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COURTING CATASTROPHE? HUMANITARIAN POLICY AND PRACTICE IN A CHANGING CLIMATE

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Social Vulnerability and Local Adaptation in Humanitarian Response: The Case of Pakistan

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Abstract This article looks at the experiences of two areas hit hard by the 2010 mega-floods in Pakistan, one in Khyber Pakhtunkhwa and one in Sindh. It examines how different humanitarian actors understand climatic changes, risk and vulnerability, how this influences their choices of disaster risk reduction activities, and whether these activities promote changes which are merely cosmetic, or transformational. The findings point to the need to expand institutional understandings of risk and vulnerability to include social vulnerability in disaster risk reduction measures, and the importance of knowledge sharing and collaboration between humanitarian and development organisations, government and local communities, particularly at the district levels, to be able to address long-term risk reduction and adaptation.

Keywords: vulnerability, climate change, humanitarian response, humanitarian policy, development, adaptation, risk assessment, Pakistan.

1 Introduction

Reducing vulnerability in the face of repeated disasters in Pakistan is a huge challenge for humanitarian and development actors alike. Both national and international humanitarian actors have over the last 12 years responded to a broad range and frequent occurrence of crises in Pakistan. These have included earthquakes, floods, drought and conflict, from the far north to the far south, which have adversely affected millions of people in terms of loss of life, livelihoods and assets (Swati 2015). In light of this, the Pakistani government has put disasters, and particularly climate change disasters, high on the political agenda (Nawab and Nyborg, this *IDS Bulletin*). Also, in addition to their main focus on relief, humanitarian actors show a growing interest in contributing to both hazard preparedness and the reduction of vulnerability of populations to climate change in the longer term.

A greater focus on disaster risk and vulnerability reduction, however, is challenging for the humanitarian community. The vast majority of

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funding of humanitarian operations continues to be based on appeals in the wake of emergencies, and is overwhelmingly used for relief (UNOCHA 2017; ADB and World Bank 2010). Funding for prevention is difficult for humanitarian actors to obtain, as it is considered the domain of development actors. This can create challenges even within an organisation practising both relief and development, where there can be restrictions on using funding for relief or preventative measures. Efforts to address longer-term vulnerability issues are also hampered by competing understandings among government, humanitarian and development actors of risk, vulnerability, and what might constitute transformational change. Knowledge remains segregated in different communities of practice, with little interaction and institutional overlap (Polastro *et al.* 2011; Schipper and Pelling 2006). In particular, local knowledge and experiences of climate change and how their underlying vulnerability influences their ability to adapt is seldom considered in planning and implementing interventions (Christoplos, Mitchell and Liljelund 2001). In this respect, the politics around humanitarian assistance play a clear role in determining which knowledge bases are given space in humanitarian discourse and practice, including which definitions of risk and vulnerability are given precedence (Eriksen, Nightingale and Eakin 2015). The fact that the vast majority of humanitarian assistance continues to focus exclusively on relief and short-term response is a political decision. This limits the space for those humanitarian actors moving into disaster risk reduction who are aiming to achieve transformational change to reduce people's vulnerability in both the short and the longer term (O'Brien *et al.* 2015).

This article explores the ways in which government, humanitarian and development actors understand risk and vulnerability, and how this affects their choice of approach to longer-term adaptation. Do humanitarian actors, including the government, adequately understand the complexities of the local contexts in which they work? Are they able to contribute to not only mitigation and adaptation *per se*, but to reducing the social vulnerability of those most at risk? How do power relations influence policy and practice? The article begins with a discussion of how disaster risk management and reduction, climate change adaptation and vulnerability are understood in the climate change literature. This is followed by illustrative examples of the responses to and impact of the mega-floods of 2010 in Swat, Khyber Pakhtunkhwa (KP) and Thatta, Sindh. In each of these cases we examine the complexity of these communities in order to understand how vulnerability is shaped by their particular social, cultural, political and economic context. We then examine how the government and the humanitarian community understand the concepts underlying climate change and its effects (e.g. risk, adaptation, mitigation, disaster risk management (DRM), disaster risk reduction (DRR) and vulnerability), and how this understanding, embedded in power relations, influences the way in which they approach their work with communities. We end with a discussion of how a better understanding of the social context, power and politics could lead to improvements in both humanitarian policy and practice in reducing the vulnerability of people to climate change.

