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

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The most important theoretical argument concerning decentralized participatory governance is that it can make government more accountable to 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 city in Bolivia, 'at risk' citizens minimally engage with issues of disaster risk in participatory spaces, despite high levels of civic participation. This is because local people view disasters as a private loss that is due to households making 'inappropriate' choices, rather than a public tragedy that is the result of wider structural inequalities. Therefore local people redistribute responsibility for disaster risk reduction towards households, which (re)produces the absolution of government authorities as guarantors of disaster risk reduction. Through this, the article challenges the normative assumption that participatory spaces facilitate democratic deliberation about disaster risk reduction and the downward accountability of local government to disaster risk reduction.

Keywords: Accountability; Bolivia; Decentralization; Disaster Risk Reduction; Participation; Risk Governance; Risk Responsibility

INTRODUCTION

Disaster risk is now widely understood as the result of wider political and socio-economic structural inequalities (Blaikie et al, 1994) With this in mind, good governance is now widely viewed as being fundamental to ensure the timeliness and effectiveness of disaster risk reduction (Adger et al., 2009). Ahrens and Rudolph (2006) and Blaikie et al. (1994) go so far to argue that poor governance structures are the root cause of disasters, supported by other who argue that the processes of governance set the pre-conditions for the reduction of vulnerability (Tompkins et al., 2008; Cannon, 2008). Within these conversations, academic and policy discourses have shifted towards normative debates about decentralized 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). This is claimed to ensure local governments are held accountable to their DRR responsibilities and aims to make policies locally appropriate and

sustainable by acknowledging and incorporating 'at risk' people's perspectives and knowledges (Delica-Willison and Gaillard, 2012; Gaillard and Mercer, 2013).

Discourses of citizen empowerment, local ownership, and sustainable development have become typical bywords within the 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 policy tool to democratise risk management decision-making and policies. Illustrating this, The Hyogo Framework for Action 2005-2015 (HFA) (UNISDR, 2005) and the Sendai Framework 2015-2030 (UNISDR, 2015) promote decentralized participatory risk management.

Political participation of 'at risk' groups is therefore a critical mechanism to ensure state authorities are held accountable to their DRR in participatory governance structure (Ahrens and Rudolph, 2006). Bearing this literature in mind, I chose Bolivia as a case study 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 to DRR. Bolivia is a particularly interesting case as there has been significant improvement to development issues such as water, sanitation, land tenure, health and education since a decentralized participatory governance structure was established in 1994. This has been largely facilitated by a very strong civic political culture among Bolivian citizens, which has increased the downward accountability of local government to the needs of citizens (Faguet, 2014).

Despite the success stories about Bolivian decentralization, during fieldwork it soon became clear 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 because citizens may not prioritise DRR (IFRC, 2014). However, this literature was unable to explain the low levels of participatory DRR that I observed. Therefore, this article has three interrelated undertakings.

First, it demonstrates how and why current literature is unable to explain low levels of citizen engagement with participatory DRR in Bolivia. Second, it explores how 'at

risk' populations interpret the causes of disaster risk, and in doing so reveals an alternative and under explored reason for low levels of participatory DRR. In particular, 'at risk' groups perceive DRR is a household responsibility and not a duty of the local government. Therefore, the local population minimally engages in democratic deliberation about DRR in participatory spaces. This finding is significant because there is little research to date that interrogates how democratic participatory debate about DRR is influenced by the ways 'at risk' people interpret the causes and solutions of disaster risk. This gap is unfortunate because research already shows that the way disaster risk is understood determines humans' social engagement with it. More specifically, studies show that whether 'at risk' people interpret disasters as natural events (Eiser et al., 2012), acts of God (e.g. Gaillard and Texier, 2010; Schipper, 2015) or the interplay of hazards and vulnerability (e.g. Jóhannesdóttir and Gísladóttir, 2010), shapes to what extent people engage in issues of DRR.

