

Chapter 3

Disaster Risk Reduction in the Era of “Homeland Security”: The Struggle for Precautionary, Preventive, and Non-violent Approaches

Kenneth Hewitt

1 Introduction

Addressing disasters in terms of *risk reduction* has to do, mainly, with ways to avoid or prevent catastrophes and to alleviate impacts of those not prevented. A “disaster risk reduction” (DRR) agenda has become identified as, and with, in-depth analyses of conditions that put people at risk, that fail to provide known preparedness and protections, or to adequately relieve post-disaster distress. The practical and ethical bases for a DRR arise from empirical findings that *most losses in recent disasters could, in fact, have been prevented* let alone reduced, and by well-known means. Its positive goals involve, especially, long-term preventive measures addressing the conditions that can and should help people avoid dangers, promote adaptive and sustainable safety. As is also shown, where the latter is available, successful prevention is readily apparent and social action critical for it.

Typically, reports create the impression that disasters are due to unprecedented, unstoppable natural forces—in the Indian Ocean 1995, at Kobe 1995, Sichuan, China in 2008, Japan and Haiti 2010, or the Philippines in 2013. However, great as the geophysical forces were, others as great or greater are found in the historical record with, and without, calamities. More importantly, damage patterns were explained mainly by pre-existing socio-economic conditions, risky settlement, land use histories and development; only weakly if at all, by the variable intensity of geophysical stresses. Detailed assessments reveal an absence of entirely feasible warnings, or enforcement of building codes and other protective measures, which

K. Hewitt (✉)

Department of Geography and Environmental Studies, Wilfrid Laurier University, Waterloo, ON, Canada

e-mail: khewitt@wlu.ca

© Springer International Publishing Switzerland 2017

K. Sudmeier-Rieux et al. (eds.), *Identifying Emerging Issues in Disaster Risk Reduction, Migration, Climate Change and Sustainable Development*, DOI 10.1007/978-3-319-33880-4_3

35

perhaps indicates a misjudgment or opportunism in post-disaster assistance (Ekine 2013; Gonzalez et al. 2007; Lewis 2008).

The underpinnings of DRR arose from critical social research in the 1970s and 1980s (Bohle 1993; Hewitt 1983; Lavell 1994; White 1974; Wijkman and Timberlake 1984). The work showed that disaster risks are rooted mainly in peoples' everyday lives, in stresses and developments that push them into more dangerous locations, increase their vulnerability, and fail to offer them resources and protections (Maskrey 1989; Mileti 1999; Ozerdem and Jacoby 2006; Wisner 1993). Spatial patterns of loss were found to follow pre-existing societal conditions (Bankoff et al. 2013; Blaikie et al. 1994; Enarson and Morrow 1998; Hewitt 1997; Steinberg 2006). In famines for example, overwhelmingly those who starve, die, or end up in refugee camps were the *already* hungry, malnourished, and otherwise deprived (Copans 1975; de Waal 1997; Sen 1981). Crucially, while environmental hazards are *indiscriminate agents*, in social terms their impacts become *discriminatory disasters*—disproportionate losses for certain types of person, sectors, or groups. They single out groups subject to precarious social histories, unsustainable relations to habitats, coercion, and weak or corrupt governance (Alexander 2010; Coelho 2007; Oliver-Smith and Hoffman 2003; Pelling 2003).

The Yokohama conference of 1995 brought a singular shift in this—a shift away from prevailing explanations based on natural hazards, or extreme, unpredictable events and away from management focused on emergency preparedness, “expert systems”, and technology transfers. The latter certainly have their place, but DRR looks to other humanitarian goals and preventive forms of action, for example, as systematized internationally in the Hyogo Framework for Action (HFA). For present purposes, the social and humanitarian preoccupations are revealed in UNISDR (2005):

Priority Action 3: Use knowledge, innovation, and education to build a culture of safety and resilience at all levels

Priority Action 4: Reduce the underlying risk factors.

At the time of writing, intense discussion to update or replace HFA in 2015 has given greater prominence to these two priorities, partly because of their neglect in HFA's first 10 years (UNISDR 2014). The notion of “underlying risk factors” challenges the still pervasive view of disasters as due to agents like earthquake or flood; to supposedly abnormal or uncertain conditions, or to unpredictable environmental change (van Niekerk 2008).

At the broadest scale, an influential report for the DRR community found that;

...“while only 11 percent of the people exposed to natural hazards live in low human development countries they account for more than 53 percent of recorded deaths”.
Development status and disaster risks are closely linked...” (UNDP 2004:1 emphasis added)

Of course, statistical summaries are only broad indications of the exact nature of exposure, vulnerability or disadvantage; of processes and responsibility (Alexander 2011; Bankoff et al. 2015; Cutter 1993; Steinberg 2006). National wealth and higher rates of development are not necessarily associated with greater safety. For its victims, risk is always local, if under constant pressure from broader, even

global, developments affecting everyday lives and capacities (Davis et al. 2004; Franklin 1998). And such dangers have a social history, not just a random, extreme event trigger (Pelling 2003). Had the 2004 Indian Ocean Tsunami occurred 50+ years earlier, the types of coastal settlement, land uses, and concentrations of population hardly existed. Most victims had come to or been born in coastal zones relatively recently, driven by livelihoods lost to modernization and urbanization, or attracted to unsafe sites by them. Disproportionate deaths among women in some areas, by caste or ethnicity in others, reflect pre-existing stresses and oppression (Hewitt 2007; Oxfam International 2005; UNIFEM 2009). Meanwhile, from Aceh and Sri Lanka to Myanmar and Somalia, people in the worst-affected coastal zones were in areas ravaged by civil war and dirty wars; by severe human rights violations and military occupation (Ferks and Klem 2011; Le Billon and Waizenegger 2007). Earthquake and tsunami impacts *revealed* their precarious state, *rather than causing it*.

