Queering disasters: on the need to account for LGBTI experiences in natural disaster contexts

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Abstract
This paper seeks a queering of research and policy in relation to natural disasters, their human impacts, management and response. The human impacts of natural disasters vary across different social groups. We contend that one group largely absent from scholarly and policy agendas is sexual and gender minorities, or lesbian, gay, bisexual, transgender/transsexual and intersex (LGBTI) populations. To demonstrate that these minorities have particular experiences that need to be addressed, we critically review five case studies which comprise the limited scholarly and policy research on LGBTI populations in disasters to date. Building on this, we offer some specific ways forward for queer disaster research that accounts for the vulnerabilities, needs and resilient capacities of LGBTI populations. In doing so, we recognise and urge researchers, policy-makers and aid agencies to acknowledge that LGBTI populations are not homogenous and have different needs wrought by intersections of socioeconomic resources, gender, race/ethnicity, age, and regional or national location.

Key words: LGBTI populations; queer; natural disasters; resilience; vulnerability.
Introduction

We seek a queering of research and policy in relation to natural disasters, their human impacts, management and response, and encourage the development of research and policy agendas that account for the experiences of sexual and gender minorities. Specifically, we argue that the needs of lesbian, gay, bisexual, transgender/transsexual and intersex (LGBTI) populations are inadequately accounted for in disaster management policies and research.

Numerous stakeholders have expressed concern about the increase in natural disasters in the wake of global environmental and climate change, and the mounting toll of these disasters on global societies. However, human impacts vary across different social groups and spatial and temporal scales, and we show that one group largely absent from scholarly and policy work is sexual and gender minorities (Cianfarani 2012). We further urge researchers, policy-makers and aid agencies to acknowledge that LGBTI populations are not homogenous and have different needs wrought by the competing intersections of socioeconomic resources, gender, race/ethnicity, age, and regional or national milieu.

To advance this call for queering disaster research, we first outline some background concepts concerning natural disasters, their human impacts, and key ideas of vulnerability and resilience. To show that sexual and gender minorities have particular experiences that need to be addressed, we then critically review the limited scholarly and policy research on LGBTI populations in disasters. This critical review, which includes five case studies of natural disaster impacts on particular LGBTI groups, reveals the fact that these populations have specific needs which often go unmet. This review also highlights the necessity for further research across a broader range of contexts and using an expanded range of methodological approaches. We conclude by offering some specific ways forward for queer disaster research that accounts for the vulnerabilities, needs and resilient capacities of LGBTI populations, thus helping to address the gaps we have identified.

Ultimately, we argue that scholarship and policies related to natural disaster management can operate more inclusively by acknowledging the importance of socially constructed notions of sexual and gender identities in their current practice. As argued by Jagose (1996, 16), ‘heterosexuality is too often represented as unremarkable’ and as the normative position of which other sexual identities are seen as derivative. The work of queer theory disrupts this imagining and, within the context of disaster management policies, can highlight the usually unremarked role of sexual and gender identities in defining how natural disasters are
experienced. When undertaken with research into the specific needs of sexual and gender minorities, this work creates space in which more inclusive policies can be developed.

**Natural disasters, vulnerability and resilience**

Natural hazards that occur within the earth systems (atmosphere, biosphere, hydrosphere, lithosphere) may be sudden or rapid onset (e.g. earthquakes, tsunamis, tornados etc) or slow onset (e.g. drought, tropical cyclones), and regularly cause adverse effects on human societies and their activities (UNISDR 2009). Natural hazards, and the disasters that they can cause, appear to be increasing in frequency and intensity (UNISDR 2011). Disaster losses certainly are (Figures 1 and 2) (UNISDR 2011). The processes of global environmental and climate change point toward further increases in the frequency and intensity of future natural hazard events (Adger et al. 2005; IPCC 2007). The losses associated with these events are intensified by increasing human populations and their associated exposure in risky geographic locations, as well as poor land management practices and negative feedbacks within the coupled ‘socio ecological system’.