Third, the article discusses 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 where 'at risk' groups perceive disasters are a private loss rather than a public tragedy, and where DRR is viewed as a household responsibility. Ultimately, this contribution adds to critical discussions about the notion that participatory governance ensures policy makers will be held accountable to the disaster risk concerns of 'at risk' people.

The article concludes by providing recommendations on how to address this challenge in order to ensure state accountability to citizens' priorities and concerns with disaster risk. This contribution therefore informs and enriches the current debate on decentralized participatory governance and how democracy can be strengthened in order to give voice to the poor on issues of disaster risk. Improved accountability to local citizens is one of the central—and most disputed—arguments in favor of decentralization, and hence any evidence in this respect is of particular interest. The conclusions drawn in this article are noteworthy for scholars within geography, development and disaster studies, as well as policy makers 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 (see Navé, 2015 for a review of this literature).

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: 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 pre-conditions of vulnerability and can also underlay the reversal of vulnerability. However, centralized forms of governance, which concentrate power in national governments, have dominated DRR (Gaillard and Mercer, 2013). This produces top-down and technocratic interventions that focus on the reformation of policies or implementation of capital-intensive solutions. They 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, they often neglect the role of human agency, and programmes can be inappropriate for local socio-cultural contexts.

Decentralized participatory risk management aims to retract power and resources away 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 giving greater autonomy to local government and citizens in particular (Tompkins et al., 2008). As such, democratized decentralization occurs when the capacity of local authorities and citizens is increased 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 decision-makers within local governments 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 policy makers, which deepens the abilities of ordinary citizens to leverage accountability and increase their own voice in decisions about community development (Fontana and Grugel, 2016).

A key component to participation and the process of downward accountability is to provide citizens with information about the roles and responsibilities that local government has towards its citizens. Schedler (1999: 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 informed to hold local government accountable to its responsibilities (Bovens, 2010). It also facilitates citizens to impose sanctions on government officials if there has been a violation or renege of public duties. Fundamentally, the idea is that administrators can only be held accountable on their obligations if there is an informed citizenry (Bauhr et al., 2010).

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 which involves bottom-up and top-down knowledge, was also predicted to generate more sustainable and locally appropriate DRR solutions as citizens were supported to pursue their own culturally-specific visions of development, which they articulate to local government (Delica-Willison and Gaillard 2012; Gaillard and Mercer, 2013). As such, decentralized participatory risk governance is widely viewed as architecture to increase the accountability of local government to citizens concerns with disaster risk. These ideas are not new, as participatory approaches became a central development idea during the 1980s (Hickey and Mohan, 2004), alongside associated buzzwords such as empowerment, participation and local ownership that became common in 'development speak' (Cornwall, 2007).

Decentralized participatory risk management therefore heavily depends on the participatory capacities of empowered citizens to engage in reason-based and action-oriented decision making about disaster risk (Fischer, 2006). In this sense, 'at risk' populations must participate in meaningful consensus-based debate about DRR if local government is to be held downwardly accountable to local issues of disaster risk

(Escobar‐Lemmon and Ross 2014). Despite much of the rhetoric suggesting participatory development is the more progressive part of the development community, there is a large literature that questions its normative processes. Most notably, Cooke and Kothari (2001) accuse participation of being shallow and merely a buzzword that different institutions take advantage of to forward particular agendas, which further disempower local communities and siphon off resources by local elites[1]. However, the importance and advantage of participatory risk governance is not in dispute here. Rather, this article is interested in exploring why low levels of participatory DRR occur in Bolivia, and exploring the affects this has on local government accountability to 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, which are defined as a person's assessment of the probability of a particular event occurring and how concerned they are with the consequences can be influential (Sjoberg et al., 2004). For example, Lewis et al. (2011) suggests that vulnerable populations may be unaware or deny they are at risk and so do not engage in participatory DRR. Other work suggests that people with high-risk perceptions seldom take any action to reduce their risk because they think disasters are beyond their control and so adopt fatalistic attitudes (Jóhannesdóttie and Gísladóttir, 2010). Other studies suggest that people with benign or no experiences with disasters tend to have low risk perceptions, which reduces their motivation to take action (e.g. Kunreuther and Weber, 2012). Research on hierarchies of risk also indicates that people may give low priority to DRR because they view other problems, such as income security or education, getting water, crime and road accidents as more important and pressing matters than disasters (IFRC 2014, Krüger, Bankoff et al.,, 2015).

