Household self-blame for disasters: responsibilisation and (un)accountability in decentralised participatory risk governance

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The most important theoretical argument concerning decentralised participatory governance is that it can make a government more accountable for the needs of the governed. Key to this process are participatory spaces that act as mechanisms for dialogue between citizens and local government. However, within Cochabamba, a city in the centre of Bolivia, South America, 'at-risk' citizens engage minimally with disaster risk issues in participatory spaces, despite high levels of civic participation. This is because 'at-risk' populations view disasters as a private/household problem that is symptomatic of household error, rather than seeing them as a broader public problem due to wider structural inequalities. Consequently, they redistribute responsibility for disaster risk reduction towards households, which (re)produces the absolution of government authorities as guarantors of disaster risk reduction. This paper challenges the normative assumption that participatory spaces facilitate democratic deliberation of disaster risk reduction and the downward accountability of local government for disaster risk reduction.

Introduction

Disaster risk is now commonly understood as being the outcome of wider political and socioeconomic structural inequalities (Blaikie et al., 1994). With this in mind, good governance is commonly viewed today as being fundamental to ensuring the effectiveness and timeliness of disaster risk reduction (DRR) (Adger, Lorenzoni, and O'Brien, 2009). Blaikie et al. (1994) and Ahrens and Rudolph (2006) go so far as to argue that poor governance structures are the root cause of disasters, an opinion supported by others who contend that the processes of governance set the preconditions for the reduction of vulnerability (Cannon, 2008; Tompkins, Lemos, and Boyd, 2008). Within these conversations, academic and policy discourses have shifted towards normative debates on decentralised participatory risk governance, whereby financial resources, responsibilities, and political power are transferred to local governments that are downwardly accountable to local populations (Crook and Manor, 1998). This form of risk governance aims to bridge the gap between local populations and state institutions by creating participatory political spaces that decentre

power towards citizens and allow 'at-risk' people to inform local governments about their DRR priorities and concerns (Blackburn, 2014; Mercer et al., 2010). It is claimed that this ensures that local governments are held accountable for their DRR responsibilities and aims to make policies locally appropriate and sustainable by acknowledging and incorporating the knowledge and perspectives of 'at-risk' people (Delica-Willison and Gaillard, 2012; Gaillard and Mercer, 2013).

Citizen empowerment, local ownership, and sustainable development have become typical bywords within debates on participatory risk management, and development more broadly (Jones et al., 2014). Spurred on by these normative conversations and rhetoric, participatory forms of governance have become a default tool for democratising risk management decision-making and policies. By way of illustration, the Hyogo Framework for Action 2005–2015 (UNISDR, 2005) and the Sendai Framework for Disaster Risk Reduction 2015–2030 (UNISDR, 2015) promote decentralised participatory risk management. The political participation of 'at-risk' groups is thus a critical mechanism for making sure that state authorities are held accountable for their DRR responsibilities within participatory governance structures (Ahrens and Rudolph, 2006).

Bolivia was selected as a case study for this paper to examine to what extent 'at-risk' groups engage with issues of disaster risk in participatory political spaces, and how this shapes local government accountability for DRR. Bolivia, a country in central South America, is a particularly interesting case as there has been significant improvement there with regard to development issues, such as education, healthcare, land tenure, sanitation, and water, since a decentralised participatory governance structure was established in 1994. This has been largely facilitated by a very strong civic political culture among Bolivians, which has augmented the downward accountability of local government for the needs of citizens (Faguet, 2014).

Despite the success stories pertaining to decentralisation in Bolivia, it soon became clear during fieldwork between 2012 and 2015 that 'at-risk' people were not deliberating local disaster risk in participatory political spaces. There is a well-established literature that provides possible explanations for this, including weak civic political cultures (GNDR, 2011), distrust between state and society (McGee et al., 2003), or a lack of prioritisation of DRR by citizens (IFRC, 2014). However, this body of work does not explain the low levels of participatory DRR observed by the author.

This paper, therefore, has three interrelated objectives. The first is to demonstrate how and why current literature is unable to explain the low levels of citizen engagement with participatory DRR in Bolivia.

The second objective is to explore how 'at-risk' populations interpret the causes of disaster risk, and in so doing unearth an alternative and underexplored reason for low levels of participatory DRR. Notably, 'at-risk' groups perceive DRR as a household responsibility, not a duty of local government. Hence, the local population engages minimally in democratic deliberation of DRR in participatory spaces. This finding is significant because little research exists that interrogates how democratic participatory debate on DRR is influenced by the ways in which 'at-risk'

people interpret the causes and solutions of disaster risk. This gap is unfortunate because studies show that how disaster risk is understood determines social engagement with it. More specifically, they reveal that whether 'at-risk' people interpret disasters as natural events (Eiser et al., 2012), acts of God (see, for example, Gaillard and Texier, 2010; Schipper, 2015), or the interplay of hazard and vulnerability (see, for example, Jóhannesdóttir and Gísladóttir, 2010) shapes to what extent they engage with DRR-related issues.

The third objective is to assess how these findings add to current debates about government accountability for DRR in participatory risk governance structures. In particular, the Bolivian case challenges the normative assumption that there is a linear relationship between the creation of participatory spaces and participatory debate about DRR. It also suggests that participatory governance can (re)produce the absolution of local governments as guarantors of protection from disasters when 'at-risk' groups perceive such events as a private loss rather than a public tragedy, and where DRR is viewed as a household responsibility. Ultimately, this adds to critical discussions about the notion that participatory governance ensures that policymakers will be held accountable for the disaster risk concerns of 'at-risk' people.

