Conclusion
8.1 INTRODUCTION

This thesis has dealt with the politics of urban disaster governance. In particular, I have focused on the myriad ways in which urban political dimensions related to power, space and justice interact with disaster risk management processes. I began the thesis by introducing the story of Don Luis who, having lived for over 50 years in the foothills of Santiago, witnessed first-hand how urban environmental risks regularly manifest themselves. Despite his engagement with local and national policy and his participation in networks of local inhabitants to raise the issue of continual risks, his views on potential disasters are far from positive. Don Luis and hundreds of foothill inhabitants, especially following the 1993 aluvión, have continued to be marginalised, silenced and disregarded. Action taken in the wake of the disaster, combined with the effects of a particular logic of urban development, have reshaped the area into one that is socio-spatially uneven and at-risk.

The thesis focuses on the foothills of Santiago as a post-disaster urban context in order to understand how urban politics influence the potential to reduce and/or create disaster risks. Within a post-political development trend, urban disaster governance processes in Santiago have reproduced a technocratic approach to disaster risks. An assemblage of technical knowledge and pro-growth capitalist development has driven spatial interventions in the physical dimensions of disasters. Urban disaster governance processes have thus failed to incorporate key dimensions of space and spatial production, overlooking the multiple interests and practices emerging from local inhabitants, especially long-standing communities. As a result, disaster-related initiatives have not only reproduced disaster risks but have served to reinforce existing inequalities at the local level.

In this chapter, I bring together the analyses presented throughout the thesis and provide answers to my research questions. The chapter is organised as follows. In section 8.2, using the empirical case of the foothills of Santiago, I provide answers to my research questions. In section 8.3 I reflect on the theoretical contribution of the thesis before expanding on a number of practical implications in section 8.4. Finally, I identify certain limitations of the thesis and avenues for future research (8.5).
The overarching research question posed in the first chapter was: *How do urban political dimensions of governance influence the reduction of disaster risk, and under what conditions do they (re)create disaster risks in post-disaster urban contexts?* To operationalise the question, I unpacked it into four sub-questions relating, respectively, to power, space, justice and a joint consideration of these three. In the next four sub-sections I respond to each sub-question, while answering the main question here.

My starting point was the social construction of risks and the political nature of disasters, whose occurrence is grounded in power-laden social processes that create vulnerabilities and shape a particular hazardous space (Oliver-Smith et al., 2017; Tierney, 2014). In this regard, the influence of each urban political dimension analysed in the thesis is straightforward, as they affect the arrangements and results of efforts to govern disaster vulnerabilities in cities. This assertion is not new. The thesis’ novel contribution, however, is its combined examination of urban disaster governance in terms of the specifically ‘urban’ nature of power, space and justice. There is an ‘urban’ particularity of urban disasters that goes beyond physical conditions or a unit of governance: spatial processes influence hazards and vulnerabilities and, moreover, their potential occurrence reflects upon the management of risks in their aftermath. In that sense, an important tenet within the thesis is that urban disaster governance not only occurs in cities but is entangled in a relational process of spatial production.

From this standpoint, the thesis provides evidence of persisting inequalities and injustices relating to four root causes of disasters with concrete ‘urban’ expressions: (a) a historical trend of inadequate and uneven housing provision that maintains urban marginality with considerable levels of poverty and deprivation (see Chapters 4 and 5); (b) a pro-growth urban development model benefiting real estate companies and investors and causing environmental degradation (see Chapters 4, 5 and 7); (c) a disaster culture that disregards lay and scientific knowledge and promotes intervention in the physical dimension of risks (see Chapters 5, 6 and 7); and (d) a political structure that favours top-down, strong and centralised institutions over local and participatory processes (see Chapters 5, 6 and 7). These causes are intertwined and reflect over 40 years of neoliberal urban development in Santiago, heavily influencing how the multi-level governance currently in place is unable to deliver a just way to manage risks.
CONCLUSION

There are many aspects of this at a formal level. The municipality of La Florida participates in local networks on disaster risks, although it has limited capacity to maintain them over time due to lack of funding and conflicting priorities. The regional government has promoted land use initiatives that have been implemented at the local level, and these have protected some neighbourhoods but also recreated certain localised disaster risks in the post-disaster area. The central government, in charge of social housing provision and management of ravines, has implemented relevant solutions in the wake of the 1993 disaster, including the construction of mitigation infrastructure, although this has had the double outcome of legitimising urban segregation and rendering technical local risk management. These multiple actions – which are often uncoordinated and do not constitute a comprehensive effort to govern foothill hazards – are in part responsible for the perpetuation of disaster risks by legitimising the current trend of development. Governance practices to manage risks are thus unable to countervail the ongoing ‘growth machine politics’ of the foothills.

Unlike most work on urban disaster governance, my research utilised a situated strategy to transcend the purely formal and institutional nature of governance and explore instead how local inhabitants produced the foothill space historically, how they experienced the 1993 disaster and its aftermath, and how they participate in disaster-related initiatives. As such, this approach reveals a set of overlooked conditions for governing urban disaster risks, particularly in regard to processes of depoliticisation, marginalisation and multiple spatial injustices. The evidence describes an ambivalence in terms of inclusion of both long-standing and new inhabitants of the research area. The urban politics of the post-disaster trajectory of the foothills have delineated an area that is spatially segregated in socio-economic terms, mirroring Santiago in that regard. Moreover, current urban disaster governance maintains a dominant risk management arrangement that further reinforces this segregation by focusing solely on the physical features of potential future debris flows similar to that of 1993, thus maintaining local communities at risk. Urban disaster governance, then, while formally incorporating social participation and community interests, ends up as a patchwork of multi-level initiatives that fail to engage with the aforementioned root causes and thus perpetuate unsafe conditions in the foothills.