The second set of reasons can be categorised under the theme of state-society relations within decentralized participatory governance. For example, Pacheco (2004) and Gaillard and Mercer (2013) suggest that despite the rhetoric, there are insufficient

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

political spaces and chains of accountability that allow marginalized 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 suggests that low levels of political participatory activity can also result from 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 to address 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). There is also research which shows that communities may have 'participation fatigue' or weak civic political culture because of their political history and so vulnerable populations are less likely to collectivise in political spaces in order to seek DRR assistance from local government (GNDR 2011, UNISDR 2011). The next section challenges these studies and shows that participatory governance in Bolivia has been particularly successful at facilitating citizens to engage in participatory politics, which has led to improved accountability of local government to community needs.

'SINCERE' AND SUCCESSFUL DECENTRALIZED PARTICIPATORY GOVERNANCE IN BOLIVIA

Faguet (2014) describes Bolivia as implementing one of the world's most sincere forms of decentralization that devolves real power and resources to elected local governments. Decentralization 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 extended to include rural areas, and 198 new municipalities (out of 311) were created. Fourth, community control over municipal governments was introduced by recognising local social organisations (that is, farmer organisations, neighbourhood committees and indigenous groups) as territorially based grassroots organisations (TBOs) (Faguet, 2014). As TBOs, community members create Annual

Operative Plans (AOPs) by engaging in democratic deliberation about neighbourhood development within participatory political spaces. Community-based vigilance committees (VC), which are set up in each TBO, facilitate participatory debate in these spaces and propose AOPs to the municipal government. They also 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 has 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 Bolivia whereby ordinary citizens hold the state to account on development related issues. This is most notably demonstrated by the protest against water privatization (Water War) in Cochabamba (Assies, 2003 cited in Cordoba et al., 2014), the coca farmer blockades in Chapare region (Albo, 2002 cited in Cordoba et al., 2014) and the 'Gas War' (Perrault, 2007 cited in Cordoba et al., 2014). Bolivian civil society action has therefore leveraged significant political change, and which has significantly facilitated tangible grassroots pressure on local governments to address citizens' needs. As such, resources have been redirected into low-income areas of Bolivia and there has been significant investment in social services, such as sanitation, water, education as well as economic production and infrastructure (Faguet, 2014). Therefore, Bolivia is often used as an example where de-centering resources, authority and decision making to local government and citizens can generate tangible democratic accountability within a relatively short time. It is also used in literature as testimony that social participation has made the government more accessible, accountable to the needs of socio-economically marginalized groups in society by redirecting public investment to areas of greatest need (Faguet, 2014).

METHODOLOGY

The geographical focus of this research is Cochabamba city in the lowlands region of Bolivia. The particular study area is comprised of three adjacent urban neighbourhoods with an approximate population of 7,553 according to survey data. These neighbourhoods are located in 'Cerro Lourdes', a hill located 4km from the city centre and within district 6 of the city. This research draws on extensive and

exhaustive data based on mixed methods and ethnographic research that took place between 2012 and 2015. This includes nine months of field research from September 2012 to June 2013, during which time I lived in the case site, and two return visits took place in 2014 and 2015. In particular, four methods were used: a quantitative household survey, semi-structured interviews, participatory methods, and participant observation.