In such terms, disaster risk can hardly be treated separately from migration, especially where forced, or when host countries reject, exploit, ghettoize, and demonize migrants (Loyd et al. 2012; Chaps. 1 and 6). Meanwhile, climate change may ultimately become the largest “man-made” disaster or trigger of increased and changing disaster profiles. However, the social conditions noted, for those most at risk from climate change, *already* involve the highest disaster risk. More critical here, each of these concerns face challenges, similar or overlapping, as described below in relation to DRR.

2 Contradictions and Challenges

... today... enlightenment turns into what it undertook to hinder; the increase of fear. The uncanny... comes to the fore again out of the means used to protect against it. (Sloterdijk 1987: 330)

As a whole, the field of disasters involves some seemingly contradictory developments. Evidence is widely cited of increasing disaster numbers and losses, and of populations affected by them (EM-DAT 2013; IMF 2012; Laframboise and Loko 2012). However, a sense of contradiction arises from the, less often mentioned, great increases in disaster-related initiatives. Funding and relevant institutions, meetings and publications, non-profit and for-profit companies, have expanded exponentially in recent decades.

One indicator is the expanded role of development banks. The largest contributor, the World Bank, sponsored 528 projects labeled DRR between 1984 and 2006. It oversaw funding for many others. The Asian Development Bank sponsored 560 DRR projects between 1987 and 2012. Other financial institutions are involved from the Eurozone, Middle East, Africa, Latin America, and Australasia. Emergency assistance from the IMF (2012) has also increased.

According to Calhoun (2004), “management of emergencies [is] a very big business. . . mobiliz[ing] tens of thousands of paid workers and volunteers. . .” Hannigan (2012: 22) finds “natural disasters” to comprise, “. . . a global policy field. . . becoming considerably more crowded and turbulent. . . [with] the influx of thousands of new NGOs into emergency operations. . .” He identifies further marked expansion—if greater confusion—as disaster management is entwined with Climate Change Adaptation. The question is why such unprecedented efforts and investment have failed to even slow the rates of increase in disaster losses?

Conventional views focus on what is lacking, in knowledge or monitoring, in transfers of available techno-science, or “under-”development. However, critical assessments suggest those governmental and corporate strategies for disaster and development that have grown are, at best, inappropriate and at worst, self-serving projects (Loyd et al. 2012). A DRR perspective offers a different view of disaster causality: that socio-economic disadvantages loom larger as in:

1. Greater influx and concentrations of vulnerable people in dangerous situations, notably rural and urban settlement in flood plains, along storm and tsunami-prone coasts, in mountainous interiors, “desertified” dry lands, and polluted wetlands (Bankoff et al. 2004; Renaud et al. 2013; UNISDR 2002);
2. Developments that increase vulnerability by gender, class, (un)employment, ethnicity, religion, sector, country, etc. (Anderson 2005; Fordham 2003; Middleton and O’Keefe 1998);
3. Multiplying risks and losses associated with social upheavals, urbanization, militarization, habitat damage, and armed conflict (Bohle 1993; Hewitt 2000, 2013; Hilhorst 2013; Schuilenburg 2012).

Davis’ (2006) “planet of slums” includes a disproportionate share of disaster’s victims. The overall pace of urbanization and spread of fully urbanized societies coincides with a late modern reversal that Pelling (2003) calls the “urban transition from security to risk” (see also Fernandez 1999; Mitchell 1999). However, these are all situations massively affected and maintained by the prevailing economic and political order that spur “new realities”, from “resource wars” to climate change, accelerating and changing directions of global economic and strategic choices. Late modernity in general has brought massive redistribution of risks and benefits, often poorly monitored, poorly understood, or cynically accepted (Bricken and Eick 2012; Ericson and Doyle 2003).

If we live, as many believe, in Ulrich Beck’s (1992) “risk society”, these underpinnings of disaster can hardly be ignored; notably his echo of Sloterdijk (1987) above that, “. . . the production of risks is [now] the consequence of scientific and political efforts to control or minimize them. . .” (p. 12). Studies of the disasters at Fukushima, Christchurch, New Zealand, or “dike risk” at New Orleans, might seem to literally endorse this view. However, Beck’s main thesis is that the “risk society” results from obsessive commitments to *controlling dangers or threats*, and in countries and by people who, otherwise, seem among the safest! He hardly addresses environmental disasters and may seem unhelpful where most occur

except that, by default, modern managers, agencies, and science play dominant roles there too.

2.1 “Securitization” and Non-disasters

. . . things do not necessarily develop in step in different sectors, at a given moment, in a given society, in a given country. . . (Foucault 1978: 8)

The fairly negative report so far needs to be balanced and questioned by some remarkable success stories. Not unlike modern medicine, in some places modern developments bring unusual safety and much-reduced disaster risk. A certain percentage of households in modern states and enclaves, generally the wealthiest, enjoy high levels of security, services, options, and resilience. They benefit most from modern facilities and support systems. They rarely appear in the disaster lists, even when just round the corner from massive destruction. A prime example was the much larger areas of Kobe city with little or no damage or loss of life in the 1995 calamity (Hewitt 2007), not because the earthquake was weaker there, but because they benefitted from known and enforced seismic building standards and fire protection. They provide telling illustration of what *effective* DRR can do, and in striking contrast to nearby failed protections where some 6,000 died. This also becomes a standard against which to measure what went wrong there.

In most cities, the main beneficiaries of modern safety spend their days in well-protected, security-conscious work places, and homes, or what Sheptyki (1997) calls “bubbles of security”. They are usually in the suburbs, sometimes inner districts or ex-urban areas still defined by “old wealth”, or gated communities with private security guards. “Corridors of security” take these well-to-do people from home to downtown, to businesses and industrial parks, high-end shopping, airports, and recreation. Such contrasting “riskscapes” exist in North America and Western Europe, if more striking where they overlook or wind through the vast slums of Johannesburg, Jakarta, Mexico City, Mumbai, or Karachi.