Based on the analytical lens presented in Chapter 2, Figure 8.1 summarises the evidence presented in the empirical chapters and advances some theoretical implications of the thesis (see 8.3). The sequence of chapters follows four particular interfaces
of governing urban and disaster risks, grounded in a historical account of everyday risks and urban change. As shown in Figure 8.1, certain forms of maintaining and recreating disaster risks persist in the foothills in connection to the interplay of urban and disaster governance. To answer the second part of the main research question, and based on the review of the literature and my empirical evidence, I list particular conditions in which urban disaster governance processes perpetuate and recreate risks:

(a) If urban and housing policies that develop urban space through an exclusionary and unsustainable governance logic are maintained, inhabitants will continue to live in marginal and hazardous areas. In the empirical chapters, I show this from the perspective of local inhabitants, describing a long process of intensification of risks in the foothills (Chapter 4). The continued unsustainable development of the foothills, which affects native forests and densifies land uses, remains a serious dynamic pressure that might turn a potential hazard into a disaster (Chapter 7). This is particularly relevant as, in parallel, hundreds of families who have inhabited the area for decades remain settled in segregated spaces with significant levels of poverty and deprivation.

(b) In decisions concerning the development of the foothills, local and scientific knowledges on hazards continue to be relegated to a secondary position behind pro-growth urbanisation. In the foothills, this mirrors a feature of Santiago’s neoliberal development, whose logic was implemented during the dictatorship (1973–1990) and continued thereafter. The thesis provides historical evidence of this, as although the environmental hazards were widely known to foothill inhabitants and scientific research before 1993, little was done in terms of prevention (Chapter 4). Furthermore, on top of physicalist risk management interventions, diverse assessments concur regarding the continual risk posed by the Andes in this urban area. However, expert and lay knowledges on local environmental hazards continue to be disregarded in everyday risk management practices (Chapter 7). This, as shown, favours private developers at the expense of at-risk inhabitants.

(c) In the aftermath of a disaster, recovery governance neglects the active role of long-standing inhabitants in producing space. Urban spaces – and their risks – result from socio-environmental metabolic processes that include
the practices of those who settle there more permanently, including how they migrated, how they organise collectively, and how they self-construct their housing (Chapter 4). Their role varies of course, but inhabitation of the foothills during the 1960s and 1970s revolved around a concrete working-class identity that informed their future experiences. This identity was not incorporated in the wake of the 1993 *aluvión*, however, due to the preferred usage of housing instruments that focused on low-income groups but failed to consider historical trajectories.

(d) Relatedly, the design and development of some disaster processes treat inhabitants as passive subjects. I expanded on local residents’ engagement with long-term housing acquisition efforts and small-scale disasters, which contrast with their scant participation in recovery and risk management initiatives (Chapters 4 and 5). This is a structural issue related to the limitations to delivering an inclusive urban space under extreme urban neoliberalism. In this regard, greater participation requires an alternative governance process that fosters direct engagement and more active citizenship, goals that can be achieved at the local level through neighbourhood associations and other organisations.

(e) There is general disregard for the practicalities of implementing risk management initiatives, especially in relation to urban issues such as housing and land. I described in detail the uneasiness of disaster survivors relocated through housing policy instruments, as well as the problems of attempted risk reduction based on the creation of a buffer zone (Chapters 4 and 5). As post-disaster contexts entail moments of contention – e.g., questioning of why the disaster occurred or how to define the temporal ‘exceptionality’ – some disaster risk management actions can overlook this complexity and generate unintended problems for local communities. To counter this, some degree of centralisation is required, although urban governmental capacities must be in place, particularly in regard to existing uneven vulnerabilities. In that sense, emphasis on *reducing* disaster risks beyond the efforts of *relief* and *recovery* organisations is an important step forward in urban policies.
More widely, urban disaster governance can perpetuate risks as a technical issue that excludes community-based initiatives by intervening in the physical aspects of hazards. The risk analyses conducted in the area shed light on a persisting uneasiness on the part of current inhabitants regarding potential climate change-related disasters (Chapters 6 and 7). From their perspective, risk management in the foothills looks like an improvised set of policies and initiatives resulting in a highly uneven space that remains at risk. In the event of another hazard event, institutional actors will be alarmed, and the authorities will rush to check the hazard mitigation ponds. However, as with previous occurrences, no attention will be paid to the communities analysed, as they inhabit formally safe spaces. Inhabitants of El Esfuerzo and La Higuera know this not to be the case. Residents of Santa Teresa, overcrowded in their built environment, will see this not as an inconvenience but as disruption to their lives. Meanwhile, recently arrived residents of the upper sector, generally ignorant of the hazardous space they inhabit, will have little idea of what is happening to their neighbours. Even after multiple new events, as long as attention is centred on nature and the true drivers of risk creation continue unaddressed, the fate of the foothills will remain the same.

