Disability and Disaster Recovery: a tale of two cities?

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Abstract

This paper examines the connections between disability and disaster from a global perspective. Concepts from the research and policy literature are used to distinguish between individual and social models of disability, and between natural hazards and human disasters. These concepts are then employed to investigate data on the response to disabled people's recovery needs in two recent case studies: the Asian tsunami and Hurricane Katrina. The analysis combines primary, secondary and tertiary sources to explore disability issues in the reconstruction of inclusive communities and the lessons that may be learned about disaster preparedness in poor communities. The conclusions suggest that more attention should be paid to social model approaches, particularly in understand global links with poverty, and that disabled people's organisations should be resourced as agents of disaster recovery and preparedness.

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As the catastrophic events of 2004-2005 so graphically illustrated, natural hazards affect millions, causing devastation to lives, livelihoods and communities. In counting the human cost the disability dimension has been something of a hidden story. Disability issues have been both under-reported and of limited scope within research on disaster recovery, with a tendency towards individualised psychological interventions at the expense of social model approaches. As we argue in this paper, the success of long-term recovery for disabled people depends on redressing this imbalance.

During the past 30 years there has been a paradigm shift in the global discourse and politics of disability, initiated through the activism of the international disabled people's movement (Campbell & Oliver, 1996; Charlton, 1998; Driedger, 1989; Fleischer & Zames, 2001). The traditional view within social science and rehabilitation was to view the disadvantage associated with disability as an individual problem caused by impairment. From this perspective, the most appropriate response was either to correct the impairment or to help the person 'come to terms' with it, by negotiating different (less valued) social roles. By contrast, social interpretations of disability have shown how people with similar impairment characteristics become more or less 'disabled' in different environments and social circumstances (Ingstad & Reynolds Whyte, 1995; Zola, 1989). This allows us to view disability as a social problem resulting from social processes (Priestley, 2005).

The shift of emphasis, from the individual to the social, has allowed activists, academics, practitioners and policy makers to engage in a far-reaching critique of the ways in which people with perceived impairments are affected by different social arrangements, and to envisage more inclusive alternatives. Thus, in his ground-breaking book *Social Work with Disabled People*, Oliver (1983) distinguished between interventions based on 'individual' and 'social' models of disability. Extending these concepts, Oliver (1990; 1996) defines individual model approaches as underpinned by a personal tragedy theory of disability, predominantly characterised by psychological and medicalised interventions that seek remedy in the person. By contrast, social model interventions seek remedy in challenges to social policies,

practices and institutions. There are now few debates within the contemporary disability studies literature that are not framed by this conceptual distinction (see, Albrecht, Seelman, & Bury, 2001; Barnes & Mercer, 2005; Swain, French, Barnes, & Thomas, 2004).

Natural Hazard or Human Disaster?

Natural hazards are often classified into three main types (e.g. Frampton, McNaught, Hardwick, & Chaffey, 2000). These may be characterised as geological/tectonic (for example, earthquakes or volcanoes, which may create tsunamis), climatic (which may lead to floods, droughts and hurricanes) and geomorphological/land instability hazards (for example, landslides or avalanches). However, it is important to distinguish between these natural 'hazards' and human 'disasters' (2001: 7). Natural hazards lead to disasters when they damage human lives and environments. Although natural hazards may not be eradicated, human disasters may be lessened by reducing vulnerabilities, particularly for poor or socially excluded groups.

In the context of this paper, our underlying hypothesis is that natural hazards are realised disproportionately as human disasters for disabled people, and particularly for disabled people in low-income communities. Since disabled people are consistently amongst the poorest of the poor in both high-income and low-income countries, the realisation that human disasters are socially created has a particular resonance for thinking about disability and disaster recovery. Just as disability is not the inevitable consequence of physical or cognitive impairment, disaster is not the inevitable consequence of natural hazard.

Synthesising concepts from disability and disaster studies requires an approach that treats disability as more than an individual or therapeutic concern, and that considers the impact of disabling environments and relationships on disaster survivors. Since the social model approach owes its vigour to the global activism of disabled people it is also important to consider the role of activism in developing inclusive policies and practices. Given the principle of 'nothing about us without us' (Charlton, 1998) the significance of disabled people and their organisations as agents of disaster recovery cannot therefore be overlooked.

Turning to the disaster literature there is surprisingly little evidence that such debates have so far impacted on social work and rehabilitation research. While critical

perspectives exist in policy and practice documents, discussion in the academic literature is extremely limited. For example, a systematic review of journal abstract databases revealed 180 references to disability and disaster (i.e. by searching for terms such as disaster, natural hazard, tsunami, earthquake, hurricane or terrorist in combination with variations on the terms impairment, disability and handicap). After eliminating articles of no direct relevance four broad themes are evident. By far the most frequently addressed issue is that of measuring and treating psycho-emotional impairments arising from disaster events, in particular post-traumatic stress disorder (e.g. Chang, Connor, Lai, Lee, & Davidson, 2005; Livanou et al., 2005). Similarly, there are epidemiological and medical studies examining the incidence and treatment of acquired physical impairment (e.g. Matsuoka et al., 2002; Naghi et al., 2005). Third, but to a lesser extent, there are evaluations of the vulnerability of disabled people to natural hazards or terrorist attacks (e.g. Chou et al., 2004; Osaki & Minowa, 2001). Fourth, there are a small number of studies addressing the social impact of disasters on disabled people (e.g. Duyan & Karatas, 2005; Gignac, Cott, & Badley, 2003; Takahashi, Watanabe, Oshima, Shimada, & Ozawa, 1997).