It needs emphasis that risk reduction specifically affecting disasters—building and planning codes, evacuation and quarantine plans, public health and safety, insurance—are also available in proportion to social influence and purchasing power. In addition to better forecasting networks, flood control, fire-fighting, or emergency preparedness, community support networks are also key in the form of social capacities, sustainable livelihoods, options, and habitats. The realm of “resilience” is thus rooted, like vulnerability, in community support systems. However, a compelling observation is that well-protected people acquire safety, even against disasters, *largely outside of disaster management systems*. Their security is decided through place and type of work, income, or credit, often by inherited or class benefits, through religious institutions in many countries, and preferential access to public as well as private facilities. The other side of the “underlying risk factors” is “underlying *safety factors*”. Unfortunately, to date,

superior security arrangements are identified with social exclusion and problems for others, rather than as DRR (Beck 1999; Franklin 1998). However, there is a more immediate, growing impediment.

3 The Poor Relation of Development and Disaster Management

DRR is the preferred perspective here, but remains a limited and even a diminishing part of the whole disasters field. A recent report estimated global assistance for “natural disasters” between 1991 and 2010, at about US\$106.7 billion (Kellett and Caravani 2013). International development aid was US\$3.3 trillion;

... Essentially, for every US\$100 spent on development aid, just 40 cents has been invested in defending that aid from the impact of disasters... (ibid, p. 5)

More revealing, only 12.7% of disaster funding went to DRR. Emergency responses received 65.5%, and reconstruction planning 21.8%. Poorer countries received the least for DRR, with the lowest 117 countries only 9.5%—the reverse of HFA priorities. Meanwhile, funding was allocated in a fragmented and inequitable way. Of all projects supported, 86.5% involved 3,188 grants of less than US\$1.5 million, comprising only 5.5% of total outlays. A few large, expensive projects took the lion’s share, mainly in middle-income countries such as China and Indonesia.

The broader picture of safety and security funding reinforces this sense of contradiction (Table 3.1). Global DRR ranks poorly compared to local support for some other risks. Above all, military budgets must be considered “the elephant in the room” here, as so many public concerns (see below).

Table 3.1 Comparing world total DRR expenditures in 2010, estimated at US\$1.4 billion, with other security-related expenditures in that year

Funding area	DRR as per cent
1. US border security infrastructure	90
2. US “War on Drugs” outlays	50
3. World food aid	25
4. Security firm Booz Allen’s annual income ^a	25
5. US Special Operations Command (so-called “Black Ops.”)	20
6. World Peacekeeping	10
7. Canada’s military budget (#14 in world)	4
8. Worldwide spending of states on homeland security services and products (Statewatch 2009, 4)	1
9. Energy subsidies—largely for fossil fuels ^b	0.07

^a99% from government contracts (Chatterjee 2013). The company employed whistleblower Edward Snowden for work at the NSA

^bAccording to the IMF (2015) these energy subsidies were almost US\$2 trillion in 2011, “a whopping 2½% of global GDP that could have been used more wisely”

3.1 *The Up-Staging of DRR*

In wealthier, more influential states, disaster response is increasingly combined with broad management complexes led by national security concerns (Bello 2006; Tellmann 2009). Disasters are subordinate to war-preparedness, border security, disease control, protection of major infrastructure, policing of international migration, and trafficking (Lloyd et al. 2012). In North America, disaster management is absorbed by “Homeland Security” whose vision is: “. . .to ensure a homeland that is safe, secure, and resilient against terrorism and other hazards. . .” (US/DHS 2012: 9). “Ensuring resilience to disasters” is *fifth* on its list of missions.

Britain’s National Security Strategy (UK Government 2010) has a similar profile with terrorism first on the list concerns and “natural disasters” *last*, even while acknowledging that; “. . . the 2007 floods in Britain occasioned the largest ever civil emergency response since the Second World War. . .[and] highlighted the impact that natural disasters can have, even on fully developed, networked societies. . .”

According to Hayes (2010: 17)

Within Europe too the focus has been all about counter-terrorism and border control. . . used as a pretext to introduce surveillance policies that would have been unthinkable in the 1990s. . .

The sheer scale of security apparatuses and their competing agendas have an enormous impact on DRR (Buzan et al. 1998; Hannigan 2010; Hilhorst 2013). A large military involvement is taken for granted; seemingly as an obvious use of all those personnel, vehicles, and other resources sitting around between wars, mainly serving to provide armed control and “lock down” in disaster zones. In many countries the military do have better hospitals, communications, mass feeding arrangements and emergency shelter, and typically have the best-trained and equipped personnel with critical skills such as doctors, nurses, utilities technicians, and specialists in transportation.

4 Civil Defense and “The Security Industrial Complex”

Although much expanded after the 9/11 attacks, Homeland Security is rooted in a civil defense model (Alexander 2002; Amacher 2003; Hewitt 1987). Originally focused on urban civilian populations and bombing threats in the world wars, civil defense served as a basis for disaster management through the Cold War years:

. . .In 1951, NATO established the Civil Defense Committee. . . It soon became apparent that the capabilities to protect our populations against the effects of war could be used to protect them against disasters. (NATO-OTAN 2001: 5)

Work that helped define what became DRR and HFA was strongly critical of the civil defense model (Piel 1962). Now, with little discussion, Homeland Security (HS) has turned the clock back, amalgamated security-related agencies, redefined others and placed them on a war footing. This has enjoyed exponential increases in funding. In 2014, the US/HS total budget was almost US\$60 billion, over 5 times

the annual global disasters budget, and almost 100 times global DRR. After 9 years of HS, a Washington Post investigation reported that “unprecedented spending and growth so massive that its effectiveness is impossible to determine” including:

- * Some 1,271 government organizations and 1,931 private companies work[ing] on programs related to counterterrorism, homeland security and intelligence in about 10,000 locations across the United States.
- * An estimated 854,000 people, [with] top-secret security clearances.
- * In Washington and the surrounding area, 33 building complexes for top-secret intelligence work are under construction or have been built since September 2001... occupy [ing] the equivalent of almost three Pentagons or 22 U.S. Capitol buildings. . .
- * Many security and intelligence agencies do the same work, creating redundancy and waste.
- * Analysts who make sense of documents and conversations obtained by foreign and domestic spying share their judgment by publishing 50,000 intelligence reports each year—a volume so large that many are routinely ignored. (Priest and Arkin 2010)

Separating the public security concerns of HS from defense spending is difficult or impossible (Higgs 2007). Indeed the reverse is happening, with military spending increasingly defined in security terms and by “new war” hazards and action more and more into non-military areas.