2 Understanding risk and vulnerability

There is a key distinction in the climate change literature in the use of the term vulnerability, based on whether the focus is reducing exposure to hazards and saving lives in the short term, or addressing social conditions and the drivers of vulnerability. This plays out in the ways humanitarian organisations understand and engage in risk management and reduction activities. In this section, we consider how risk and vulnerability are defined, and then operationalised in concepts such as DRM and DRR, which are central to climate change discourse in Pakistan.

The United Nations International Strategy for Disaster Reduction (UNISDR) defines risk simply as the combination of the probability of an event and its negative consequences (UNISDR 2017). The United Nations Development Programme (UNDP) expands this by describing risk as ‘the probability of harmful consequences, casualties, damaged property, lost livelihoods, disrupted economic activity, and damage to the environment, resulting from interactions between natural or human-induced hazards and vulnerable conditions’ (2011: 11). Disaster risk, therefore, is understood as ‘the potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period’ (IRP 2017). Based on these definitions, DRM is defined as ‘the systematic process of using administrative directives, organisations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to *lessen the adverse impacts of hazards* and the possibility of disaster’ (UNISDR 2017). This is the main focus of humanitarian organisations which are concerned with preparedness (authors’ emphasis added).

DRR, on the other hand, is ‘the concept and practice of reducing disaster risks through systematic efforts to *analyze and manage the causal factors of disasters*, including through reduced exposure to hazards, *lessened vulnerability of people and property, wise management of land and the environment*, and improved preparedness for adverse events’ (*ibid.*, authors’ emphasis added). We emphasise here the additional aspects of managing causal factors and reducing vulnerability of people in DRR as key distinctions from DRM. According to this view, DRR is in fact an expansion of DRM, inclusive of its attributes.

According to the IPCC (2012), DRR denotes both a policy goal or objective, and the strategic and instrumental measures used for:

- anticipating future disaster risk (forecasting);
- reducing existing exposure, hazard, or *vulnerability*; and
- improving resilience.

This includes a clear focus on not only reducing risk, but ‘lessening the vulnerability of people, livelihoods, and assets and ensuring the appropriate sustainable management of land, water, and other components of the environment’ (IPCC 2012: 46).

Reducing risk in these terms involves two well-known – but not always well-understood – aspects: mitigation and adaptation. In short, mitigation refers here to the prevention of hazards reaching populations, and might involve, for example, hazard-resistant construction to reduce vulnerability (in global climate change vocabulary, however, it refers to the reduction of greenhouse gas emissions). Adaptation, on the other hand, involves reducing vulnerability through ‘adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects’ (UNISDR 2017). What is often confusing is that while both mitigation and adaptation involve reducing vulnerability, they in fact conceptualise the term completely differently. O’Brien *et al.* (2007) make a very important distinction between reducing *outcome vulnerability*, and reducing *contextual vulnerability*. According to the authors, outcome vulnerability involves *reducing exposure* through climate change mitigation, or activities that limit negative outcomes, i.e. reducing risk, or improving resilience. Reducing *contextual vulnerability*, on the other hand, involves altering the context (socioeconomic-political) in which climate change occurs, so that individuals and groups can better respond to changing conditions in the longer term. They argue that while addressing both types of vulnerability are necessary, most efforts are focused on outcome vulnerability.

3 Methods

In order to understand how this plays out in practice, we examine both government and non-governmental organisation (NGO) responses to and impacts of the 2010 floods in Pakistan. Government staff at national level involved in climate change and disaster management, as well as various line departments, were interviewed (ten in total). Secondary data provided by the government and organisations on policies and activities in DRR and DRM were analysed. A workshop was conducted in Islamabad where almost 40 representatives of different humanitarian and development agencies shared and discussed their work in DRM and DRR (Noragric, CIIT and NORCROSS 2014). To study local perceptions of response and impact, we chose three villages in Swat, Khyber Pakhtunkhwa which had experienced flood and conflict, and two villages in Thatta, Sindh which had experienced repeated floods and drought. The criteria used to select the villages included topography and geography, the intensity of the flood and damages, and the extent and type of government and humanitarian interventions. District government, humanitarian and development staff were also interviewed. At the community level, individual interviews (eight in Swat, nine in Thatta) and focus group interviews (nine in Swat, six in Thatta) were conducted, based on differences in wealth, status, gender and livelihoods. The semi-structured question guides covered a broad range of issues including livelihoods, power relations, infrastructure and extent of government services, experiences of hazards and climate change, and interventions.