Survey respondents (n = 392 households) were identified using a randomised sample. This data was 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 researcher in order to allow responses to be quantified, as most questions were multiple choice and closed-ended, however some questions allowed respondents to rank answers. Individual semi-structured interviews were carried out 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 to 75 minutes on average. Questions with residents covered topics such as: experiences with disasters; interpretation of the causes and solutions to disaster risk; perceptions of disaster risk; responses to disaster risk; perceived roles of the local government in DRR; what issues local people discuss in participatory spaces; to what extent people engage with DRR in participatory spaces. Participants were also selected based on their experiences with disaster risk to ensure different levels of experience were investigated. I also chose interviewees based on where they lived to ensure an equal geographical spread across the neighbourhoods.

Local construction workers were interviewed during the latter stages of data collection as it soon became clear during data collection that the design and construction of houses was an important way that residents gauge their personal levels of disaster risk and engage in DRR. Neighbourhood presidents provided information about the development of the neighbourhoods, the future development plans for the neighbourhoods as well as 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 extent the TBOs hold the local government to account on issues of disaster risk. Interview questions were loosely guided by a set of pre-determined questions. However, they were more conversational,

which allowed me to follow up 'leads' that interviewees raised, but still retain the purpose of the interview (Burgess 2002).

Participatory methods were also used. Following each one on one interview, individual interview participants were asked if they would like to draw the house that they aspire to build. This was done using coloured pencils and A4 white paper. These drawings act as social maps that uncover how local people perceive the social functions of the house (see Kumar, 2002) and to what extent residents prioritise DRR when constructing their house. Therefore, participatory methods were particularly useful for revealing people's latent and unconscious attitudes and responses to risk that they may not automatically articulate in methods such as interviews and surveys. Finally, data was gathered from participant observation at nine monthly neighbourhood meetings. On average, 110 residents attended these meetings, which equal approximately 990 residents in total. These observations allowed insight into the content that was covered during these meetings, and how residents engage with issues of DRR in participatory political spaces. This data was later contrasted to the data gathered during individual interviews, and this revealed that local people are highly concerned with DRR, but they do not articulate this in public participatory spaces.

Throughout the data collection period, extensive field diaries were maintained. This included 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 researcher developed during data collection, ideas for organizing the data and concepts employed by the participants that can be used to analyse the materials. Memos were also written throughout the research process outlining the major themes to organize the data and develop conclusions.

Content analysis was applied. There were several key ideas that were used to analyse the data. First, how participants understand the causes of disaster risk; second, how participants perceive DRR is achieved; third, how participants view the role of households in DRR; fourth, the role of local government in DRR according to participants; and finally, how decentralised participatory governance has performed

thus far in the case site. As data was collected via multiple methods and in different settings, this allowed the research to triangulate data and to explore how these attitudes differ in public spaces i.e. neighbourhood meetings, and in private spaces i.e. during one on one interviews in houses. Themes which crossed over the different data sources emerged and these ideas were used to reflect back on and speak to the literature on decentralised participatory risk governance reviewed earlier.

STUDY AREA

The Cerro has become densely populated since in migration from different regions of Bolivia began in the 1950s. Most residents migrated from rural areas of Potosi and Oruro seeking greater income earning opportunities. In 1999 the municipality of Cochabamba expanded the urban area of the city to include the Cerro; this brought the legal and political recognition of the neighbourhoods as TBOs (Landaeta, 2004). Mirroring the broader Bolivian decentralization 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 act as a space for local people to participate in grassroots and consensus-based debate about the development of the neighbourhoods. The outcome of these meetings culminates in the production of the AOP, which outlines the concerns, priorities and needs of residents. These plans are annually submitted to the local government for approval and fiscal resources, and the VC oversees the AOP expenditure and budget that is provided by the local government. Residents carry out the work, predominantly through cooperatives, and professionals in the local government supervise projects by assisting with technical dimensions regarding infrastructure for example.