The bulk of this literature addresses disability from an individual model perspective. Moreover, interventions are characterised overwhelmingly as the province of medical or other therapeutic professionals and there is little reference to the contribution of disabled people in recovery planning or practice. Looking beyond the academic journals there is more evidence of alternative approaches that address social model concepts or that consider the value and agency of disabled people's organisations as partners in planning and recovery (e.g. Blanck, 1995; Center for International Rehabilitation, 2005; Kett, Stubbs, & Yeo, 2005; Wisner, 2002). The remainder of this paper examines the extent to which such themes are evident in recovery from two recent and globally significant disaster events.

Case studies and methods

The tsunamis that devastated coastal areas across South Asia resulted from the Sumatra-Andaman Islands earthquake beneath the Indian Ocean on December 26 2004. Although this was only the fourth largest earthquake since 1900, the magnitude of the human disaster was greater than any similar event in recorded history. According to current estimates around 275,000 people were killed in eleven countries, the majority in Indonesia. One year on more than a million people remained displaced

(US Geological Survey, 2005). In terms of the definitions outlined earlier, this unprecedented human disaster arose from the coincidence of a substantial tectonic hazard and the extreme vulnerability of certain coastal communities.

The impact of Hurricane Katrina appears somewhat more limited yet its significance should not be under-estimated. Although Katrina was not the most powerful Atlantic Basin storm of 2005 (both Wilma and Rita were stronger) it resulted in more widespread and costly human disaster than any single natural hazard in United States history. Between August 25 and 29 the storm impacted on Florida and the Gulf States, affecting an area the size of Great Britain. Extensive damage was caused by the accompanying storm surge, notably in the flooding of the city of New Orleans. According to official estimates around 1,300 people were killed, more than a million were displaced from their neighbourhoods and up to five million lost electrical power.

In order to investigate recovery for disabled people in such recent disasters it is necessary to draw on a range of data sources. First, there is a rapidly growing, but largely unmapped, 'grey literature' of research and evaluation produced by practice or advocacy-based organisations. Considerable insight was also gained from textual analysis of policy and guidance documents produced by governmental and non-governmental agencies (e.g. in published reports, emergency guidance, organisational websites, etc.).

Much was learned from the omission of disability as well as from its inclusion and it was important to systematically review documents from government agencies, donors, relief agencies and disability organisations. These were collected from personal contacts, reviews and detailed Internet searches. It is important to note that these reviews were conducted between September and December 2005 and that new documents were emerging throughout this period. Media reports, press releases and online discussion forums were also helpful in identifying how disabled people were affected. In addition, primary data was generated through email or telephone contact with key informants in 18 organisations involved in the tsunami or Katrina recovery effort. These included: international co-ordinating organisations, international donor organisations, disabled people's organisations, US government and state agencies, and local service providers or disability projects.

In an era of economic and cultural globalisation, the realities of disasters are rapidly shared via media coverage and Internet communication technologies. In the

aftermath of the Asian tsunami and Hurricane Katrina patterns of global connectivity also affected patterns of response at disaster sites. Data from this global information flow was important because connectedness creates opportunities for (a) knowledge sharing and the targeting of aid or expertise; (b) private transfers of information and resources that are not evidenced in the mainstream literature; (c) peer-to-peer organisational relief and support beyond traditional donor networks. This kind of connectedness has specific consequences for disabled people, as survivors and as agents of recovery. In particular, it illustrated how the international disabled people's movement is challenging traditional models of disaster relief and traditional relationships of power between 'professionals' and communities.

While disability equality issues have been historically marginalised they are increasingly referenced in disaster evaluation and practice development. Major relief agencies and international NGOs have commissioned disability audits in their post-tsunami evaluations and increased attention is being paid to the voice of disabled people. It is not our intention to replicate these studies but to examine the available data in its theoretical and global policy context. Our analysis here focuses primarily on recovery in the 'reconstruction' or 'rehabilitation' phase, and on preparedness for future events. Elsewhere, we explore in detail the initial impact on disabled people of the Tsunami and Katrina, and the barriers they experienced in accessing immediate relief, evacuation and shelter (see, Hemingway & Priestley, 2006, forthcoming).

Rebuilding Inclusive Communities

Interventions for long-term recovery are inevitably diverse. They may be restorative or preventative, and involve a range of actors in one-off operations, complex long-term programmes or projects targeted at particular groups (e.g. Perrin, 1998; Smith, 2001). In the case study examples massive investment has been committed to rebuilding lives, communities and infrastructure. If disabled people's needs are to be met it is imperative that reconstruction integrates accessibility and that recovered communities are inclusive communities. Considering this 'rehabilitation' from a social model perspective involves looking beyond individualised and therapeutic interventions to consider the barriers to full participation and equality.

