection and critical thinking.

Finally, COVID-19 has also led me to rethink my inclination and interest towards certain topics. The pandemic is another disaster that highlights the importance of governance for protecting (or not) human life, while illustrating the illnesses of bigotry, exclusion and power inequalities. The pandemic also contributed to a realignment of my interests in the urban – or dimensions of the urban. COVID-19 is dramatically revealing the contingent character of our current socio-economic organisation, putting at centre-stage the relative importance of certain values and activities (e.g., health services, local economies, solidarity and horizontal networks) over others (e.g., overconsumption, marketing and economic growth). However, it is also showing the limits of our imagination in delineating alternative forms of organisation. As such, many reflections about disaster recovery – both in inclusive and exclusionary terms – apply here. To what extent the post-Coronavirus world will be better is yet to be seen, and I am not particularly optimistic. However, as hinted in the acknowledgments, I am hopeful that having this injustice and suffering in the back of my mind throughout the writing of my thesis has helped to enhance its critical edge and, more importantly, my future endeavours.