



# Human Security and Natural Disasters

Edited by Christopher Hobson,  
Paul Bacon and Robin Cameron

ROUTLEDGE HUMANITARIAN STUDIES

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# Human Security and Natural Disasters

Human security is an approach that rejects the traditional prioritisation of state security, and instead identifies the individual as the primary referent of security. It offers a way of broadening our perspective, and recognising that the most pressing threats to individuals do not come from interstate war, but from the emergencies that affect people every day, such as famine, disease, displacement, civil conflict and environmental degradation. Human security is about people living their lives with dignity, being free from 'fear' and 'want'. To date, there has been a strong tendency to focus on insecurity caused by civil conflict, with less attention on issues to do with environmental security. This volume addresses the threat posed by natural disasters, which represent an increasingly major human security threat to people everywhere.

In looking at natural disasters, this book also refines the human security approach. It does so through developing its previously unexplored interdisciplinary potential. This volume explicitly seeks to bring the human security approach into conversation with contributions from a range of disciplines: development, disaster sociology, gender studies, international law, international relations, philosophy and public health. Collectively these scholars unpack the 'human' element of 'natural' disasters. In doing so, an emphasis is placed on how pre-existing vulnerabilities can be gravely worsened, as well as the interconnected nature of human security threats. The book presents a variety of case studies that include the Indian Ocean tsunami, Hurricane Katrina, the 2010 Haiti earthquake and the 2011 'triple disaster' in Japan.

This collection will be of interest to advanced undergraduate students, post-graduate students and scholars in the fields of development studies, humanitarian studies, disaster sociology, gender studies, and international relations.

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A very important book that sheds new light on questions of human security and natural disasters, especially with regard to gender-related issues, public health responses and human rights issues. A wide range of case studies ranging from the Haiti earthquake, Indian Ocean tsunami to Hurricane Katrina bring the reader close to cutting edge critical research on how natural disasters severely affect human security.

**Geoff Wilson**, *University of Plymouth, UK*

This important book, emerging in response to Japan's triple disasters of 2011, draws our attention to the relationship between natural disasters and human security. Aside from illustrating how disasters threaten human security, this volume points to the complex inter-relationship between disasters themselves, the international structural political and economic arrangements that worsen or complicate a response to them, and 'on-the-ground' dynamics of vulnerability, adaptive capacity and resilience within particular communities. This rich set of essays provides one of the more nuanced accounts of a broadened conception of human security, while challenging us to rethink key institutions and practices of 'security' more broadly. As natural disasters increase in intensity and frequency with dynamics of climate change, for example, making sense of how they might be incorporated and approached within current or new institutions will become an ever more urgent enterprise.

**Matt McDonald**, *The University of Queensland, Australia*

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This project emerged in response to the 'triple disaster' that struck Japan on 11 March 2011, which left more than 15,000 dead and another 2,000 missing. This book represents a very small contribution to rebuilding from these terrible events, by seeking to demonstrate how a human security approach can help us better understand and prepare for natural disasters. Here the focus is on developing this human security approach and presenting a range of comparative case studies. In the accompanying volume, *Human Security and Japan's Triple Disaster*, we focus on that catastrophe in more detail. Together these books seek to clearly demonstrate that natural disasters are emerging as one of the greatest threats to human security in the twenty-first century and it is vital that we prepare better for them.

Christopher Hobson, Paul Bacon and Robin Cameron  
Tokyo and Melbourne, August 2013

# **1 Incorporating natural disasters into the human security agenda**

*Paul Bacon and Christopher Hobson*

On 11 March 2011 a massive earthquake and tsunami struck the Tōhoku region of Japan, leaving 15,880 people dead and another 2,694 missing. The tsunami also triggered multiple meltdowns at the Fukushima Dai-ichi power plant, leading to the second worst nuclear accident in history. With two of the co-editors of this volume based in Tokyo, this ‘triple disaster’ was the impetus for this project. Despite Japan being a major proponent of the human security approach, it had not considered it as something relevant for itself. Yet what the earthquake, tsunami and nuclear accident demonstrated with terrible force is that severe forms of insecurity can exist in even the most wealthy, industrialised countries. From observing how Japan had been promoting human security but missing its relevance at home, another oversight soon became apparent: the human security agenda had largely overlooked the threat posed by natural disasters.