Disasters triggered by natural hazards adversely affect society and seriously disrupt its physical and human fabric, including infrastructure, communities, and social relations. For an event to be designated as a ‘disaster’, the cumulative material, human and environmental losses must exceed ‘the capacity of the affected society to cope with its own resources’ (Ginige et al. 2009, 23; UNISDR 2009). However, impacts are never evenly distributed nor uniformly experienced because different social groups exhibit varying characteristics of vulnerability and resilience (Finch et al. 2010). Socially oriented disaster research demonstrates disparities by gender, ethnicity/race, class/income, disability and age, during both the impact and recovery phases of the disaster cycle (Figure 3) (McEntire 2001, 2005).

There has, and continues to be, a vital need for scholarly and policy research in human geography and disaster studies on the human impacts and aspects of natural disasters. Such scholarship is concerned with the affects of natural disasters on individuals, their wellbeing and social functioning. This includes inter-related impacts on bodily, mental and emotional health, interpersonal relationships, social connectivity, material infrastructure, economic activities, cultural heritage, and built and natural environmental integrity.
A fundamental concern should be with individual and communal experiences of vulnerability and resilience during and after disasters. This in fact constitutes the critical work involved in addressing and improving hazard prevention and response, since the human impact is what defines a disaster. As McEntire (2001, 2005) argues, a disaster is not a natural event in isolation, but a combination of a triggering agent and a set of vulnerabilities within a given society. Disasters are a social construct.

Vulnerability, whilst contested and debated, broadly denotes the physical, social, cultural, economic and political conditions that affect the ability of individuals, families, households, communities and countries to prevent, prepare for, respond to, mitigate and recover from hazardous events and their associated disasters (McEntire 2001; Ariyabandu and Wickramasinghe 2003). These vulnerabilities may be found at the level of the individual (e.g. emotional health, level of education, access to information), the family (e.g. economic security, connectivity with wider social support network), community (e.g. social connectivity, infrastructure) and/or polity (e.g. political organisation, policy response).

Resilience is vulnerability’s partner concept, and denotes the ability of individuals, communities and countries in highly disruptive events, like disasters, to maintain relatively stable psychological and social functioning, allowing for the capacity to access and organise resources, and ‘spring back’ in a timely and efficient manner (Bonnano et al. 2007; UNISDR n.d.).

Vulnerability and resilience, then, are not separate categorical experiences, but interconnected. There is a spectrum of needs and experiences that track between and link these two concepts (Miller et al. 2010). A single disaster event can produce experiences of both vulnerability and resilience simultaneously. A given society might be vulnerable due to physical location, poor planning, inadequate infrastructure, public apathy or uneven distribution of wealth and resources, but certain individuals within the community might be resilient. Vice versa, within a well-planned and resourced resilient society, some individuals and groups will still be vulnerable to disruptions caused by a disaster, and some of these affects might be long term since disaster impacts can transcend multiple scales of space and time – they ‘ripple out’ across connected socio-ecological systems.

The varying experiences of vulnerability and resilience within a disaster are due to social differences within a community or country, making certain individuals and groups more
vulnerable or resilient (Finch et al. 2010). Accordingly, the United Nations International Strategy for Disaster Reduction (UNISDR) contends that social difference be recognised, and the needs and concerns of all social groups such as poor, rich, men, women, young, old, indigenous or non-indigenous must be necessarily integrated into the disaster reduction policies and measures because the level of vulnerability depends on these social aspects (Ginige et al. 2009, 24).