4 Government and humanitarian responses – relief, reconstruction and preparedness

The ways in which the floods impacted the two study areas were very different. In Swat, the waters came with little warning, at high velocity. The water quickly overflowed the river banks, receded after a few days, and left in its wake deposits of sediment and debris several metres high. People living on both sides of the River Swat experienced loss of life, livestock, houses, agricultural fields, hotels, roads and bridges. In two of the study villages, floods had almost completely washed away the irrigated land, whereas in the third village it affected the land only partially. In Thatta, a lowland area, the water breached the river and channels early on, and spread extensively, in south Punjab and upper Sindh, staying for up to six months before receding. Standing crops were destroyed, and villagers were completely dependent on food aid until they could return to their villages. As in Swat, the flood hit prior to harvest, such that crops were destroyed in the fields. As the water began to recede, some landowners were able to begin cultivating again, while others experienced such extensive damage to their soils that the fields were unusable.

The government and international non-governmental organisations (INGOs) gave assistance in both areas after the flood, either directly or through the UN cluster system. The response was implemented in phases defined by the Provincial Disaster Management Authority (PDMA) as relief, early recovery, reconstruction and development. The government had both a coordinating role through the PDMA, and provided direct assistance along with humanitarian organisations and the army, which assisted in providing relief to remote and isolated areas where roads had been destroyed. After the initial three-month rescue and relief operation, the government conducted a survey of the damage in the affected population and distributed Watan cards (cash grants for consumption and rehabilitation), a few recovery items, and coordinated rehabilitation efforts. As the flooding reached the plains, most humanitarian organisations moved south to continue their relief work (ADB and World Bank 2010).

In both Thatta and Swat, a few humanitarian organisations remained past the relief and rehabilitation phases to work on preparedness, training local women and men in DRM to respond quickly to save lives. Activities in DRM included the formation of village disaster management committees and emergency response teams trained in search and rescue, first aid, preparedness and evacuation plans, and equipped with DRM kits. Capacity building in DRM was also prioritised nationally by the National Disaster Risk Management Authority (NDMA), which established the National Institute of Disaster Management (NIDM) for district government capacity building. Even though humanitarian organisations, through their DRM activities, had a longer-term engagement in the affected areas, the focus remained on managing short-term response. The activities identified were based on assessments of the physical effects of earlier hazards.

5 Disaster risk reduction – a shift from preparedness to prevention

The government's National Disaster Risk Reduction Policy was developed in 2013 (Government of Pakistan 2013). The international community then established a national DRR Forum, where both development and humanitarian actors meet regularly to share ideas and discuss ways to reduce risk in practice. While most of the organisations dealing with DRR are development organisations, there are several humanitarian organisations that have moved beyond DRM and into DRR activities, in an attempt to contribute to not only preparedness but prevention.

As mentioned earlier, DRR includes aspects of both mitigation and adaptation, but we found that not all organisations dealt with both. Humanitarian organisations, when performing DRR activities, focus almost exclusively on mitigation activities. This includes the building of mitigation structures, such as checking dams to stop erosion and reduce water flow during flash floods, to reducing *exposure* to hazards. These are also common mitigation activities of development organisations. In addition, however, development organisations address adaptation, or the reduction of vulnerability through longer-term 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects' (UNISDR 2017). This involves activities such as livelihood programmes, DRR committee formation, agricultural innovations, and resource management training, designed to help people adapt to a changing climate in the long term. When the staff of the humanitarian organisations were asked why they did not engage in these types of adaptation activities, they replied that these were 'development' activities, something that they simply did not, as humanitarian organisations, engage in. Likewise, only a few development organisations were engaged in DRM, as this was considered the domain of humanitarian organisations.