Finally, there is a general failure to consider the re- and de-politicisation of disaster-related initiatives, including risk management and community-based practices. Focus on the physical features of risks has driven a trend that makes the incubation of disasters ‘invisible’ (Chapter 7). This is something that is also ingrained in the local community, as seen in commemoration activities. Here, I showed that groups of survivors and inhabitants of at-risk spaces can maintain divergent discourses and practices regarding their past and ongoing experiences (Chapter 6). Disaster memory initiatives can reveal the divisions between inhabitants due to the inherent tensions between disaster and urban concerns. The role of the newly formed brigade is in that sense changing this through a horizontal and participatory approach, enhancing risk awareness. Thus, there are various means of politicising disaster risks and removing the veil of responsibility for their creation, although none are straightforward.
Figure 8.1 Conceptual framework expanded with empirical analysis

- House recovery
  - Using regular housing policy arrangements for recovery rendered this process as ‘technical’ one
  - Neglect of communities’ long-standing role as urban producers
  - Injustices produced: perpetuated disaster risks, decreased urban standard of living, and discouragement of community organisation

- Spatial Planning
  - A multi-level government-led arrangement implemented without community participation
  - Elaborating a buffer zone without consideration of its spatial affects on a historically formal neighbourhood
  - The buffer zone produced new spatial injustices, particularly for communities in the newly ‘informal’ area

- Disaster Memory
  - A landscape of memory results from multiple spatial symbols and practices based on long-standing identities
  - The spatial production of the landscape shows contested interpretations between community groups
  - Justice claims on DRC emerge in post-disaster landscape, but are contested at the local level

- Risk management
  - Different modes of managing risk co-exist, producing different dynamics of de- and re-politicisation
  - Potential processes of re-politicisation emerge from in-between spaces, with the ‘marginality’ character of the foothills being relevant
  - Advancing risk management towards more just models includes processes of dissent

a. Spatialisation of disaster governance, focused on situatness and open-ended space where actors navigate and produce a hazardous environment

b. More attention to spatial politics can develop a more just and emancipatory arrangement by recognising root causes and enhancing RDRC

c. Moves away from hazard-centric and post-political approaches by focusing on how risks are rendered technical and on incremental changes re-politicising root causes

d. Enhances a relational approach to urban that transcends the nature-culture dualism by considering material and immaterial dimensions jointly, and the hazardousness as an emergent quality
Ultimately, inequality and injustice are reproduced in the context of post-disaster urban contexts because different levels of government have failed to engage with the hazardous nature of the area, because governance favours private real estate development actors in transforming this space despite increasing localised risks, and because efforts from local inhabitants to change this situation are silenced and further marginalised. In that sense, the conditions listed highlight the multiple ways in which urban processes re-create disaster risks and can thus inform other post-disaster contexts where the goal is to avoid the creation of further risk.

My thesis addresses how urbanisation influences DRR in ambivalent ways and, in that sense, I enter the conversation with ideas for mainstreaming DRR (see 8.4). It has been argued that DRR and risk governance should be included in wider development planning initiatives. While my thesis agrees on this point, it holds that its mere incorporation is not sufficient: at stake here are the practical implications of dealing with the conditions that create risks. In other words, DRR is insufficient if (urban) development and planning processes do nothing to tackle the underlying root causes of disaster risks. If urbanisation does not deal with marginalisation, it will leave processes of risk creation untouched. Based on my findings, this is true for housing development, as relocated disaster-hit groups are further marginalised while pro-growth real estate projects are developed alongside. This goes for spatial planning as well – the elaboration and implementation of risk initiatives such as land use, while important, is not only insufficient but can also contribute to widening socio-spatial exclusion. Ultimately, changes to structural factors that create poverty and inequality will avoid the perpetuation of vulnerability and of communities’ exposure to hazards. These are factors that spatially blind and politically neutral governance is unable to contest.

There are specific ways in which power, space and justice contribute to the tension between DRR and DRC. I turn now to each of these, responding to my four sub-questions. For each, I also include a discussion of potential lessons for other post-disaster contexts following an analytic generalisation strategy, that is, using the theoretical conjectures of the case – rather than the empirical findings themselves – as a ‘template’ with which to look at other settings.
8.2.1 THE CENTRAL ROLE OF DEPOLITICISATION AND RE-POLITICISATION

The first sub-question posed in my research relates to power, asking: How do urban politics and their associated processes of depoliticisation and re-politicisation operate in governing disaster risks? The 1993 aluvión showed, albeit concentrated at critical moments, an awareness of the risks present in Santiago in general and in the research area in particular. Media, politicians, policymakers and other organisations involved in governing the area participated in disaster relief and recovery activities. It is important to highlight the temporality here, as it was during specific moments that initiatives were established to assist victims and deal with debris flow impacts and risks. These initiatives are diverse. Historical flooding and debris flows have served to define those areas most exposed to hazards and to indicate where urban and housing projects should be sited, while ruling out other spaces from development and highlighting suitable mitigation infrastructure to be put in place. Throughout my thesis I have shown how these entail ‘urban’ power issues that contribute to disaster governance.

