# **ADDRESSING INEQUALITIES**

The Heart of the Post-2015 Development Agenda and the Future We Want for All Global Thematic Consultation

# Disability and disasters: The importance of an inclusive approach to vulnerability and social capital

Fred Smith, Emma Jolley and Elena Schmidt Sightsavers October, 2012

DISCLAIMER: The findings, interpretations and conclusions expressed in this paper are those of the authors and do not necessarily reflect the policies or views of UN Women, UNICEF or the United Nations.

# Disability and disasters: The importance of an inclusive approach to vulnerability and social capital

Fred Smith<sup>1;</sup> Emma Jolley<sup>1</sup> and Elena Schmidt<sup>1</sup>

<sup>1</sup>Sightsavers

Correspondence to Fred Smith: fsmith@sightsavers.org

#### **Abstract**

This paper outlines the importance of applying a structural approach to vulnerability to disasters and presents evidence on the relationship between disability and disaster-related risks in low and middle income countries. The paper is based on a comprehensive literature review of primary research and identifies four groups of structural factors acting as the pathways to increased vulnerability and inequality: (a) a lack of information and knowledge of disability issues among governments and relief organisations; (b) exclusion of persons with disabilities from disaster management and relief; (c) inaccessibility of physical environments, preparedness measures, shelters and relief aid; and (d) stigma and discrimination. It is followed by evidence of the benefits of disability-inclusive approaches in resource-poor settings. Recommendations arising from the synthesis of evidence and disaster-risk management tools described in the literature emphasise the importance of an inclusive approach; strengthening information systems and building the capacity of disabled people's organisations and networks. The paper concludes by stressing the importance of a disability-inclusive focus in the post-2015 development framework without which addressing structural inequalities, social exclusion and the rights of persons with disabilities in the disaster context will remain challenging.

#### 1. Introduction

Vulnerability to environmental hazards is shaped by both individual and structural determinants; the latter include social, political, economic and cultural contexts within which hazards occur, and which can either mitigate or exacerbate personal and community vulnerabilities. Factors commonly associated with increased vulnerability to hazards include poverty, limited access to political power; poor knowledge and information; a lack of social networks and disability-related limitations (Cutter, 2001; Tierney, Lindell & Perry, 2001; Putnam, 2000; Wisner, Blaikie, Cannon, & Davis, 2004).

Disability is a complex, dynamic and multidimensional concept (WHO, 2011), which includes the multitude of barriers persons with disabilities face in accessing services and community assets (Kett & Twigg, 2007). For the purpose of this paper, persons with disabilities refers to persons with physical or sensory impairments which limit their day to day activity. We excluded mental health impairments as the relationship between mental health and disasters, particularly post-disasters, is a separate research area (Priestley and Hemingway, 2007).

Although there is a general agreement that people with disabilities are disproportionately affected by disasters (Morrow, 1999; Tobin & Ollenburger, 1993; Wisner et al., 2004), little evidence exists on the pathways leading to their increased vulnerability and on the impact of approaches reducing disaster related risk in this particular group. Programmatic interventions based on the social model of disability (Oliver, 1990; UNCRPD, 2006) and the structural approach to disaster management (Wisner, et al., 2004) help expose the social, political, economic and cultural barriers persons with disabilities face, and address disability-driven vulnerability from human rights and development perspectives (United Nations, 2011). However limited knowledge of the pathways to vulnerability and the risk attributed to different aspects of disability limits our understanding of what inclusive risk management programmes are and how they should be implemented to mitigate the impact of disasters on persons with disabilities (Mitra, 2005).

There is an agreement on the relationship between disability and disaster vulnerability regardless of the context in which people live. However, people with disabilities in resource-poor countries are hit the hardest as their vulnerability is determined by conditions linked to their disability and by other structural risks common for poorer settings, such as high levels of poverty, poor sanitation, low levels of education, limited resources for health and social care and a lack of safety nets (Kett & Twigg, 2007). Hazards quickly become disasters for persons with disabilities in low and middle income countries. Disasters can rob persons with disabilities of their social capital, by disrupting or destroying vital social support systems (Priestley &

Hemingway, 2007). Some disasters also create a significant number of new disabilities (Kett & Twigg, 2007).

This paper reviews evidence of the structural inequalities that persons with disabilities face in disaster situations in low and middle income countries. We first identify the structural factors that can increase the vulnerability of persons with disabilities to the adverse impact of hazards and discuss the pathways through which these increased risks occur; we then discuss the available evidence of the benefits of disability-inclusive approaches in resource-poor settings.