Studies into social differences and uneven vulnerability and resilience have thus been a key research agenda over the last decade, with a range of work conducted in various disaster contexts, in developing and developed, western and non-western countries. We do not have space here to provide a comprehensive review of the extensive literature on experiences of vulnerability and resilience of different social groups. This has been done elsewhere. However, we note that there has been considerable attention to disparities wrought by gender, race, ethnicity, age and income (or class) (Furr et al. 2010; Henderson and Hildreth 2011; Roberto et al. 2010; Shelton and Coleman 2009; Sultana 2010). This work demonstrates that women (Enarson and Chakrabarti 2009), ethnic and racial minorities (Burton et al. 2006; Ray-Bennett 2009), the poor (Ahern and Galea 2006), the old (Shenk et al. 2010), the young (Kronenberg et al. 2010) and the disabled (Peek and Stough 2010) often exhibit greater vulnerability and less resilience to the effects of disasters, during both the impact and recovery phases. Some studies also describe examples of resilience within each of these groups during particular events. While often informative for the ways in which marginalised groups experience vulnerabilities or develop means of resilience, and therefore useful in indicating potential experiences of LGBTI populations, these studies have often made heteronormative assumptions of sexual and gender identity. Thus one group which remains largely absent from this scholarship includes sexual and gender minorities (Cianfarani 2012). We argue that LGBTI populations must be encompassed in research and policy agendas to achieve effective disaster management that incorporates these populations as part of the total ‘social composition of a place’.1

What are the experiences of LGBTI people in natural disasters?

Having made the claim that sexual and gender minorities should be explicated considered in disaster contexts and that such consideration is largely absent, we must nonetheless ask the question: ‘What are the experiences of LGBTI people in natural disasters?’ The available literature does take valuable first steps in highlighting experiences specific to LGBTI people and in challenging heteronormative assumptions of sexual and gender identity in disaster
management and relief policies. Here, we review the entire literature we have been able to identify. Each is a case study of experiences in specific geographical contexts. By identifying the negative impacts current policies have had on LGBTI populations and highlighting the role of sexual and gender identities in the ways in which natural disasters are experienced, these studies point toward the importance of queering scholarship and policy in this field.

The majority of case study research comes from New Orleans following Hurricane Katrina. However, there are significant lessons to be learned from elsewhere, and we take pointers from new scholarship as well as from policy work commissioned by human rights NGOs and conducted on LGBTI experiences in other disaster contexts. Figure 4 locates these studies, visualising the limited geographical range of work on LGBTI experiences, underscoring the need for more empirical research. It is not our intention to provide exhaustive descriptions of each natural disaster event, nor all the complex socio-economic, cultural, political, sexual and other factors at play in each context, but to highlight the salient issues that arose for sexual and gender minorities in each case.

**Hurricane Katrina, New Orleans, 2005**

The existing scholarship on LGBTI experiences, with respect to Hurricane Katrina’s impact on New Orleans in 2005 and the city’s ongoing recovery (Leap et al. 2007; D’Ooge 2008; Richards 2010), highlights three specific themes: firstly, the impacts of heteronormative assumptions in policy development; second, the consequences of ongoing anti-LGBTI discrimination; and, third, the diversity of experiences within LGBTI populations as affected by issues of class, race/ethnicity and gender.

As indicated by the research to date, heteronormative assumptions either of individual identities and/or the gender composition of ‘families’ and couples, can leave LGBTI populations vulnerable. ‘Families’, for example, were defined by governmental and non-governmental agencies in New Orleans as comprising an opposite-sex couple and their biological children. Those in same-sex relationships were therefore not recognised as comprising a ‘family’ or a ‘couple’ and were excluded from the support provided to heterosexual residents. As a result, some same-sex couples were separated and resettled in different cities (Caldwell 2006; Leap et al. 2007).
The assumption of heterosexuality in recovery policies and activities has also prioritised middle-class family suburbs and infrastructural needs, so there remain concerns about whether the original LGBTI residential, commercial and tourist areas will receive much needed funding to enable rebuilding to occur (Richards 2010).

Second, ongoing anti-LGBTI discrimination and stigmatisation was found to increase LGBTI vulnerabilities. LGBTI populations are often enrolled, for example, into disaster discourses by US right-wing religious groups, who assert natural disasters as divine retribution for those who ‘sin’ (and those who support them) (Richards 2010). This suggests a specific vulnerability of LGBTI populations in disaster contexts. Figure 5 is an example, directed here at Australia following weather-related disasters in 2009.