The overall result is termed “The Security-Industrial Complex” (SIC) (Hayes 2010; Mills 2004). Some welcome it, others are highly critical of its impact, methods, and performance (MacDonald 2006). Either way, the Federal Emergency Management Agency (FEMA) is one preexisting agency absorbed into the SIC and with overlapping responsibilities in the “prison-industrial complex”, the “border-industrial complex” (Miller 2013), and the “Cyber Security Industrial Complex” (Talbot 2011).

In principle, HS could pursue DRR priorities, as FEMA had begun to do in the 1990s. Thus far, it ignores long-term risk reduction and preventive measures, or participatory and cross-cultural concerns. Crisis-mode, centralized management is preferred, along with “expert” and outsider economic strategies and technologies. An overriding commitment to militarized responses and policing strategies treats disaster areas more like war zones or crime scenes; to be aggressively contained and controlled by armed force (Bricken and Eick 2012). Moreover, contrary to a widespread impression, military and police roles in disaster are neither free nor cheap. A large fraction of assistance can be absorbed for salaries, helicopters, motor fuel, accidents, and the like. As the first decade of HFA has ended, events in Haiti illustrated these concerns in a place where DRR is needed most.

4.1 Haiti and the SIC

Figures in the 2010 calamity are still disputed, but death tolls ranged from not less than 100,000 to over 320,000. Some 1.5 million people lost their homes and 3 million people were adversely affected. Economic losses were estimated at US\$8 billion. More than 8,000 died in the subsequent cholera epidemic.

A measure of the militarization of relief is how, within 2 weeks, the USA had deployed 18,500 troops to Haiti, and Canada 2000. Several thousand more came from the Dominican Republic, France, Brazil, Israel, Qatar among others. MINUSTAH, the UN peacekeeping force already in Haiti, was boosted to 8,300 by April. US forces took control of the international airport and later, the ports and roads. Large numbers of warships, military planes, helicopters, trucks, and other motor vehicles were deployed. In February 2010, the UN assessed “peacekeeping” funds for Haiti at US\$3.8 billion. One report is of US\$1.9 billion disbursed to peacekeeping forces by mid-2012 (UNOSEH 2012), certainly less than claims to that time. Especially troubling was the cholera epidemic in which some 656,000+ people were made ill and 8,100+ had died by 2013. The source was traced to the contamination of streams at a MINUSTAH camp. The UN refuses to take responsibility, but the epidemic has added enormously to the hardship, overstressed medical system, and slow pace of recovery (The Economist 2013; United Nations 2010).

The relief effort had other troubling features (Moloney 2014). According to the Special Envoy (UN/OSEH 2012), of almost US\$9 billion donated through bilateral and multilateral agencies:

- Less than 0.6 % went directly to Haitian businesses and activities
- Only 2.4 % of all bi- and multi-lateral funding was in cash transfers
- Less than 10 % went to the Haitian government and *none* to its agencies
- Haitian NGOs received only 1.3 % of international appeals

The report finds such “counterproductive assistance”, typical in a range of other “fragile” (poor country?) settings.

4.2 Disaster as Opportunity

The proclamation of disasters, or the threat of disasters, open windows of opportunity for militarized response, unauthorized interventions, blank *cheques*, suspending civil rights and indeed DRR projects. . . (Warner 2013: 89)

The SIC involves not merely greater centralization, militarization and secrecy, but there have been major efforts to privatize and shift responsibilities to for-profit enterprises as well as NGOs (Jung 2003). They absorb ever-larger parts of humanitarian aid, spin-offs to security businesses and paid security services. “Threats” are commonly bracketed with “opportunities” by HS and its related organizations (USOHDACA 2004). President Eisenhower’s original notion of the “military industrial complex” referred to how the US military had emerged as decisive not just for geostrategy, but as an economic player and employer. Such “complexes” can become *enterprises* rather than simply services, professions, or divisions of government.

In New Orleans after “Katrina” and Haiti after the earthquake, reports show that crisis and humanitarian funding served as opportunities for gain, if not blatant

exploitation, by influential players, not least in or from wealthy countries and international organizations (Hepburn and Simon 2013; Provost and Dzimwasha 2014). Large contracts, much larger than most DRR projects, were awarded without an open bidding process (UNOSEH 2012).

What has gone on in New Orleans, Port-au-Prince, Christchurch New Zealand or Fukushima, and above all the 2014 *ebola* epidemic in West Africa, appears to support the contention that we are witnessing “. . .bold experiments *in crisis exploitation*. . .” (Klein 2007: 11 *emphasis added*). And as in the same disasters, crises may be used to excuse official ignorance of popular demands or contested concerns and to hand over problems to responders and experts, chosen because they serve donor priorities. Another “opportunity” is how:

The lawlessness and high demand for cheap labor. . . can create an atmosphere ripe for human trafficking. Trafficking in New Orleans and other areas devastated by Hurricanes Katrina and Rita began shortly after the storms. (Hepburn and Simon 2013:12)

The possibility is thus raised that for some, letting disasters happen is more profitable and convenient than trying to prevent them!

4.3 *Mindsets*

Of special concern for knowledge-workers and others who read books like this, is how organizations and professions view disaster causes. DRR is developed from, and also singled out for, a particular set of priorities as outlined earlier in the chapter. Prevailing notions in the new “security state” and SIC, are remarkably similar to those critiqued and rejected in DRR (Hewitt 1983; UNISDR 2005; van Niekerk 2008).