#### 2. Methods

A comprehensive literature search was conducted in a range of health and development databases – Science Direct, Scopus, Medline, FirstSearch and ELDIS – using combinations of the words 'disability', 'disaster' and 'risk reduction' as well as their thesaurus variants. Sources were included if they reported primary research on the effects of disasters on people with physical or sensory disabilities; on the approaches and benefits of a specific programme or intervention designed to mitigate disasters; applied to low and middle income countries, as defined by the World Bank (2012); and were published in the English language. The websites and online libraries of over 20 international and non-governmental organisations (NGOs) that work in the fields of disaster risk reduction (DRR) or disability-inclusive development were also searched for literature meeting these criteria. Data were extracted and analysed using narrative synthesis approaches (Lucas, Baird, Arai, Law, & Roberts, 2007; Rodgers et al., 2009); for the purpose of this paper we did not extract any numerical data on the magnitude of associated risk or intervention effect because very few sources reported quantitative measures and because meta-analysis of quantitative data was beyond the scope of this review.

Toolkits, which outline a range of risk reduction strategies but do not report empirical evidence on their application have been excluded from the data synthesis. However, we have utilised these toolkits in the Discussion session in the context of our recommendations linked to the post-2015 framework.

#### 3. Results

The search of published literature identified four papers that met the inclusion criteria outlined above. The search of grey literature yielded a further six sources that met the inclusion criteria. Of the ten sources reporting evidence, five presented qualitative results of interviews and group discussions with affected populations and five presented both quantitative and qualitative data from surveys and interviews. Four of the sources report evidence of inequality

in disasters (Centre for Services and Information on Disability [CSID], 2002; Duyan & Karatas, 2005; Priestley & Hemingway, 2007; Sullivan & Hakkinnen, 2011), two report evidence of inclusive approaches to DRR (Centre for Disability in Development [CDD], 2011; Pacific Disability Forum, 2011), and four others report evidence of both inequality and inclusive approaches (Kett, Stubbs & Yeo, 2005; International Disability Rights Monitor [IDRM] 2005; Priestley & Hemingway, 2006; World Bank, 2010).

#### 3.1. Evidence of inequality

Evidence of disability-related inequalities in the disaster situations were grouped around four themes, (a) availability of disability-related information and knowledge; (b) participation of persons with disabilities in disaster management and relief aid processes; (c) accessibility of physical environments, preparedness measures, and relief aid; and (d) stigma and discrimination.

#### 3.1.1. Information and knowledge

Paucity of information is the first inequality factor identified in this paper. The lack of knowledge on people with disabilities and their needs was reported in four sources included in this review. Kett et al. (2005) described how a lack of statistical data on people with disability undermined the responsiveness of services following the 2004 Asian tsunami. Due to poor information systems not only were the number of persons with disabilities affected unknown, but the range of disabilities faced were not understood which led to all persons with disabilities being treated as one group, rather than accounting for the myriad of barriers each specific individual or sub-group of individuals faced (Kett et al., 2005). Similar situations were described by the International Disability Rights Monitor (IDRM, 2005) in India and Indonesia. In India the 2001 Census preceding the tsunami did not accurately reflect disability as enumerators did not fully address disability issues, resulting in inaccurate national figures available for planning. In Indonesia interviews with government officials at different levels revealed that there was no information on the number of persons with disabilities or where they lived either before or after the tsunami; and many interviewees believed that very few persons with disabilities had made it to shelters (IDRM, 2005). Water officials in Sri Lanka stated that according to their records only 1% of the national population was disabled, therefore water supply for people with disability should not be a major priority (Kett et al., 2005). A survey conducted with persons with disabilities and their families in coastal areas of Bangladesh revealed that 99% of respondents experienced 'major problems' at the time of disasters as a lack of information on disability-related needs had prevented any specific measures being taken and had consistently left persons with disabilities and their families behind (CSID, 2002, p. 34).

Even where attempts to collate information on persons with disabilities have been made the inaccuracy of this information has had negative impacts. In both Thailand and India, official registration systems recorded lower numbers of persons with disabilities, but the aid distribution mechanisms were based on official information systems. As a result the vast numbers of persons with disabilities who were not registered or did not have a fixed residential address were excluded from receiving aid or assistive devices (IDRM, 2005).

Duyan and Karatas (2005) emphasise the lack of research into the effects of disasters on people with disabilities. For example, their analysis of the response to the 1999 Marmara earthquake in Turkey showed that although major efforts were made to assess the effects of the disaster on the general population, no research studies focused specifically on persons with disabilities; the only study conducted was their own with an association for people with blindness.