Third, this research highlights the importance of addressing ethnicity/race, socioeconomic status and gender as factors which create differing levels of vulnerability in LGBTI populations. Lesbians, bisexual women and queers of colour (non-white LGBTI people), for example, were more vulnerable than most white middle-class gay men due to lower incomes, and also because the neighbourhoods where they lived were subject to greater flooding (D’Ooge 2008). Transgender and intersex people, meanwhile, had difficulties in evacuation shelters, where their gender identity was questioned and they were harassed for using the ‘wrong’ bathroom (D’Ooge 2008).

While the literature on LGBTI populations in post-Katrina New Orleans largely discusses the vulnerabilities resulting from heteronormative assumptions of sexual and gender identity, there was also evidence of resilience amongst the city’s LGBTI population. Already used to dealing with such assumptions and policies in both government and non-government organisations, some LGBTI people creatively figured out ways to sustain their senses of self, community and belonging in the face of both a natural disaster (the hurricane and associated catastrophic flooding) and the ‘invisible disaster’ associated with accidental (or deliberate?) exclusion from the official recovery and assistance process. Friendship networks, for example, were used to establish an alternative ‘network of information exchange about sources of housing, food, and medical care, availability of social services, and whether friends had survived and if so, their current addresses’ (Leap et al. 2007, 13).
Given the diversity of New Orleans’ LGBTI communities (Richards 2010), it is difficult to imagine that stories of resilience or vulnerability reported to date exhaust their experiences. Consequently, there is a need to further investigate LGBTI experiences of both vulnerability and resilience further in New Orleans, and to compare these with different national and international disaster contexts – a task we begin below.

**Haitian earthquake, 2010**

The International Gay and Lesbian Human Rights Commission (IGLHRC) and SEROvie (an HIV/AIDS NGO) assessed the impact of the 2010 Haitian earthquake, and relief and recovery programmes, on Haiti’s LGBTI population, citing specific vulnerabilities. These reinforce and extend the findings from post-Katrina New Orleans. First, the greatest impact of the earthquake identified by the majority of LGBTI people was the destruction of ‘already limited physical spaces, social networks and support services available to them’ (IGLHRC/SEROvie 2011, 3). Private spaces are important for LGBTI wellbeing, since minority sexual and gender identities are often publicly concealed and privately expressed. The loss in Haiti of homes, neighbourhoods, community meeting places and HIV/AIDS service spaces affected emotional, physical and social wellbeing.

Second, as in New Orleans, LGBTI communities were further marginalised as churches blamed them for ‘causing’ the earthquake. Following accusatory sermons, some gay and bisexual men were assaulted.

Third, LGBTI persons and families were vulnerable in shelters. Lesbians, bisexual women, and transgender and intersex people were subject to gender-based violence and ‘corrective rape’. Gay and bisexual men also reported forced ‘sexual relations with straight-identified men for food or money’ (p. 4). Consequently, some men took on a ‘more masculine demeanor’ to avoid abuse and reduce the chance of ‘being denied access to emergency housing, healthcare, and/or enrolment in food-for-work programs’ on the basis of appearing ‘effeminate’ (pp. 4-5).

IGLHRC/SEROvie found that LGBTI people and their specific problems were largely invisible to both domestic and international aid agencies. Whilst there will be differences between developing and developed, western and non-western socio-legal and economic contexts, these insights are nevertheless important in shaping important research areas such
as LGBTI invisibility in policy and aid work, loss of LGBTI support and meeting places, and LGBTI experiences of exclusion and harassment in shelters.