What is common for both humanitarian and development organisations dealing with DRR, whether in terms of mitigation and adaptation, is that all of them focus on reducing vulnerability to *exposure* of hazards and climate change, while none of them focus on *contextual* or *social vulnerability*. For example, organisations informed the research team that their assessments and activities do not include the mapping of vulnerability at an individual level, only at a community level. They also focus on supporting livelihoods, such as agriculture, without focusing on differences or power relations according to gender, wealth, class, land tenure and education which might affect people differently in their ability to adapt to climate change. Even though those working with DRR were quite aware of how a lack of attention to underlying differences in vulnerability allows elites to capture resources and benefits, they felt it was beyond their capacity to change an assessment system which was defined by donor and government understandings of local risk and vulnerability.

6 Understanding root causes of vulnerability

The floods in Pakistan were considered a natural disaster by the government and local communities. There are, however, several drivers of vulnerability that involve both people and politics. One is the utilisation of natural resources upstream. The degradation of the upper catchment areas in Swat, climate change and mismanagement of water all play a role in causing hazards and disasters. In the case of flooding, the extensive felling of forests in the highlands, poor catchment management, overgrazing in the sensitive mountains, high levels of firewood consumption, and uncontrolled cultivation, all reduce water-retention capacity and cause increased surface water runoff and soil erosion, increasing the quantity, velocity and sediment load of the headwaters entering the river system. Activities aimed at reducing the intensity of these processes in the highlands could play an important role in preventing or at least lessening the impact of the floods on people in the lowlands. In order to do this, one would need to understand the political and social vulnerability context of their use in the highlands.

Another driver of vulnerability in the study areas and throughout Pakistan, is inequitable social structures. Key resources such as land are controlled by local elites, landlords and tribal leaders. Poor households and communities are often pushed into cultivating marginal land, which is less productive and also located in areas more vulnerable to hazards. During the 2010 floods, for example, there were numerous complaints in the Charsadda area of KP against landlords and government officials conspiring to divert floods away from the lands of rural elites and towards poor people and their properties. Such underlying social and political inequities and the limitations they put on women and men's lives and livelihoods contributes to increasing their vulnerability to hazards, leading ultimately to disaster (Taylor 2013).

In order to discover these underlying drivers, a detailed understanding of both the differential impact and the barriers to adaptation of different women and men in the affected communities is necessary. In Swat, for example, the loss of fertile land on the riverside has had different implications for the livelihoods of landowners and tenants. Larger landowners lost their property, but most had other assets and livelihood options. Smaller landowners and tenants, however, lost their only source of income, and many had to move from the area to find work. Some development organisations assisted in rehabilitating agricultural lands, but in many cases the damage was so severe that land demarcation became an issue and their lands are still not restored. Also, conflict in Swat in 2009 contributed significantly to the vulnerability of households to the flood. When the floods hit in 2010, people had not yet recovered from the political conflict the year before, when orchards had been vandalised, harvests confiscated, and people lost their jobs and had to relocate (Nyborg *et al.* 2012). Many were still suffering from trauma from the fighting and their experiences of being internally displaced people (IDPs), and there was a general lack of trust between members of the communities. In addition, gender disparities

in terms of education, income-earning opportunities and mobility hinder many women's participation in activities which could reduce their vulnerability to both fast- and slow-onset hazards. In general, limited livelihood options, education opportunities, health facilities, functioning institutions, and security for large parts of the population in Swat have all increased people's vulnerability to floods (Khalid, Nyborg and Nawab 2015; Elahi, Nyborg and Nawab 2015; Khan, Shanmugaratnam and Nyborg 2015).

In Thatta, the 2010 floods were followed by heavy rains in 2011, resulting in high levels of salinity. Some fields experienced a 50 per cent decrease in yields, others lay completely barren. None of the villagers interviewed were able to reclaim their degraded land, as the drainage improvements necessary would require the use of heavy digging cranes that were beyond their means. The only significant investments in land by the international community and the government have been the construction of massive bunds and the raising of the roadways to provide safe transportation routes in the event of future flooding, and some construction of housing on higher ground. While these are important investments, their contribution to the recovery of livelihoods is limited. The effect of the floods on longer-term livelihoods has been extensive, and different for different villagers. In the two villages studied, most of the land is owned by two or three larger landowners, who had tenants (with long-term tenant relationships), sharecroppers (shorter-term relationships with larger landowners, but owned small plots of land as well) and labourers working their land. After the flood, when the damaged land was producing only half of the yields, there was not enough work for many of the labourers and sharecroppers, and only some of the tenants were able to continue to work in the fields. The large landowners started to do much of their own labour, and produce mainly for their own consumption. Due to higher levels of education of several of their family members, landowners were able to supplement their farm income with salaries from government jobs. Sharecroppers increasingly supplemented their income from other sources, and some stopped cultivation completely on their damaged land in order to work as labourers. Those labourers and sharecroppers who lost their local livelihoods have had to move to the city (Hyderabad) for several months of the year for casual labour. These unskilled labourers are considered the most vulnerable in terms of loss of livelihood, and include several women household heads who either are widows or who have a husband not able to work.