#### 3.1.2. Participation in disaster management

The lack of knowledge about disability is intrinsically linked to the exclusion of people with disabilities from disaster management planning. A number of authors reported that persons with disabilities and their organisations are rarely involved in any stage of disaster management, and their potential value in helping shape inclusive policies is largely ignored (Kett et al., 2005). As a result persons with disabilities remain an afterthought in emergency response. The CSID (2002) reports that most implementing organisations in Bangladesh have little understanding of disability issues, whilst the IDRM (2005) found that inclusive approaches were only taken where government officials had a personal interest in disability.

Exclusion of persons with disabilities from disaster response efforts highlights a worrying gap between policy and implementation. Thus, many international relief organisations were known to have inclusive policies prior to the tsunami, but both Kett et al. (2005) and the IDRM (2005) found that persons with disabilities were barely included in either disaster management planning or delivery. Where organisations were confronted with persons with disabilities they tended to refer them on to 'specialist' agencies (Kett et al., 2005, p. 7). In India, the IDRM (2005) notes that there is no evidence that the guidelines for ensuring inclusion of people with disabilities were ever implemented, whilst in Indonesia relief plans specific for persons with disabilities were not discussed at several meetings between co-ordinating officials and relief agencies. When disability issues were eventually raised in Indonesia, co-ordinating agencies decided that they could not prioritise providing assistive devices as they lacked the necessary knowledge and an implementing partner with the relevant expertise (IDRM, 2005). The CSID

(2002) notes that while the progression of participatory DRR in Bangladesh has been welcome, disability issues remained neglected and were not acknowledged as a development issue.

Kett et al. (2005) highlighted further that exclusion of people with disabilities from the disaster management processes led to their further exclusion at the time of post-tsunami reconstruction; and even in the environments where there are resources to rebuild effectively, persons with disabilities still face immense barriers to inclusion resulting in slow, ineffective or non-existent relief for this particular group (Kett et al., 2005).

# 3.1.3. Physical inaccessibility

Limited knowledge about disability and exclusion of people with disabilities from disaster management processes result in inadequate access for people with disabilities to community assets, and systems designed to protect or support citizens during disasters. Disaster preparedness measures, early warning systems and physical infrastructure, such as shelters, do not take account of the physical and other needs of people with disabilities who may need to access them (IDRM, 2005).

Sullivan & Hakkinnen (2011) argued that key messages regarding warnings and evacuation measures are often not accessible to people with sensory disabilities, if they exist at all. Many authors note that even in the environments where formal accessibility policies are in place, their implementation in practice varies and benefits for people with disabilities are limited. Many shelters and facilities are overcrowded and physically inaccessible. For example, Priestley and Hemingway (2006) studied tsunami affected countries and reported that despite existing guidance on accessible shelters, wheelchair users and people with sensory disabilities had great difficulties accessing and living within them. In Sri Lanka, despite specific policies on accessible sanitation, latrines were constructed inaccessibly, 'several feet off the ground' with no ramp access (Kett et al., 2005, p. 7); an assessment of five temporary living centres in Aceh Barat found no accessible measures, there were only three latrines for 5000 displaced people that were all inaccessible for persons with disabilities (IDRM, 2005). In Bangladesh, families of people with disabilities reported that the cyclone shelters in coastal areas are unsafe, particularly for women and especially women with disabilities, who are vulnerable to abuse. The difficulties faced by persons with disabilities in getting to and staying in shelters combined with the high probability of crime and looting of abandoned houses forced many families to avoid shelters. Thus 55% of persons with disabilities participating in the Bangladesh survey said they had stayed at home during hazards, leaving themselves highly vulnerable to disasters (CSID, 2002).

Given that many other forms of relief aid, such as food packages, medical supplies, education and training materials, are often distributed through shelters, inaccessibility of shelters for persons with disabilities result in their exclusion from these vital relief and rehabilitation services. In Indonesia and Thailand, daily food and water rations were regularly supplied through displacement camps that were inaccessible to persons with disabilities (IDRM, 2005). In Bangladesh, adults with physical disabilities reported the problem of being expected to stand in long queues waiting for food and water. This often led to the dilemma of sending a child to collect a smaller amount of rations or asking a neighbour to collect relief who would charge a commission; in either case a family with persons with disabilities received an unequal share of the available relief (CSID, 2002). The same study found other examples of alarming disparities in resource distribution. For example, 30% of the non-disabled community previously received clothes and bedding, compared to only 2% of persons with disabilities; and 12% of the overall community received cash grants compared to just 1% of persons with disabilities (CSID 2002). To what extent this poor use of available help was determined by the lack of awareness and physical inaccessibility and to what extent by deliberate exclusion and discrimination of people with disability by other community members remains unknown.