The paper concludes by providing some recommendations on how to address this challenge to ensure state accountability for citizens' priorities and concerns about disaster risk.

This study informs and enriches the current debate on decentralised participatory governance and how democracy can be strengthened to give a voice to the poor on issues of disaster risk. Improved accountability to local citizens is one of the central—and most disputed—arguments in favour of decentralisation, and so any evidence in this respect is of particular interest.

The conclusions drawn in this paper are noteworthy for scholars within the realms of development, disaster studies, and geography, as well as policymakers interested in understanding and facilitating equitable and appropriate risk governance policies. The findings also speak to the broader and well-established critical literature on the 'participatory turn' in development (for a review of these writings, see Wald, 2015).

Downward accountability and civic participation

Governance refers to the 'actors, structures and processes by which societies share power and make collectively binding decisions' (Van Asselt and Renn, 2011, p. 431). The term 'risk governance' involves the translation of the substance and core principles of governance to the context of risk-related decision-making (Jones et al., 2014). Governance significantly shapes the preconditions of vulnerability and can underlay the reversal of vulnerability. However, centralised forms of governance, which concentrate power in national governments, have dominated DRR (Gaillard and Mercer, 2013), producing top-down and technocratic interventions that focus on the reformation of policies or the implementation of capital-intensive solutions.

These initiatives rely heavily on the knowledge and skills of 'risk experts' and are largely imposed on vulnerable populations, rather than in consultation with disaster-affected populations. (Torry, 1978; Blaikie et al., 1994). As such, often they neglect the role of human agency, and programmes can be inappropriate for local socio-cultural settings.

Decentralised participatory risk management aims to retract power and resources from central government and redistribute them to lower levels of governance. This process of democratising DRR increases the efficiency and creativity of subnational levels, by according greater autonomy to local government and citizens in particular (Tompkins, Lemos, and Boyd, 2008). As such, democratised decentralisation occurs when the capacity of local authorities and citizens is augmented and there is equal access to DRR resources across actors on different scales (UNISDR, 2010). Key to this process is the creation of participatory political spaces that bring local government decision-makers closer to the population. Within these spaces, vulnerable populations deliberate and collectively 'problem solve' issues related to disaster risk, which allows individuals with different backgrounds, interests, and values to listen, understand, potentially persuade, and ultimately come to more reasoned, informed, and public spirited decisions about how to tackle disaster risk (Delica-Willison and Gaillard, 2012; Gaillard and Mercer, 2013). As such, 'at-risk' people can articulate their concerns about DRR to state policymakers, which deepens the abilities of ordinary citizens to leverage accountability and to intensify their own voice in decisions about community development (Fontana and Grugel, 2016).

A key aspect of participation and the process of downward accountability is the supply of information to citizens on the role of local government and its responsibilities to them. Schedler (1999, p. 4) describes this as 'the obligation of public officials to inform about and to explain what they are doing'. This is linked to higher levels of citizen engagement in participatory politics, as citizens are told to hold local government accountable for its responsibilities (Bovens, 2010). In addition, it helps citizens to impose sanctions on government officials if there has been a violation of or if they have reneged on public duties. Fundamentally, the idea is that administrators can only be held accountable for their obligations if there is an informed citizenry (Bauhr and Grimes, 2014).

The process of downward accountability to citizens was expected to balance power by empowering 'at-risk' people in the Global South to have their own local knowledge, concerns, and solutions rendered credible in the eyes of 'experts'. Such an integrative DRR process, involving bottom-up and top-down knowledge, was also predicted to generate more sustainable and locally-appropriate DRR solutions as citizens were supported in pursuing their own culturally-specific visions of development, which they articulate to local government (Delica-Willison and Gaillard, 2012; Gaillard and Mercer, 2013). As such, decentralised participatory risk governance is widely viewed as architecture to boost the accountability of local government for citizens' concerns about disaster risk. These ideas are not new: participatory approaches became a central development idea during the 1980s (Hickey and Mohan,

2005), alongside associated catchwords such as empowerment, participation, and local ownership, which became common in 'development speak' (Cornwall, 2007).

Decentralised participatory risk management thus depends heavily on the participatory capacities of empowered citizens to engage in reason-based and action-oriented disaster risk decision-making (Fischer, 2006). In this sense, 'at-risk' populations must participate in meaningful consensus-based debate on DRR if local government is to be held downwardly accountable for local issues of disaster risk (Escobar-Lemmon and Ross, 2014). Despite much of the rhetoric suggesting that participatory development is the more progressive component of the development field, there is a large body of literature that questions its normative processes. Most notably, Cooke and Kothari (2001) accuse participation of being shallow and merely a buzzword of which different institutions take advantage to forward particular agendas. This, they argue further disempowers local communities and leads to the siphoning of resources by local elites.[1] However, the importance and advantage of participatory risk governance is not in dispute here. Rather, this paper is interested in exploring why there are low levels of participatory DRR in Bolivia, and examining the effects of this on local government accountability for DRR.