What we see in both areas is that the flood had both short-term and long-term effects, which were very different depending on one's starting point before the flood. Attempts to respond to the flood, however, focused exclusively on assessing losses and damage to assets from this particular hazard (in addition to emergency relief efforts). While this is important, it is not sufficient for understanding ongoing processes that make people vulnerable to hazards, nor does it account for the impact of the floods on those with few assets – to put it bluntly, those with

lots of assets will always show the greatest losses and damage, but not necessarily in terms of their livelihoods since they usually have other opportunities, social networks and assets to fall back on. A focus on losses alone will thus mask the tremendous effect of the flood in further weakening the possibility of adaptation by the poor who already have suffered from longer-term political and economic marginalisation and a weakening of coping strategies (Eriksen, Brown and Kelly 2005). It also masks the effects of less apparent changes in climate that fall outside of the concept of ‘hazard’, but that threaten longer-term sustainability, such as long-term changes in temperature, and slow-onset drought.

7 Barriers to addressing social vulnerability in DRR

Our study finds that there are two areas which hinder actors in addressing social vulnerability in their DRR work. First is the choice of inadequate assessment tools for defining damages, losses and vulnerability to future disaster. The second is the politics around interventions, and the ways in which powerful interests and institutions influence whose knowledge counts in making decisions of which approach to take for DRR.

7.1 Focus and choice of assessment tools

Internationally, there is a multitude of hazard risk assessment tools and methodologies available to governments and organisations (Caribbean Development Bank and CARICOM 2009; UNICEF 2012; US Department of State 2012). The focus on asset losses, however, is by far the most common measure of vulnerability, with a clear focus on measuring the risk of exposure (Caribbean Development Bank and CARICOM 2009). Even when attention is given to population sensitivity and resilience in addition to exposure, and underlying factors that contribute to vulnerability (Turner *et al.* 2003; Thomalla *et al.* 2006), the focus remains on exposure, and the description of the human condition remains static and apolitical. While such tools are undoubtedly critical for a country like Pakistan where sound geo-metrological-demographic data are lacking, and no national standard methodology or institutionalised capacity to conduct multi-hazard risk assessments exists, they are not sufficient for understanding social vulnerability. Reed *et al.* (2013), for example, argue for using the sustainable livelihoods approach in climate change vulnerability analyses to capture some of the underlying causes of weak adaptive capacities. Reed also emphasises the importance of stakeholder participation in processes of adaptive management to ensure longer-term adaptability (Reed 2008).

In Pakistan, government, humanitarian and development risk assessments continue to focus exclusively on reducing the risk of hazards reaching populations – despite the attention to contextual vulnerability in national policy documents. At the national level, the NDMA is slowly building the capacity of government in disaster risk assessments through the training of line departments and their provincial- and district-level staff. In addition to focusing on exposure, risk assessments are mainly conducted by technical government or NGO staff lacking in local knowledge, with

little or no participation of local community members. It is clear from our study that villagers can easily describe shifting weather patterns, and what this has meant to their lives and livelihoods both in the short and long term. Their experience and understanding of the social, natural and political context in which they live is also best expressed by them. The intensity of their experience of conflict, and the intensity of heat in the summers that cause heatstroke and make it difficult to labour outdoors for more than a few hours a day, risks being lost in figures of temperature and precipitation. Local women and men can best explain how these events and conditions affect different villagers differently, depending on their resources and ability to switch to other income sources when agricultural land is destroyed or lost. This knowledge, however, remains unavailable to actors who consistently measure and plan interventions through top-down processes where local women and men are not included.