The neighbourhoods are characterised by 'extensive risk', defined by UNISDR (2009: 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 (e.g. Nava, 2011). This was later corroborated by a scoping visit to the area in September 2012 as well as survey and interview data. The neighbourhoods experience frequent and less extreme natural

hazards (rainfall) that are linked to small-scale disasters. Desinventar (n.d.) define small-scale as between one and one hundred households that are affected at any one time. Rainfall exacerbates ground instability, which has led to 29 per cent of houses experiencing landslips. Additionally, over time, light damage such as cracks in walls can graduate into more serious damage because of the persistent impacts of rainwater. Household survey data shows that 63 per cent of households had experienced adverse impacts from rainwater in this way. However, physical damage is not only determined by rainfall patterns, but also exposure to rainwater and the materials used to build the house. Finally, disasters are not isolated to one particular area of the neighbourhoods as they are highly geographically spread. They are also sporadic over time occurring throughout the year; however, most physical damage occurs during the rainy season between December and March.

LOW LEVELS OF PARTICIPATION IN DELIBERATORY DRR SPACES: PRIVATE LOSS AND SELF-BLAME

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

In the three sections that follow, this article provides an alternative explanation for low levels of participatory DRR through exploration of local people's understanding of disaster risk and risk responsibility. In particular, data shows that self-blame for the cause of disasters is the dominant discursive framework among residents, and this results in a redistribution of DRR responsibility to households. This was symptomatic of three factors: 1. Residents' perception that they had chosen to live in an area where risk 'naturally' exists; 2. Residents' emphasis on self-build housing as the main resource for DRR; and 3. The local government's environmental discourse, and in the

focus on resettlement in particular. As such, local disasters are constructed as private losses that are the result of households taking bad choices and actions, despite the widespread cumulative impacts that constitute a public tragedy, albeit over an extended period of time. These three elements are now discussed. Following this, I discuss the implications of these findings for local government accountability to DRR.

Local Risk Perceptions Catalyse Risk Reduction Activities

Hazard impacts are not equally experienced, and this is the most central reason why there is such diversity as to how probable and negative local people perceive impacts will be. Residents with direct experience perceive that damage is more probable and will occur in the more immediate future than people with indirect experience. This is because direct experience provides vivid and rapid recall of information, greater personal involvement, and lower levels of uncertainty (Miceli et al., 2008; Wachinger et al., 2013; Weinstein and Nicolich, 1993). In addition, and in line with research on risk perceptions, people who have experienced severe impacts expect future impacts to be more life threatening, and typically display greater levels of anxiety (Finucane et al. 2000; Ruin et al. 2007). However, concern with risk is most acute in the period after initial impact, but gradually diminishes over time.

Despite the range of risk perceptions, survey and interview data shows that residents with high and low risk perceptions view DRR as a priority, and so engage in a variety of activities with the purpose of reducing the physical impacts of local hazards. These include 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 is the dominant way that residents engage in DRR. Housing (re)construction is discussed in more details below; however, it is interesting to note at this point that 97 per cent of survey respondents who engaged in housing (re)construction felt safer against 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; however, people are aware of risk they do take risk into account in everyday decision-making when (re)constructing houses. Therefore, it is not possible to argue low levels of participatory DRR is symptomatic of residents' particular risk perceptions, or because residents are unconcerned with DRR, or even because

disasters are perceived as a natural phenomena that are beyond human control.

State-Society Relations Facilitate Participatory Politics

Since 1999, when the neighbourhoods became embedded in a decentralized participatory governance structure, monthly neighbourhood meetings have been well attended and residents actively and energetically debate neighbourhood development. As such, these grassroots political spaces have been instrumental for residents to engage in meaningful participatory debate about development issues and to communicate this to local government via AOPs. Subsequently the local government has been very receptive to AOPs and there have been vast improvements across the Cerro, particularly in relation to water, sanitation, waste removal, the quality of roads, electricity and transport. One man who had been resident in the Cerro for 19 years captures these incremental developments: "We 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 has improved." (Interview, June 2013). The levels of citizen engagement with democratic deliberation in participatory spaces, as well as the level of community development that has taken pace across the case site is reflective of Faguet's (2014) broader analysis of decentralization in Bolivia.

