

# **A Continuum of Risks in Urban Nepal**

**Dr. Hanna A. Ruszczyk,**

**Institute of Hazard, Risk and Resilience, Department of Geography, Durham**

**University, Durham, UK**

## **Executive summary**

While the Sendai Framework, the Paris Agreement, the 2030 Agenda and the New Urban Agenda warrant consideration in a joined up and complementary manner, global discussions of risk do not necessarily reflect the range of risk as understood by residents in the urban South. It is time to consider the intersection of disasters, the everyday lived experience of urban residents and the fundamental role local authorities play in mitigating against and also managing the urban risk portfolio. This case study from Bharatpur, a medium sized, regional city in Nepal shows in granular detail the continuum of perceived risk from the perspective of urban residents and local authorities. Risk is centered on a range of events and everyday realities that directly impact residents' immediate lives that challenge people's capacity to manage and thrive. This also impacts their ability and willingness to plan for future hazards and risks in the city. The local authorities are in a similar situation in which they are overwhelmed with their responsibilities.

The continuum of risks discussed in this paper include an infrequent and intensive event, the Gorkha earthquake, that would of course rank high in the traditional international expert's understanding of hazard and risk. However risk is also found in another event such as the change to Bharatpur, Nepal's administrative boundaries. Moreover, everyday concerns such as the lack of basic physical infrastructure and challenges to economic security are also significant concerns for urban residents. For many of the risks described above, the quality of the relationship with the local authority is key to people's mitigation strategies of urban risk.

This paper makes two contributions to the 2019 Global Assessment Report and to literature describing the continuum of risk in urban areas in the Global South. Firstly, the paper calls for broadening the understanding of risk to include the views of residents and also of local authorities. Secondly, the paper suggests this broadening of risk matters to the global discourse framing understandings of risk in the Sendai Framework, the Paris Agreement, the 2030 Agenda and the NUA otherwise implementation may not be appropriate.

## **Introduction to strategic frameworks**

Today's world is often categorized as uncertain, complex, inter connected, risk filled, increasingly dangerous and lastly, urban in nature. Global Assessment Report (GAR) 19 Chapter 4 introduces the hazard and risk scope of the Sendai Framework and the need to consider the interconnections and inter-dependencies of hazards and risks in a global context of dynamic systems. Inter-disciplinary solutions will be needed to address

these complex and tension inducing hazards and risks. GAR19, 4.4 frames the discussion around systemic risk, the Sendai Framework (United Nations Office for Disaster Risk Reduction, 2015) and the 2030 Agenda for Sustainable Development (United Nations, 2015). The Sendai Framework, the Paris Agreement, the 2030 Agenda and the New Urban Agenda (NUA) (United Nations, 2017) warrant consideration in a joined up and complementary manner.

Specific sections of the Sendai Framework (United Nations Office for Disaster Risk Reduction, 2015) are relevant to this paper: Paragraph 14 of the Sendai Framework suggest that to reduce disaster risk, there is a need to address existing challenges and to prepare for future challenges by monitoring, assessing and understanding disaster risk, sharing such information and also understanding how risk is created. Paragraph 15 of the Sendai Framework refers to small scale, large scale, frequent and infrequent, sudden and slow onset disasters caused by natural or man-made hazards as well as other forms of hazards and risks. This paragraph also states that the Sendai Framework will “aim to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors” (Ibid).

The SDG 11 Synthesis Report (United Nations, 2018) tracks progress towards inclusive, safe, resilient and sustainable cities and human settlements. This report is highly relevant in guiding efforts at the interface of urban, disasters, risk reduction and sustainable goals for cities. Targets 11.5 and 11.b (Ibid, 69-70) reflect the complexity of joined up thinking as well as the critical role of local authorities. The NUA (United Nations, 2017) reflects the increasing awareness of the role of cities in meeting the Sendai Framework and SDGs.

On a national level, the disaster risk governance framework of Nepal has been tension filled and there have been governance struggles (Jones et al, 2013; Jones et al, 2014; Jones et al 2016). The disaster risk management (DRM) regulatory framework in Nepal has changed since 2015. In September 2015, Nepal’s constitution was promulgated and includes DRM in Article 51 and schedules five to nine (Government of Nepal, 2017). The new constitution has assigned DRM as the responsibility of the new three tiers of government, in particular, the local authorities. On 24 September 2017, the legislative-parliament unanimously passed a new Disaster Risk Reduction and Management Act, 2017.

