

Governance in Extreme Contexts – Disasters and Resilience in New Zealand, Chile and The Netherlands

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Introduction & contribution

A disaster impacts both material and immaterial elements of societies. Although disasters often completely overwhelm existing institutions and societies and they are expected to increase in frequency and duration mostly because of climate change (Stewart and Donovan, 2008), post-disaster contexts also offer the possibility to use the disaster event and to ‘build-back’ more resilient; i.e. ‘bounce-forward’ towards a more resilient and sustainable situation (Manyena et al., 2011). Adaptability, transformability and learning are main elements in enabling a post-disaster transition to greater resilience (Pelling et al., 2015). However, as many societies are recurrently overwhelmed by disasters, we can raise the question whether societies really learn, adapt and transform after a disaster and, so, whether they succeed in ‘bouncing-forward’ to a more resilient and sustainable situation. In addition, although the social factor in disasters studies has recently gained more attention with studies on e.g. disaster risk reduction and social capital in disaster contexts, we can still observe a lack in scientific and practical knowledge about collaborative learning processes that are needed to stimulate adaptation, transformation and ultimately resilience.

Disasters are the result of combined natural and social factors. They are regarded as social constructs and are created when a society is not able to absorb a natural hazard because of their socio-economic vulnerabilities and other institutional factors (Wisner et al., 2004). Although this ‘social construction’ of disasters is usually assumed to occur ‘above the ground’, in this paper we explore a deeper layer to the social construction of disasters ‘below the ground’ as well. In particular, we explore the dynamic governance processes in cases of both nature- and human-induced disasters. With this, we aim to contribute to both a better

understanding of the social factors that lead to the construction of disasters, and also to the ways in which we can improve governance systems for dealing with disasters.

We explore the governance structures of dealing with various kinds of nature- and human-induced disasters and look at the roles and responsibilities of the public, private and civil society institutions. We investigate the processes through which societies affected by disasters aim to transition to more resilient situations in three cases: 1) the case of Christchurch, New Zealand, after the earthquakes of 2010 and 2011; 2) the case of Chiloé, Chile, after the aquacultural crisis of Infectious Salmon Anemia in 2007 and 2008; 3) the case of Groningen in The Netherlands, an area that is coping with earthquakes caused by gas extraction. The in-depth findings, based on interviews with actors from a wide variety of roles on different levels, led to valuable insights on collaborative processes in disaster governance.

We first reflect on theoretical debates around disaster governance, focusing on the concepts of disasters, multi-level governance, risk acceptance and perception, and institutional learning. Second, we elaborate on the methodological approaches used in this research, from which an analysis of our findings on post-disaster governance and resilience in the three cases follows. Finally, we conclude about our main findings on disasters and resilience in the face of disasters.

Theoretical framework

In our research, we acknowledge the interrelatedness of social and natural systems and argue that disasters occur through negative intersections between the two. The social factor of disasters is already recognized in disaster studies since the late 1970s. O'Keefe (1976) started to question the 'naturalness' of natural disasters with his focus on social aspects that make societies vulnerable to hazards. Since then, academic research on disasters has increasingly been studying social factors that contribute to the movement of a natural hazard into a disaster. Recognizing the socio-economic, political and institutional factors through which a disaster is created, the 'social construction' of disasters is more and more acknowledged in disaster scholarship and practice (Pelling et al., 2015). In the first place, mainly socio-economic factors make communities vulnerable and more susceptible to natural hazards, and, in the second, inappropriate governance and institutional responses can exacerbate the movement from a hazard into a disaster (Aldrich, 2012). Disasters induced by natural events have in general a higher risk awareness and acceptance compared to disasters induced by human activities. These human-induced disasters are often harder to accept and people are less aware of the risks.

In academic debates on disasters, the social factor is mainly captured by studying the factors that make a society vulnerable to natural hazards. This body of literature is centered on investigating why some groups are more exposed than others to the extremes of nature. Socio-economic factors such as income, education, access to assets and age are examples of factors that are regarded as very important indicators for the social vulnerability of communities (Cutter et al., 2008). In relation to this, resilience is by some regarded as the counter part of vulnerability. The aspects of among others income and education that contribute to

vulnerability are also important in creating more resilient communities. Nevertheless, whereas vulnerability is regarded as a pre-event concept, used to comprise the potentiality of a society to be exposed to harm, resilience in the context of disasters is more used to study and guide post-event processes to absorb, respond to and recover in a resilient way from disasters (Gaillard, 2010). Despite the origin of the concept of resilience in ecology (Holling, 1973) and its single-equilibrium definition to ‘bounce-back’ after a disturbance, ‘bouncing-back’ after a disaster is not desired nor possible because of the irreversible impact on both material and immaterial conditions of a society (e.g. Davoudi, 2012). Therefore, regarding resilience in (post-recovery) processes as a way to use a disaster as an opportunity to ‘bounce-forward’ to a better situation is more promising.

Community resilience in the context of disasters is as well increasingly subject of study of disaster research. Furthermore, a large amount of ‘social-side’ disaster studies focus on the role of social engagement or public participation in disaster recovery processes, as well as the increasing global attention for disaster risk reduction and disaster governance (Raju and Becker, 2013; Tierney, 2012). In this paper we elaborate further on the roles of governance in steering transitions towards more resilient places. Following the development from government to governance, we reflect on the implications of this shift in disaster governance as well, in particular with regard to the increasing understanding of the importance of shared governance roles for the state, market and civil society.

Empirical approach

Several forms of data collection form the basis for this paper. The case-study of Christchurch is based on two periods of fieldwork in New Zealand in late 2012 and early 2014, in which we conducted respectively sixteen and 24 in-depth interviews. The interview respondents consisted of officials from the central government and various local municipalities, researchers, private sector entrepreneurs and representatives of community and civil society organizations. In the case of Chiloé we conducted fieldwork in late 2014 and mid 2015. This in-depth research consisted of 37 interviews with respondents from various levels of government and different government departments concerned with the salmon industry and with natural disasters. Also, we interviewed a variety of respondents from salmon companies, researchers, respondents from various NGOs with an interest in social and/or environmental issues and from civil society groups. For the case of Groningen we conducted 12 interviews with a variety of stakeholders involved with the gas extraction and earthquake problematics mid 2016. Our respondents in the case of the Netherlands consisted as well of officials from all levels of government – central, provincial and municipal –, researchers, respondents from the private sector and several representatives of civil society organizations and other interest groups. The in-depth interviews were based on prior informed consent and were recorded, transcribed and open-coded in order to obtain an as accurate as possible understanding of the data.

In addition to in-depth interviews, we conducted participant observation in all three cases as part of our fieldwork. We attended and participated in several community information meetings organized by the government or research institutes, workshops to envision the future of the regions, and other formal and informal community activities. Furthermore, we consulted several plans and strategies created in the planning processes of the three cases. These different types of qualitative data collection led to in-depth insights in the different kinds of disasters and inform us on governance processes to create more resilient and sustainable places.

Results

In our conclusions, we reflect on how transitions can be fostered from individual ‘learning by doing’ to structural improvements of governance structures in places in the face of disasters. To create more resilient and sustainable places, our findings point to the need for shared governance roles between public, private and civil society institutions, on the one hand, and to the importance of different constellations of these governance roles and responsibilities according to the specific characteristics of the different areas and time periods after a disaster, on the other. To synergize our results, we present a framework for governance as a starting point for answering the questions: how and when should who be responsible for what in the face of disasters? Based on our in-depth insights in the three cases, we argue in addition that labelling a situation as a disaster might in some cases be a way to install the specific governance arrangements that are needed to deal with disaster situations.

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