In summary, evidence shows that local people were in the main able to inform themselves sufficiently to hold the local government to account, and so were successful in demanding policies which, in the aggregate, made service delivery far more sensitive to objective local needs. Nevertheless, data reveals that there is selectivity to the types of development issues that residents debate in the participatory spaces each month. More specifically, development needs such as water, sanitation, land tenure, transport, waste removal, drainage and road paving are often the subject of consensus building politics, whereas DRR is left aside. The following three sub sections draw on primary data to explore how residents understand the causes and solutions to disaster risk. In doing so this article provides an alternative, and so far under explored explanation why residents do not engage 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 summarises this perspective: "I love this place [the Cerro]. 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 marginalized and vulnerable groups in society are often the most exposed to environmental hazards because they cannot afford to live on less 'risky' land, and so they often settle on cheaper environmentally hazardous land (Manuel-Navarrete et al., 2007; Blaikie et al., 1994). The situation is no different in Cochabamba as interview data reveals that poverty and socio-economic marginalization are the root causes of why many residents originally settled in the Cerro, despite their awareness that the land is 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.

However, interview and survey data shows that residents do not consider the complex interplay of social, political and economic factors that produce systemic inequities and ultimately disaster risk. Therefore, disaster risk is simply seen to exist, as there is no critical engagement with the broader structural factors that insidiously and gradually marginalize residents from accessing resources, such as non hazardous land and other resources to reduce their vulnerability (Hewitt, 1997). This is not entirely surprising as the processes that lead to disaster risk are complex and would require 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: 3) or at least exposure to public discourses which critically engage 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 as well as the local government's DRR responsibility. More specifically, interviews reveal that residents

blame themselves for their predicament. That is, they perceive they have knowingly put themselves at risk of a disaster by taking the decision to live in an environmentally hazardous area. This has created a discursive framework of self-blame that implies residents of the Cerro are responsible for reducing their levels of disaster risk. Therefore, local people are more concerned about their own qualities or abilities to address disaster risk, rather than socio-economic and political questions about 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 and so residents focus their attention on household level traits and transformation as a means to address disaster risk. Within the case site, this translates into (re)construction of housing in order to reduce physical vulnerability, which is now discussed further.

Self-build Housing and Disaster Risk Reduction

Notions of self-blame and household risk responsibility are also reproduced by residents' perceptions that the physical form of the house is the most effective resource to reduce disaster risk. Reflecting research on the self-build housing process in cities of the global South (see Greene and Rojas, 2008; Varley, 1994), decisions 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 perceive that physical form of the house are the most important resources for reducing hazard impacts. In particular, adobe walls are associated with higher levels of disaster risk, whereas brick and concrete are perceived to resist the incremental and erosive impacts of rainwater[3]. A deep foundation and a retaining wall are also associated with lower levels of physical vulnerability[4].

As residents perceive that housing construction is a household responsibility, and that

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

[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 made entirely of brick and concrete.

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

the design and construction of the house is the most effective way to reduce disaster risk, this constructs a narrative that the household has ultimate control over personal levels of risk. In other words, residents view themselves as the ultimate guarantors of DRR because they make decisions about housing construction. Community presidents and members of the VC also mobilize rhetoric that DRR is a household endeavor that is best achieved through self-build housing, as the president of one neighbourhood illustrates:

> 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 improvement to street infrastructure can reduce levels of disaster risk if DRR is mainstreamed (Wamsler, 2014), the physical form of the house is still perceived by residents as the principal means to address disaster risk.

Ultimately, this implies disasters are the result of households making inappropriate choices, because there has been inappropriate housing construction for the local environmental conditions. For example, a man living and working in the area as an informal construction worker states “Houses here are not built well; you need to build well here. If not, they [houses] will not last” (Interview, April 2013) was a typical response when residents were asked why disasters occur across the communities. The emphasis 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 as well as their levels of vulnerability. And, ultimately, focus on housing construction reproduces the perception among residents that DRR is a personal endeavor that should be addressed at the household level, rather than through external support of the local government.