Today, where disaster management finds its home(land), “threats”, enemies or hazards external to society loom largest, and perhaps most notably the violent ones. It is identical to the old “hazards paradigm” (Bowling and Sheptycki 2012; Hewitt 1983). The resurgence of a militarized and technocratic crisis response turns away from the pre-disaster social causes of peoples’ exposure and vulnerability, and from absent protection (van Uffelen 2013). A civil defense view reinstates Gilbert’s (1998) “patterns of war approach”, or Buzan et al.’s (1998) “logic-of-war”. Goals tend to be wrapped in very broad, abstract packaging (for example, “freedom”, “development”), promoted by dominant states and institutions or directed at their constituencies and media audiences. This politics of “securitization” has been seen as “a new form of power” (Schuilenburg 2012). The main issue is how it has worked *against* the HFA principles and efforts to address “underlying risk factors” (Corry 2012). As noted, these are given even greater emphasis in the revised Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR) (UNISDR 2014). To the time of writing, it remains to be seen whether substantial material and political support will follow.

The most difficult contradictions may arise elsewhere. On the one hand, HS and the SIC have adopted the “all-hazards”, transdisciplinary, multi-agency approach that many of us see as essential to making DRR effective (Hewitt and Burton 1971). Instead, the dangers of totalizing strategies and the consequences of centralizing control over complex terrains are revealed to be in the hands of a few authoritative figures or institutions, themselves under pressure from other, narrow agendas (to the state, the alliance, the economy, the corporation, the agency). In the security landscape, they become largely unaccountable because of secrecy and the emergency powers they claim. On the other hand, HS has championed prevention at a certain level and massively invested in trying to track, preempt, and forestall the primary concern, terrorist attacks. Then again, limited success and even the expanding problems are identified with a refusal to go a step further and look at “underlying risk factors”—radicalism rooted in poverty—concentrated youth unemployment, ghettoization, crime, and abuse. In the disasters arena, a conservative mindset again prevails, happy to relegate disasters to the realms of accidents, “bad apples”, luck, and Mother Nature. This is a stark contrast with DRR which addresses disaster vulnerabilities of greatest extent and concern as *socially constructed*, both in how endangerment actually occurs and in how disaster risk is viewed and can be changed.

The argument is not against emergency services or national security concerns. Disasters will continue to happen and crisis response is needed. Disaster reduction, however, must occur mainly through risk aversion before the event. Again, modern safety systems and regulations and research to better understand the planetary environment continue to be needed. New products, major infrastructure, modern life styles, and global change will continue to raise urgent, specialized safety requirements. As already shown, however, these are not the main types of risk for most who suffer in disasters and most of such losses have been proven preventable, if that were to be the priority.

5 Reviving DRR: A Preventive, Humanitarian Field

These views of modern disasters suggest that the most direct and promising inspirations for DRR are found in established *preventive* fields such as public health, fire, workplace or road accident prevention, structural or aviation safety and social safety nets. Where applied and sustained, these have greatly reduced risk and losses (Green 1997; Hacking 1990). More critically, they have succeeded to the extent that they deal with social and environmental matters that may be outside, yet strongly affect hygiene or the presence of flammable materials, driver behavior or disease vectors respectively. Risk reduction in each preventive field has required working with, and the development of improvements for, those most likely to be harmed, usually those living in disadvantaged places and groups. Almost without exception, the story of accident or urban fire prevention, workplace safety and preventive medicine, involves improving conditions for the less well off. Not all

damages have been or can be prevented, but it is the attitudes and goals of preventive fields that should inspire a new vision of disaster prevention.

Technical competence and capabilities are surely important, but do not come first in successful preventive fields. Experience in public health or accident prevention shows that improvements rarely happen without the trust and participation of those most at risk. They begin with commitments not merely to serving the “public good”, but those most in need of assistance and resources. Ethics come first social initiatives and movements are needed that encourage participatory responses, cooperative, and sharing models (Ericson and Doyle 2003; Strang and Braithwaite 2001; Umbreit and Arbour 2010). Cultures of precaution and prevention are needed especially in congested districts of cities and in impoverished rural communities.

DRR has to conform to humanitarian principles (Hewitt 2013). Highly relevant, from the discussion above, are certain parts of the Red Cross and Red Crescent Societies’ Code of Conduct, recommended for all NGOs, especially:

“*Disaster-affected communities* have a right to expect those who seek to assist them to measure up to these standards:

- *Aid is given regardless of the race, creed or nationality of the recipients and without adverse distinctions of any kind. Aid priorities are calculated on the basis of need alone.*
- *Aid will not be used to further a particular political or religious standpoint.*
- *We shall endeavor not to act as instruments of government foreign policy.*
- *We shall respect culture and custom.*
- *We shall attempt to build disaster response and local capacities.*
- *Ways shall be found to involve programme beneficiaries in the management of relief aid.*
- *Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs.*
- *We hold ourselves accountable to both those we seek to assist and those from whom we accept resources (ICRC 1994: 3–4).*

For DRR such principles must be extended to building social capacities, safety and wellbeing outside crisis zones, to ensure the non-exclusive, equitable, and fair access to security in the daily necessities of living. It opposes investment in structures and cultural norms that separate, privilege, and protect some people and regions at the expense of others, or exclude the very people who are at greatest risk.

As core values, these will inevitably set DRR apart from the current approach of HS and the SIC. Risk assessments are required that respect the connectedness of people, cultures, and habitats. In turn, this engages with broader ecological principles for living and acting *with* Nature, rather than coercing, abusing, or making war on it.

6 Concluding Remarks

This chapter is intended to introduce and critically explore DRR. It seems fair to say that it shares some common predicaments with global migration and climate change adaptation (CCA), as they relate to a “sustainability” umbrella. There is already overlap and common concerns between DRR and CCA projects, if not always in clear agreement (Hannigan 2012; IPCC 2014). The extent to which climate change is driven by fossil fuel use and habitat degradation introduces an ever-increasing social, or “man-made” responsibility for environmental disasters. Arguably, the only common DRR/CCA strategy with any long-term prospect of success would be intensive conservation programs for energy, fresh water, and most other resources, leading eventually to greater efficiency and a massive reduction in their use. To date, CCA and HS, and indeed “development” and “sustainability” at large, have parted company on these very principles, which is arguably yet another big contradiction.