Previous research has identified several overlapping reasons why levels of civic participation remain low in participatory spaces. In particular, local people's risk perceptions—defined as a person's assessment of the probability of a particular event occurring, and their concern about the consequences—can be influential (Sjoberg, Moen, and Rundmo, 2004). For instance, Lewis, Kelman, and Lewis (2011) suggest that vulnerable populations may be unaware of danger or deny that they are at risk and so do not engage in participatory DRR. Other work indicates that people with high risk perceptions seldom take any action to reduce their predicament because they think disasters are beyond their control and hence adopt fatalistic attitudes (Jóhannesdóttir and Gísladóttir, 2010). Other studies report that people with benign or no experience of disasters tend to have low risk perceptions, which reduces their motivation to take action (see, for example, Kunreuther and Weber, 2014). Research on hierarchies of risk also indicates that people may accord low priority to DRR because they view other problems, such as acquiring water, crime, income security, quality of education, and road accidents, as more important and pressing than disasters (IFRC, 2014; Krüger et al., 2015).

A second set of reasons can be categorised under the theme of state–society relations within decentralised participatory governance. For example, Pacheco (2004) and Gaillard and Mercer (2013) state that, despite the rhetoric, there are insufficient political spaces and chains of accountability that allow marginalised and vulnerable people to articulate their concerns and ideas about DRR to local government. As a result, 'at-risk' groups have very little influence over the identification, design, and implementation of policies because power and decision-making continue to be concentrated in national levels of government (Blackburn, 2014). Other research notes that low levels of political participatory activity are also due to lingering distrust between state and society; an issue that is not uncommon in developing contexts

(McGee et al., 2003). In such cases, citizens have low expectations of state authorities addressing their needs because they have not done so in the past and/or because of problems with corruption and elite capture of resources (Persha and Andersson, 2014). Furthermore, there is research that shows that communities may have 'participation fatigue' or a weak civic political culture because of their political history and thus vulnerable populations are less likely to collectivise in political spaces to seek DRR assistance from local government (GNDR, 2011; UNISDR, 2011).

The next section challenges these studies and demonstrates that participatory governance in Bolivia has been particularly successful in helping citizens to engage in participatory politics, which has led to improved accountability of local government for community needs.

'Sincere' and successful decentralised participatory governance in Bolivia

Faguet (2014) describes Bolivia as implementing one of the world's most sincere forms of decentralisation that devolves real power and resources to elected local governments. Decentralisation devolution policies were implemented in 1994 through the Law of Popular Participation (LPP), and the changes in resource allocation and political power were huge (Kohl and Farthing, 2006; Klein, 2011). First, financial resources devolved from the central government and towards local governments on a per capita basis. Second, responsibility for maintaining and investing in public services was redistributed to municipal government. Third, the number of municipalities was extended to include rural areas, and 198 new municipalities were created. Fourth, community control of municipal governments was introduced by recognising local social organisations (that is, farmer associations, indigenous groups, and neighbourhood committees) as territorially-based grassroots organisations (TBOs) (Faguet, 2014). As TBOs, community members create annual operative plans (AOPs) by engaging in democratic deliberation of neighbourhood development within participatory political spaces. Community-based vigilance committees (VCs), which are set up within each TBO, enable participatory debate in these spaces and propose AOPs to the municipal government. What is more, they oversee local government activities on behalf of citizens who contribute their labour to development projects (Landaeta, 2004; Torrico and Walnycki, 2016).

Since participatory governance was established in Bolivia there have been high levels of participation and democratic deliberation within participatory political spaces (Boulding, 2010). There is also a particularly infamous and strong culture of popular protest in the country whereby ordinary citizens hold the state to account for development-related issues. This was demonstrated most notably by the protest against water privatisation ('Water War') in the city of Cochabamba between December 1999 and April 2000 (Assies, 2003, cited in Cordoba, Jansen, and González, 2014), the coca farmer blockades in Chapare Province from 1982–88 (Albó, 2002, cited in Cordoba,

Jansen, and González, 2014), and the 'Gas War' throughout Bolivia that reached its peak in 2003 (Perrault, 2007, cited in Cordoba, Jansen, and González, 2014).

Bolivian civil society action has thus leveraged significant political change, and this has facilitated majorly tangible grassroots pressure on local governments to address citizens' needs. Consequently, resources have been redirected to low-income areas of Bolivia and there has been significant investment in social services, such as education, sanitation, and water, as well as in economic infrastructure and production (Faguet, 2014). Bolivia frequently serves as an example, therefore, of a country where decentring resources, authority, and decision-making to local government and citizens can spawn tangible democratic accountability within a relatively short amount of time. It is used, too, in literature as testimony that social participation has made the government more accessible and accountable to the needs of socioeconomically marginalised groups in society by redirecting public investment to areas of greatest need (Faguet, 2014).

Methodology

The geographical focus of this research is the city of Cochabamba in the lowlands region of central Bolivia. The particular study area is composed of three adjacent urban neighbourhoods with an approximate population of 7,553, according to the household survey carried out for this project. These neighbourhoods are located in 'Cerro Lourdes', a hill located four kilometres from the city centre.

The study draws on extensive and exhaustive data based on a mixed-methods approach, notably a quantitative household survey, semi-structured interviews, participatory methods, and participant observation. In addition, it utilises ethnographic research that took place between 2012 and 2015, including nine months of fieldwork from September 2012 to June 2013, during which time the author lived in the case site, and two return visits in 2014 and 2015.