Local Government Environmental Discourse

As previously stated there has been no formal communication to 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 and solutions of disaster risk. In particular, the

local government implemented a resettlement programme following the landslide in 2008 that affected 85 households. A colour coded risk map of Cerro Lourdes was created using Geographical Information System (GIS). The map adopts the familiar red-orange-green sequence of traffic lights (see Monmonier 2014), to indicate high (red), medium (orange) and low (yellow and green) risk zones. Survey as well as interview data with residents and local government officials shows that this map was only distributed to people living in the 'high-risk' zones. Data also shows that residents living in high-risk zones were encouraged by the local government, to resettle in a rural area 35km away, and US$5,000 was offered to each house-owner (the average monthly household income is US$320).

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

On the other hand, orange is associated with caution, and green and yellow with low levels of risk. Therefore, and reflecting Monmonier (2014), the local government deliberately or perhaps inadvertently uses colours as tools of cartographic propagandist that invokes particular perceptual and emotional responses from residents.

Mirroring research by Hajer and Versteeg (2005), the employment of architects and engineers who use technocratic language such as GIS mapping, frames disaster risk as

highly complex and only comprehensible to trained 'experts' who use scientifically rigorous analyses. This is deeply depoliticizing because the resettlement programme is framed as an objective and unquestionable solution to local disaster risk, which marginalizes residents from engaging in any debate about the appropriateness of the resettlement programme. However, resettlement as a DRR policy is highly problematic because it results in the imposition of a single policy approach based on a (misguided) biophysical conceptualization of a disaster. As such, it erases any political or socio-economic questions about the construction of disaster risk. Reflecting Felli and Castree's (2012) research on migration as adaptation, 'escape' as a solution to disaster risk suggests 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 redistribution of DRR to the household because it implicitly suggests that removing oneself from hazard exposure is the only way to avoid disasters.

The previous three sub sections 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 naturally exists in the Cerro because there is minimal engagement with the wider political and socio-economic factors that shape disaster risk. Second, and relatedly, residents self-blame for their disaster risk because they perceive that disaster risk is symptomatic of individual actions and not broader structural factors. Third, and again relatedly, residents perceive that DRR is a household responsibility that should be addressed through reformation of the household, principally through the (re)construction of the house.

Participant observation and interviews reveal that the local discourse of self-blame and household risk responsibility stifles participatory DRR because residents perceive DRR falls outside of the local government's responsibility. During monthly participatory debates the small number of 'noncompliant' voices that explicitly or implicitly suggest DRR is a local government responsibility were perceived by other residents as having dissenting and misplaced understandings of disaster risk, and so were often met with responses from other residents that they must personally reduce

their risk, particularly through 'appropriate' housing. As a result, and evidenced by interviews with TBO presidents and local government officials, the AOPs which are proposed to the local government focus on development issues that residents perceive fall under the total or partial responsibility of the local government, such as water and sanitation, land tenure, waste removal, electricity, drainage, and transport[5]. However, they do not document local people's concerns with DRR, despite disaster risk being an issue that was consistently raised as a local priority and concern during individual interviews with residents. Therefore, little meaningful dialogue takes place between local government and residents in relation to disaster risk. The implications of these findings for decentralized participatory risk governance are now discussed.

CONCLUDING DISCUSSION

Disaster geographers have long argued for decentralized participatory risk governance as a vehicle to facilitate nurturing local governments that implement locally appropriate DRR policies (Adger et al., 2009; Ahrens and Rudolph, 2006; Blaikie et al., 1994). 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 to local people's DRR concerns (Delica-Willison and Gaillard 2012; Gaillard and Mercer, 2013). Fischer (2006) and Escobar-Lemmon and Ross (2014) therefore rightly argue that decentralized participatory risk governance depends heavily on the participatory capacities of citizens to engage in reason-based and action-oriented decision-making about disaster risk. However, the Cochabamba case shows that democratic and collective problem solving about DRR is not a guarantee in areas where there is extensive risk and small-scale disasters that are locally viewed as private losses and that are the result of households taking poor decisions. Extensive risk and small-scale disasters are largely overlooked in disaster research and policy; however, this article demonstrates the critical need for further exploration in these contexts.