**South and South-East Asian natural disasters, 2004-2010**

Three separate studies have investigated disaster impacts among specific populations who adopt both non-normative gender roles and sexual orientation in South and South-East Asia. Each of these three groups – the *aravanis* of Tamil Nadu, India, *warias* of Central Java, Indonesia and *baklas* of Irosin, The Philippines – defines their gender and sexual identity in localised ways and should not be read as an homogenous group operating across regional or national borders. However, each study does reveal similar themes about the impact of heteronormative gender assumptions on groups who do not define their gender along a male/female binary. Everyday vulnerabilities experienced by these groups due to stigmatisation and discrimination are increased in natural disaster contexts due to the loss of personal spaces and privacy. Official policies which assume binary gender identities have been found to further increase these vulnerabilities. In focusing on issues of non-normative gender identity – the experiences of those whose identity arguably fits, or at least parallels, intersex and/or transgender/transsexual people – each of these studies constitutes a vital complement to the research already discussed.

Pincha (2008), for example, examined the impact of the 2004 Indian Ocean tsunami in Tamil Nadu, India, using a gender lens. Significantly, her work included *aravanis*, who ‘may be born intersex or apparently male, dress in feminine clothes and generally see themselves as neither women nor men’ (Pincha and Krishna 2008, n.p.). Even before the effects of the natural disaster, many *aravanis* generally lived in poverty and survived by begging and dancing for payment. Already stigmatised in Indian society, the social and economic disruption of the tsunami heightened their vulnerability. They simply did not register as a marginal group with specific needs. Some were denied shelter and aid because they could not be officially recorded as ‘male’ or ‘female’ by domestic or international agencies. Others who accessed shelters were harassed and denied further aid (i.e. food, clothes). Meanwhile, those both in and out of shelters reported physical and sexual abuse.

The increased vulnerabilities resulting from binary-gendered, heteronormative policies and practices were similarly experienced by *warias* in Central Java, Indonesia, during the eruption of Mt.Merapi in 2010. *Waria* individuals are ‘biologically male but adopt distinctly
feminine features and identity’ (Balgos et. al. 2012, n.p.). They are generally not accepted by the Islamic religion and often struggle for acceptance within their families and the wider society. Balgos et al. (2012) note that warias were invisible in the aftermath of the volcanic eruption because official policy guidelines listed evacuees only as ‘women, men, boys or girls’. Thus ‘institutional processes that should acknowledge the diverse social groups who are differently affected in a disaster were missing’.

Gaillard (2011) examined the experiences of baklas, a marginalised sexual and gender group in the Philippines whose identity encompasses both non-normative gender performativity and sexual orientation. Like warias, baklas are biologically male but ‘swing from male to female tasks and responsibilities’ Gaillard (2011, 122). In the town of Irosin, a site subject to frequent evacuations due to cyclone and heavy rain events, baklas experience specific vulnerabilities in evacuation centres. Uncomfortable with either men or women, baklas suffer from a lack of privacy in centres in which accommodation is divided according to binary gender identities. When assigned to male accommodations, baklas often experience mockery and prejudice.

While noting the impact on vulnerabilities of continuing stigmatisation and of gendered disaster relief and management policies, each of these studies also revealed strategies of resilience developed by these groups. Rather than risk discrimination in evacuation sites, for example, many warias sought help from friendship networks. Both warias and baklas, meanwhile, enacted particular means of assisting other populations to cope with disaster impacts, such as collecting relief goods, initiating clean-up and providing personal grooming services. Gaillard argued that baklas are known for ‘their sense of initiative and leadership’ and are thus ‘crucial resource persons within their communities when confronted with natural hazards’ (Gaillard 2011, 122). A dialogue between this group and the larger community was established which incorporated and acknowledged the contributions of baklas in disaster response programmes. This dialogue ‘helps in reducing discrimination and mockery during disasters’ (Gaillard 2011, 124).

**Where to from here?**
This literature on New Orleans, Haiti, Tamil Nadu, Irosin and Central Java constitutes the small body of scholarly and policy work on LGBTI experiences in natural disaster contexts. Through our review we have identified a series of issues for future research.²
First, more (and more geographically varied) baseline data is needed – see Figure 4 for further possible case study locations. While the above case studies are a vital and suggestive start, the existing work on LGBTI vulnerability and resilience remains limited and piecemeal. It is thus critical to undertake more systematic and focused work on LGBTI experiences in natural disaster contexts elsewhere, and create a meta-analytic picture of LGBTI experiences. Further empirical research and fieldwork is needed to more comprehensively determine the specific needs of LGBTI populations during and after disasters, and to analyse how LGBTI populations are addressed and accommodated in disaster contexts by government authorities, private enterprises, public institutions and non-government organisations across a range of locations.