The 2017 Act is considered more progressive and comprehensive than the existing Natural Calamity Relief Act, from 1982. The 2017 Disaster Risk Reduction (DRR) and Management Act recognizes risk reduction as an important and integral part of risk management. The Act proposes a multi- tier institutional structure of disaster risk reduction and management at the federal government level, the provincial and the local levels (Ibid). How the

Act will be implemented is being worked out at the present time and there are tensions between the various levels of government in terms of roles, responsibilities and allocation of funding.

This paper is particularly relevant in shedding light on the intersection of different forms of risk in a case study city that could be viewed as representative of where the world's urban population lives – in medium sized, regional cities of the urban South with less than 500,000 urban residents (United Nations Department of Economic and Social Affairs and Population Division, 2018). It is here, in rapidly urbanizing cities of the Global South, where a range of hazards and risk, occurring everyday as well as infrequently, come together to create a complex situation. In these cities, some risks and hazards are managed for, some are ignored, some are viewed as important by residents, others by local authorities, and other risks and hazards are viewed as particularly important by international actors.

### **Research problem investigated**

The research problem I investigated focused on understanding how residents in a regional city of Nepal, Bharatpur (population 300,000) define and perceive risk, as well as how the local authorities define and perceive risk. In order to do this, I conducted a qualitative multi scalar research project over 36 months from November 2014 to November 2017. This formed the foundation for my PhD research (Ruszczuk, 2017).

### **Conceptual underpinnings of the research**

There is a significant body of research on large-scale, rapid onset and high impact natural hazard events (Wisner et al, 2012) such as earthquakes or volcanic eruptions, often referred to in terms of “intensive risk” (Dodman et al, 2013). In recent years, a number of researchers have also explored smaller scale, but more chronically recurring events that cumulatively can have a significant impact at the individual, household and community level – everyday or “extensive risk” (Wamsler and Brink, 2014). The research presented here sits between these two bodies of work. A large scale, rapid onset hazard event (Gorkha earthquake) is discussed in this paper, but only as part of a broader understanding of risk from the perspective of urban residents and local authorities.

A social constructivist lens is utilized in the effort to understand people's perceptions of risk. According to Pidgeon et al (1992, 89), this perspective: “Involves people's beliefs, attitudes, judgements and feelings, as well as the wider social or cultural values and dispositions that people adopt, towards hazards and their benefits”. Risk

perception is multidimensional, whereas a particular hazard can signify “different things to different people” (Ibid). The starting point for considering the everyday involves “ordinary people, everyday actions and commonplace events” (Rigg 2007, 16). With a focus on normal living rather than abnormal events, a concern with the everyday acknowledges the necessity to consider ordinary people who live and conduct their lives in the best way they can. What can be considered risk from the perspective of urban residents differs from ideas of risk calculation and the management of risk (Lupton, 1999) as understood by governments, policy makers and the academic community.

The UNISDR’s (2015, 9) definition of hazard is utilized in this research: “A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydro meteorological and biological) or induced by human processes (environmental degradation and technological hazards)”. The inter-linkages between disasters and risk highlights the need to pay “more attention to people’s own priorities, perceptions and belief systems” in relation to everyday risks and hazard events, according to Bankoff et al (2015, 11).

The way we conceive the “urban” needs increasingly to be based on the reality of cities and towns in the Global South. In this context, there is an intersection of different forms of risk that render urban existence itself a risky undertaking for many residents. It is increasingly difficult for urban residents to avoid or resist political instability, conflict, economic precarity, health crises, and ecological disaster, all of which can occur at different scales with an impact on the urban everyday. As Dodman and colleagues (2013, 1) argue, “The scale and nature of urban risk depends on how risk is conceived”. There is a pressing need to understand the full spectrum of risks in urban areas. In order to do so, it is worth extending consideration beyond disasters and disaster risk mitigation to, as Pieterse (2013, 12) suggests, “imagine and develop a more credible account of everyday urbanism” which will broaden and deepen an understanding of urban risk in cities such as Bharatpur, Nepal.

Bharatpur, Nepal is an ‘ordinary’ (Robinson, 2006) medium-sized city with no particular claim to fame and which may appear to be globally, economically, politically and spatially irrelevant. In reality, this type of ‘ordinary’ city is where most of the world’s urban residents live today (United Nations Department of Economic and Social Affairs and Population Division, 2018). Cities such as Bharatpur are also where most of the projected global population growth will occur over the coming decades, in urban centers with less than half a million

inhabitants (Ibid). Many of these small and medium-sized cities face a number of challenges, including significant inward migration resulting in rapid urbanization, limited, if any, urban planning, insecure livelihoods, rapidly reconfiguring social networks, a lack of regular or adequate provision for electricity, solid waste management, water and sanitation (Mitlin and Satterthwaite, 2013).