Breakdown of infrastructure

Breakdown of infrastructure affects the whole community but there are additional barriers for disabled people in accessing communication systems, the built environment, transport, employment, education, health care, public services and so on (California Department of Rehabilitation, 1997; Shaw & Goda, 2004; World Health Organisation, 2005). Disabled people may be disproportionately disadvantaged by depletion of both physical infrastructure and human services. Thus:

> The aftermath of Hurricane Katrina has led to large-scale displacement that has interrupted the networks of support that individuals with disabilities have. People will need knowledgeable help in arranging essential services in new environments with limited contacts and little knowledge of local resources. (NOD 2005: 12)

There was considerable concern amongst key informants in Louisiana about the deterioration of life choices for disabled people who had previously lived independently, with established networks of community support, but who now found themselves in residential nursing homes. The issue here is not simply damage to the physical environment but the breakdown of social networks and social capital (see, Nakagawa & Shaw, 2004). The implications are somewhat different in richer and poorer communities and in countries with different types of social infrastructure. Where there are highly developed public support services for disabled people breakdown of infrastructure can be sudden and damaging. In the short term there may be significant loss of independence and a return to more medicalised forms of care but there is also the capacity for relatively rapid restoration or relocation of familiar independent living solutions.

Where networks of support are reliant upon informal unpaid care things may be better or worse. On the one hand, there can be great resilience if informal networks survive the disaster, buffering the breakdown of formal structures. On the other hand, the consequences can be catastrophic, and potentially fatal, where disabled people are separated from supportive relationships. In many tsunami-affected areas there has been great concern for disabled people separated or bereaved from family members who previously provided financial and/or physical assistance. Commenting on the challenges in India's reconstruction:

> The government should also be sensitive to the fact that disabled people can be made destitute not only when they lose their own livelihoods but when relatives who in the past provided care or assistance are killed or can no longer afford to help them. (Human Rights Watch, 2005: 78)

Scarcity of resources after a disaster can intensify discriminatory attitudes and behaviour within families and communities, leading to further exclusion. Disabled children, including those with newly acquired impairments, may be excluded from education. The Interagency Network for Education in Emergencies argues that recovery interventions need to address negative cultural perceptions of disability, to 'ensure that schools are prepared, and that facilities are accessible' and that teachers are 'well versed in principles of social justice, diversity and inclusion' (INEE 2005a). Amongst the concerns they raise:

> Children can be expelled from their former schools and their right to education is addressed only in the final phases of the 'reconstruction' process. Moreover, if they eventually are to have access to education, it is often in institutions and special schools far away from their former classmates… (INEE 2005b)

Significantly, where disabled people have been poorly supported in the past the impact is likely to be increased. For example, in the Andaman and Nicobar Islands disabled survivors were doubly disadvantaged in recovery due to the low levels of supportive infrastructure existing prior to the tsunami event (Handicap International, 2005a). Thus, initial assessments highlighted the absence of local rehabilitation services, disability NGOs, or inclusive educational opportunities (Chari & Padmanabhan, 2005). Similarly, Western rehabilitation teams working in Aceh noted with apparent surprise the lack of facilities for producing affordable, modern artificial limbs in Indonesia.

The tsunami recovery effort has brought NGOs into contact with the stark reality of life and poverty for disabled people. For example, initial interventions by Handicap International (2005b) focused on nursing, trauma and physiotherapy. As a consequence, the extent of pre-existing mortality risks for disabled people in Sri Lanka, and the lack of therapeutic services, became apparent. This realisation led to

establish new capacity building projects in affected areas, such as CBR training for training social workers and participation in ‘access for all’ initiatives with local organisations of disabled people (Handicap International, 2005c).

As these examples begin to show, it is essential to view disaster recovery for disabled people from a social model perspective. There have been great and urgent needs for medical and therapeutic interventions, and much effort has been expended in addressing physical and psychological trauma. Yet such interventions have quickly revealed underlying structural weaknesses in the support and integration available to disabled people in poor communities.

The challenge of inclusive reconstruction

Devastation of infrastructure creates opportunities as well as barriers, providing unexpected catalyst for social change (Hastie, 1997; Keen, 2001; Oosters, 2005). Reconstruction offers opportunities to improve the lives of disabled people, to assert social rights more clearly, and to facilitate social and economic integration. Indeed, some commentators have pointed to the emancipatory potential of the recovery process, provided investments can be targeted towards inclusion. For example, in relation to reconstruction in Louisiana:

> The immediate and long-term rebuilding process offers a unique opportunity to build, on an unprecedented scale, accessible communities and accessible and adaptable housing. This will help thousands of people with disabilities maintain or improve their ability to live independently and will enable hundreds of thousands of people, regardless of disability, to age-in-place as they acquire activity limitations. (NOD 2005: 14)