The operation of urban politics in place, including the state's interaction with victims of the 1993 disaster and long-standing inhabitants of the foothills, have generated mixed results in terms of politicisation. It was thanks to policymakers and politicians that those who lost their homes were able to secure new place to live. Moreover, the diverse expertise applied to decisions regarding land use and mitigation infrastructure has changed the standards of managing risks in the foothills. Overall, however, the role of the state – according to my analysis and as observed by the inhabitants themselves – has been disadvantageous for them in socio-spatial terms, favouring real estate development projects and wealthier residents. Such an outcome is a central issue of depoliticisation. The agendas and policy arrangements affecting the development of the foothills have served to maintain and enhance social differences in terms of class, diminishing local urban conflicts and favouring an emerging technical mode of risk management. In that sense, the relocation of disaster survivors to Santa Teresa and the promotion of physicalist initiatives to manage risks, combined with densification of higher-lying areas to attract wealthier residents, are all part of a post-disaster trend that downplays social problems as technical issues devoid of socially divisive concerns. Governance of the area on a consensual basis that overlooks dissensus has led to negative outcomes in terms of inequalities and reproduction of disaster risks.
In a hazardous environment governed by post-political logics it is difficult to create more just spaces unless structural transformations occur. Critical here is a re-politicisation of the discussion through practices of disruption and narratives calling for justice. The findings show, however, that although such practices and narratives exist, they are contested and, moreover, difficult to change. For instance, the growing divergence in memory practices is relevant because it limits the possibility of voicing more widely a demand for RDRC. Even if such critical discourses gain in prominence, it is unlikely that the annual ceremonial mass will change from one year to the next. It seems likely that a more organic discussion is needed within the community regarding their distribution of risks in order to recentre the importance of their ongoing hazardous conditions. Wider urbanisation processes affect the emergence of such critical discourses. Urban politics in Santiago place sustainable development and inclusive risk reduction in second place behind objectives such as economic growth. Locally, this operates through a technical mode of engaging with risks that, as described in the previous chapter, inhibits contestation and critical discourses. However, as argued in the same chapter, broadening the scope of politics beyond the post-political should be a central concern for more critical geographies. Re-politicisation processes for DRC can emerge organically from below – the rise of a different way of dealing with risks does not require total disruption of the dominant mode of governance.

Finally, what does this mean for other urban post-disaster contexts? The thesis shows the multiple urban disaster dynamics that reinforce the idea of disaster risks as a technical concern in which communities are largely excluded. This is nothing new, as disaster scholars have for decades been showing in their criticism of the physicalist paradigm (Hewitt, 1983; Gaillard, 2019). Complementing this, my research shows how such dynamics influence risk management on the ground, including the potential to disrupt a trend of risk recreation. In other words, I have addressed the consequences of focusing exclusively on the physical hazard in terms of both the perpetuation of risk and its depoliticisation. The extent to which local communities thematise their hazardous conditions is important, in particular in discussions concerning the multiple initiatives advanced so far – including their own community practices and urban planning and infrastructure mitigation. Research in other contexts, therefore, must consider that power dynamics exist in the adoption and consequences of particular state-based initiatives such as the realisation of post-disaster housing projects and the adoption of land use regulations, especially in terms of how these address a public that contests them (or not).
8.2.2 PRODUCING SPACE AND DISASTER RISK CONTESTATIONS

My second sub-question referred to the concept of space, asking: How do spatial contestations and spatial practices influence the ways in which disaster risks are governed, and with what results? The thesis emphasises the importance of the politics of space, that is, of consideration of the multiple existing interests and tensions in the process of space production. There is a need to acknowledge space as more than a purely passive container – an absolute view of space – and to focus instead on its more active qualities. Based on this, I expanded in detail upon historical inhabitation of the foothills at a time when the pobladores played a central role. Their contribution, alongside other actors, to actively producing a landscape of remembering, was also highlighted. However, this theoretical approach to space also allowed me to describe the tensions emerging from state efforts to address risks during implementation and frequent contestation with other initiatives.

Diverse spatial contestations emerge from disaster risk governance in the foothills. Related efforts to manage risks are hence not straightforward in terms of implementation, but spatially nuanced and context-based. This was the case of debris flow survivors as they protested their potential relocation to the periphery of Santiago, which eventually led the government to offer the construction of the Santa Teresa población. It was also true of the contestations that emerged during the definition of urban densities in the foothills as described in Chapter 7. Moreover, these processes of spatial production are affected by the wider development of Santiago and, as such, the marginal situation of the foothills is of considerable relevance. While this area follows a similar socio-economic trajectory – i.e., of socio-economic inequality and segregated spaces – to the rest of Santiago, many of its particularities emerge from its ‘marginal’ character.

This brings me to the second point, concerning how a theoretical strategy focused on spatial practices helps to transcend the purely ‘formal’ character of governance that characterises disaster studies. Space matters, so it is impossible to implement a top-down policy without it being affected by context. The top-down definition of ‘formal’ areas and their association with ‘safety’ are in that sense not only a spatial operation to define land uses, but an intervention traversed by histories and geographies. To overlook this is to generate multiple spatial injustices, as shown in Chapter 5. On the contrary, spatial development is not predefined by the intended goals or interests of pre-designed in formal governance processes and policy instruments, but
is perpetually in the making through a set of grounded practices. Such practices make part of governance but on a more informal character – or what Hilhorst et al. (2020) call the ‘invisible’ dimension of disaster governance. In my thesis this became clear through a number of examples, including the resistance to relocation or the different protests and critical discourses arising. Hence, recognition of the contentiousness and contingency of spatial interventions in risk management is vital to revealing their inherent politics: the current way of dealing with disaster risks could have been different and, most importantly, it still can be.