Bull-Kamanga et al's (2003) seminal paper suggests there is a relationship between disasters and an increase in risk from poorly managed urban development. They also propose that there is a need to understand how local governments and community organizations identify and act on processes that cause the accumulation of risk in urban areas. Dodman et al (2013) expand on concepts of intensive risk and extensive risk based on frequency, scale and impact. They propose that for the urban poor, the highest levels of risk from everyday hazards are usually associated with poor-quality housing and lack of infrastructure and services. They also stress the importance of relationships between low-income communities and the local government as well as the importance of mainstreaming disaster risk reduction into development policies and urban planning.

UNDP and ODI's 2016 report authored by Watson and Kellett (2016), focusing on the critical role of risk and resilience in addressing the financing of sustainable development, use the slightly different language of stresses and shocks to convey the relevance of including not only environmental occurrences (drought, flood, earthquake, tsunami, hurricane or cyclone) in the range of risks, but also health shocks, conflict and economic shocks. Stressing the importance of context, the 2014 World Disasters Report (International Federation of Red Cross, 2014) discusses the concept of risk: "Risk is itself culturally-defined... [resulting in] the problem that DRR organizations sometimes have a different definition of risk from those of the people affected". This can lead to situations where the risk perceptions and needs of urban residents are not acknowledged or are even ignored when urban risk is explored and debated on global levels. To address this gap, Wamsler and Brink (2014) provide an overview of urban residents' coping and adaptive practices in several countries with an emphasis on disaster risk reduction and climate change. They also present insights regarding residents' risk-reducing effects. These bodies of literature collectively suggest the importance of considering a range of risks and different urban contexts. Most recently, there has been literature on understanding the full spectrum of risk in urban areas of the world (Ro et al, 2017; Manda and Wanda, 2017; Ziervogel et al, 2017) and in Nepal (Ruszczuk, 2018a). This paper is a call to broaden the range of people who are listened to when scholars and policy makers consider conceptualizations of risk.

## Empirical investigation

This paper is informed by empirical work in the rapidly urbanizing medium-sized city of Bharatpur in Nepal. Bharatpur is the type of city that researchers have not investigated empirically to any significant degree in Nepal. Urban research (Muzzini et al, 2013) has primarily focused on Kathmandu Valley, which was until recently the main urban hub of Nepal. This is now changing in the context of the country's rapid urbanization and dramatic administrative changes since 2014.

The urban political and administrative landscape is radically changing in Nepal. For example: in 2001 there were 58 municipalities, and by the end of 2017 there were over 260 urban municipalities. Within this changing administrative landscape, the political decision to allow municipal elections to take place in the spring of 2017 (local elections were banned in 2002) is creating an environment for profound local change in how risk is produced and governed (Ruszczuk, 2018a). Cities with populations over 100,000 residents are becoming more common and allow for comparison with the global urban reality.

Bharatpur is the one of the fourth largest cities in Nepal and has a population of 300,000. It is located on the plains of Nepal, in newly created Central Province Three (as of 2018), bordering India. Bharatpur is a heterogeneous city; the main caste and ethnic groups are Brahmin, Chettri, Newari, Tamang and Gurung (Bharatpur Municipality, 2014). Internal migration continues and includes affluent high caste migrants, migrants who are fleeing conflict in their villages and towns as well as economic migrants from the neighbouring India. There is not a strong economic base in the city, the local economy is largely financed by remittances from young men working in the Gulf countries and Malaysia.

This research utilized a qualitative approach (McFarlane et al, 2016) investigating changes in risk perception and resilience strategies among different resident groups in two parts of Bharatpur. Ward 4 is located in the city center and is a mixed usage locality and ward 11 is primarily rural, with agricultural land rapidly disappearing and houses being built. Research methods included semi-structured interviews, focus group discussions, photography, as well as observation of the daily flow of life. The research took a multi-scale perspective, exploring how different scales impact each other and how power and influence flows between the scales (household, community level, local authority, national level and international).