Survey respondents (n=392 households) were identified using a randomised sample. The data were useful for creating a profile of the case site, including demographic information, incidence of disasters, and the vulnerability levels of households. The questionnaire was designed by the author to permit responses to be quantified, as most questions were multiple choice and closed-ended, however some allowed respondents to rank answers. Individual semi-structured interviews were held with neighbourhood residents (n=58), neighbourhood presidents (n=3), local construction workers (n=7), and local government officials (n=4), and each lasted approximately 60–75 minutes on average. Questions presented to residents covered, inter alia: experience of disasters; interpretation of the causes of and solutions to disaster risk; perceptions of disaster risk; responses to disaster risk; the perceived roles of local government in DRR; the issues that local people discuss in participatory spaces; and to what extent people engage with DRR in participatory spaces. In addition, participants were selected based on their experience of disaster risk to ensure that different

cases were investigated, and interviewees were chosen based on where they lived to ensure an equal geographical spread across neighbourhoods.

Local construction workers were interviewed during the latter stages of data collection as it soon became apparent during the process that the design and building of houses was an important way in which residents gauge their personal levels of disaster risk and engage in DRR. Neighbourhood presidents provided information on the development of the neighbourhoods, the future development plans for the neighbourhoods, and the relationship between the local government and the neighbourhoods. Interviews with local government officials corroborated data on issues such as the development of the area and to what degree the TBOs hold the local government to account for matters pertaining to disaster risk. Questions were loosely guided by a set of predetermined questions. However, they were more conversational, allowing the author to follow up 'leads' raised, yet still retain the purpose of the interview (Burgess, 2002).

Participatory methods were also employed. Following each one-on-one interview, individual participants were asked if they would like to draw the house that they aspire to construct. This was done using coloured pencils and A4-size white paper. These drawings act as social maps that uncover how local people perceive the social functions of the house (Kumar, 2002) and to what extent residents prioritise DRR when building their house. Participatory methods were particularly useful, therefore, for revealing people's latent and unconscious attitudes and responses to risk that they may not automatically articulate during interviews and surveys, for instance.

Furthermore, data were gathered from participant observation at nine monthly neighbourhood meetings. On average, 110 residents attended these events, meaning that approximately 990 residents were viewed in total. These observations yielded insights into the content covered during the meetings, and provided information on how residents engage with DRR issues in participatory political spaces. The data were later contrasted with that collected during the individual interviews. It revealed that local people are highly concerned with DRR, but they do not articulate this fact in public participatory spaces.

Throughout the data collection period, extensive field diaries were maintained, including substantive accounts of the events that were observed and the informants who were interviewed. These diaries were also invaluable because they contain an analytic account of the events and interviews, hunches that the author developed during data gathering, and ideas about organising the data. Memos were also written throughout the research process, outlining the major themes for organising the data and developing conclusions.

When analysing the raw data, five key aspects were considered critically: (i) how participants understand the causes of disaster risk; (ii) how participants perceive the achievement of DRR; (iii) how participants view the role of households in DRR; (iv) the role of local government in DRR in the eyes of participants; and (v) how decentralised participatory governance has performed thus far in the case site. As data were collected via multiple methods and in different settings, this allowed for

the triangulation of data and an exploration of how these attitudes differ in public spaces (that is, neighbourhood meetings) and in private spaces (that is, during one-on-one interviews in houses). Themes emerged from the data, and these themes were used to connect to and situate the findings within the literature on decentralised participatory risk governance reviewed earlier.

The study area

Cerro Lourdes has become densely populated since in-migration from different regions of Bolivia began in the 1950s. Most residents came from rural areas of Oruro and Potosi, seeking greater income earning opportunities. The municipality of Cochabamba expanded the urban area of the city to include the Cerro in 1999, resulting in legal and political recognition of the neighbourhoods as TBOs (Landaeta, 2004). Mirroring the broader Bolivian decentralisation process discussed above, residents of the TBOs elect a VC that is headed by a president. Each month the VC leads a mandatory neighbourhood meeting, which serves as a space for local people to participate in grassroots and consensus-based debate on the development of the neighbourhoods. The culmination of these meetings is the production of an AOP, which outlines the concerns, needs, and priorities of residents. These plans are submitted annually to the local government for approval and fiscal resources; the VC oversees AOP-related expenditure and the budget provided by the local government. Residents carry out the work, predominantly through cooperatives, and professionals in the local government supervise projects by assisting with the technical dimensions of infrastructure, among other things.

The neighbourhoods are characterised by 'extensive risk', defined by the United Nations International Strategy for Disaster Reduction (UNISDR, 2009, pp. 15–16) as the 'widespread risk associated with the exposure of dispersed populations to repeated or persistent hazard conditions of low or moderate intensity, often of a highly localized nature, which can lead to debilitating cumulative disaster impacts'. This was first identified through an online review of local newspapers that reported a landslide that affected 72 households in 2008 (see, for example, Wald, 2015), and was later corroborated by a scoping visit to the area in September 2012, as well as by interview and survey data.

The neighbourhoods experience frequent and less extreme natural hazards (rainfall) that are linked to small-scale disasters. DesInventar (2009) defines small scale as between 1 and 100 households that are affected at any one time. Rainfall exacerbates ground instability, which has led to 29 per cent of houses experiencing landslips. What is more, over time, minor damage, such as cracks in walls, can graduate to more serious damage because of the persistent impacts of rainwater. Household survey data show that 63 per cent of households had experienced such adverse impacts of rainwater. However, physical damage is determined not only by rainfall patterns, but also by the materials used to build the house. Finally, disasters are not isolated in

one particular part of a neighbourhood; they are spread out geographically. Disasters are also sporadic, occurring throughout the year—although most physical damage happens during the rainy season between December and March.