Second, following from the above point, more needs to be done to reduce the unique vulnerabilities LGBTI populations do face during and after disasters. These vulnerabilities are a social problem, underpinned by heteronormative assumptions in disaster response and recovery, which may be addressed through new policy agendas (Cianfarani 2012). Policy research must contest the assumption of heterosexuality and ‘nuclear families’ in existing national, international, governmental and non-governmental frameworks for natural disaster response, and seek the development of response and recovery policies that account for different sexual/gender identities and family structures (Balgos et al. 2012). This will be a challenge for emergency agencies (e.g. in terms of temporary shelters), insurance providers (e.g. in terms of home rebuilding) and government departments (e.g. in terms of infrastructure and health services).

Third, aiding policy development that reduces LGBTI vulnerabilities poses challenges for academic conceptualisations of sexual and gender identity claims. Strategic policy work asks tough questions of research agendas in sexuality studies, particularly assertions in queer theory about the fluidity, instability and irrelevance of claims to sexual and gender identity (Leap et al. 2007). While sexual and gender identity is arguably mutable, this conceptual position is unhelpful in the material conditions of disaster impact, response and recovery. Leap et al. (2007) indicate that claims to sexual and gender identity did matter in post-Katrina New Orleans, where national agencies made assumptions about sexual and gender identity in policy and practice, with significant material consequences for LGBTI people. If sexuality studies is to contribute to scholarly and policy research on LGBTI experiences of natural
disasters (it should, we argue), then theoretical positions will need to wrestle with how to configure sexual and gender identity claims for policy development.

Fourth, we need ongoing research and policy work into the diversity, and diverse needs, within LGBTI populations. This means, despite point three above, we cannot dismiss queer theory and commensurate arguments about the complexity and mutability of sexual and gender identity. These concepts remain vitally relevant because LGBTI populations are not homogeneous, but distinguished by gender, class, race, ethnicity, HIV status, age and place (Gorman-Murray et al. 2010). These intersections not only differentiate LGBTI people, but mean that particular sub-groups face specific vulnerabilities. Informed by queer frames, new research must seek to understand differences in the experiences and needs of LGBTI populations in disasters by national, social and legal situation, and intersections of gender identity, class, race/ethnicity, age and disability.

Finally, more needs to be done to positively enhance the resilience and adaptive capacity, not just reduce the vulnerability, of LGBTI populations. It is important to acknowledge that LGBTI people, while facing heteronormative exclusions in policies and processes, also creatively harness specialised means of resilience, such as friendship networks and ‘families-of-choice’ (Weeks et al. 2001). Further research which seeks to understand the role of social and LGBTI media, LGBTI community organisations and the importance of organisations and protocols established in the face of earlier and on-going crises (e.g. HIV/AIDS), is necessary to more fully understand this resilience. Response and recovery policy might best assist LGBTI populations through activities that build on, and not against, existing resilience and adaptive capacity (Cianfarani 2012). Policy development about temporary shelters, relocation and rebuilding might account for friendship networks and ‘families-of-choice’.

Simultaneously, research and policy should acknowledge that cohesive relations between LGBTI populations and wider social settings are an important facet of resilience. Research here could seek to understand how social, cultural and familial linkages beyond LGBTI communities are affected in disaster contexts and how they might be built into response and recovery policies that enhance resilience.
Endnotes
1. Tellingly, a 112-page research bibliography on ‘the human effects of Hurricane Katrina’ published July 2011 contains no citations on specific LGBTI experiences post-Katrina (although we have located such work) (Erickson and Peek 2011, 2).
2. While beyond the scope of this commentary, additional insight into LGBTI vulnerability and resilience might come from work on ‘technological disasters’ (e.g. 9/11 New York City), conflict situations (e.g. war, persecution, displacement) and health crises (e.g. HIV/AIDS).