This research was carried out in an iterative manner over a period of three years. Three fieldwork trips during November 2014 – October 2015 were conducted before, during and after the high intensity earthquake of April 2015 (GofN et al, 2015a). I was conducting fieldwork in Bharatpur when the Gorkha earthquake struck and this experience impacted my understanding of a continuum of risk but in a very different way to residents of Bharatpur. Over 100 people were interviewed for this research. A number of changes were observed over the period of this research study. As part of the political changes on a national level, the national constituent assembly promulgated a new constitution in September 2015 after deliberating for seven years, and the number of municipalities in Nepal increased by 275%, creating a nominally more urban country (Ruszczuk, 2018b). Subsequently, one other research visit in November 2017 was carried out to assess these on-going urban governance and administrative changes in Bharatpur and several other cities in the Terai (the plains of Nepal bordering India).

## **Considering the continuum of urban risks – from an earthquake to economic insecurity in Nepal**

### **a. The Gorkha Earthquake**

On the 25th April 2015, the Gorkha earthquake struck Nepal, causing 8,896 fatalities, 22,303 injuries, and US\$ 7 billion worth of damages and losses (Government of Nepal et al, 2015b). “Risk” and hazards rose to the top of the agendas of the government of Nepal and many international agencies. But risk did not begin with the Gorkha earthquake, rather it existed in the everyday conditions of life. The good level of preparation for and response to the Gorkha earthquake, notwithstanding the loss of life, reflects the importance of Nepal’s DRR policies and improvements in implementation. Where matters have not progressed to an equivalent degree, it is argued here, is in the placement of such events within the wider evolving risk context.

For international disaster risk reduction experts, earthquakes are an infrequent but highly dangerous hazard event for Nepal, and are viewed as particularly risky. Most residents and the local authority in Bharatpur, however, do not share this view, despite the intensity of the earthquake sequence of 2015 (Ruszczuk, 2017). This assessment is based on interviews conducted before and after the earthquake. No one died in Bharatpur due to the earthquake, although the built infrastructure was damaged. One hundred buildings were destroyed and 300 buildings partially collapsed. A further 3,000 buildings needed to be assessed for structural integrity due to



damage caused by the May 12th aftershock in Bharatpur. The local authority was responsible for this task of assessing 7.5% of the building stock in the summer of 2015, with support from trained volunteer engineers (Ruszczuk, 2018b).

When asked about hazards, all respondents interviewed in wards 4 (city center) and 11 (rural, near the community forest) mention infrequent fires, infrequent floods and infrequent earthquakes. However, it is worth noting here that even after the Gorkha earthquake occurred, earthquakes were not ranked as the most important hazard. In late 2015, respondents in ward 11 were more worried about attacks from tigers and rhinoceroses from the adjoining community forest. In 2017, there was a tiger attack in this area that killed one person and residents continued to be fearful of another attack rather than an earthquake. In ward 4, residents were more worried about electrical fires and flooding from the adjoining Narayani river. Even after the hundreds of aftershocks in the first five months after the earthquake, many respondents in wards 4 and 11 continued to assert, “Chitwan (district) is safe, Bharatpur is safe”.

For most respondents, attitudes towards earthquake risk were similar whether they were interviewed before or after the high magnitude earthquake of April 2015. Nor did ward 4 respondents change their minds in terms of the priority they gave to earthquake hazard relative to the everyday risks they perceived (the quality of physical infrastructure or the lack of economic security, to be explored below). Earthquakes did not rank high as a source of concern because residents felt they were aware of how to respond during the seismic activity.

There was one group that was an exception. These were the economically poorer ethnic residents in ward 11 whom the local authority ignored in the aftermath of the earthquake. These residents had not viewed earthquakes as especially risky before the 2015 earthquake, but their views changed with their experience after the earthquake. Several residents explained that they had requested structural integrity assessments of their homes after the May 2015 aftershock because their homes had cracks. The local authority did not provide this service and the ward 11 residents were unsure whether their homes were safe, and they had to live in fear of another earthquake. The ethnic and poor residents, who could not ignore the earthquake risk, felt exposed and vulnerable.

The wealthier residents and high caste groups, who were able to get their homes assessed by the local authority, felt some control over the effects of the earthquake and could afford to discount its impact. The experience of the earthquake reinforced everyday forms of marginalization of the poor and those without political

connections to the local authority. Residents who were marginalized in the everyday were also marginalized after the earthquake.