Similarly, environmental disasters are not only major factors in forced migration and refugee crises but involve similar, if not identical, socially determined disadvantages, impoverishment, exposure, and vulnerabilities. The latter are ever more closely bound up with HS border strategies and disaster relief measures (Loyd et al. 2012). As with DRR, the funding, research, institutions, and actions on human migration are unprecedented, and likewise for climate change—while the scale and scope of the problems grows! In the whole area of ecosystems and sustainability, it is impossible to keep pace with the studies and meetings, the research centers, books, and journals, and the documentaries dedicated to ecosphere survival (United Nations 2011). Numerous conventions and frameworks are supposed to protect Earth’s habitats. Yet, as with disasters, studies show that the biosphere is in worse shape now than in 1992, and even more so compared with 1964 when the critical initiatives of the International Biological Program began. Hardly a single major ecosystem and very few fragile species are less endangered now.

Much as described for DRR, securitization and militarization of response are evident in migration, environmental destruction, and global warming. Armed conflict, arms trade and trafficking, and coercive policies receive vastly more investment and vastly increase the range of humanitarian crises and unsustainable practices (Gutman et al. 2007; Worldwatch Institute 2014). Migration and climate change have their equivalents or adjuncts of the SIC—complexes entwining governments, knowledge, for-profit and non-profit organizations, organized crime—that flourish by causing, or refusing to address, each of these late modern crises of survival (Franklin 1998; Klein 2007).

The last hopeful, if tragic, parallel is that in all these cases too, there are well-known solutions that are readily available and affordable—if that were the commitment. The biggest questions, as for DRR, thus arise where improvements, let alone sustainability, are treated as incompatible with business-as-usual, or the dominant economic and geostrategic interests.

References

- Alexander DE (2002) From civil defense to civil protection and back again. *Disaster Prev Manag* 11(3):209–213
- Alexander DE (2010) The L’Aquila earthquake of 6 April 2009 and Italian government policy on disaster response. *J Nat Resour Policy Res* 2(4):325–342
- Alexander DE (2011) Towards a practical phenomenology of architecture and natural hazards. In: Broglioli GP et al (eds) *Teoria e metodi della ricerca sui paesaggi d’altura*. Società Archeologica Padana, Mantova, Italy, pp 203–214
- Amacher P (2003) You’re on your own again. *Bull At Sci* 2003(59):34–43
- Anderson WA (2005) Bringing children into focus on the social science disaster research agenda. *Int J Mass Emerg Disasters* 23(3):159–175
- Bankoff G, Frerks G, Hilhorst D (eds) (2004) *Mapping vulnerability: disasters, development and people*. Earthscan, London
- Bankoff G, Lubken U, Sand J (eds) (2013) *Flammable cities: urban conflagration and the making of the modern world*. University of Wisconsin Press, Madison
- Bankoff G, Cannon T, Krüger F, Schipper ELF (2015) Introduction: exploring the links between cultures and disasters. In: Krüger F, Bankoff G, Cannon T, Orłowski B, Schipper ELF (eds) *Cultures and disasters: understanding cultural framings in disaster risk*. Routledge, London, pp 1–16
- Beck U (1992) Politics of risk society. In: Franklin J (ed) *The politics of risk society*. Polity Press, London, pp 9–22
- Beck U (1999) *World risk society*. Polity Press, London
- Bello W (2006) The rise of the relief-and-reconstruction complex. *J Int Aff* 59:281–297
- Blaikie P, Cannon T, Davis I, Wisner B (1994) *At risk: natural hazards, people’s vulnerability and disasters*. Routledge, London
- Bohle HG (ed) (1993) *World’s of pain and hunger: geographical perspectives on disaster vulnerability and food security*, Freiburg studies in development geography. Verlag Breitenbach, Saarbrücken
- Bowling B, Sheptycki J (2012) Policing globopolis. *Soc Justice* 38:184–202
- Bricken K, Eick V (2012) Policing the crisis, policing in crisis. *Soc Justice* 38:1–2
- Buzan B, Waever O, Wilde J (1998) *Security; a new framework*. Lynne Rienner, London
- Calhoun C (2004) A world of emergencies: fear, intervention, and the limits of cosmopolitan order. *Can Rev Sociol Anthropol* 41:373–395
- Chatterjee P (2013) How Booz Allen made the revolving door redundant, Inter Press Service News Agency, <http://www.ipsnews.net/2013/06>
- Coelho JPB (2007) The state, the community, and natural calamities in rural Mozambique. In: Santos B de S (ed) *Another knowledge is possible: beyond northern epistemologies*. Verso, London, pp 219–243
- Copans J (ed) (1975) *Secheresses et famines du Sahel*. Maspéro, Paris
- Corry O (2012) Securitization and ‘riskification’: second-order security and the politics of climate change. *Millennium* 40(2):235–258
- Cutter SL (1993) Living with risk: the geography of technological hazards. In: Davis I, Haghebeart B, Peppiatt D (eds) *Social vulnerability and capacity analysis*. Discussion paper and workshop report. ProVention Consortium, Geneva
- Davis I, Haghebeart B, Peppiatt D (2004) *Social vulnerability and capacity analysis*. Discussion paper and workshop report. ProVention Consortium, Geneva
- Davis M (2006) *Planet of slums*. Verso, New York
- De Waal A (1997) *Famine crimes: politics and the disaster relief industry in Africa*. Indiana University Press, Bloomington
- Ekine S (2013) From AIDS to Aid; an (un)Humanitarian story in Haiti. International reporting Project, SAIS, Johns Hopkins University, January 28.
- EM-DAT (2013) The international data base of OFDA/CRED. Université Catholique de Louvain, Brussels, www.cred.be/emdat>