[5] It is important to highlight that improvements to water and sanitation, waste removal, electricity, drainage, and transport services, as well as residents ability to obtain land tenure have all reduced the vulnerability of residents, and increased their ability to reduce disaster risk. Nevertheless, and as discussed in this sub section and previous two sub sections, residents do not associate DRR with these factors, as they emphasize the role of housing construction and soil quality in disaster risk creation.

Previous research, which was reviewed above, suggests that low risk perceptions and poor state-society relations can result in low levels of citizen engagement in DRR. However, these ideas were unable to explain poor democratic deliberation of DRR in the case site. This research article also demonstrates that low levels of participatory DRR can persist even in contexts where there are high levels of civic participation. However, though a focus on local understandings of disaster risk, the case of Cochabamba becomes particularly revelatory because it reveals an alternative and overlooked reason why there may be low levels of participatory engagement with DRR. That is, because of the particular ways that vulnerable people understand disaster risk and DRR responsibility. Ultimately, this provides critical insights into the potential of participatory risk governance to ensure the downward accountability of local governments to DRR.

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

From a theoretical perspective, this research challenges the normative assumption that participation ensures control from below and that policy makers will be held accountable to the DRR concerns of disaster affected people (Mercer et al. 2010). More specifically, this research demonstrates that there is not a linear relationship between the creation of participatory spaces and democratic deliberation about 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. Therefore the case of Cochabamba calls into question the reliance placed on local populations to articulate their concerns with DRR as a primary mechanism to ensure state accountability.

This article is not arguing for the removal of participatory risk governance. But we also have to recognise that the creation of participatory spaces is not a magic solution to increase civic participation, and local government accountability to DRR. In fact, the Bolivian case is particularly insightful because it shows that participatory mechanisms may exclude DRR even in contexts where deliberative mechanisms are strong and local governments have a history of being accountable and responsive to local development needs. More specifically, the case of Cochabamba 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-governing 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 in which grassroots initiatives are supported by state authorities (Delica-Willison and Gaillard 2012; Gaillard and Mercer, 2013; Mercer et al. 2010).

It is clear from this research that in order to understand how risk governance works in practice more attention must be paid to the ways 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. I do not suggest less analytical scrutiny at the institutional level as there remain problems with rhetoric and policy that see state authorities retract their DRR roles (see Felli and Castree, 2012). However, future research on local level perceptions and attitudes to risk responsibility is clearly necessary to facilitate a truly participatory process in which communities and policy makers engage in meaningful dialogue about disaster risk. Particularly because decentralization and the creation of participatory political spaces continue to be viewed by academics and policy makers

as integral to successful DRR.

Building on this, the case of Cochabamba suggests that decentralized 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 citizens about its responsibilities to DRR. Therefore, standards and codes that ensure local governments communicate their DRR responsibilities to vulnerable populations may be necessary. Internationally accepted standards were established for the humanitarian sector (e.g. The Sphere Project, 2011) and they could be developed for the DRR sector. However, some studies suggest this may not be so straight forward as there may be a lack of will 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). Additionally, although the benefits of DRR are better and less costly than disaster response, many policy makers still hesitate to invest in actions that will provide little political outcomes for their administration despite local communities requesting DRR support (Gaillard and Mercer, 2013). Therefore, alternative ways of informing citizens may be necessary. Possibilities may include the inclusion of other actors such as non-governmental organisations (NGOs) who can work alongside local level leaders to provide citizens with transparent and clear information about the duties and roles of local government in relation to issues of disaster risk. Without this local governments may escape their responsibility to DRR, and the effectiveness of DRR strategies will be significantly undermined.

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

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