#### b. Administrative change

Another infrequent event was perceived as a risk by some residents in both wards 4 and 11, but for different reasons in each ward. In December 2014, Bharatpur became a sub metropolitan city, and 15 new wards were added to the existing 14 wards. The city's physical area increased by 50 per cent and its population increased by 50 per cent to 200,000 people. In 2017, the boundaries and population were increased again. At the present time (2018), there are 300,000 residents. The amalgamated villages in the southeast and southwest of the city brought their poverty and the specific hazards they faced (river flooding and wild animal attacks from the jungle) to the city.

For some residents, this administrative change emerged as a more critical risk than the Gorkha earthquake. This perception was due either to the potential introduction of new taxes which many subsistence living residents could not pay or the possibility of loss of political influence in relation to the local authority. The international aid community does not see these concerns as possible risks but ignoring these administrative changes in the risk equation is a failure to appreciate the understanding of risk on the part of residents. Considering the perceptions of residents signifies in effect extending the range of risk to be managed for.

The local authority is also concerned by the administrative change, the associated growth in population and the accompanying increase in responsibilities. According to Bharatpur's municipal leader, there are five important challenges facing the city post-earthquake and post-administrative change. These include: urbanization (in the form of expanded boundaries for the city and the incorporation of new villages), lack of solid waste management facilities for the city, the introduction of street lighting throughout the city, the need to increase the local authority's tax base, and lastly, the implementation of the national building code, with an emphasis on earthquake resistant construction for all new construction.

Urbanization is considered the most important challenge because "cities are no longer just upper middle class places, now cities have lower middle classes and renters as well" according the local authority leader interviewed after the earthquake in 2015. Until recently, Nepal was a rural country and people were migrating to the cities with aspirations for a better quality of life and better education opportunities for their children. Many new comers also had financial resources to build homes in the cities.

The local authority has generally ignored the poor, the tenants, the landless or informal settlement residents in its vision for Bharatpur, an oversight that is likely to cause tensions in the future. These particularly marginalized residents express a desire to be “in the light” of the local authority and to have a relationship where they can influence the local authority to provide needed physical infrastructure.

According to the city’s leader, disaster risk reduction in the form of an enforceable building code is at the bottom on the list of challenges Bharatpur faces. From the perspective of the local authority, DRR is important, but is only one of the many more pressing issues facing this rapidly changing city. This is at odds with the perception of the international DRR community, which emphasizes the importance of DRR to the central government without fully appreciating the complexity of urban challenges on a local level. Understandings and definitions of risk matter.

It is imperative to acknowledge the tensions between local risk perceptions and what is considered relevant within the broader DRR discourse. The impact of the administrative change on the precariously positioned poor and the politically ineffectual neighbourhood groups may in fact turn out to be more devastating in the long term than natural hazards in Bharatpur. This is certainly the view of respondents in wards 4 and 11 as well as the local authority, and this finding – that everyday worries take precedence – is internationally supported (Satterthwaite and Bartlett 2017; Dodman et al, 2013; Mitlin and Satterthwaite, 2013 and Satterthwaite and Dodman, 2013).

#### c. Poor quality of physical infrastructure provision

Everyday life in Bharatpur, Nepal is difficult for most residents due in part to fragmented physical infrastructure: a lack of solid waste management for the city and poor quality roads. Respondents’ location in the city influenced which elements of physical infrastructure they perceived as a risk.

In the densely populated city center of ward 4, the relationship between poor quality infrastructure and the close proximity of industry and neighborhoods was an issue. Residents here were concerned about poor air quality due to international road traffic to India on the east-west motorway that borders their community. Ward 4 residents also highlighted the degradation of the natural environment by the industrial waste entering the tributary of the Narayani River. There was also the ongoing lack of proper solid waste management. Solid waste was being temporarily stored in ward 4 and the residents living near the area expressed concern about the quality

of water they were drinking. Lastly, the poor quality of the road network was mentioned by neighborhood groups aspiring for paved roads in the center of the city.

In the rapidly urbanizing yet still rural ward 11, residents were concerned about different risks related to physical infrastructure of the city. They worried about the poor quality dirt roads that were difficult to use during monsoon season as well as a lack of access to piped municipal water. They were also concerned about the lack of accessible public transport given their distance from the city center. This meant limited mobility for many people who did not have sufficient funds to purchase a bicycle or a motorcycle. These residents needed to walk over an hour to access health facilities and other services, the local authority or possible job opportunities in the city center. The poor quality dirt roads and lack of transport made everyday life more difficult than the earthquake, according to these respondents.