Funding long-term recovery is a mammoth task and investment has come from many sources. Unsurprisingly, the degree to which such funding is contingent upon the inclusion of disabled people varies considerably. Organisational approaches to disability equality often reflect the protection afforded in the donor country. For example, the allocation of more than US$650 million to USAID’s Tsunami Recovery and Reconstruction Fund comes with certain conditions. Drawing on the principles of the 1989 Americans with Disability Act and the 1968 Architectural Barriers Act,

USAID's disability policy promotes the early engagement of disabled people's organisations in recovery and seeks:

> To avoid discrimination against people with disabilities in programs which USAID funds and to stimulate an engagement of host country counterparts, governments, implementing organizations and other donors in promoting a climate of nondiscrimination against and equal opportunity for people with disabilities. (USAID, 1997)

USAID was among a number organisations to establish donor-cooperation on disability issues under the auspices of the World Bank and maintains its own disability team, together with a specific policy on standards of accessibility for funded construction projects (USAID, 2004). In principle, this means that its contractors must comply with American disability accessibility standards (except where discretionary waivers are granted). By comparison, the UK Disasters Emergency Committee does not explicitly require relief agency members (currently 13 NGOs) to comply with accessibility standards. However, organisations are required to be 'committed' to the Sphere charter and minimum standards, which address disability equality in the context of non-discrimination more generally (Sphere Project, 2004).

In Louisiana, federal, state and local building codes are impacting on environmental planning and reconstruction, whereas in many tsunami affected areas there has been little systematic engagement with access standards. However, national differences are apparent with stronger calls for accessibility where existing disability legislation, such as the Disability Act in India, compared to countries, such as Indonesia, with less specific legal provisions (e.g. Chari & Padmanabhan, 2005). Considering the diversity of national non-discrimination laws (Quinn & Degener, 2002) regulation alone cannot ensure the inclusion of disabled people in recovering communities. The unprecedented level of funding for reconstruction in South Asia brings the possibility of far more accessible communities, yet there is a fear that local populations will not benefit to the same degree as wealthy tourists from the West. Such inequalities will be particularly acute in poor coastal communities where, as Yeo (2005) notes, different expectations may apply to accessibility in the construction of tourist hotels and local housing stock.

Structural inequality and poverty in disaster zones will never be overcome through the standardisation of non-discrimination policies alone (although current moves towards a UN Convention affirms disabled people's global human rights). In order to ensure that revived communities are also inclusive communities it is essential to bring expertise on disability discrimination, disabling barriers and independent living solutions directly into the recovery process. Communities with higher levels of social capital and participation make more successful and rapid recoveries (e.g. Nakagawa & Shaw, 2004) yet the social capital that exists within the disabled people's movement is not well integrated. It is therefore essential that disabled people's organisations are included in the 'social domains' where disaster experts, governments and local people exchange ideas and practices (Hilhorst, 2003). If the goal is inclusion then the process of recovery must reflect this principle too. As Betts (2005) argues, disabled people's organisations must therefore be considered as:

> …best placed to provide advice on the needs of people with disabilities, as well as to help make sure they are part of the rebuilding and long-term future of their communities.

In both case studies, disability organisations found it difficult to engage with emergency management teams and experienced rapid depletion of resources, undermining capacity for longer-term involvement. In addition, early evaluations suggest that mainstream interventions were based primarily within an individual (medical) model approach and that there was a failure to incorporate social model or rights-based alternatives (e.g. NOD 2005: 9). As Kett et al. (2005: 8-9) also conclude:

> It was striking that more agencies now use the language of social model and inclusion, but have misunderstandings and do not really apply it in practice. Disabled persons still tended to be lumped together under the heading of 'vulnerable groups' rather than being perceived as rights-holders.

The data on immediate relief capacity suggests that social model and rights-based interventions were more likely to be found in the peer-to-peer responses of disabled people's organisations and their immediate allies (Hemingway & Priestley, 2006, forthcoming). This finding underlines the significance of resourcing and involving

these organisations for disaster preparedness. The available evidence suggests that local disabled people and their organisations have been consulted in some recovery projects, but that this engagement has been neither widespread nor prioritised. At the international level, some organisations, such as World Vision and the World Bank, have targeted consultation with disabled people while others have not. Disabled people's organisations possess considerable untapped social capital that is vital to the construction of inclusive communities, and interventions could be made more effective by prioritising their direct and sustained engagement.

Preparing for the future

To conclude, we examine the extent to which social model perspectives and the engagement of disabled people are evident in disaster planning. Ultimately, disaster preparedness must go beyond practical guidance if it is to address the underlying structural inequalities that disadvantage disabled people in disaster-prone communities, particularly in poor communities. Broadly speaking, existing guidance can be considered under two headings: that which deals specifically with disability issues and that which is generic but may refer to disability. International aid agencies and human rights groups are beginning to recognise the extent of disabled people's vulnerability to natural hazards, and their exclusion from relief and recovery, but these concerns have yet to be mainstreamed in disaster preparedness.