Low levels of participation in DRR deliberation spaces: private loss and self-blame

Despite a high percentage of households experiencing the ramifications of local hazards, data from participant observation and interviews revealed that disaster risk issues are deliberated minimally in participatory spaces. During the nine neighbourhood meetings that were observed by the author, only two women from different households explicitly raised the matter of disaster risk when asking for support to rebuild their houses in the immediate aftermath of a landslide. Previous research, reviewed above, suggests that risk perceptions and state–society relations can result in low levels of citizen engagement in DRR. Yet, these elements were not able to explain why residents of the Cerro were not deliberating DRR democratically.

Below, this paper offers an alternative explanation for the low levels of participatory DRR, by exploring how local people understand the causes of disaster risk and responsibility for disaster risk reduction. In particular, data from Bolivia show that self-blame for the cause of a disaster is the dominant discursive framework among residents, producing a redistribution of DRR responsibility towards households. This is symptomatic of three factors: (i) residents' perception that they had chosen to live in an area where risk 'naturally' exists; (ii) residents' emphasis on self-build housing as the main resource for DRR; and (iii) the local government's environmental discourse, and the focus on resettlement in particular. As such, the local population believes that disasters are a private problem, and the result of households making bad choices and choosing poor actions. This is in spite of the widespread and cumulative consequences of disasters on the case population in this research. The following five subsections examine the three factors outlined above.

Local risk perceptions catalyse risk reduction activities

Hazard impacts are not experienced equally; this is the central reason why there is such diversity regarding their probability and negative effects among local people. Residents with direct experience think that damage is more probable and will occur in the more immediate future than do people with indirect experience. This is because direct experience leads to vivid and rapid recall of information and lower levels of uncertainty (Weinstein and Nicolich, 1993; Miceli, Sotgiu, and Settanni, 2008; Wachinger et al., 2013). In addition, and in line with research on risk perceptions, people who have experienced severe effects in the past expect effects in the future to pose more of a threat to life, and typically they display greater levels of anxiety (Finucane et al., 2000; Ruin, Gaillard, and Lutoff, 2007). Concern about risk, though, is most acute in the period after the initial impact, gradually diminishing over time.

Despite the range of risk perceptions, survey and interview data reveal that residents with high and low risk perceptions see DRR as a priority, and thus engage in a variety of activities with the purpose of reducing the physical effects of local hazards, including ad hoc strategies such as sweeping away rainwater and placing plastic sheets around the base of the house to reduce ground instability. However, (re)construction of the house (discussed in more detail below) is the dominant way that residents participate in DRR. It is interesting to note that 97 per cent of survey respondents who engaged in housing (re)construction felt safer vis-à-vis the impacts of climatic hazards after constructing brick and/or concrete rooms, a retaining wall, or a deep foundation. Households do not (re)construct their houses in these ways with the sole purpose of reducing disaster risk, but people are aware of risk and they do take it into account in everyday decision-making when (re)constructing houses. It is not possible to argue, therefore, that low levels of participatory DRR are symptomatic of residents' particular risk perceptions, or that they are due to residents not being concerned about DRR, or even to disasters being perceived as natural phenomena beyond human control.

State–society relations facilitate participatory politics

Since the neighbourhoods became embedded in a decentralised participatory governance structure in 1999, monthly neighbourhood meetings have been well attended and residents have debated neighbourhood development actively and energetically. As such, these grassroots political spaces have been instrumental in residents participating in a meaningful debate on development issues and communicating this fact to local government via an AOP. Local government has been very receptive to AOPs and vast improvements have been made across Cerro Lourdes, particularly in relation to electricity, roads, sanitation, transport, waste removal, and water. One man who had resided in the Cerro for 19 years captured these incremental developments well: '[w]e have everything. We have light, water, we have everything complete right? Before there was very little here, but a lot has improved. Bit by bit, things have improved' (interview, June 2013). The level of citizen engagement with democratic deliberation in participatory spaces, as well as the level of community development that has occurred across the case site, are reflective of the broader analysis of Jean-Paul Faguet (2014) of decentralisation in Bolivia.

In summary, evidence shows that, in the main, local people were able to inform themselves sufficiently to hold the local government to account, and so were successful in demanding policies that, in aggregate, made service delivery far more sensitive to objective local needs. Nevertheless, data reveal that there is selectivity in the types of development issues that residents debate in the participatory spaces each month. More specifically, development needs such as drainage, land tenure, road paving, sanitation, transport, waste removal, and water often are the subject of consensus-building politics, whereas DRR is left aside.

The following three subsections draw on primary data to explore how residents understand the causes of and solutions to disaster risk. In so doing this paper provides

an alternative, and as yet underexplored, explanation of why residents do not involve themselves with the specific issue of DRR in participatory spaces.

'Choosing' to live with disaster risk

Interviews and survey data reveal that there is a widespread belief among residents that they knew the Cerro was environmentally 'risky', but that they chose to settle there nonetheless. One woman resident summarised this perspective succinctly:

> I love this place [Cerro Lourdes]. I have lived here nearly all my life. And yes, we knew it was not so safe when we came. We all know this now, but that is the price you pay for living here. For having all of the other benefits of living here' (interview, June 2013).