Responding to these omissions, this volume re-examines human security in the context of natural disasters, while also applying the approach to a series of cases, such as the 2004 Indian Ocean tsunami, Hurricane Katrina in 2005, the 2008 Sichuan earthquake and the 2010 Haiti earthquake. An accompanying volume, *Human Security and Japan’s Triple Disaster*, focuses specifically on the 2011 earthquake, tsunami and nuclear accident. Together these two books seek to contribute not only to deepening our knowledge of and preparedness for natural disasters, but also to strengthening the human security approach. Twenty years after it first appeared in the UNDP’s *Human Development Report*, human security has secured a place on the agenda of the international community. Notably, Ban Ki-moon, the current UN Secretary-General, has recently called for human security to be integrated more fully into the UN system, suggesting that it should play a central part in the post-2015 development agenda (UNSG 2013). As this volume will show, for human security to live up to Ban Ki-moon’s hopes, the approach must continue to be refined, and in doing so, a much greater emphasis should be placed on the threat posed by natural disasters.

This introduction begins with a detailed discussion on human security. Noting the failure to fully incorporate natural disasters, the chapter then demonstrates how such events directly fall within the purview of this approach. It does so by considering natural disasters in reference to the major components of human security, as well as the seven categories of threat identified in the 1994 UNDP



report. The introduction concludes by providing an outline of the chapters that follow.

## **Human security**

The human security approach, first outlined in the 1994 *Human Development Report* (hereafter HDR), rejects the traditional prioritisation of the state and instead identifies people as the primary referent for understanding security. It highlights that the most pressing threats to people normally do not come from interstate war, but from other types of emergency, such as famine, disease, displacement, civil conflict and environmental degradation. The HDR explains that human security entails the ‘protection from sudden and hurtful disruptions in the pattern of our daily lives’ (UNDP 1994, p. 3). Building on this, attempts to address insecurities should be undertaken as part of normal, everyday politics. Human security is a holistic approach, which places equal weight on threats to the well-being of people caused by physical violence *and* those triggered by other factors, such as poverty, underdevelopment, disease or disasters. As the 2003 Commission on Human Security (2003, p. 85) explains:

Few societies protect human security with the force and effect of their responses to the many threats to state security. But the aim of human security is to do precisely that—to build a protective infrastructure that shields all people’s lives from critical and pervasive threats.

Ultimately human security is about people living their lives with dignity, entailing ‘freedom from fear’ and ‘freedom from want’ (UNDP 1994, p. 24).

Human security – as envisaged in the HDR – was intentionally broad in its scope, incorporating a wide range of possible threats, such as economic, environmental and communal. Many have questioned this interpretation and have argued that if human security was ‘defined more narrowly, it would accrue greater analytical and policy value’ (Thomas & Tow 2002, p. 178). Those advocating a more limited conception propose focusing on physical violence. One prominent and widely cited version of this reading is provided by MacFarlane and Khong (2006, p. 245):

Human security, we argue, is about freedom from organized violence ... humans are insecure insofar as they are in danger of being injured, maimed or killed by those who organize to harm them ... Central to our notion of human (in)security is the existence, out there, of some entity or set of individuals who are organizing to do us in. That is why, despite the massive casualties and horrendous destruction wrought by the tsunami waves of December 2004, tidal waves are not usefully construed as a human security problem, whereas Al Qaeda’s premeditated attack against workers in the World Trade Center and the Pentagon is.

This volume explicitly rejects the ‘narrow’ interpretation of human security exemplified in this definition. Much of the original ‘value-added’ of the approach was precisely that it moved beyond a traditional understanding of security focused on inter-state war and human violence more generally. Furthermore, the ‘responsibility to protect’ (R2P) doctrine has been developed separately in order to address the security challenges created by human violence (ICISS 2001). This distinction has been explicitly reaffirmed in the UN Secretary-General’s 2012 report on human security (UNSG 2012) and a 2012 UN General Assembly resolution (UNGA 2012). Not only does reducing human security to physical violence largely duplicate the R2P doctrine, in the process it loses much of what was distinctive about it. Human security was envisaged as a way of identifying and prioritising other kinds of threats – economic, environmental etc. – that can be just as damaging to the wellbeing of people as physical violence. As Kaldor, Martin and Selchow (2008, p. 1) note, ‘intolerable threats to human security range from genocide and slavery through natural disasters, such as hurricanes or floods, to massive violations of the rights to food, health and housing’. Not only does limiting human security to physical violence undermine the original purpose of the approach, it seriously underestimates the significance of these other threats.