In Bharatpur, the only physical infrastructure that residents had any control over was the road network. If residents organized themselves into informal neighborhood groups and provided the 30 per cent co-financing informally required by the local authority, then some roads were paved. This was not necessarily implemented in accordance to the land use plan which existed on paper. The local authority decided which roads, after consultation with local politicians. Unless residents organized, they had little chance to engage with the local authority and influence the city's infrastructure provision. Understanding how to influence the local authority was a frequently voiced concern in both wards. This is an additional reason why the administrative change was perceived as such a significant risk for residents in ward 4 as well. The change in administrative status influenced some residents' opinion of everyday risks associated with the provision of physical infrastructure.

#### d. Economic insecurity

In contrast with the international aid community, which generally views natural hazards such as earthquakes as the overriding risk for Nepal, all the residents interviewed perceived economic insecurity as the overriding urban risk. Without economic security, residents were not able to focus on other aspects of their lives in the city. The significance of striving for economic security and income generation cannot be overstated here - all residents discussed economic hardship and their lack of economic security, and often it was the most significant stressor in their lives (Ruszczuk, 2017).

In the city center (ward 4), many respondents earn at least a portion of their meager income from the local economy. Ward 11 is primarily agricultural land, and most farming there is focused on subsistence, so there

were few opportunities to engage in the local economy. In this ward, residents who had lived here for decades earned income through the sale of fertile agricultural land on which they had been historically dependent. This change from agricultural subsistence with some income generation from the sale of land for survival may introduce a new set of tensions in the long term related to food and economic security in rapidly urbanizing Bharatpur. For most residents in rapidly urbanizing ward 11, employment and securing income for everyday living was most widely perceived as the primary source of urban risk. Most respondents in ward 11 explained that income from agriculture was meager and men were forced to migrate internationally for income generation.

Residents in both wards stressed their desire for more stable livelihood opportunities in Bharatpur, a route they preferred to having their male family members or themselves travel internationally to generate income. Over half of the residents interviewed (in both wards) received international remittances and/or had family living abroad permanently. This is similar to research findings for the nation (Practical Action and NRRC, 2014). The dependence of local economic security on the global movements of some residents represents a precarious situation in Bharatpur, where many residents do not have direct control in managing their perceived economic risk.

## **Major findings of this paper**

This paper makes two contributions to the 2019 Global Assessment Report and to literature describing the continuum of risk in urban areas in the Global South. Firstly, the paper calls for broadening the understanding of risk to include the views of residents and also of local authorities. Secondly, the paper suggests this broadening of risk matters to the global discourse framing understandings of risk in the Sendai Framework, the Paris Agreement, the 2030 Agenda and the NUA otherwise implementation may not be appropriate.

Firstly, this paper contributes by considering how risk is understood in a medium sized city of Nepal from the perspective of residents and local authorities. This paper highlights the tensions in understandings a continuum of urban risks. A large scale, rapid onset hazard event (Gorkha earthquake) is discussed in this paper, but only as part of a broader understanding of risk from the perspective of urban residents and local authorities. For many residents the administrative change of the local authority (where the population doubled and the geographic boundary of the city also doubled) is as important as the Gorkha earthquake. The international policy community may not see this as a possible risk but to ignore this is a failure to appreciate the understanding of risk

on the part of residents and local authorities. Considering the perceptions of residents and local authorities signifies in effect extending the range of risks to be managed for. Further extending the continuum of risk to include everyday concerns such as the poor quality of physical infrastructure provision and lastly economic insecurity is vital. The potential to continue to ignore or discount urban residents' perceptions of risk is high but the need to consider them is significant. Reflecting upon a range of interpretations of hazards and risks can allow for an enriched understanding of how risk is experienced and understood in ordinary cities of the world. Positioning a multi-perspective approach to risk at the centre of global, national and local discussions is called for.

Secondly, this paper contributes by suggesting this broadening of risk matters to the global discourse framing understandings of risk in the Sendai Framework, the Paris Agreement, the 2030 Agenda and the NUA otherwise implementation may not be appropriate. Definitions of risk matter. Defining risk according to different criteria creates a context where only some concerns matter to local authorities and policy makers and thus have policy traction, while other perceived risks of urban residents do not matter to policy makers and are not reflected in policy. Furthermore, if perceptions of risk from the local level are not included in national policy decisions, this shapes and in effect limits the risks that are actually managed through policy and practice not only on a national but also on an international level. The implications for disaster risk reduction are that it will be difficult to mainstream DRR activities unless decision makers better understand the complexity of urban challenges and the continuum of risks in urban Nepal and other urbanizing spaces of the world.

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