However, a vulnerability approach to analysing disaster risk scrutinises the political ecology of geographies and shows that the most marginalised and vulnerable groups in society frequently are the most exposed to environmental hazards because they cannot afford to live on less 'risky' land, and hence often they settle on cheaper environmentally hazardous land (Blaikie et al., 1994; Manuel-Navarrete, Gomez, and Gallopín, 2007). The situation is no different in Cochabamba: interview data demonstrate that poverty and socioeconomic marginalisation are the root causes of why many residents originally settled in the Cerro, despite their awareness of the land being environmentally hazardous. As such, wider societal processes have constrained people's choices about where they live, and this has resulted in vulnerable people being exposed to environmental hazards.

Interview and survey data reveal, though, that residents do not consider the complex interplay of economic, political, and social factors that produce systemic inequities and ultimately disaster risk. Disaster risk is simply seen to exist, therefore, as there is no critical engagement with the broader structural factors that insidiously and gradually marginalise residents in accessing resources, such as non-hazardous land and other assets, to reduce their vulnerability (Hewitt, 1997). This is not entirely surprising since the processes that lead to disaster risk are complex and would require an analysis of broader processes, 'including capital accumulation, dispossession, exploitation, oppression, commoditisation, privatisation, liberalization, market-led agrarian reform, debt crisis, or structural adjustment programmes' (Felli and Castree, 2012, p. 3), or at least exposure to public discourses that engage critically with disaster risk in this way.

Nevertheless, the adoption of ahistorical and apolitical interpretations of disaster risk has a significant effect on how residents understand their own DRR-related responsibility, as well as that of the local government. More specifically, interviews indicate that residents blame themselves for their predicament—that is, they believe that they have knowingly put themselves at risk by taking the decision to live in an environmentally hazardous area. This has created a discursive framework of self-blame that implies that the residents of Cerro Lourdes are responsible for reducing their levels of disaster risk. Thus, local people are more concerned about their own

abilities to address disaster risk, rather than with political and socioeconomic ques-tions regarding why they are at risk in the first place, and how local government can intervene on their behalf. Reformation of the self, rather than collective action, is subsequently framed as the solution; residents focus their attention, therefore, on household-level traits and transformation as a means to tackle disaster risk. Within the case site, this translates into (re)construction of housing to lessen physical vulnerability.

Self-build housing and disaster risk reduction

Notions of self-blame and household risk responsibility are also reproduced by resi-dents' perceptions that the physical form of the house is the most effective resource with which to reduce disaster risk. Reflecting research on the self-build housing process in cities of the Global South (Varley, 1994; Greene and Rojas, 2008), deci-sions about the design and construction of self-build houses are largely made at the household level. However, household members do not necessarily construct the entire building because construction workers may be contracted if household members do not have the necessary skills.[2] Critically, residents see the physical form of the house as the most important resource for diminishing the impacts of hazards. In par-ticular, adobe walls are associated with higher levels of disaster risk, whereas brick and concrete are perceived to resist the incremental and erosive ramifications of rain-water.[3] A deep foundation and a retaining wall are also associated with lower levels of physical vulnerability.[4]

Since residents view housing construction as a household responsibility, and the design and construction of the house as the most effective way of decreasing disaster risk, a narrative is established that the household has ultimate control over personal levels of risk. In other words, residents see themselves as the ultimate guarantors of DRR because they make decisions about housing construction. Community pres-idents and VC members also mobilise rhetoric that DRR is a household endeavour that is best achieved through self-build housing, as the president of one neighbour-hood pointed out:

> I have a five-year plan to first consolidate all the streets, to improve all the services as they are in bad condition, to renew them. Therefore, you have to make your own house. You have to ensure your own safety here; you have to improve yourself as an institution (interview, June 2013).

Although street infrastructure improvements can reduce levels of disaster risk if DRR is mainstreamed (Wamsler, 2014), residents still see the physical form of the house as the principal means of tackling disaster risk.

Ultimately, this implies that disasters are the result of households making inappro-priate choices, because housing construction is unsuitable given local environmental conditions. A man living and working in the area as an informal construction worker noted that '[h]ouses here are not built well; you need to build well here. If not, they [houses] will not last' (interview, April 2013). This was a typical response of residents

when they were asked why disasters occur across communities. The emphasis that residents place on the physical form of the house for DRR further demonstrates the tendency of local people to overlook the historical, political, and socioeconomic factors that have shaped their exposure to disaster risk and their levels of vulnerability. Furthermore, a focus on housing construction reproduces the perception among residents that DRR is a personal endeavour that should be addressed at the household level, rather than through the external support of the local government.

Local government environmental discourse

As stated, there has been no formal communication with the local population about the local government's DRR responsibilities. However, the local government has engaged with the issue of local disaster risk, albeit in a way that is problematic for how residents understand the causes of and the solutions to disaster risk. In particular, it has implemented a resettlement programme in the wake of a landslide in 2008 that affected 72 households. A colour-coded risk map of Cerro Lourdes was created using geographic information system (GIS) technology. The map adopts the familiar red/orange/green sequence of traffic lights (Monmonier, 2014), to indicate high (red), medium (orange), and low (yellow and green) risk zones. Survey and interview data gathered from residents and local government officials reveal that this map was distributed only to people living in 'high-risk' zones. The data also show that residents living in high-risk zones were encouraged by the local government to resettle in a rural area 35 kilometres away, and that USD 5,000 was offered to each homeowner—by contrast, the average monthly household income is USD 320.