It appears that a ‘broad’ understanding of human security has emerged as the consensus position, after being endorsed by two reports by the UN Secretary-General (2010, 2012) and the 2012 UN General Assembly resolution on human security. From this perspective, natural disasters clearly fall within the remit of human security. This was noted both by the HDR, which discussed them at some length in the section on environmental security, and by the Commission on Human Security (2003, p. 73), which identified natural disasters as one of the three most significant threats to human security. This is not surprising given how widely and deeply such events can impact the wellbeing of people. In the period between 2002 and 2011, more than 4,000 reported disasters caused more than 1.1 million deaths, affected more than 2,684 million people and caused US\$1,195 billion worth of damage. In 2011 alone, 302 disasters claimed 29,782 lives, affected 206 million people and inflicted damages worth an estimated US\$366 billion (UNISDR 2012, p.2). Looking towards the future, it is expected that extreme weather events will occur increasingly frequently, and exposure to disaster risk will continue to rise. The proportion of the world population living in flood-prone river basins has increased by 114%, while those living on cyclone-exposed coastlines have grown by 192% over the past 30 years. More than half of the world’s large cities, with populations ranging from 2 to 15 million, are currently located in areas highly vulnerable to seismic activity (UNISDR 2012, p.2). Collectively this suggests that natural disasters will be one of the most pressing dangers to human security – in developing *and* developed countries – in the coming decades.

Despite the 1994 and 2003 reports clearly identifying the significance of natural disasters, how these events cause and exacerbate forms of human insecurity has not received much attention. Notably there has been an important literature

emerge in recent years focusing on human security and environmental change (Dalby 2009; Matthew et al. 2010; O'Brien et al. 2010; Sygna et al. 2013). This work has emphasised, on the one hand, how people are affected by environmental change; and, on the other, how they shape these processes and what possibilities there are for directing future developments. As O'Brien, St. Clair and Kristoffersen (2010, p. 215) observe:

Human security emphasises not only how humans individually and collectively experience climate change, but also how they perceive their responsibilities towards future generations, including their own capacity to forge outcomes that can build a more sustainable and equitable future.

This literature has stressed the need for interdisciplinary research on human security (Wolf et al. 2013, pp. 454–455), something explicitly pursued in this volume. Despite this work being rather nuanced and detailed, it has focused primarily on climate change and it has not given much attention to natural disasters. By directly addressing this gap, this volume will strengthen the already robust literature on environmental security, which is arguably at the forefront of current human security research.

### **Applying a human security approach to natural disasters**

In defining human security, the HDR broke it down into four core elements:

- Human security is a *universal* concern.
- The components of human security are *interdependent*.
- Human security is *easier to ensure through early prevention* than later intervention.
- Human security is *people-centred*.

(UNDP 1994, pp. 22–23)

As a way of illustrating how natural disasters raise major problems from a human security perspective, the chapter will now work through these four key components.

#### ***Universal***

Human security was envisaged as a doctrine that is universal in scope. That is, all people are liable to experience varying degrees of insecurity or vulnerability. While there has been a tendency to associate human insecurity with the global south, it is notable that the HDR explicitly points towards problems also existing in the most industrialised, economically developed countries (Bosold 2011, p. 34). Serious insecurities can – and do – exist in all countries. As Owen (2008, p. 50) observes, ‘the interplay of social, political, and economic factors – interacting separately, in combination with one another, and with the physical environment – creates a mosaic of risks and hazards that affect people and the places they

inhabit'. This is particularly evident in natural disasters, as can be seen by the range of cases covered in this volume, which include low-income (Haiti), middle income (China, Indonesia) and high-income (Japan, USA) countries. Indeed, a human security approach moves beyond a simple distinction between countries. It is possible for considerable vulnerability to exist even in wealthy countries, as was demonstrated with Hurricane Katrina.