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**Figure 1** Summary of global natural disasters between 1900 and 2010. Includes number of disasters, deaths and people affected (Linear – Extrapolated Smooth Lines) by the Centre for Research on the Epidemiology of Disasters. (2011). The OFDA/CRED International Disaster Database - EM-DAT, Brussels, Belgium.
Figure 2 Natural disasters reported between 1900 and 2010 across the globe (With key EM-DAT dates) by the Centre for Research on the Epidemiology of Disasters. (2011). The OFDA/CRED International Disaster Database - EM-DAT, Brussels, Belgium.
**Figure 3** Simplified outline of the ‘disaster cycle’ (after Alexander, 2000).

**Recovery**
- Restore essential services
- Long-term medical support
- Temporary housing
- Financial assistance
- Distribute recovery stores
- Public information
- Manage public appeals
- Restore public assets
- Economic impact studies
- Review development plans
- Initiate reconstruction tasks

**Response**
- Plan implementation
- Emergency declarations
- Warning messages
- Public information
- Registration and tracing
- Activate coordination centres
- Evacuations
- Search and rescue
- Mobilise resources
- Damage assessments
- Provide medical support
- Provide immediate relief
- Institute public health measures

**Mitigation**
- Building codes
- Building-use regulations
- Legislation
- Public education
- Public information
- Tax (dis)incentives
- Insurance (dis)incentives
- Zoning/land-use management

**Preparedness**
- Emergency response plans
- Warning systems
- Evacuation plans
- Mutual aid agreements
- Public education
- Resource inventories
- Training programs
- Test exercises
- Plan refuge shelters
- Public information
- Emergency communications
Figure 4 Locating work on disaster contexts and LGBTI experiences. Red disaster stars relate to actual former studies referred to in the text – (1) Hurricane Katrina in Louisiana, (2) 2004 Indian Ocean tsunami in Tamil Nadu, India, (3) 2010 earthquake in Haiti, (4) 2010 eruption of Mt Merapi, Java, and (5) Tropical Cyclone and rain storms, Philippines. Grey disaster stars relate to possible future geographic studies of past events – (1) earthquake and tsunami in Japan, (2) earthquake and tsunami in Chile, (3) floods in Brisbane, Australia, (4) earthquake in Christchurch, New Zealand, (5) tornadoes in central USA and (6) earthquakes and wildfires in California, USA. These previous events offer the opportunity to explore LGBTI experiences across a variety of hazard process types, geographical locations, scales and urban, rural and regional settings. These examples are illustrative rather than exhaustive.
Figure 5 Westboro Baptist Church news release (www.god hatesfags.com) that demonises and attributes blame for natural disasters on ‘homosexuals’ and their defenders (including President Obama) (source: the words of the News Release can be Googled and are reported in Wikipedia. However, the News Release is also reported at: http://www.atheistfoundation.org.au/forums/showthread.php?t=2400, accessed 16 December 2011).

Due to the poor quality of the original image sourced from the www, we provide a clarification of the words:

Westbro Baptists Church
News release

GOD HATES AUSTRALIA. THANK GOD FOR KILLER FIRES & FLOODS, 100+ DEAD; PRAY FOR MANY MORE; AS WE WARNED.
Yes. It is WBC’s sincerely held religious belief that Australia is a land of False Prophets, many of whom are fags and fag-enablers. They helped create a hellish Zeitgeist wherein a worldwide Sodomite cult flourishes, and wherein Final Antichrist Beast Obama has been able to come to the Presidency of the United States and the de facto Leader of the so-called Free World. Mat. 7: 15-20; Rev- 13: 1-15. God is punishing Australia for her part in this worldwide fiasco; worse and more of it is coming from God.

‘And the anger of the Lord was kindled against this land, to bring upon it all the curses that are written in this book’
Deut, 29: 27