Data indicate that the resettlement programme has a significant influence on residents' interpretation of disasters because its verbal and visual discourse is highly persuasive. In particular, and reflecting Castree (2005), the risk map is a powerful visual tool with which to validate resettlement because it is able to distil the complexity of disaster risk in a way that otherwise would need to be communicated at length in verbal form. For example, interviews demonstrate that the traffic light series reinforces ideas that are associated with these colours. One woman resident who had suffered a partial collapse of her house owing to a landslide noted how red is culturally associated with warning and danger, heightening residents' perceptions of disaster risk:

> It [reconstruction of the house] would be in vain. Why invest when it could happen again, and it probably will. Look at the state of the house, look. It would cost [money] to repair this house now. I'm not repairing it precisely because it is going to fall down again. It's the red zone here. It's a pointless investment (interview, May 2015).

Orange, though, is associated with caution, and green and yellow with low levels of risk. As a result, reflecting Monmonier (2014), the local government deliberately or perhaps inadvertently uses colours as cartographic tools to invoke particular emotional and perceptual responses among residents.

Mirroring research by Hajer and Versteeg (2005), the employment of architects and engineers who use technocratic language frames disaster risk as highly complex and comprehensible only by trained 'experts' who perform scientifically rigorous analyses. This is deeply depoliticising because the resettlement programme is presented as an objective and unquestionable solution to local disaster risk, which marginalises residents and prevents them from engaging in any debate about the appropriateness of the resettlement programme. In other words, it leads to the imposition of a single policy approach based on a (misguided) biophysical conceptualisation of a disaster, and, as such, erases any political or socioeconomic questions about the construction of disaster risk. Echoing the research of Felli and Castree (2012) on migration as adaptation, 'escape' as a solution to disaster risk suggests that disasters are beyond human control, which absolves the local government from having to intervene in DRR and places the onus for action on residents. In this way, the resettlement programme contributes to the discourse of self-blame and the redistribution of DRR to the household because it implicitly suggests that removing oneself from hazard exposure is the only way to avoid disasters.

The preceding subsections reveal three key findings about how local people interpret disaster risk, and together they provide an alternative explanation for the lack of engagement with DRR in participatory spaces. First, residents perceive that disaster risk exists naturally in Cerro Lourdes because there is minimal engagement with the wider political and socioeconomic factors that shape it. Second, and relatedly, residents blame themselves for their disaster risk because they believe that it is symptomatic of individual actions and not broader structural factors. Third, and again relatedly, residents see DRR as a household responsibility that should be addressed through reformation of the household, principally through the (re)construction of the house.

Participant observation and interviews indicate that the local discourse of self-blame and household risk responsibility stifles participatory DRR because residents view DRR as falling outside of local government responsibility. The small number of 'noncompliant' voices that explicitly or implicitly suggest during monthly participatory debates that DRR is a local government responsibility were perceived by other residents as having a dissenting and misplaced understanding of disaster risk; often they were told that they must personally reduce their risk, particularly through 'appropriate' housing. Consequently, and as evidenced by interviews with TBO presidents and local government officials, the AOPs that are proposed to the local government focus on development issues that residents see as totally or partially the responsibility of local government, such as drainage, electricity, land tenure, sanitation, transport, waste removal, and water.[5] However, they do not document local people's concerns about DRR, despite disaster risk being an issue that was consistently highlighted as a local priority and the concern expressed during individual interviews with residents. Little meaningful dialogue takes place, therefore, between local government and residents on disaster risk.

Conclusion

Disaster geographers have long argued for decentralised participatory risk governance as a vehicle to facilitate the nurturing of local governments that implement locally appropriate DRR policies (Blaikie et al., 1994; Ahrens and Rudolph, 2006; Adger, Lorenzoni, and O'Brien, 2009). In particular, the creation of intermediary political spaces where 'at-risk' people can participate in the identification and planning of DRR policies was hailed as a key mechanism to increase the accountability of local government for local people's DRR concerns (Delica-Willison and Gaillard, 2012; Gaillard and Mercer, 2013). Fischer (2006) and Escobar-Lemmon and Ross (2014) rightly argue, therefore, that decentralised participatory risk governance depends significantly on the participatory capacities of citizens to engage in reason-based and action-oriented disaster risk decision-making. The Cochabamba case shows, though, that democratic and collective DRR-related problem-solving is not a guarantee in areas where there is extensive risk and small-scale disasters that are viewed locally as private losses and that are the product of households taking poor decisions. Extensive risk and small-scale disasters are largely overlooked in disaster research and policy; this paper demonstrates the critical need for further exploration in this regard.

Previous research suggests that low risk perceptions and poor state–society relations can lead to low levels of citizen engagement in DRR. However, these notions were unable to explain poor democratic deliberation of DRR in the case site. This paper demonstrates, too, that low levels of participatory DRR can persist even in contexts where there are high levels of civic participation. Yet, through a focus on local understanding of disaster risk, the example of Cochabamba becomes particularly revelatory because it reveals an alternative and overlooked reason why there may be low levels of participatory engagement with DRR: because of the particular ways that vulnerable people understand disaster risk and DRR responsibility. This provides vital insights into the potential of participatory risk governance to ensure the downward accountability of local governments for DRR.

Citizens must be aware of local government's roles and responsibilities if they are to solve problems pertaining to local disaster risk issues deliberately and collectively, and relatedly, if downward accountability is to function (Schedler, 1999; Bovens, 2010; Bauhr and Grimes, 2014). The Cochabamba case adds to this discussion because it demonstrates how citizens interpret disaster risk and risk responsibility when this information is not provided transparently and there is not an informed citizenry. That is, citizens will draw on alternative and imperfect sources of information and experiences to interpret disaster risk and DRR responsibility, which can produce problematic interpretations of DRR. More specifically, self-blame can become the dominant discursive framework of 'at-risk' people, and ultimately this can stifle citizens' engagement with participatory debates on DRR.