# 3.1.4. Stigma and discrimination

Poor relationships within communities showed to be another significant determinant of inequalities for persons with disabilities. A number of authors reported that in many low and middle income countries the stigma associated with disability assigns inferior or no value to people with disabilities and leads to the denial of basic rights and services to this population group, especially in the disaster context where there is a scarcity of resources and the prevalent structural inadequacies and discrimination are ruthlessly exposed (Priestley & Hemingway, 2007).

Kett et al. (2005) refer to the case of the Sambhodi residential home in Sri Lanka, where some informants suggested between 40 and 50 persons with disability died during the tsunami because they were 'hidden from the rest of society,' despite this being an accessible facility (Kett et al., 2005, p. 18). Stigma around disability was also reported in Bangladesh. The CSID survey data collectors encountered great difficulty in accessing persons with disabilities, because many, especially women and children, were hard to reach due to stigma around disability. Social stigma often causes a reluctance of persons with disabilities to identify themselves as 'disabled' which worsens their own plight in the disaster context, and further enhances the false impression that there are not many persons with disabilities (Kett et al., 2005). The CSID (2002) survey in Bangladesh found that 16% of the participants felt they were a burden to their community, although no one in the local community admitted negative

attitudes towards disability. This could reflect prevalent social norms not to talk openly about disability or unawareness of disability in the local community.

The same study highlighted other forms of discrimination of people with disability, particularly in access to education. Only 17% of persons with disabilities participating in the survey had primary level education (CSID 2002). Kett et al. (2005) reported discrimination in the form of human rights abuses in Sri Lanka, where persons with disabilities were prevented from accessing shelters and relief because of their disability. Within camps people with disabilities were mocked and abused (Kett et al., 2005). In shelters in Bangladesh families with persons with severe disabilities experienced abuse because their relative was unable to use the inaccessible sanitation facilities (CSID, 2002).

# 3.2. Evidence of inclusive DRR approaches

Inclusive DRR approaches recognise the increased vulnerability of people with disabilities to disasters and account for and include persons with disabilities in risk management processes. Although a number of papers included in this review were critical of the relief strategies undertaken in the contexts they studied on the ground of low levels of inclusivity of people with disability, several examples of disability-inclusive DRR approaches were highlighted.

In India, the development NGO Sanghamam recruited persons with disabilities as part of their implementing teams, which has raised the status of persons with disabilities in their communities. International NGO Action Aid was also noted for its work in India earmarking 10% of all relief resources available to persons with disabilities, and implementing inclusive training and capacity building materials (Kett et al., 2005). Social Education for Development – a partner of Action Aid in the Kanyakumari district in Tamil Nadu – was noted for its community based rehabilitation (CBR) programme. It was one of the very few NGOs to work with the government to implement education, livelihood and awareness training for people with disabilities, although it was not reported if this was exclusively for persons with disabilities or a wider community initiative (IDRM, 2005). Similar approaches of targeted aid were documented by Priestley and Hemingway (2006) in response to the Asian tsunami, who noted that several organisations including Disabled People's International established funds that looked to channel support to persons with disabilities, and the wider disability movement was able to exploit internet contacts to identify requests from disabled people's organisations (DPOs).

In Indonesia the International Federation of Red Cross (IFRC)'s choice of a football stadium in Banda Aceh to distribute food and water proved to be far more inclusive than shelters, as it was

familiar to the community and promoted accessibly through radio broadcasts and posters in the town (IDRM, 2005).

The World Bank earthquake disability project in Pakistan took an integrated approach to reducing vulnerability and poverty of several marginalised groups by attempting to fill gaps in services for persons with disabilities. The project targeted capacity building of DPOs and networks to ensure they are able to support persons with disabilities, and can work alongside the government to progress a CBR model. Effectiveness was measured through the number of people accessing services financed by the project – with a target of reaching 25% of the beneficiary population. Upon project completion, 54% had joined community organisations, and 64% had taken part in economic and social activities. Beneficiaries also indicated that the inclusive nature of the project has ensured a greater understanding of disability issues across the broader community (World Bank, 2010).