Another important issue connected with the commitment to universality is that of human rights. The exact relationship between human rights and human security remains somewhat ambiguous. While identifying human rights violations as a significant indicator of human insecurity, the HDR is careful not to detail how it understands human rights and does not greatly emphasise the point. In comparison, the 2003 report is less cautious, stating that 'respecting human rights is at the core of protecting human security' (CHS 2003, p.10). The Commission took a wrong turn in strongly invoking the Universal Declaration of Human Rights and adopting a liberal conception of rights, as one of the great advantages of human security is that it has not been dismissed as a Trojan horse for Western values. In Asia human security has not been seen as incompatible with the more communitarian values that largely prevail (Acharya 2001), and it has even received some interest from China (Breslin 2013), which has traditionally been wary of attempts to promote a global human rights regime. Notably, the 2012 UN General Assembly resolution was co-sponsored by Japan and Jordan, and its open definition has helped enable support from a wide range of states. This broad acceptance of human security has the advantage of creating space for discussions related to human rights by avoiding the baggage that weighs down that discourse.

The indirect, embedded way that human rights principles are incorporated into the human security agenda offers the foundations for a practical and community-grounded approach to addressing these issues. This is explicitly noted in the 2010 UN Secretary-General's report, which suggests human security offers a 'practical framework' that

underscores the universality and primacy of a set of freedoms that are fundamental to human life, and as such it makes no distinction between civil, political, economic, social and cultural rights, thereby addressing security threats in a multidimensional and comprehensive manner.

(UNSG 2010, p. 7)

This has great relevance in the context of natural disasters, considering that 'protection, including human rights concerns, in the aftermath of natural disasters is a crucial, albeit thus far neglected, area' (Inter-Agency Standing Committee 2010, pp. 481-482). Human security thus offers a less direct route towards integrating human rights issues into natural disaster response:

Some of the human rights concerns include discrimination in aid distribution, exploitation, physical and other forms of violence, including gender-based

violence, issues related to land, housing and property rights, and the denial of basic rights as a result of a breakdown in law and order.

(Inter-Agency Standing Committee 2010, pp. 481–482)

From a human security perspective, incorporating an awareness of human rights must be central to the way in which such events are responded to, as it can be an important tool in the empowerment of affected people, preventing them from being identified – either by themselves or others – as passive victims.

### ***Interdependent***

The human security approach emerged in the immediate post-Cold War era, a time when the forces of globalisation were becoming much more apparent. This globalisation discourse played a notable role in framing the HDR, which emphasised the interconnected nature and consequences of human insecurities. In this regard, a central part of the shift from ‘national’ to ‘human’ security was the claim that a majority of the threats people face do not respect state borders and our response must adjust accordingly. This is certainly the case with many natural disasters. For instance, the 1993 super-storm touched down primarily on the United States and Cuba, but also significantly affected Central American states and Canada. It was not known as the ‘storm of the century’ because of the fatalities it caused, but because it surpassed expectations of what a storm could do, impacting an entire (large and disparate) continent. It is not only the threats, but also the solutions, that are interconnected. While human security is careful to prioritise the state as the primary provider of security, the approach emphasises that a wide range of actors – other states, international organisations, NGOs, private companies and more – have roles to play in the provision and protection of human security. This is certainly the case with natural disasters, especially in developing countries, which often require considerable external assistance.

The way the HDR understood the interdependent nature of threats was largely within this context of globalisation, and the discussion was rather thin, and is not greatly elaborated upon in the 2003 report. This has been a missed opportunity, as focusing on the interdependent nature of vulnerabilities has the potential to be one of the most significant contributions of this approach. As such, the editors and many of the contributors to this volume significantly develop this element of human security. Interconnectedness is not only about threats combining and interacting across global borders, it is also about how they compound within a specific local context. Natural disasters are a particularly clear case where different threats can interact in a pernicious and reinforcing manner, as conveyed in the notion of the ‘ratchet effect of vulnerability’.

The HDR identified seven categories of threat to human security: economic security, food security, health security, environmental security, personal security, community security and political security. Taking these basic categories, one can identify ‘human insecurity dyads’ (or triads) where different threats overlap, inter-relate and compound. In doing so one can look for ‘threat multipliers’ – where

insecurities are reinforced – and ‘solution multipliers’ – where it may be possible to address more than one threat at the same time. This responds to legitimate criticisms that the human security approach has often lapsed into being overly idealistic (see Chandler 2008), by showing an awareness that in many situations there may have to be trade-offs between different human security concerns, and in doing so, identifying the most severe threats that require immediate action.