In order for risk assessments to capture relevant information on exposure and social vulnerability, they need to be both participatory and provide data on more than aggregated damage, losses and physical risks. While development organisations have a long history of focusing on participatory development, humanitarian organisations tend to use external experts for assessments rather than local sources in the belief that the information will be less biased. An exception to this is recent work by the Pakistan Red Crescent: it has developed an Integrated Vulnerability and Capability Assessment (IVCA) which is conducted together with communities to help understand how it might strengthen community resilience in the face of various disasters (IFRC n.d.). The assessments are conducted with the help of local volunteers, and the Red Crescent as a permanent fixture at the district level is able to follow up the findings with local government and development organisations. The IVCA, however, do not include an analysis of social differences within the village, which hampers the ways in which they can identify and cater to the needs of the most vulnerable. With adjustments to methodology which allow for intra-village and household disaggregation and deeper analysis of the drivers of vulnerability, IVCA can become powerful tools in engaging local people in decisions concerning longer-term adaptation for DRR. The DRR Forum is currently exploring the possibility of developing an improved IVCA which includes attention to social vulnerability. Linking IVCA with district government technical assessments and longer-term adaptation activities (i.e. agricultural research on heat and drought-tolerant varieties) could address both short- and long-term needs. In this way, humanitarian organisations can both contribute to and have access to critical information on the vulnerability of community members long before a hazard hits, such that their efforts following a disaster are both timely and reach those who are in need of assistance.

7.2 Politics, institutions and DRR interventions

Another barrier for humanitarian interventions in Pakistan to move into DRR and contribute to adaptation and prevention is the sectoral nature of the political and institutional landscape. There are still barriers

between humanitarian and development funding and institutions which make it difficult to share knowledge and foster collaboration across government departments, and between humanitarian and development actors, between the government and NGOs, and between donors and organisations (Thomas 2014; Eakin, Lemos and Nelson 2014). There are a few recent initiatives which try to address this. One is the attempt at national-level government to create a cross-ministerial council on climate change (Nawab and Nyborg, this *IDS Bulletin*). Also at national level, the DRR Forum, which includes members of the Pakistan Humanitarian Forum, is playing an important knowledge-sharing role among organisations (the development of a common IVCA is only one example). The government, including the NDMA and PDMA, is invited to these fora, but unfortunately seldom attend.

More critically, however, is what happens at lower levels, and particularly the district level, where the competence and capacity of government officials is extremely limited, and organisations seldom cooperate, unless they have personal contacts. Here, the politics of knowledge are in play, where those with power in terms of funding and political clout decide how issues are defined and addressed (Eriksen and Lind 2009; Eriksen *et al.* 2015; Tanner and Allouche 2011). In government, activities and approaches remain dictated by line departments, and brought together only in emergencies by the District Commissioner. Strong donor steering of organisations, often through a contracting system, discourages local competence-building and participation of communities in designing assessments and interventions. In this way, knowledge of vulnerabilities at the local level remains inaccessible, since all the decisions are in reality already made at higher levels. The lack of voice and involvement of a broader set of community members allow inequalities that determine vulnerability to persist.

Again, there are exceptions. In one district in Sindh, the District Commissioner requested the local Pakistan Red Crescent office to act as permanent coordinator for the District Disaster Management Unit (DDMU). Its status as a humanitarian organisation under the auspices of government provided a functioning link between government and NGOs working in the area. If the IVCA's are adjusted to incorporate contextual vulnerability, this could link the knowledge at community level to both practitioners and government. Another example is the work by the national DRR Forum to create and activate the DRR fora at district level. A pilot project forms community committees in selected districts in KP and facilitates meetings with the district authorities to discuss priorities in development investments. This could be a strong tool to make local governments and organisations accountable to communities. If these measures are to be possible, however, donors and central offices of both organisations and government need to set aside political rivalries and open up processes that are more locally determined. Without such processes, it is difficult for governments to execute and implement effective longer-term DRR strategies, and difficult for communities to adapt to climate change.

8 Conclusions

Our findings show that most responses to disasters in the study areas focus on vulnerability to hazards, or outcome vulnerability. While these responses may be important contributions to protecting populations physically in the short term, they are neither sustainable nor transformational in terms of reducing the drivers of vulnerability in society. Contextual vulnerability, or attention to the drivers of vulnerability, are seldom considered by government, humanitarian or development actors. This was evident in both the choice of activities themselves, and the risk and needs assessments studied. Our findings also show that despite the rich knowledge of drivers of vulnerability at the local level, this is not systematically incorporated into the decision-making processes of the government, humanitarian and development organisations when designing mitigation and adaptation activities. Where participatory methods are used, they are not used to discover social difference and vulnerability between members of communities. We found that this was due to a lack of understanding of the significance of social vulnerability by most of the actors, a lack of knowledge sharing between actors, and political power relations in humanitarian and development assistance which privileges knowledge bases at the national and international levels. The consequences of not considering the different ways in which people are vulnerable is that activities will strengthen existing inequalities, and vulnerability will in fact increase precisely for those people who are the most disadvantaged.