The benefits of working with persons with disabilities are also demonstrated by an inclusive DRR project run by the Centre for Disability in Development [CDD] (2011) in Gaibandha, Bangladesh. The project started by conducting a study to identify the development context and the effects of previous disasters on persons with disabilities; it was followed by a number of changes aiming at more inclusive approaches to DRR. Local disaster management committees have been established each with representatives with disabilities. Awareness raising and preparedness measures have been introduced through training, evacuation drills, community meetings and theatre, street stands and posters. An accessible rescue boat has been constructed with the input of persons with disabilities and several houses and schools have been rebuilt above flood levels. Family members and neighbours have received training in appropriate evacuation and rescue for persons with disabilities, who have also engaged in appropriate livelihood training and received small grants to start businesses. The resilience of persons with disabilities has been increased, along with the whole community, who have worked together to identify appropriate and inclusive DRR measures.

A similar participatory method has been conducted in an AUSAID and Pacific Disability Forum (2011) project in Fiji. Workshops were held with the leaders of 20 DPOs and government and NGO representatives to raise awareness of current best practice in DRR and to identify opportunities to include persons with disabilities. DPO representatives were able to recount past experiences of disasters to highlight the barriers they have faced. By bringing all of the relevant stakeholders together the workshops identified current government and NGO processes that are not inclusive and highlighted the need to develop systems to ensure accurate data on persons with disabilities is made available.

#### 4. Discussion and conclusions

This paper reviewed primary research on the links between disability and vulnerability to environmental hazards and on the approaches to inclusive DRR in low and middle income countries. The review synthesises evidence on the specific pathways through which people with disability become the most marginalised and vulnerable to the risk and impact of disasters and demonstrates a range of inequalities affecting persons with disabilities before, during and after the adverse environmental events.

The review identified four sets of structural factors, which increase persons with disabilities' vulnerability and increase social inequalities in the disaster context. These include a lack of information and knowledge about people with disabilities and their needs; exclusion of people with disabilities from disaster management processes; limited access to protection and relief systems; and stigma and discrimination. The above evidence confirms that the social construction of disasters is particularly relevant for persons with disabilities living in resource-poor countries but suggests there is still a significant gap between policy and implementation of inclusive DRR in these settings. A few cases where inclusion-focused policies are thought to be working show that using participatory methods to work with persons with disabilities and strengthening the social capital of vulnerable people are crucial.

Our conclusions are consistent with other literature on risks and vulnerability, which stressed that vulnerability is a development issue (Pelling, 2003) and vulnerable people should not be viewed as victims, but actors whose choices in daily life shape their resilience (Cannon, 2008). Therefore working with vulnerable people to identify existing risks and opportunities to strengthen resilience is essential (Priestley & Hemingway, 2007; van Aalst et al., 2008). We agree with the authors that suggest that participatory methods can help expose the interconnections between DRR, poverty reduction and climate change adaptation strategies and highlight the importance of implementing an integrated approach to disaster management (Schipper & Pelling, 2006). The strengthening of DPOs and social networks is also vital for addressing structural inequalities and for achieving vulnerability reduction through disabilityinclusive DRR and long term development (IDRM, 2005). However, in line with other scholars we agree that the problem of who exactly implements development initiatives and the complexities of community as the location where development takes place remain huge challenges to achieving effective vulnerability reduction and long term development (Cannon, 2008). This paper has identified some of the key structural inequalities that shape vulnerability of people with disability, but it must also be noted that there are broader structural factors within the national and international political economy that create vulnerability in resourcepoor countries. Similarly to other scholars we acknowledge that for many people living in these

contexts, the challenges of everyday survival, and not inclusive or even any form of DRR, is the only priority (van Aalst et al., 2008). This review focused on empirical evidence of disability-related risks and benefits of the inclusive DRR approaches. The limited number of sources identified and even fewer reporting quantifiable measures of risk and effect highlight a need to expand primary research on the relationship between disability and disaster—related risk and the effectiveness and sustainability of inclusive DRR approaches.

A number of recommendations outlined and discussed below are based on the evidence synthesised in this review and a range of strategies highlighted in other DRR tools identified through the literature search (CSID, 2002; IDRM, 2005; Kett et al., 2005; Schipper & Pelling, 2006; Kett & Twigg, 2007; Priestley & Hemingway, 2007; Cannon, 2008; Women's Refugee Commission, 2008; Handicap International, 2009; WHO, 2010; Pacific Disability Forum, 2011; Sullivan & Hakkinnen, 2011).