### ***Prevention***

Human insecurity is most visible after a disaster has occurred, but it is best mitigated through preparation beforehand. This is emphasised in the 1994 report, which argues that ‘human security is easier to ensure through early prevention than later intervention. It is less costly to meet these threats upstream than downstream’ (UNDP 1994, pp. 22–23). This is especially important in managing natural hazards. These events occur at the intersection between natural forces and human behaviours: contra MacFarlane and Khong, people *do* have a degree of control in influencing the nature and extent of a disaster. It may be impossible to completely prevent these events from occurring, but through proper preparation the damage caused and the lasting impact on communities can be significantly reduced. This is also strongly emphasised in the Hyogo Framework for Action, a document that exemplifies what a human security approach in action should look like: ‘the promotion of a culture of prevention, including through the mobilization of adequate resources for disaster risk reduction, is an investment for the future with substantial returns’ (UNISDR 2005, p. 5).

Reflecting this concern with vulnerability and risk a core aim of the human security approach is building and maintaining a ‘protective infrastructure that shields all people’s lives from critical and pervasive threats’ (CHS 2003, p. 132). This entails not only tackling the symptoms, but identifying and responding to the underlying causes of human insecurity. In this regard, the UN Secretary-General’s 2010 report (UNSG 2010, p. 17) notes that the approach focuses ‘attention on current and emerging threats; identifies the root causes behind these threats; and supports early warning systems that help mitigate the impact of such threats’. In the context of natural disasters this means seeing them not as isolated events, but as being shaped by deeper social structures. As Steinberg (2000, p. 152) observes, ‘natural disasters are not simply scientific dilemmas in need of a technical solution. They are instead the product of particular social and political environments’. A human security approach emphasises the way vulnerability to natural disasters is not predetermined, but is shaped by social, political, economic and cultural forces.

### ***People-centred***

The fundamental move that human security makes is shifting the focus from the state to its people. This point is nicely captured by Anthony Lake (2013), executive director of UNICEF: ‘nations are not simply blocks of wood on a

game-board. In reality, nations are collections of human beings and it's the security of those human beings that defines whether or not a nation is secure'. Human security places the needs and vulnerabilities of affected people at the centre of our analysis. As Gasper (2010, p. 27) observes, 'combined with "human", "security" conveys a visceral, lived feel, connecting to people's fears and feelings or to an observer's fears and feelings about others' lives. "Human security" thus evokes a sense of real lives and persons'.

In emphasising the way people's lives are actually lived, human security is not interested in abstracted individuals, but in people whose identities are shaped by their relationships with others and being part of a society. In this regard, the original 1994 document very consciously used the term 'people' and not 'individuals'. The security of individuals is strongly shaped by their relationships with others and the communities they are part of. In the context of natural disasters, this means considering how communal bonds and social relationships interact with vulnerability. Whether communities stay together or are separated after a disaster can strongly shape how well people are able to cope and recover. Daniel Aldrich (2012, p. 15) has argued that social capital is determinative in shaping resilience to natural disasters: 'high levels of social capital ... serve as the core engine of recovery. Survivors with strong social networks experience faster recoveries and have access to needed information, tools, and assistance'. The flipside to this is that people on the edges of society may become more insecure, especially where different forms of vulnerability and exclusion overlap. In this sense, it is necessary to develop a nuanced account of what roles societies play in shaping security and insecurity of people.

### **Human security threats after natural disasters**

Returning to the main categories of human security, in addition to the four main components outlined in the HDR, seven major threats are further identified:

- economic security (freedom from poverty);
- food security (access to food);
- health security (access to health care and protection from diseases);
- environmental security (protection from such dangers as environmental depletion and pollution, as well as natural disasters);
- personal security (physical safety from things such as torture, war, criminal attacks, domestic violence, drug use, suicide and traffic accidents);
- community security (survival of traditional cultures and ethnic groups as well as the physical security of these groups); and
- political security (enjoyment of civil and political rights, and freedom from oppression).

(UNDP 1994, pp. 23–44)

Whereas the HDR classified natural disasters as falling within the remit of 'environmental security', it will be demonstrated throughout this book that

such events actually cause insecurity and deepen vulnerability across all seven categories of threat.