As efforts are being undertaken in other post-disaster urban contexts to deal with risks, my analysis of space in urban disaster governance can be of use in such settings. Consideration of the spatialities of governance arrangements is of course varied and context-specific. For example, as La Florida is one of 37 comunas in the metropolis of Santiago, this influences the goals and actors involved in arrangements, their capacity to implement them, and their potential to do so in a manner that considers local spaces. However, the politics of disasters and disaster risk management renders likely the emergence of some level of contestation from below. The presence of resistance, therefore, can represent the possibility of delivering a more just governing arrangement.

8.2.3 DISASTER AND SOCIO-SPATIAL (IN)JUSTICES

The third sub-question, related to justice, was: How does attending to multiple disaster justice concerns contribute to understanding risk governance, and under what conditions do injustices emerge? Justice is a complex concept, and my thesis deals with its usages in the context of disaster governance. In Chapters 1 and 2 I address different forms of combining disaster and justice discussions (Huang, 2018; Verchick, 2012). The issue of the political causation of disaster vulnerability, including how urban and disaster risk management institutions reproduce them, has been of critical interest in the literature. It is in this sense that I define disasters as fundamentally unjust processes. The issue of (re)producing risks in itself requires a strong counterpart of governance. While some of these discussions are more common within urban and environmental planning, they are emerging in the case of disasters. For this reason, and making use of the emergent debates on disaster justice as a distinct field of inquiry, I followed a multiple view of (in)justices in relation to urban disaster governance. Based on this, I argue, a more expanded perspective on the relationship between disasters and injustice emerges.
The thesis describes the diverse but regularly unintended injustices resulting from exclusionary governance processes. This includes the worsening of living conditions for long-standing inhabitants in the case of both Santa Teresa and the post-disaster informalised La Higuera población due to the buffer zone. As these actions affect socio-economic benefits and the burdens borne by inhabitants, I describe them as related to distributional justice. In addition, regarding a more procedural aspect of justice, I describe the (in)ability of communities to articulate situated justice claims. While these struggled to emerge in Santa Teresa and were silenced in the case of organisations demanding sustainability in the 1990s, they are mobilised during the annual commemorative mass and are central to the work of the BEAF. Justice – viewed as more than a purely legislative issue – thus implies the need for further expansion on multiple entry points. While such discussions are emerging in, for example, climate change adaptation planning (Anguelovski et al., 2016), they are also growing in relation to disaster risks (Douglass & Miller, 2018; Rumbach & Németh, 2018). As disaster risks lack a polity to push forward DRR, understanding injustices in connection to disaster governance processes can serve as an alternative (although the depoliticising effects of governance work against this). The challenge is therefore to reveal the multiple potential injustices that emerge from disaster-related initiatives. As such, while the mobilisation of local organisations in support of just DRR is unlikely, this kind of analysis helps to link disaster risk issues with urban injustices and with the right to the city. Development of an approach to the multiplicity of disaster (in)justices therefore contributes to disaster governance not only by expanding knowledge about it but also by politicising it in practice.

A caveat of this is of course that my thesis does not follow a particular legal perspective of justice. I do not claim that the injustices described could lead to lawsuits or would be condemned by the courts. There may be institutional bases for potential judicializations (e.g., the extent to which the state protects or fails to protect its citizens given its constitutional obligations), but I have not focused on this. Instead, my thesis aims to connect justice with governance by describing the tensions and socio-spatial outcomes involved. Nevertheless, the various injustices described in each chapter are dependent on certain conditions, although in this case, listing them is a challenge. Closely linked to governance, I would say that the extent to which initiatives deal with vulnerabilities and root causes of disaster is critical to the production of disaster injustices. For example, the maintenance of a governmental ideology that undermines local and scientific knowledges on natural hazards present in the foothills constitutes an injustice from
which multiple claims and practices are raising (Chapters 6 and 7). In that sense, issues of injustice within disasters are not resolved through consideration of equity concerns that emerge during an ‘event’, for example the fair distribution of relief. Instead, focusing on how recovery and DRR improve capacities to deal with forces that drive risks is an important and alternative means of linking the two. Governance as a dynamic pressure can work to institutionalise an unjust disaster condition.

8.2.4 RE-POLITICISING URBAN DISASTER GOVERNANCE

Finally, my fourth sub-question was: How does joint consideration of power, space and justice help to contest and resist the creation of disaster risks? This question addresses the empirically diverse ways in which local inhabitants and organisations criticise and seek to change a development trajectory that reproduces risks. Based on the results of my thesis, I argue that an alternative, politically grounded, spatially conscious, and just form of governing disaster risks can emerge. As properly ‘urban’ processes, these are linked to establishing emancipatory politics within the city. In that regard, efforts to disrupt risk creation entail a multiplicity of initiatives embedded in the long-term experiences of communities and framed by an urban and disaster justice discourse that advances a discussion to transform the root causes of risks.