The International Decade for Natural Disaster Reduction was established in 1989 (UN General Assembly resolution 44/236) without reference to particular population groups. Subsequently, the *Yokohama strategy and plan of action for a safer world* noted a lack of success in protecting 'poor and socially disadvantaged groups', particularly in developing countries (International Strategy for Disaster Reduction, 1994). Taking into account the structural link between poverty and vulnerability an important principle of the strategy was to promote disaster preparedness as integral to global development policy. In order to achieve this, increased awareness amongst vulnerable communities, active local participation in risk management, and a greater involvement of indigenous NGOs would be required, in order to:

> Stimulate genuine community involvement and empowerment of women and other socially disadvantaged groups at all stages of disaster management programmes in order to facilitate capacity building, which

> is an essential precondition for reducing vulnerability of communities to natural disasters; (*ibid*.: II.17)

More than a decade later, as the tsunami disaster was unfolding in January 2005, the World Conference on Disaster Reduction adopted the *Hyogo Framework for Action 2005–2015*. There is as yet only passing reference to disabled people in this initiative and no recommendation on how proposed 'social safety-net mechanisms' might be achieved (United Nations, 2005: 16). Concerns raised in our research, particularly from key informants involved in the relief effort, suggest that this is unsurprising and that there remains a distinct lack of general awareness about disability issues in disaster preparedness.

In principle, disabled people should receive equal access to support. For example, UNHCR's Guiding Principles on Internal Displacement apply without discrimination, including disability discrimination, and acknowledge the need to take full account of 'special needs' without delay or distinction (United Nations Commision on Human Rights, 1998). The Sphere Project handbook includes minimum standards for non-discrimination and specific reference to disabled people in each chapter – in relation to community involvement/consultation, nutritional needs, access to water and sanitation, vulnerability to sexual exploitation, provision of clothing, bedding, utensils, and access to health care (Sphere Project, 2004).

However, in the majority of planning documents disabled people are identified only as members of 'vulnerable' or 'special needs' populations, while specific references are few and limited. There is little acknowledgement of disabled people's heterogeneity. While some make passing reference to the participation of disabled people (e.g. WHO 1999: 19) there are significant publications that fail to mention disability at all. For example, the Code of Conduct for The International Red Cross and Red Crescent Movement and NGOs in Disaster Relief contains no reference to discrimination on grounds of disability, referring only to 'race, creed or nationality' and to women (IFRCRCS, 1994).

Where barriers for disabled people are highlighted these focus on a narrow range of activity limitations (e.g. in access to sanitation facilities). However, several documents now direct the reader to additional advice on managing relief for specific groups, such as the FEMA publication *Assisting People with Disabilities in a Disaster*. Whilst such advice is practical and useful, it rarely challenges the

assumption that disabled people are vulnerable and dependent. In this sense, there needs to be a move away from perceptions that disabled people are simply helpless victims and towards an understanding that they may be 'capable of assuming responsibility' (Sustainable Environment and Ecological Development Society, 2001: 58).

In recent years, a new wave of preparedness literature has provided more specific resources for disabled people and relief agencies. A significant difference in these sources is that there is a greater recognition of disabled people's resilience and agency in mobilising personal resources or social networks. However, the increasing focus on personal responsibility for risk management does not adequately address the need for structural interventions. There should therefore be some concern about encouragement to devolve risk responsibility to disabled people and their families unless there is a corresponding engagement with building resilient, inclusive and disaster sustainable communities for the future.

The case study data suggests some surprising similarities between the Asian tsunami and by Hurricane Katrina (although there are important qualitative distinctions in terms of scale and impact). In both cases, recovery evaluations have identified shortcomings by governments, disaster planners, donor organisations, relief agencies, shelter managers, and construction contractors in responding adequately to the needs of disabled survivors. Given the unprecedented scale of the tsunami impact, and the structural challenges of implementing disability equality in low-income countries with high exposure to natural hazards, it may be less surprising that disability issues have slipped on the recovery agenda in South Asia. It is perhaps more surprising that continued criticism has been levelled at disaster response in the USA, and this raises some difficult questions.

A significant factor in the level of disaster preparedness in the USA arises from the historic vibrancy of political activism amongst disabled people's organisations in California (dating from the early 1970s). Rising political sensitivity to equality issues combined with the natural hazards posed by the San Andreas Fault appear to have led local disability activists to a much earlier engagement with disaster preparedness than elsewhere in the world. For example, Tierney et al.'s (1988) book on *Disabled People and Earthquake Hazards* (published by the University of Southern California) demonstrated early potential for a systematic and multi-model analysis of these issues. Similarly, the 1994 Northridge Earthquake led to the establishment of Disabled

People and Disaster Planning (DP2, 2001) with recommendations on accessibility planning and guidance for shelter managers, rescue workers and services.