### ***Economic security***

When natural disasters strike, people are not impacted equally. Poorer, more socio-economically vulnerable parts of the population suffer disproportionately. Those who were self-employed or working on daily rates find it much more difficult to find new employment. Even people that were more economically secure quickly become vulnerable: for unlucky homeowners that lose their house, the only thing that often remains is the mortgage. And when people lose their source of income, it leaves them more vulnerable to any future shocks, be it another natural disaster or an economic downturn. Indeed, the economic consequences of such events are staggering. In each of the last three years, annual losses from natural disasters have exceeded \$100 billion. In 2012 losses were estimated to be \$138 billion, despite there being no mega-disaster, with the largest loss of life being 1,900 dead, a comparatively small number (UNISDR 2012). These large figures are mainly due to disasters occurring in economically developed countries, which have more assets, property and infrastructure to be destroyed. Yet this wealth also means these countries have more capacity to deal with such events. In contrast, the burden disasters place on developing and middle-income countries is comparatively far greater, retarding development and undoing progress made towards improving people's livelihoods. For instance, flooding in Pakistan cost it approximately 2% of its GDP (UNISDR 2012), a significant figure for a country dealing with many serious socio-economic issues. In the case of the 2010 Haiti earthquake the consequences were even more severe, as it was already one of the poorest and most vulnerable countries in the world before the disaster struck. In just the same way, these events worsen the plight of individuals that were more socio-economically disadvantaged beforehand.

### ***Food security***

Immediately following a major disaster, there is normally a serious problem getting sufficient amounts of nutritious food and clean drinking water to affected people. In the case of the Tōhoku earthquake and tsunami many people living in shelters were forced to survive on two rice balls per day, a diet lacking in nutrients, which could cause health problems if maintained over an extended period of time. And this is in a wealthy country that suffered limited damage to its overall infrastructure and industries; the situation is much more challenging when disasters hit in developing countries. Food insecurity does not just occur in this immediate recovery phase, however. Floods and storms can cause major damage to crops, which can lead to food shortages. Disasters can also contaminate agricultural land, such as in Tōhoku, where it is only possible to grow crops on approximately a quarter of the affected farmland, due to salt and radiation in the soil caused by the tsunami and nuclear accident ('Agriculture returns' 2013).



There is also often a political dimension to food insecurity. An unfortunate example of this is the Dadaab camps in Somalia in 2011. Although the US government knew that a famine was on the horizon, it monitored food aid distribution in Somalia in a highly restrictive fashion, in order to ensure that no supplies would fall into the hands of Al-Shabaab, an organisation it has been opposing as part of the 'War on Terror'. As a result of these tight restrictions, and the 'securitization' of emergency food for famine relief among starving civilians, many lives that could have been saved were lost (see Hyndman's chapter).

### ***Health security***

Straight after a disaster the health problems are immediately apparent, with people suffering from a wide range of injuries. The sick and elderly who are immobile require special care and their needs have to be incorporated into evacuation plans. Meanwhile, complications soon emerge for those suffering from pre-existing health issues, who still require treatment or medication that may not be easily available (see Chan and Southgate's chapter). If medical records have been lost or destroyed during the disaster it can cause serious complications for patients. After the immediate period of dealing with trauma patients, many health problems remain and new ones emerge. For example, women were placed at significantly greater risk of infection and unwanted pregnancy as a result of forced sex after the 2010 earthquake in Haiti. Also often forgotten are those people who have suffered permanent injuries or disabilities as a result of the disaster. Dementia cases amongst the elderly are known to increase, due to stress and disorientation caused by displacement. There are also significant mental health issues, with many survivors suffering from trauma and survivor guilt. Following the 1995 Kobe earthquake this was reflected in the 'dying alone' problem. Another mental health example from Japan is that of the 'Fukushima Fifty', the skeleton crew of men who stayed at the Fukuyama Dai-ichi nuclear plant to try and stabilise it after the meltdowns, who are now suffering from excessively high rates of mental trauma and post-traumatic stress syndrome (Hobson forthcoming).

### ***Environmental security***

One of the core concerns of this book is to consider how natural hazards interact with existing human vulnerabilities. Population growth, poverty, land shortages and ethnic conflict are driving people onto much more marginal territory, and increasing their exposure to natural hazards (UNDP 1994; UNISDR 2012). 'Mega-cities' in the global south are particularly vulnerable, sites where environmental insecurity interacts with other threats, such as crime and poverty. These vulnerabilities most clearly come together in slums: poor quality housing leaves people more at risk of death, injury or homelessness if a disaster strikes, and those that are affected only become more vulnerable to such events in the future. Natural disasters produce environmental insecurity and compound human vulnerability, but it is important to recognise other environmental problems they can

trigger. Large cities are also more vulnerable to 'na-tech' disasters, where a natural hazard triggers a technological disaster.