- 1. Target persons with disabilities in disaster relief, agree a minimum standard for disability inclusive relief, provide training to relief workers and include disability audits in all evaluations. Persons with disabilities are often the most vulnerable to disasters. Relief agencies should therefore seek out and target their inclusion in relief programmes, and where necessary prioritise their needs. Existing guidelines need to be adapted to include specific standards for ensuring disability inclusive emergency response. This includes allocating adequate funding for persons with disabilities, constructing or redesigning accessible shelters and camps, considering how aid can be distributed accessibly and the ordering and replacement of vital assistive devices. Disability awareness training is also required for all relief workers, to ensure persons with disabilities are not excluded from vital relief. DPOs should be targeted by major relief organisations to help train their field workers in disability issues. All relevant assessments and evaluations should then include audits dedicated to persons with disabilities, and how the impact of relief can be monitored in the long term.
- 2. Strengthen national information systems and use participatory vulnerability and capacity assessments to collate information on persons with disabilities and to identify existing risks. It is vital to develop a greater understanding of the number of persons with disabilities within each community. By collating information on persons with disabilities, their locations, and specific needs, community registers can be developed to ensure that DPOs and officials understand where persons with disabilities live, and how they may need to be assisted in a disaster. Such methods can also be used to collect information to help design accessible preparedness measures and address other changes within the community, as well as highlighting ways persons with disabilities and

- their families can take precautions and prepare in their own homes, for example by storing assistive devices, medicines and preparedness information sheets.
- 3. Strengthen the capacity and resources of DPOs and actively involve them in all stages of disaster management. DPOs acting as partners in the disaster process can help to shape preparedness measures, distribute relief and plan accessible and inclusive reconstruction. DPOs can then represent persons with disabilities, and work for a more inclusive approach in communities, amongst NGOs and in government. DPOs do not just have a significant role to play in disasters, but the wider development context. DPOs have the potential to promote inclusive and development policies, work within communities to raise awareness of disability-issues and work alongside governments to address existing inequalities. DPOs should also develop networks with other community organisations to work together to identify and address discrimination.
- 4. <u>Design and implement accessible and inclusive warning systems, information and physical support systems.</u> Participatory methods should be used to work with persons with disabilities to design key warnings, training materials and evacuation plans, which must be easy to understand under stress, and available in several accessible formats, including audio and visual. Rebuilding the physical environment from public buildings, to homes and shelters must be done accessibly, to remove previous physical barriers and ensure new ones are not established. The input of persons with disabilities and DPOs should again be sought, to ensure their expertise is included in design.
- 5. Raise awareness of disability issues within communities and identify local champions. Target families and community networks. In order to address existing levels of discrimination community awareness raising measures are required to mobilise communities to be receptive to the needs of persons with disabilities, both during disasters and within society. Identifying local champion policymakers, officials or well respected figures is an effective way of raising awareness across wider communities. Many persons with disabilities rely on the support provided by their families, neighbours and community members, so to increase the resilience of persons with disabilities their primary caregivers, families and support networks should be targeted by DPOs with awareness raising and training measures.
- 6. Advocate for the rights of persons with disabilities at all levels. In order to achieve these rights DPOs and the wider international community must advocate governments, local, national and international policymakers to introduce inclusive development measures, and to respect, promote and protect the rights of persons with disabilities.

States should ratify the UNCRPD and implement and monitor all of the Articles of the Convention, including Article 11 on Situations of risk and humanitarian emergencies.

The evidence of the relationship between disability and vulnerability to disasters and the opportunities created by inclusion-focused approaches further underline why it is crucial that the post-2015 agenda calls for the full recognition of persons with disabilities and their needs in all development initiatives. Advocating for disability-inclusive policies, effective delivery of disability-focused programmes and rigorous impact evaluations are critical to begin addressing inequalities experienced by persons with disabilities in low and middle income countries. The explicit inclusion of persons with disabilities in the post-2015 development framework would be a promising start.