I have mentioned some partial examples of this, and what they have in common is the extent to which they reflect upon the machinery of risk creation. If urbanisation is driven by the goal of economic growth, efforts to resist the creation of disaster risks must deal with this more explicitly. This was the goal of communities in the 1990s as they struggled for the sustainability of the foothills and continues to constitute the bulk of the differences between community discourses during their memory practices. This is, I argue, what characterises the BEAF as a force of potential transformation, given that it is not currently a counterhegemonic organisation. So far, critical discourses have either dissipated or not achieved dominance; however, the important thing is that they can arise in post-disaster contexts.

The foothills of Santiago offer an ideal environment for potential new ways of governing risks. The limited examples to date show efforts towards RDRC, all of which critically entail re-politicisation processes. Demand from communities to participate collectively and significantly is not massive, but it does exist. I expand on this in the case of the
interplay that is emerging between the BEAF and the dominant technocratic mode of risk governance (Chapter 7). The issue is thus twofold: to break the silence on a long-term trajectory of development and to embed and institutionalise transformations in alternative modes of governance. Again, these must be traversed by justice claims ingrained in particular modes of inhabitation, making such initiatives egalitarian and aiming for emancipation. As argued, they are not hegemonic and remain far from contesting the current trend of risk creation, but the potential is there.

In that sense, research in other post-disaster urban contexts aiming to expand RDRC should consider the combined influence of the dimensions of power, space and justice. It is virtually impossible to provide recipes for other contexts as to how such alternative modes of governance may emerge, as these are always geographically specific. However, critical investigations into the occurrence of disasters will identify pathways, and expansion of the critical literature on disaster research – one the goals of this thesis – can help in that regard.

8.3 URBANISING DISASTER GOVERNANCE: THEORETICAL IMPLICATIONS

Having responded to my research questions, in this section I reflect on the theoretical implications of the thesis. Chapter 1 identifies a significant puzzle in urban disaster governance research relating to how urbanisation influences DRR and DRC and, specifically, what effects there are on disaster risks if we attend to the post-political logic of urban governance. This question revealed a gap in disaster studies, requiring a focus on the specifically ‘urban’ politics of disaster governance. The multidisciplinary field of disaster studies is diverse and involves a myriad of theoretical and epistemological positions. This thesis in particular makes use of geography and urban studies, accompanied by work on anthropology and sociology, and develops a spatial political economy framework within which to research urban disaster governance from a critical standpoint. This epistemological position has existed for decades within the field of disaster studies, although somewhat marginally in relation to more descriptive and applied work, particularly in governance discussions. In that sense, my theoretical contribution enters into conversation with a number of recent reflections that aim to ‘disrupt the status quo’ of the field and renew its political agenda (Gaillard, 2019; Gaillard et al., 2019; von Meding et al., 2020).
Based on the analyses conducted in the thesis, there are four key theoretical dimensions in which knowledge on the politics of urban disaster governance has increased. First, there is the issue of the spatialities of urban disaster governance. Thus far, with a few exceptions (e.g., Batubara et al., 2018; Meriläinen et al., 2019), urbanist perspectives on disaster governance have approached space as a context or stage. By overlooking the politics of space (how space is actively produced by social practices), there is a tendency to emphasise technocratic approaches to governance and managing risks, with ambivalent results in post-disaster contexts. The thesis challenges this spatially-blind approach to urban disaster governance and offers a more geographically-embedded perspective. Contrasting with a notion of disaster governance taking place in cities, I present one that is entangled with urbanisation processes. By urbanising disaster governance, a more grounded approach to understanding the creation and reproduction of risks emerges: everyday practices in hazardous areas, influenced but not limited to wider governmental logics, are actively producing a concrete at-risk spatial order. Across a multiplicity of practices, discourses and imaginaries, myriad actors and their interests enter into open negotiations and contestations, and never with a predefined set of outcomes. Consequently, the way in which these actors navigate their setting based on a particular set of resources and discourses delineates the open-ended trajectory of a hazardous environment.

Second, and linked to the previous point, urbanising disaster governance has relevant political consequences. A grounded perspective such as this considers the emancipatory potential of governance towards more just and inclusive DRR. There is mounting evidence – from this thesis and previous research – on how certain forms of urbanisation influence disaster risks. Particularly within the current trend of capitalist urban development, pro-growth urban regimes are at the heart of DRC. As such, since underlying risk drivers have not been reduced substantially (UNDRR, 2019), the extent to which DRR processes engage with political dimensions of urbanisation can be a crucial factor in explaining failure to reduce risks, as well as a potential pathway towards transformation and RDRC. A situated perspective, therefore, nuances the effectiveness and inclusiveness of DRR initiatives in uncritical approximations to disaster governance, showing that these by themselves are not enough given their inattention to spatial politics. The effect of removing the veil of neutrality in DRR governance in cities is the emergence of greater attention to root causes, including potential ways to intervene in them.
Third, there are theoretical lessons regarding the politicisation processes within urban disaster governance. I expanded upon power relations within urban disasters by engaging with the literature on post-political cities. From the findings, it is clear that technical and physicalist interventions depoliticise disaster risks – i.e., such actions hide their deeply social and political character and reduce them to manageable issues through tactics and tools that reinforce underlying inequalities. Post-political cities in relation to disaster risks then describe a prevailing logic in the governance of cities that preserves the socio-economic and socio-environmental status quo. However, the problem of this view is that to describe a city as post-political is to overlook parallel and alternative processes that could help to recover urban politics. If the prescription of post-political literature is the need for a complete disruption of society through an exceptional politics, then it overlooks the accumulative claims and emerging contradictions on a more grounded level. The post-political thesis can be, in a sense, paralysing. In contrast, by focusing attention on practices related to the interplay of urban and disaster issues, my thesis describes the inherent politics of disaster governance, including incremental changes over time. An urban area with historically produced disaster vulnerabilities that are reproduced through state-sanctioned governance processes is a breeding ground for potential socio-ecological transformation. My contribution, therefore, also moves away from post-political cities and addresses the critical importance of re-politicisation dynamics focused on disaster causation. For example, if a disaster culture ingrained in governance renders hegemonic the sole development of technical interventions to manage risks, it is important that this be countered through a situated and more just urbanism that incorporates lay knowledge within scientific risk assessment.