Direct impacts are the consequence of the initial disaster event, and are felt immediately as physical damage, especially to housing and physical infrastructure, and loss of life or injury. This phase of the disaster is often complicated by secondary technological or natural disasters; for example, an earthquake can trigger chemical fires or liquefaction.

(Pelling 2003, p. 39)

The nuclear accident at Fukushima Dai-ichi is the most obvious example of a 'na-tech' disaster, which is explored in more detail in the accompanying volume. One can point to many other examples, such as the significant quantities of oil spilled from destroyed refineries when Hurricane Katrina hit New Orleans. Furthermore, the damage caused by disasters can increase the likelihood of their reoccurrence. For example, flooding and mudslides in slums leave these environments more prone to similar disasters in the future. Yet people living there have nowhere else to go and must continue to manage in these dangerous conditions.

### ***Personal security***

As a result of natural disasters people can lose everything – their loved ones, their houses, their possessions, their whole livelihoods, sometimes in just seconds. In the immediate response period there are significant challenges in making sure that people receive adequate shelter and assistance. While people are forced to live in temporary shelters or accommodation they remain vulnerable, with few possessions and limited privacy. There can be many threats to personal security that arise in a post-disaster context, with women often suffering disproportionately, and gender issues too often not being adequately incorporated into disaster mitigation. Persistent gender-related problems recur across cases from different continents, and in countries with varying degrees of wealth. Women displaced internally or across borders face increased risk of gender violence, and if shelters are not properly designed, women can be more at risk of sexual attack. Domestic abuse and sexual assault reports and requests for assistance increase. To give one example of this, sexual violence – already a major problem in Haiti – has worsened considerably. MADRE (2011), an NGO focused on women's human rights, has talked of there being 'an epidemic of rape'. Extreme need may force women, girls and boys into survival sex, and the trafficking of girls and boys may rise due to increased opportunity and need. The marginalisation of women with disabilities increases post-disaster, magnifying their higher poverty, unemployment and abuse rates. Finally, forced marriage to surviving relatives may increase, and also pressure to marry early, problems which spill over into a consideration of community security (see Enarson's chapter). To be clear, personal security issues are certainly not unique to women, but they do illustrate with particular clarity the way a disaster exacerbates existing problems while also creating new ones.

### ***Communal security***

Natural disasters impact on community security in a number of ways. Most people derive security from their membership in a group or a number of groups, for example families, communities, organisations and racial or ethnic groups, which provide practical support and a set of values by which to live (UNDP 1994). Some communities are socially resilient, and may be key players in disaster response, able to successfully mobilise and organise their own members. According to Aldrich, those communities with high level of social capital are more likely to recover from disasters for three main reasons:

- 1 Deep levels of social capital serve as informal insurance and promote mutual assistance after a disaster;
- 2 Dense and numerous social ties help survivors solve collective action problems that stymie rehabilitation;
- 3 Strong social ties strengthen the voices of survivors and decrease the probability of their leaving.

(Aldrich 2012, pp. 149–150)

The flipside is that those communities with limited social capital – thus already with a community security problem – are less able to recover from disasters.

Communities can threaten security as well as provide it. On the negative side, some communities perpetuate practices that can place their members at greater risk. For example, one of the reasons women constituted such a large percentage of the dead from the 2004 tsunami is that many were wearing religious dress, which made it difficult to run or swim. Governments stigmatise particular communities, for example, some commentators argue that the US authorities effectively criminalised the black community of New Orleans, and created mechanisms and venues for their prompt incarceration, in order to prioritise the protection of property over people (see Cameron's chapter). Sometimes governments deliberately direct resources towards some communities and away from others, as was the case in post-tsunami Sri Lanka, where greater restrictions were placed on Tamils and Muslims than on Sinhalese Sri Lankans. Finally, sometimes communities target and compete against other communities over scarce resources in post-disaster contexts. One terrible example of this is the situation following the 1923 Tokyo earthquake, where thousands of Koreans were murdered by mobs who believed that they had poisoned the water supplies.