In light of these findings, we recommend the inclusion of social vulnerability into risk and needs assessments at all levels, and that these assessments are truly participatory in the sense that a broad range of village women and men from different social, economic and ethnic backgrounds are able to share their knowledge effectively. We also recommend that fora where government, humanitarian, development and research actors can share knowledge take place not only at the national level, but at the district level, such that there is both better coordination and more participation by community members. Finally, we recommend that donors re-examine their top-down mechanisms of funding such that participatory processes of planning and implementation are indeed possible. This includes a shift in focus from contracting to competence-building of local government and communities in designing and implementing activities that directly affect their lives.

Notes

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References

- ADB and World Bank (2010) *Pakistan Floods 2010: Preliminary Damages and Needs Assessment*, Islamabad: Asian Development Bank and World Bank, http://reliefweb.int/sites/reliefweb.int/files/resources/64AE3DC5BEDA4E18492577DA001FBE55-Full_Report.pdf (accessed 19 April 2017)
- Caribbean Development Bank and CARICOM (2009) *Sourcebook on the Integration of Natural Hazards into the Environmental Impact Assessment Process*, Disaster Mitigation Facility for the Caribbean (DMFC), Adaptation to Climate Change in the Caribbean (ACCC) Project, <http://wedocs.unep.org/handle/20.500.11822/8516> (accessed 5 June 2017)
- Christoplos, I.; Mitchell, J. and Liljelund, A. (2001) 'Re-Framing Risk: The Changing Context of Disaster Mitigation and Preparedness', *Disasters* 25.3: 185–98
- Eakin, H.; Lemos, M.C. and Nelson, D. (2014) 'Differentiating Capacities as a Means to Sustainable Climate Change Adaptation', *Global Environmental Change* 27: 1–8
- Elahi, N.; Nyborg, I. and Nawab, B. (2015) 'Participatory Development Practices: A Critical Analysis of Gender Empowerment and Development in Pre- and Post-Crises Swat, Pakistan', *Forum for Development Studies* 42.2: 333–56
- Eriksen, S. and Lind, J. (2009) 'Adaptation as a Political Process: Adjusting to Drought and Conflict in Kenya's Drylands', *Environmental Management* 43: 817–35
- Eriksen, S.; Brown, K. and Kelly, P.M. (2005) 'The Dynamics of Vulnerability: Locating Coping Strategies in Kenya and Tanzania', *Geographical Journal* 171.4: 287–305
- Eriksen, S.; Nightingale, A.J. and Eakin, H. (2015) 'Reframing Adaptation: The Political Nature of Climate Change Adaptation', *Global Environmental Change* 35: 523–33
- Government of Pakistan (2013) *National Disaster Risk Reduction Policy*, Islamabad: Ministry of Climate Change, National Disaster Management Authority
- IFRC (n.d.) *Vulnerability and Capability Assessment Guidelines*, International Federation of Red Cross and Red Crescent Societies, www.ifrc.org/Global/Publications/disasters/vca/Vca_en.pdf (accessed 18 April 2017)
- IPCC (2012) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*, C.B. Field et al. (eds), Cambridge and New York NY: Cambridge University Press
- IRP (2017) *Glossary*, International Recovery Platform, www.recoveryplatform.org/resources/glossary/D (accessed 6 June 2017)
- Khalid, A.; Nyborg, I. and Nawab, B. (2015) 'Whose Property Whose Authority? Gendering the Legal and Customary Practices in Ownership and Access to Land: A Case of Swat, Pakistan', *Journal of Rural Studies* 41: 47–58