Finally, aligned with more critical analyses of disaster governance – both ‘structural’ and ‘post-structural’ – my thesis describes the relevance of expanding upon the urban-specific contentiousness of governing risks. Predominant disaster analyses focused on vulnerability maintain a dual nature-culture view that equates the urban to the social and the hazardous to the non-social. In this they fail to engage with social and historical factors that include both components jointly. My grounded analysis, on the other hand, examines the urban as a relational process and incorporates the multiple practices that produce space. This reveals particular ways of transcending that dualism by engaging with critical social and spatial theories. The notion of ‘urbanising’ disaster governance builds upon the joint consideration of the material and the immaterial, as well as the micropolitical dimensions of governing urban spaces. For example, the description of the historical inhabitation of long-standing foothill residents, including
their critical experiences of producing their built environment and of small-scale floods, their discourses on sustainability, and their practices to conserve the foothills, are all integral parts of this area's urban politics. To understand vulnerability processes, therefore, the hazardousness of a place should be regarded as an emergent quality of a socio-spatial configuration and not as an external and dangerous entity. Thus, urbanising disaster governance entails that vulnerability and hazard are not separate, but elements that are critically entangled.

8.4 Practical Implications

While I do not claim to develop a comprehensive view of the multiple problems and solutions of urban disaster governance, making instead a knowledge-driven endeavour following a grounded perspective, the evidence and analyses presented can nevertheless reflect certain practical solutions. Chapter 1 describes how global DRR policy efforts are increasingly pointing to the importance of governance in achieving this goal. Relatedly, my thesis reasserts the relevance of such processes, although it describes tensions in and limitations of certain urban disaster governance. For example, despite the upholding of principles such as transparency, participation and coordination by some of the institutions and organisations analysed, I have shown that these initiatives can still recreate certain initial vulnerability conditions and produce new emergent injustices. Governance in that sense still requires reflection and sometimes confrontation of the interplay of disaster risks with wider urban processes. Urban disaster governance processes must account for the ways in which more powerful actors and processes push to maintain disaster risks and create new ones. Institutional actors involved in disaster governance must consider the extent to which risk initiatives exist in critical tension with other efforts – particularly exclusionary planning initiatives, urban policies that marginalise social groups, and real estate-led development in high-risk areas.

Urban disaster governance should not occur in isolation but be connected to other urban policies. My thesis, therefore, reasserts the need for mainstreaming disaster policy processes into certain forms of urban development. For instance, I highlight the negative outcomes of disaster housing recovery involving adoption of neoliberal housing instruments. I also describe the practicalities involved in land use implementation, which, rather than a discrete and dichotomous redefinition of
land, entails a set of actions that produce further injustices. In that sense, efforts to incorporate DRR into planning and development must critically address the historical and geographical features of application contexts, especially in post-disaster contexts given the impacts and traces left by disaster processes.

Finally, my research reasserts the problems associated with adopting hazard-centric initiatives, particularly in terms of their lack of attention to the root causes of disaster risks embedded in urban development. This means that these efforts continue to treat symptoms rather than causes (Oliver-Smith, 2013). As such, throughout my analyses I have shown the importance of identifying and potentially acting upon the root causes of risks, acknowledging their complexity but also that, as socially constructed, they can be transformed. The contentiousness of disasters in that sense is productive in nature: they reveal an incubation of risks that society’s normal functioning does not recognise. To address the root causation of risk through engagement with their institutional counterparts can thus reveal the inherent problems in society’s functioning and the potential to transform it. This is hard to achieve if a physicalist approach is followed.

In light of these discussions, but always assuming the need for multiple solutions at multiple scales for more just urban disaster governance, I submit three sets of suggestions:

1. Globally, the implementation of objective 11.B of SDG 11 and the SFDRR – which promote adoption of DRR in urban settlements – must consider critically the drivers of risk creation and, relatedly, the goal of resisting them. While the SDGs and the SFDRR do explicitly acknowledge the need to overcome poverty, reduce inequalities, enhance democracy, develop sustainably and so on, they fail to engage with more structural causation of these processes (Wisner, 2020). In their current state, this acknowledgement neither fully accounts for the countervailing forces ingrained in neoliberalised urban governance nor develops practical implementation proposals. In that sense, adoption of initiatives to reduce risks must consider the extant governance arrangements that benefit powerful actors such as real estate companies and refocus instead on empowering civil society organisations and marginal urban groups. More just urban disaster governance must contemplate responsibility for risk creation while enhancing the rights of at-risk inhabitants to live safely.
2. Transformative DRR initiatives in cities should not operate in isolation and must be developed alongside other progressive spatial policies. This is addressed by myriad researchers in relation to the need to mainstream DRR within wider development and planning processes. My suggestion, however, is that both risk reduction initiatives and development/planning processes must consider critically the power dynamics ingrained in risk creation. In that sense, both domains can recover the politics of the city: an emancipatory form of urban disaster governance can connect a progressive urban development process that considers multiple policy issues in support of socio-ecological justice. As such, this not only includes anticipatory processes (e.g., decreasing vulnerabilities or enhancing preparedness), but also reparatory initiatives for post-disaster areas, recognising communities as survivors of particular ‘events’. For example, while Santa Teresa village participated in a programme to renovate sections of its built environment (Chapter 4), its involvement was due solely to its low-income status and not to its reality as a post-disaster urban project. Thus, the national government has the potential to develop such initiatives but requires a change of focus and reprioritisation.