Reactions to the 9-11 attacks on the World Trade Centre provided further catalyst for preparedness activity, in the establishment of the National Organization on Disability's Emergency Preparedness Initiative and the National Center on Emergency Planning for People with Disabilities. More recently, in July 2004, the US Government established an 'Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities' under the auspices of the Department of Homeland Security. Given this high level of commitment and resource it is tempting to assume that disabled people in the USA would have been exceptionally well protected and prepared for the impact of Hurricane Katrina. The reported 'systematic failure' of disaster planners to address disabled people's needs and the specific difficulties encountered by individuals and organisations in Louisiana need therefore to be explained if they are to be avoided in future (NOD 2004; 2005).

Conclusions

The arguments presented in this paper were derived from a systematic review of the disability and disaster literature, and an examination of diverse data arising from two recent case studies. We began by noting similarities between concepts of human disaster and the social model of disability, distinguishing between 'natural' occurrences and socially produced vulnerabilities (i.e. between 'natural hazards' and 'human disasters' or between individual 'impairments' and social inequalities characterised as 'disability'). At the intersection of these separate debates there is a useful synthesis that helps to explain the specific vulnerability of disabled people in disaster scenarios. Indeed, the historic and structural forces of global production, consumption, power and poverty that create vulnerability in poor communities throughout the world are essentially the same forces that exacerbate the vulnerability of disabled people. Where there is exclusion from full participation and equality there is a human disaster waiting to happen, and while disabled people remain amongst the poorest of the poor they will also be amongst the worst affected.

These differential impact patterns can be seen in disaster evaluation reports and in the illustrative case study examples. Disabled people are less likely to be included in reconstruction or to be considered within the mainstream of disaster planning. These risks are increasingly acknowledged within the disaster community but reality does

not yet match the rhetoric. Local evaluations reveal specific implementation gaps (such as a lack of commitment, lack of knowledge, lack of guidance, lack of communication or lack of resources) and it is clear that more could be done to communicate directly with disabled people and their organisations.

There is huge untapped potential and readiness within such organisations and they should be considered as key partners in disaster preparedness (although they will require investment and internal capacity building to fulfil this role). These practical issues could be easily addressed in disaster planning, relief and recovery, and there is an increasing range of available guidance from dedicated disability projects. Linking this more effectively into generic disaster preparedness would assist in ensuring that disabled people are not overlooked. However, recovery and planning initiatives must move beyond individual and therapeutic interventions to consider disability in terms of human rights and structural exclusion.

When viewed in a global perspective the evidence suggests that, even where established systems and knowledge exist, disabled people face a greater risk of death, injury, displacement, destitution or loss of autonomy. Whilst there are stark differences in the response capacity of low-income and high-income countries (e.g. between Indonesia and the USA) there are also unsettling similarities in the experiences of disabled people from poor, predominantly black, communities (whether in Acheh or Louisiana). In this sense, the boundaries of the excluded ‘majority world’ continue to be less defined by geography than by poverty and structural inequality. Understanding the connection between disability and disaster involves understanding the connection between disability, poverty and social exclusion. Ensuring that recovered communities are also inclusive communities requires a greater understanding of the social model and a greater engagement with disabled people’s organisations, but above all recovery interventions that facilitate the full participation and equality of disabled people in all aspects of social development and poverty reduction.

References

Albrecht, G. L., Seelman, K. D., & Bury, M. (Eds.). (2001). *The Handbook of Disability Studies*. London: Sage.

Barnes, C., & Mercer, G. (Eds.). (2005). *The Social Model of Disability: Europe and the Majority World*. Leeds: Disability Press.

Betts, J. (2005). *Disabled People and the Tsunami*. World Vision UK. Retrieved November 2005, from the World Wide Web: http://www.worldvision.org.uk/tsunami/viewpoints/disability.asp

Blanck, P. (1995). *Disaster Mitigation for Persons with Disabilities: Fostering a New Dialogue*. Washington, D.C.: Annenberg Washington Program in Communications Policy Studies of Northwestern University.

California Department of Rehabilitation. (1997). *Disaster Preparedness for Persons with Disabilities: Improving California's Response*. Retrieved 18 October 2005, from the World Wide Web: http://www.atnet.org/education/prepare.pdf

Campbell, J., & Oliver, M. (1996). *Disability Politics: understanding our past, changing our future*. London: Routledge.

Center for International Rehabilitation. (2005). *Disability and Early Tsunami Relief Efforts in India, Indonesia and Thailand*. Chicago: Center for International Rehabilitation.

Chang, C. M., Connor, K. M., Lai, T. J., Lee, L. C., & Davidson, J. R. T. (2005). Predictors of posttraumatic outcomes following the 1999 Taiwan earthquake. *Journal of Nervous and Mental Disease, 193*(1), 40-46.

Chari, R., & Padmanabhan, R. (2005). *Report on the visit to the Andaman & Nicobar islands to study the impact of the Tsunami tragedy vis-a-vis disability*. National Centre for Promotion of Employment for Disabled People/DPI India. Retrieved 15 November 2005, from the World Wide Web: http://ncpedp.org/policy/pol-res01.htm

Charlton, J. (1998). *Nothing About Us Without Us: Disability Oppression and Empowerment*. Berkeley: University of California Press.