#### References:

- Cannon, T. (2008). Reducing people's vulnerability to natural hazards: communities and resilience. United Nations University. UNU-WIDER Research Paper 34, Helsinki. Retrieved from: <a href="http://www.wider.unu.edu/publications/working-papers/research-papers/2008/en\_GB/rp2008-34/">http://www.wider.unu.edu/publications/working-papers/research-papers/2008/en\_GB/rp2008-34/</a>
- Centre for Disability in Development (2011). *Project Experience. Disability inclusive Disaster Risk Reduction project*. Dhaka: Centre for Disability in Development. Retrieved from: <a href="http://ebookbrowse.com/gdoc.php?id=377698370&url=db40d5de87db76e7a755e07436c54621">http://ebookbrowse.com/gdoc.php?id=377698370&url=db40d5de87db76e7a755e07436c54621</a>
- CSID (2002). *Unveiling Darkness: the Situation Analysis on Disaster and Disability Issues in the Coastal Belt of Bangladesh.* Dhaka: Centre for Services and Information on Disability. Retrieved from: <a href="http://www.csid-bd.org/research/research01.pdf">http://www.csid-bd.org/research/research01.pdf</a>
- Cutter, S. (2001). *American Hazardscapes: The Regionalization of Hazards and Disasters.*Washington, D.C.: Joseph Henry Press.
- Duyan, V., & Karatas, K. (2005). Effects of the 1999 earthquake on the completely blind living in and outside Marmara, Turkey. *International Social Work,* 48 (5), 609-619. doi:10.1177/0020872805055325
- Handicap International (2009). *Mainstreaming Disability into Disaster Risk Reduction: A Training Manual*. Kathmandu: Handicap International. Retrieved from: <a href="http://www.handicap-international.fr/fileadmin/documents/publications/DisasterRiskReduc.pdf">http://www.handicap-international.fr/fileadmin/documents/publications/DisasterRiskReduc.pdf</a>
- International Disability Rights Monitor (2005). *Disability and Early Tsunami Relief Efforts in India, Indonesia and Thailand*. Chicago: International Disability Network / Center for International Rehabilitation. Retrieved from:

  http://www.ideanet.org/cir/uploads/File/TsunamiReport.pdf
- Kett, M., Stubbs, S., & Yeo, R. (2005). Disability in Conflict and Emergency Situations: Focus on Tsunami-affected Areas. Woking: International Disability and Development Consortium. Retrieved from:
  <a href="http://www.iddcconsortium.net/joomla/images/IDDC/emergency/kar\_tsunami\_%20pa\_per\_05.pdf">http://www.iddcconsortium.net/joomla/images/IDDC/emergency/kar\_tsunami\_%20pa\_per\_05.pdf</a>
- Kett, M., & Twigg, J. (2007) Disability and disasters: towards an inclusive approach. In IFRC, World Disasters Report. Focus on Discrimination (pp. 86-111). Geneva: IFRC. Retrieved from: http://www.ifrc.org/Global/Publications/disasters/WDR/WDR2007-English.pdf

- Lucas, P. J., Baird, J., Arai, L., Law, C., & Roberts, H. M. (2007). Worked examples of alternative methods for the synthesis of qualitative and quantitative research in systematic reviews. BMC Medical Research Methodology, 7 (4), 1-7. doi:10.1186/1471-2288-7-4
- Mitra, S. (2005). *Disability and Social Safety Nets in Developing Countries*. Social Protection Discussion Paper Series. No. 0509. Washington, D.C.: World Bank. Retrieved from: <a href="http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/0509.pdf">http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/0509.pdf</a>
- Morrow, B. H. (1999). Identifying and Mapping Community Vulnerability. *Disasters*, 23 (1), 11–18. Retrieved from: <a href="http://onlinelibrary.wiley.com/doi/10.1111/1467-7717.00102/pdf">http://onlinelibrary.wiley.com/doi/10.1111/1467-7717.00102/pdf</a>
- Oliver, M. (1990). The politics of disablement. Basingstoke: Macmillan.
- Pacific Disability Forum (2011). Disability Inclusiveness in Disaster and Risk Reduction Mgt in Fiji.

  Progress Report to AUSAID. Retrieved from:

  <a href="http://www.ausaid.gov.au/countries/pacific/fiji/Documents/disaster-preparedness-monitoring-disability.pdf">http://www.ausaid.gov.au/countries/pacific/fiji/Documents/disaster-preparedness-monitoring-disability.pdf</a>
- Pelling, M. (2003). Toward a political ecology of urban environmental risk: The case of Guyana. In K.S. Zimmerman & T.J. Bassett (Eds.), *Political Ecology: An Integrative Approach to Geography and Environment-Development Studies*, (pp. 73-93). New York: Guildford Press
- Priestley, M., & Hemingway, L. (2006). Natural Hazards, Human Vulnerability and Disabling Societies: A Disaster for Disabled People? *The Review of Disability Studies: An International Journal*, 2 (3), 57-68. Retrieved from: http://www.rds.hawaii.edu/downloads/issues/pdf/RDS02032006.pdf
- Priestley, M., & Hemingway, L. (2007). Disability and Disaster Recovery. *Journal of Social Work in Disability and Rehabilitation*, 5 (3-4), 23-42. doi:10.1300/J198v05n03\_02
- Putnam, R. D. (2000). *Bowling Alone: Collapse and Revival of the American Community.*New York: Simon & Schuster.
- Rodgers, M., Sowden., A. Petticrew., Arai, L., Roberts, H., Britten, N., & Popay, J. (2009). Testing Methodological Guidance on the Conduct of Narrative Synthesis in Systematic Reviews. Effectiveness of Interventions to Promote Smoke Alarm Ownership and Function. *Evaluation*, 15 (1), 47-71. doi: 10.1177/1356389008097871