- Enarson E, Morrow BH (1998) *The gendered terrain of disaster: through women’s eyes*. Praeger, Westport, CT
- Ericson RV, Doyle A (eds) (2003) *Risk and morality*. University of Toronto Press, Toronto
- Ferks G, Klem B (2011) Muddling the peace process. The political dynamics of tsunami aid and conflict. In: Godhand J, Korf B, Spencer J (eds) *Conflict and peace-building in Sri Lanka. Caught in the peace trap?* Routledge, London, pp 168–182
- Fernandez MA (ed) (1999) *Cities at risk: Environmental degradation, urban risks and disaster in Latin America*. The Network for Social Studies on Disaster, LA RED, Lima, Peru
- Fordham M (2003) Gender, development and disaster: the necessity for integration. In: Pelling M (ed) *Natural disasters and development in a globalizing world*. Routledge, London, pp 57–74
- Foucault M (1978) *Security, territory, population: lectures at the Collège de France, 1977–78* (trans: Burchell G). Picador, New York
- Franklin J (ed) (1998) *The politics of the risk society*. Polity Press, London
- Gilbert C (1998) Studying disasters: changes in the main conceptual tools. In: Quarantelli E (ed) *What is a disaster? Perspectives on the question*. Routledge, New York, pp 11–18
- Gonzalez L, Romano L, Salamanca L (2007) Risks and disasters in El Salvador: economic, environmental and social aspects. In: Rose WI et al (eds) *Natural hazards in El Salvador. Special Paper*. Geological Society of America, Boulder, pp 461–470
- UK Government (2010) *A strong Britain in an age of uncertainty: the national security strategy*. HMGovt. <https://www.gov.uk/government/data/file/61936/national-security-strategy.pdf>
- Green J (1997) *Risk and misfortune: the social construction of accidents*. University College of London Press, London
- Gutman R, Rieff D, Dworkin A (eds) (2007) *Crimes of war: what the public should know*, 2nd edn. WW Norton, New York
- Hacking I (1990) *The taming of chance*. Cambridge University Press, Cambridge
- Hannigan J (2010) *Disasters without borders*. Polity Press, Cambridge
- Hannigan J (2012) *Disasters without borders: the international politics of natural disasters*. Polity Press, London
- Hayes B (2010) *The EU security-industrial complex*, 3 September. <http://www.tni.org>
- Hepburn S, Simon RJ (2013) *Human trafficking around the world: hidden in plain sight*. Columbia University Press, New York
- Hewitt K (1983) The idea of calamity in a technocratic age. In: Hewitt K (ed) *Interpretations of calamity from the viewpoint of human ecology*. Allen and Unwin, London, pp 3–32
- Hewitt K (1987) The social space of terror: towards a civil interpretation of total war. *Environ Plan D Soc Space* 5:445–474
- Hewitt K (1997) *Regions of risk: hazards, vulnerability and disasters*. Longman/Pearson, London
- Hewitt K (2000) Safe place or ‘catastrophic society’? An overview of risk and disasters in Canada. *Can Geogr* 44(4):325–341
- Hewitt K (2007) Preventable disasters: addressing social vulnerability; institutional risk and civil ethics. *Geogr Rundsch* 3(1):43–52
- Hewitt K (2013) Disasters in ‘development’ contexts: contradictions and options for a preventive approach. *Jãmbá* 5(2):1–9
- Hewitt K, Burton I (1971) *The hazardousness of a place: a regional ecology of damaging events in Southern Ontario*. University of Toronto Press, Research Publications, no. 6, p 120
- Higgs R (2007) The trillion-dollar defense budget is already here; The independent organisation, thu. March 1 www.independent.org/newsroom/article.asp?id
- Hilhorst D (ed) (2013) *Disaster, conflict and society in crisis*. Routledge, London
- ICRC (1994) *Code of conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief*. <http://www.ifrc.org/publicat/conduct.code.asp>
- IMF (2012) *Natural disasters hitting more people, becoming more costly*. International Monetary Fund, Survey Magazine. <http://www.imf.org>. Accessed 10 Oct
- IMF (2015) *Counting the costs of energy subsidies*, International Monetary Fund IMF Survey Magazine: In the News, <http://www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm>