3. At the community level, there is a need to construct and promote critical narratives that contest conditions of marginality and vulnerability to hazards. Researchers and practitioners, working closely with at-risk communities, can recover their local experiences of urbanisation processes and disaster occurrences. More critical narratives can shift policy priorities and be incorporated into state-led governance processes, which requires the recognition of root causes of disaster risk and, critically, their limitations in terms of transformation. For instance, real estate development and urban densification in the foothills, along with the associated environmental degradation, are part of a wider project based on neoliberal urban development in Santiago and are thus difficult for social organisations and protests to change at the local level. Moreover, the critical issue is recognising that as long as disasters remain a policy problem that lacks a polity (Tierney, 2014), it will take another ‘event’ to recentre the discussion on their at-risk conditions. In this regard, beyond the focus on the immediate hazard that prescribes physicalist interventions, the critical narratives I propose for expansion must reconsider a discussion on root causation. Various emerging
local discourses are already showing evidence of this, for instance, the persisting conservation of native forests or the maintenance of the foothills as a buffer to protect the city. Ultimately, situated knowledges already hold critical narratives and transformative discourses – the problem is the extent to which policy and research is actually listening to them.

8.5 LIMITS AND AVENUES FOR FUTURE RESEARCH

I am aware of certain shortcomings of my thesis. The introduction expands upon limitations related to being a single case study and my lack of attention to critical social variables (gender and race/ethnicity). As I conclude my thesis, I believe that both continue to be important limitations. In addition, I initially sought to undertake a comparative approach to urban disaster governance, and the research design included two other case studies. While I did conduct fieldwork in two other cities (Valparaíso and Concepción), this was ultimately not incorporated. My sole analysis of the case of Santiago followed a robust research design in relation to data collection and analysis. In this sense, the analytic generalisation adopted has nuanced the shortcoming of my single-case research design. Relatedly, the research focused on only one hazard type, thus overlooking others that exist within the research area. One important hazard that has only recently gained attention is the San Ramón fault, which runs parallel to the Andes through Santiago.

Second, my lack of attention to gender and race/ethnicity undoubtedly shaped the outcomes of the thesis. It has been demonstrated in the field of disaster studies that gender relations contribute greatly to disaster vulnerability and preparedness. Moreover, the literature on community participation also reveals the critical role of women in engaging in urban issues at the local level. I did make use of feminist perspectives, particularly in my conceptualisation of justice, extending my view of justice beyond distributional issues. However, empirically, this remained unanalysed.

Third, there are certain shortcomings in relation to my choice of theory. As presented in Chapter 3, I reflected on how my research position and values influence multiple research decisions. This includes the epistemological tenet of following critical theories and, relatedly, a more analytical than instrumental perspective regarding research. In that sense, the theoretical framework adopted and its associated analysis,
although I deem them relevant, do not provide a comprehensive view of the multiple problems and solutions relating to governing risks.

I end by suggesting three areas of related research. First, a particularly important domain in which DRR in cities is crossed by politics is the use of technologies and infrastructure. These elements result from specific governance networks that also entail a particular convergence of space, power and justice, which I did not address in this thesis. The discourse on smart cities is growing significantly, and the role of non-human entities therein (e.g., GIS and remote sensing systems, pipes, dams and drones) must be explicitly and critically incorporated. In this sense, the technopolitical basis of DRR constitutes an important domain of research. A particularly innovative way of addressing this – expanding upon the analytical perspective used here – is through work on the ‘infrastructure turn’ in anthropology and other more ethnographically-oriented approaches: along with power, space and justice, (digital) technology can be a fourth relevant dimension.

Second, there is a need to enhance bottom-up initiatives and participatory processes, including more radical and incrementally transformative ones. In the face of our ongoing climatic crisis – and certainly in the aftermath of COVID-19 – these need to be developed for the sake of humanity. This will entail the design, development and understanding of better and more inclusive arrangements. These should be ecologically innovative, transcend the purely local scale, and aim explicitly to contest the creation of disaster risks. However, we do not yet know what kinds of urban policy would be relevant, the role of different knowledges, or the creative contents that these can bring.

Finally, the ongoing climate emergency demands a profound rethinking of the ideological basis of our political and economic systems of governance. Whether we as a species thrive or not depends on this. Disasters and extreme events are symptoms of more profound processes that must be transformed, and this will require dedication on the part of policymakers, scientific actors, community organisations, other civil society actors and the private sector. Critically, however, it will also require an explicit effort to contest the ongoing status quo through alternative imaginaries.