From a theoretical perspective, this research challenges the normative assumption that participation ensures control from below and that policymakers will be held

accountable for the DRR concerns of disaster–affected people (Mercer et al., 2010). More specifically, it illustrates that there is not a linear relationship between the creation of participatory spaces and democratic deliberation of DRR. Although participatory risk governance may provide a framework and space for populations to articulate their concerns about DRR, this can be undermined if local governments are not perceived as the providers of safety from hazards, which can result in the marginalisation of DRR in participatory spaces. The case of Cochabamba calls into question, therefore, the reliance placed on local populations to articulate their DRR concerns as a primary mechanism to ensure state accountability.

This paper is not arguing for the removal of participatory risk governance, but one has to recognise that the creation of participatory spaces is not a magic solution that will increase civic participation and local government accountability for DRR. In fact, the Bolivian case study is particularly insightful because it shows that participatory mechanisms may exclude DRR even in settings where deliberative mechanisms are strong and local governments have a history of being accountable for and responsive to local development needs. More specifically, it suggests that within participatory risk governance structures, 'at–risk' citizens may be consenting to practices of self-governing DRR, and (re)producing the absolution of state authorities as guarantors of protection from the impacts of natural hazards. One may argue that self-governance allows local people to pursue their own specific vision of DRR, which can increase the appropriateness of strategies for particular local socio–cultural settings. However, redistributing DRR responsibility to households can have significant negative implications for vulnerable groups because DRR is far more effective and sustainable through a multi–stakeholder approach within which grassroots initiatives are supported by state authorities (Mercer et al., 2010; Delica–Willison and Gaillard, 2012; Gaillard and Mercer, 2013).

It is clear from this research that to understand how risk governance works in practice more attention must be paid to the ways in which local people understand disaster risk—an area that is often overlooked in disaster research and policy (Kruger et al., 2015). To this end, ethnographic research is particularly important as it allows DRR research to shift its gaze towards the micro level and to individual perceptions and behaviours in particular. This paper is not suggesting less analytical scrutiny at the institutional level. Previous research demonstrates that there are problems with the rhetoric of policy, which can justify the retreat of state authorities in relation to DRR (Felli and Castree, 2012). However, future research on local-level perceptions of and attitudes to risk responsibility is clearly necessary to facilitate a truly participatory process in which communities and policymakers engage in meaningful dialogue on disaster risk. This is particularly true given that decentralisation and the creation of participatory political spaces continue to be viewed by academics and policymakers as integral to successful DRR.

The case of Cochabamba suggests that decentralised participatory risk management cannot rely on the assumption that citizens are aware that DRR is a state

responsibility, or that local governments will automatically inform them about their DRR responsibilities. Thus, codes and standards that ensure that local governments communicate their DRR responsibilities to vulnerable populations may be necessary. Internationally accepted standards were established for the humanitarian sector (see, for example, The Sphere Project, 2011), and they could be developed for the DRR sector. Some studies, though, suggest that this may not be so straightforward as there may be a lack of willingness in local governments to translate this message because of weak institutional capacity to address disaster risk (Pelling, 2010; Wamsler, 2014), or a lack of fiscal resources to engage in DRR (Scott and Tarazona, 2011; UNISDR, 2012). Furthermore, although the benefits of DRR are better and less costly than disaster response, many policymakers still hesitate to invest in actions that will provide little political gains for their administration, despite local communities requesting DRR support (Gaillard and Mercer, 2013). Alternative ways of informing citizens may be necessary, therefore. Possibilities encompass the inclusion of other actors such as non-governmental organisations that can work alongside local-level leaders to provide citizens with clear and transparent information on the duties and the roles of local government in relation to disaster risk issues. Without this, local governments may escape their responsibility for DRR, and the effectiveness of DRR strategies will be significantly undermined.

Finally, this paper invites research that critically investigates how government actors are informing citizens about the state's role in DRR, and whether alternative educational mechanisms to establish an informed citizenry may be required. In addition, it suggests a need for further work that explores how disaster risk and DRR are defined and (re)produced, and how this shapes 'at-risk' people's perceptions and behaviours within decentralised participatory governance systems and other governance structures. Key questions include: to what extent are different framings of disaster risk and DRR problematic?; and what might be done to challenge or renegotiate them, if necessary?

Acknowledgements

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Endnotes

[1] There is a large body of critical literature on participatory forms of development. A small selection of resources includes Williams (2004), Heller (2012), Speer (2012), and Grove and Pugh (2015).

[2] It is important to note that the ability of households to (re)construct their houses varies significantly across Cerro Lourdes.

[3] The household survey shows that 11 per cent of houses are made of adobe, 58 per cent are a mixture of adobe and brick/concrete, and 31 per cent are composed entirely of brick and concrete.

[4] The household survey reveals that 50 per cent of local houses are built with a deep foundation, whereas 43 per cent of houses have a retaining wall.

[5] It is important to note that improvements in drainage, electricity, sanitation, transport, waste removal, and water services, as well as in the ability to secure land tenure, have all reduced the vulnerability of residents, and increased their capacity to lessen disaster risk. Nevertheless, residents do not associate DRR with these factors, as they emphasise the role of housing construction and soil quality in the creation of disaster risk.

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