Chou, Y. J., Huang, N., Lee, C. H., Tsai, S. L., Chen, L. S., & Chang, H. J. (2004). Who is at risk of death in an earthquake? *American Journal of Epidemiology, 160*(7), 688-695.

DP2. (2001). *Disabled People and Disaster Planning*. Retrieved October 2005, from the World Wide Web: http://www.citycent.com/dp2/

Driedger, D. (1989). *The Last Civil Rights Movement*. London: Hurst & Co.

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-+.

Fleischer, D. Z., & Zames, F. (2001). *The Disability Rights Movement: from charity to confrontation*. Philadelphia, PA.: Temple University Press.

Frampton, S., McNaught, A., Hardwick, J., & Chaffey, J. (2000). *Natural Hazards: Causes, Consequences and Management* (2nd ed.). London: Hodder and Stoughton.

Gignac, M. A. M., Cott, C. A., & Badley, E. M. (2003). Living with a chronic disabling illness and then some: Data from the 1998 ice storm. *Canadian Journal on Aging-Revue Canadienne Du Vieillissement, 22*(3), 249-259.

Handicap International. (2005a). *Tsunami in South East Asia: Handicap International's work in India*. Retrieved November 2005, from the World Wide Web: http://www.handicap-international.org.uk/page_479.php

Handicap International. (2005b). *Tsunami in South East Asia: Handicap International's work in Sri Lanka*. Retrieved November 2005, from the World Wide Web: http://www.handicap-international.org.uk/page_52.php

Handicap International. (2005c). *Tsunami: one year on...* Woking: HI.

Hastie, R. (1997). *Disabled Children in a society at war: A casebook from Bosnia*. Oxford: Oxfam.

Hemingway, L., & Priestley, M. (2006, forthcoming). Natural hazards, human vulnerability and disabling societies: a disaster for disabled people? *Review of Disability Studies*, 2(3)

Hilhorst, D. (2003). Responding to Disasters: Diversity of Bureaucrats, Technocrats and Local People. *International Journal of Mass Emergencies and Disasters, 21*(1), 37-55.

Human Rights Watch. (2005). *After the Deluge: India's Reconstruction Following the 2004 Tsunami*. Retrieved, from the World Wide Web: http://hrw.org/reports/2005/india0505/

IFRCRCS. (1994). *Code of Conduct for The International Red Cross and Red Crescent Movement and NGOs in Disaster Response Programmes*. Retrieved

September 2005, from the World Wide Web: http://www.ifrc.org/publicat/conduct/code.asp

Ingstad, B., & Reynolds Whyte, S. e. (1995). *Disability and Culture*. Berkeley: University of California Press.

Interagency Network for Education in Emergencies. (2005a). *Inclusive Education of Children at Risk*. Retrieved November 2005, from the World Wide Web: http://www.ineesite.org/inclusion/disabled.asp

Interagency Network for Education in Emergencies. (2005b). *Rebuilding for Inclusiveness*. Retrieved November 2005, from the World Wide Web: http://www.ineesite.org/inclusion/default.asp

International Strategy for Disaster Reduction. (1994). *Yokohama strategy and plan of action for a safer world*. Retrieved November 2005, from the World Wide Web: http://www.unisdr.org/eng/about_isdr/bd-yokohama-strat-eng.htm

Keen, D. (2001). The Political Economy of War. In F. Stewart & V. Fitzgerald (Eds.), *War and Underdevelopment: The Economic and Social Consequences of Conflict* (Vol. 1). Oxford: Oxford University Press.

Kett, M., Stubbs, S., & Yeo, R. (2005). *Disability in Conflict and Emergency Situations: Focus on Tsunami-affected Areas*. Norwich: International Disability and Development Consortium/University of East Anglia.

Livanou, M., Kasvikis, Y., Basoglu, M., Mytskidou, P., Sotiropoulou, V., Spanea, E., Mitsopoulou, T., & Voutsa, N. (2005). Earthquake-related psychological distress and associated factors 4 years after the Parnitha earthquake in Greece. *European Psychiatry, 20*(2), 137-144.

Matsuoka, T., Yoshioka, T., Tanaka, H., Ninomiya, N., Oda, J., Sugimoto, H., & Yokota, J. (2002). Long-term physical outcome of patients who suffered crush syndrome after the 1995 Hanshin-Awaji earthquake: Prognostic indicators in retrospect. *Journal of Trauma-Injury Infection and Critical Care, 52*(1), 33-39.

Naghi, T. M., Kambiz, K., Shahriar, J. M., Afshin, T., Reza, S. K., Behnam, P., & Bahador, A. H. (2005). Musculoskeletal injuries associated with earthquake - A report of injuries of Iran's December 26, 2003 Bam earthquake casualties managed in tertiary referral centers. *Injury-International Journal of the Care of the Injured, 36*(1), 27-32.

Nakagawa, Y., & Shaw, R. (2004). Social Capital: A missing link to disaster recovery. *International Journal of Mass Emergency and Disasters, 22*(1), 5-34.