- IPCC (2014) *Climate change 2014: impacts, adaptation, and vulnerability contribution to AR5*, IPCC Working Group II, Intergovernmental panel on Climate Change. Cambridge University Press, Cambridge
- Jung D (ed) (2003) *Shadow globalization, ethnic conflicts and new wars: a political economy of intra-state war*. Routledge, London
- Kellett J, Caravani A (2013) *Financing disaster risk reduction: a 20 year story of international aid*. Global facility for Disaster Reduction and Recovery, Overseas Development Institute, London
- Klein N (2007) *The shock doctrine: the rise of disaster capitalism*. Knopf Canada, Toronto
- Laframboise N, Loko B (2012) *Natural disasters: mitigating impact, managing risks*. IMF Working Paper WP/12/245. International Monetary Fund, Washington, DC
- Lavell A (ed) (1994) *Viviendo en Riesgo: Comunidades Vulnerables y Prevención de Desastres en America Latina [Living at risk: Vulnerable communities and disaster prevention in Latin America]*, LA RED/FLACSO, Bogotá
- Le Billon P, Waizenegger A (2007) Peace in the wake of disaster? Secessionist conflicts and the 2004 Indian Ocean tsunami. *Trans Inst Br Geogr* 32(3):411–427
- Lewis J (2008) The worm in the bud: corruption, construction and catastrophe. In: Boshier L (ed) *Hazards and the built environment: attaining built-in resilience*. Routledge, London, pp 238–263
- Loyd J, Mitchelson M, Burrige A (eds) (2012) *Beyond walls and cages: prisons, borders and global crisis*. University of Georgia Press, London
- Macdonald H (2006) The security-industrial complex the wall street journal, September 7
- Maskrey A (1989) *Disaster mitigation; a community based approach*. Oxfam, Oxford
- Middleton N, O’Keefe P (1998) *Disaster and development: the politics of humanitarian aid*. Pluto Press, London
- Mileti GS (1999) *Disasters by design: a reassessment of natural hazards in the United States*. Joseph Henry, Washington, DC
- Miller T (2013) The border-industrial complex goes abriard. *TomsDispatch*, November 9th <http://www.tomdispatch.com>
- Mills MP (2004) The security-industrial complex, <http://www.forbes.com/forbes/2004/1129/044>
- Mitchell JK (1999) *Crucibles of hazard: mega-cities and disaster in transition*. UNU Press, Tokyo
- Moloney A (2014) Where has all the Haiti aid money gone? U.S. to keep closer track. Thomson Reuters Foundation—Wed, 30 Jul
- NATO-OTAN (2001) *NATO’s role in disaster assistance*. Civil Emergency Planning, North Atlantic Treaty Organisation, Brussels
- Oliver-Smith AS, Hoffman SM (eds) (2003) *The angry earth*. Routledge, New York
- Oxfam International (2005) *The tsunami’s impact on women*, Oxfam briefing note. Oxfam International, Oxford
- Ozderem A, Jacoby T (2006) *Disaster management and civil society: earthquake relief in Japan, Turkey and India*. I.B. Tauris, London
- Pelling M (2003) *The vulnerability of cities: natural disasters and social resilience*. Earthscan, London
- Piel G (1962) The illusion of civil defense, *bulletin of the atomic scientists*, 29/2, February, 2–8
- Priest D, Arkin WM (2010) A hidden world, growing beyond control. *Washington Post*, Monday July 9th. [washingtonpost.com](http://www.washingtonpost.com).webarchive
- Provost C, Dzimwasha T (2014) Haiti earthquake: where is US aid money going? Get the data *The Guardian*, 10th January. <http://www.theguardian.com>
- Renaud FG, Sudmeier-Rieux K, Estrella M (eds) (2013) *The role of ecosystems in disaster risk reduction*. United Nations University Press, Tokyo
- Schuilenburg M (2012) The securitization of society: on the rise of quasi-criminal law and selective exclusion. *Soc Justice* 38(1–2):73–89
- Sen A (1981) *Poverty and famines: an essay on entitlement and deprivation*. Clarendon, Oxford
- Sheptyki J (1997) Insecurity, risk suppression and segregation: some reflections on policing in the transnational age. *Theor Criminol* 1(3):303–316

- Sloterdijk P (1987) Critique of cynical reason (trans: Eldred M). University of Minnesota Press, Minneapolis
- Statewatch (2009) NeoConOpticon: The EU Security-Industrial Complex, Statewatch and the Transnational Institute, <http://www.statewatch.org/>
- Steinberg T (2006) Acts of God: the unnatural history of natural disaster in America, 2nd edn. Oxford University Press, New York
- Strang H, Braithwaite J (eds) (2001) Restorative justice and civil society. Cambridge University Press, Cambridge
- Talbot D (2011) The cyber security industrial complex. AutomatioNation, <http://automation.wordpress.com/>, December 16
- Tellmann U (2009) Imagining catastrophe; scenario planning and the striving for epistemic security. Economic Sociology—the European electronic newsletter, 10/2, March, 17–21.
- The Economist (2013) Cholera in Haiti The UN strain. Jul 15th 2013, New York
- Umbreit MS, Arbour MP (2010) Restorative justice dialogues. Springer, New York
- UNDP (2004) A global report, reducing disaster risk: a challenge for development. Bureau of Crisis Prevention and Management, United Nations Development Program, New York
- UNIFEM (2009) Women building their future: gender breakthrough in post-tsunami Aceh (author: Enarson E). United Nations Development Fund for Women, Bangkok
- UNISDR (2002) Living with risk: a global review of disaster reduction initiatives. International Strategy for Disaster Reduction. United Nations, Geneva
- UNISDR (2005) Hyogo framework for action 2005–2015. <http://www.unisdr.org>
- UNISDR (2014) Development of the post-2015 framework for disaster risk reduction. Zero draft submitted by the Co-Chairs of the Preparatory Committee (20 October 2014)
- United Nations (2010) Final report of the Independent Panel of Experts on the Cholera Outbreak in Haiti. www.un.org/News/dh/infocus/haiti/UN-cholera-report-final.pdf
- United Nations (2011) Millennium development goal 8: the global partnership for development: time to deliver. MDG Gap Task Force report, 2011, New York
- UNOSEH (2012) Can more aid stay in Haiti and other fragile settings? How local investment can strengthen governments and economies. United Nations Office of the Special Envoy for Haiti, New York
- USOHDACA (2004) Mission statement, Washington DC, overseas humanitarian, disaster and civic aid. http://comptroller.defense.gov/defbudget/fy2004/budget_justification
- US/DHS (2012) Strategic Plan, Fiscal years 2012–2016, Department of Homeland Security, (February) Washington DC. <https://www.dhs.gov/xlibrary/assets/dhs-strategic-plan-fy-2012-2016>
- Van Niekerk D (2008) From disaster relief to disaster risk reduction: a consideration of the evolving international relief mechanism. TD 4(2):355–376
- Van Uffelen J-G (2013) The de-disasterization of food crises: structural reproduction or change in policy development and response option? A case study from Ethiopia. In: Loyd J, Mitchelson M, Burrige A (eds) 2012 Beyond walls and cages: prisons, borders and global crisis. University of Georgia Press, London, p 58075
- Warner J (2013) The politics of “catastrophization.”. In: Hilhorst D (ed) Disaster, conflict and society in crisis. Routledge, London, pp 76–94
- White GF (ed) (1974) Natural hazards: local, national, global. Oxford University Press, New York
- Wijkman A, Timberlake L (1984) Natural disasters: acts of god or acts of man? Earthscan, London
- Wisner B (1993) Disaster vulnerability: scale, power, and daily life. Geojournal 30(2):127–140
- Worldwatch Institute (2014) State of the world 2014: governing for sustainability. Island Press, Washington, DC