- Schipper, L., & Pelling, M. (2006). Disaster risk, climate change and international development: scope for, and challenges to, integration. *Disasters*, 30 (1), 19-38. Retrieved from: <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9523.2006.00304.x/pdf">http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9523.2006.00304.x/pdf</a>
- Sullivan, H. T., & Hakkinen, M.T. (2011). Preparedness and Warning Systems for Populations with Special Needs: Ensuring Everyone Gets the Message (and Knows What To Do). *Journal of Geotechnical and Geological Engineering*, 29 (3), 225-236. doi:10.1007/s10706-010-9363-z
- Tierney, K. J., M. K. Lindell, and R. W. Perry. (2001). Facing the Unexpected: Disaster Preparedness and Response in the United States. Washington, D.C.: Joseph Henry Press.
- Tobin, G. A., and J. C. Ollenburger. (1993). *Natural Hazards and the Elderly*. Boulder, Colo.: University of Colorado, Natural Hazards Research and Applications Information Center.
- van Aalst, M.K., Cannon, T., & Burton, I. (2008). Community level adaptation to climate change: The potential role of participatory community assessment. *Global Environmental Change*, 18 (1), 165-179. doi:10.1016/j.gloenvcha.2007.06.002
- United Nations (2011). *Disability and the Millennium Development Goals*. New York: United Nations. Retrieved from:

  <a href="http://www.un.org/disabilities/documents/review of disability and the mdgs.pdf">http://www.un.org/disabilities/documents/review of disability and the mdgs.pdf</a>
- United Nations Convention on the Rights of Persons with Disabilities (2006). Geneva: United Nations. Retrieved from:

  <a href="http://www.un.org/esa/socdev/enable/documents/tccconve.pdf">http://www.un.org/esa/socdev/enable/documents/tccconve.pdf</a>
- Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004) At Risk. Natural hazards, people's vulnerability and disasters, (2nd ed.). London: Routledge
- Women's Commission for Refugee Women and Children. (2008). *Disabilities Among Refugees* and Conflict-Affected Populations. New York: Women's Commission for Refugee Women and Children Retrieved from:

  <a href="http://www.womensrefugeecommission.org/docs/disab\_fulll\_report.pdf">http://www.womensrefugeecommission.org/docs/disab\_fulll\_report.pdf</a>
- World Bank (2010). *Pakistan. Earthquake Disability Project*. Report No: ICR00001584.

  Implementation Completion and Results Report. Retrieved from: <a href="http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/08/10/000356">http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/08/10/000356</a>

  161 20100810233455/Rendered/PDF/ICR15840P099541Official0Use0Only191.pdf
- World Bank (2012). *Data and Statistics. World Bank Atlas Method*. Retrieved October 20, 2012, from: http://go.worldbank.org/IEH2RL06U0

World Health Organization (2010). *Community-Based Rehabilitation CBR Guidelines*.

Supplementary Booklet. Geneva: World Health Organization. Retrieved from:

<a href="http://whqlibdoc.who.int/publications/2010/9789241548052">http://whqlibdoc.who.int/publications/2010/9789241548052</a> supplement eng.pdf

World Health Organization (2011) *World Report on Disability*. Geneva: World Health Organization. Retrieved from:

http://whqlibdoc.who.int/publications/2011/9789240685215\_eng.pdf

# **Acknowledgements:**

We would like to thank Elaine Ireland and Marion Steff from the Policy team in Sightsavers for their contributions and for providing comments on this paper.

# **About Sightsavers:**

Sightsavers has been working with local partners to eliminate avoidable blindness in developing countries. We also support people who are irreversibly blind, providing education, support and training. To date we have helped administer over 230 million treatments for blinding and potentially blinding conditions. Treatments can be inexpensive yet life changing, from 35p antibiotics to prevent a blinding disease in Africa, to a £28 sight-restoring adult cataract operation. <a href="https://www.sightsavers.org">www.sightsavers.org</a>