- Khan, K.; Shanmugaratnam, N. and Nyborg, I. (2015) 'Recovering from Disasters: A Study of Livelihoods in Post-Quake Villages in Northern Pakistan', *Disasters* 39.2: 339–61
- Noragric, CIIT and NORCROSS (2014) 'How Can Humanitarian Actors Contribute to Climate Change Adaptation? Exploring Innovative Approaches to Thinking Long-Term in the Short Term', workshop held by Noragric, Norwegian University of Life Sciences; COMSATS Institute of Information Technology; and Norwegian Red Cross, Pakistan, Islamabad, 21 November
- Nyborg, I.; Nawab, B.; Khan, K. and Ali, J. (2012) *Rural Development in Swat, Pakistan: Understanding Food and Livelihood Security in Post-Conflict Contexts*, Noragric Report 62, Aas: Department of International Environment and Development Studies, Noragric, Norwegian University of Life Sciences
- O'Brien, K.; Eriksen, S.; Inderberg, T.H. and Sygna, L. (2015) 'Climate Change and Development: Adaptation through Transformation', in T.H. Inderberg, S. Eriksen, K. O'Brien and L. Sygna (eds), *Climate Change Adaptation and Development: Transforming Paradigms and Practices*, London: Routledge
- O'Brien, K.; Eriksen, S.; Sygaard, L.P. and Schjolden, A. (2007) 'Why Different Interpretations of Vulnerability Matter in Climate Change Discourses', *Climate Policy* 7.1: 73–88
- Polastro, R.; Nagrah, A.; Steen, N. and Zafar, F. (2011) *Inter-Agency Real Time Evaluation of the Humanitarian Response to Pakistan's 2010 Flood Crises*, Madrid: Development Assistance Research Associates (DARA)
- Reed, M.S. (2008) 'Stakeholder Participation for Environmental Management: A Literature Review', *Biological Conservation* 141: 2417–31
- Reed, M.S. et al. (2013) 'Combining Analytical Frameworks to Assess Livelihood Vulnerability to Climate Change and Analyse Adaption Options', *Ecological Economics* 94: 66–77
- Schipper, L. and Pelling, M. (2006) 'Disaster Risk, Climate Change and International Development: Scope for, and Challenges to, Integration', *Disasters* 30.1: 19–38
- Swati, J.M. (2015) 'The Profile of Disaster Risk of Pakistan and Institutional Response', *Emergency and Disaster Reports* 2.1: 2–55
- Tanner, T. and Allouche, J. (2011) 'Towards a New Political Economy of Climate Change and Development', *IDS Bulletin* 42.3: 1–14, <http://bulletin.ids.ac.uk/idsbo/article/view/406> (accessed 7 June 2017)
- Taylor, M. (2013) 'Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments', *Climate and Development* 5.4: 318–27
- Thomalla, T.; Downing, T.; Spanger-Springfield, E.H.G. and Rockström, J. (2006) 'Reducing Hazard Vulnerability: Towards a Common Approach between Disaster Risk Reduction and Climate Adaptation', *Disasters* 30: 39–48
- Thomas, A. (2014) 'Rising Water, Broken Lives: Experience from Pakistan and Colombia Floods Suggests New Approaches are Needed', in S. Martin, S. Weerasinghe and A. Taylor (eds), *Humanitarian Crises and Migration: Causes, Consequences and Responses*, London: Routledge

- Turner, B.L *et al.* (2003) 'A Framework for Vulnerability Analysis in Sustainability Science', *PNAS* 100.14: 8074–79
- UNDP (2011) *Human Development Report. Sustainability and Equity: A Better Future for All*, New York NY: United Nations Development Programme
- UNICEF (2012) *Pakistan Update – 2011 Floods: Early Recovery in Sindh and Baluchistan*, Islamabad: United Nations Children's Fund
- UNISDR (2017) *Terminology*, United Nations International Strategy for Disaster Risk Reduction, www.unisdr.org/we/inform/terminology (accessed 15 May 2017)
- UNOCHA (2017) *Total Reported Funding*, United Nations Office for the Coordination of Humanitarian Affairs, <https://fts.unocha.org/global-funding/overview/2017> (accessed 19 April 2017)
- US Department of State (2012) *Pakistan: Humanitarian Crises in 2011 – Natural Disasters: Sindh /Baluchistan Flash Floods*, Humanitarian Information Unit, <http://reliefweb.int/map/pakistan/pakistan-humanitarian-crises-2011-sindhbalochistan-flash-floods-25-jan-2012> (accessed 30 May 2017)

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