National Organization on Disability. (2004). *Emergency Preparedness Survey: final report*. Washington DC: NOD.

National Organization on Disability. (2005). *Report on Special Needs Assessment for Katrina Evacuees (SNAKE) Project*. Washington DC: NOD.

Oliver, M. (1983). *Social Work with Disabled People*. Basingstoke: Macmillan.

Oliver, M. (1990). *The Politics of Disablement*. Basingstoke: Macmillan.

Oliver, M. (1996). *Understanding Disability: from theory to practice*. Basingstoke: Macmillan.

Oosters, B. (2005). *Looking with a disability lens at the disaster caused by the Tsunami in South-East Asia*. Brussels: CBM International.

Osaki, Y., & Minowa, M. (2001). Factors associated with earthquake deaths in the Great Hanshin-Awaji earthquake, 1995. *American Journal of Epidemiology, 153*(2), 153-156.

Perrin, P. (1998). *The impact of humanitarian aid on conflict development.* Retrieved December 2005, from the World Wide Web: http://www.icrc.org/Web/Eng/siteeng0.nsf/iwpList167/FA943455FADB895EC1256B66005C0A26#

Priestley, M. (2005). Disability and Social Inequality. In E. Margolis (Ed.), *Blackwell Companion to Social Inequalities*. Oxford: Blackwell.

Quinn, G., & Degener, T. (2002). A Survey of International, Comparative and Regional Disability Law reform. In M. Breslin & S. Yee (Eds.), *Disability Rights Law and Policy: Internationa; and National Perspectives*. New Yorl: Transnational.

Sustainable Environment and Ecological Development Society. (2001). *High Powered Committee on Disaster Management: Report on Women, Children, Aged and Challenged in Disasters*. Government of India. Retrieved 10 October 2005, from the World Wide Web: http://www.benfieldhrc.org/disaster_studies/disability&disasters/hpc_seed.pdf

Shaw, R., & Goda, K. (2004). From disaster to sustainable community planning and development: the Kobe Experiences. *Disaster Prevention and Management, 28*(1), 16-40.

Smith, K. (2001). *Environmental Hazards: Assessing Risk and Reducing Disaster* (3rd ed.). London: Routledge.

Sphere Project. (2004). *Humanitarian Charter and Minimum Standards in Disaster Response*. Geneva: Sphere.

Swain, J., French, S., Barnes, C., & Thomas, C. (Eds.). (2004). *Disabling Barriers - Enabling Environments*. London: SAGE.

Takahashi, A., Watanabe, K., Oshima, M., Shimada, H., & Ozawa, A. (1997). The effect of the disaster caused by the great Hanshin earthquake on people with intellectual disability. *Journal of Intellectual Disability Research, 41*, 193-196.

Tierney, K., Petak, W., & Hahn, H. (1988). *Disabled Persons and Earthquake Hazards*. Boulder: University of Colorado Institute of Behavioural Science, Program on Environment and Behaviour.

United Nations. (2005). *Report of the World Conference on Disaster Reduction, Kobe, Hyogo, Japan, 18-22 January 2005*. Retrieved November 2005, from the World Wide Web: http://www.unisdr.org/wcdr/intergover/official-doc/L-docs/Final-report-conference.pdf

United Nations Commision on Human Rights. (1998). *Guiding Principles on Internal Displacement*. Retrieved December 2005, from the World Wide Web: http://www.unhchr.ch/Huridocda/Huridoca.nsf/0/d2e008c61b70263ec125661e0036f36e

US Geological Survey. (2005). *Sumatra-Andaman Islands Earthquake*. Retrieved November 2005, from the World Wide Web: http://earthquake.usgs.gov/eqinthenews/2004/usslav/

USAID. (1997). *USAID Disability Policy Paper*. Washington, D.C.: US Agency for International Development Policy Paper PC09/12/97.

USAID. (2004). *Policy on Standards for Accessibility for the Disabled in USAID-Financed Construction*. US Agency for International Development. Retrieved October 2005, from the World Wide Web: http://www.usaid.gov/about/disability/financed_construction.html

Wisner, B. (2002). Disability and Disaster: Victimhood and Agency in Earthquake Risk Reduction. In C. Rodrigue & E. Rovai (Eds.), *Earthquakes*. London: Routledge.

World Health Organisation. (1999). *Community emergency preparedness: a manual for managers and policy-makers*. Retrieved November 2005, from the World Wide Web: http://whqlibdoc.who.int/publications/9241545194.pdf

World Health Organisation. (2005). *Disasters, disability and rehabilitation*. Retrieved 8 October 2005, from the World Wide Web: http://www.who.int/entity/violence_injury_prevention/other_injury/disaster_disability2.pdf

Yeo, R. (2005). *After the Tsunami: Are disabled people being ignored?* ID21. Retrieved, October 2005, from the World Wide Web: http://www.id21.org/insights/insights55/insights-iss55-art08.html

Zola, I. (1989). Towards a necessary universalizing of disability policy. *Millbank Memorial Quarterly, 67(2),* 401-428.