### ***Political security***

The 1994 UNDP report suggests that it is important for human security that people should be able to live in societies that honour their basic human rights, and that these basic rights are more likely to be honoured in societies that hold multi-party elections. However, it could be argued that the 1994 report, for all of its positives, is still too pre-occupied with the idea of directly intended physical

harm as a cause of human insecurity. Often, in the context of natural disaster, harm arises through oversight or inaction. And *all* types of political regime are capable of creating political insecurity, through bureaucratic incompetence, inertia and buck-passing. These are all criticisms, for example, which have been levelled at the Japanese government following the 2011 'triple disaster', and the US government following Hurricane Katrina. Another important measure of political insecurity is the degree to which a government prioritises military strength. In the context of natural disasters, human insecurity can be increased through governments spending more on their militaries than on disaster preparedness. A clear case of this is Pakistan, which continues to spend large amounts of money on the military, without properly investing in disaster preparedness, despite repeated floods that have devastated the country in recent years. A final, egregious example of a government creating political insecurity in the context of natural disaster is the response of the Myanmar government to Cyclone Nargis in 2008, refusing external aid because of fears about this destabilising the ruling military regime.

The 1994 UNDP report argues that there are considerable links and overlaps between the seven elements of human security, and that '[a] threat to one element of human security is likely to travel – like an angry typhoon – to all forms of human security' (UNDP 1994, p. 33). This aspect of human security has arguably been neglected in subsequent attempts to develop the concept. Each of the chapters in this volume seeks to demonstrate how the elements of human security are inter-related, in innovative and thought-provoking ways that move our understanding of the human security approach forward, and allow us to understand its relevance to the mitigation of natural disasters.

## **Chapter outlines**

Building on this introduction, Christopher Hobson explains in more detail how natural disasters relate to the human security agenda, and how such events interact with, and considerably exacerbate, existing inequalities and vulnerabilities. Human security can provide a valuable perspective that stresses the 'human-ness' of 'natural' disasters: how humans can become more vulnerable to these shocks, and what kind of opportunities for empowerment can still exist even in dire circumstances. An emphasis is placed on how pre-existing societal vulnerabilities can be gravely worsened, as well as on the interconnected nature of threats. The human security approach brings into focus certain forms of vulnerability and harm that are often overlooked or insufficiently prioritised, and considers how these threats are sustained, exacerbated or, ideally, reduced. In this regard, human security can be thought of as a bridging concept that shows an awareness of the way immediate crises are connected to deeper societal structures that shape vulnerability.

A human security approach to natural disasters suggests an awareness of the ways significant biological and sociological factors influence how safe people are, and what kinds of risks they are exposed to. For instance, women may be

disproportionately impacted, but some more so than others. It is when the social category of gender combines with other forms of marginalisation that more severe forms of human insecurity are generated. Women who are also single mothers, socio-economically weak, illiterate or from a minority group, are more likely to be at risk. This reflects the fact that natural disasters tend to reinforce existing vulnerabilities, with the most socially disadvantaged members of society almost always suffering disproportionately.

Finally, Hobson argues that a concern with the way threats interact and multiply is an important component of human security, but this must be balanced with an awareness of the opportunities that exist for people – individually and collectively – to respond positively. Natural disasters can leave people feeling totally helpless, so anything that can be done to support their agency during such difficult times is vital. Hobson concludes with positive examples showing how Indonesian transgender people, Japanese civil society actors and Pakistani women experienced such empowerment after disasters had struck.

In her chapter Elaine Enarson argues that human security can be a powerful tool through which to understand and mitigate natural disasters, but only to the extent that the connection between human security and disaster is viewed through a gendered lens. With some exceptions, the human security literature has been largely gender neutral, despite the fact that all around the world gendered social relations impact on human security both in everyday life and during periods of crisis. Enarson argues that those who bear the burden of disasters, and are therefore the most vulnerable to them, are predominantly women – the very poor and landless, single mothers, home-based workers, those who live with (and care for) the chronically ill, marginalised women (indigenous women, sex workers, trans-women), and those who live without men (widows, lesbians, women heading households).

In post-disaster circumstances these pre-existing conditions of vulnerability can often be exacerbated. Enarson identifies several gender-related threats to human security, spanning the seven categories of human security enumerated in the HDR. Economic security is threatened when female employment declines due to increased domestic labour and lack of child care following a disaster, and women's home-based work is subject to loss when housing is damaged or destroyed. Threats to communal security occur when women-led cooperatives, self-help groups, trading networks and other economic support systems are disrupted post-disaster. Threats to personal security arise for women when post-disaster shelters are located in places that make travel, socialising or earning a living dangerous. Threats to health security occur where sexually transmitted diseases and reproductive health complications increase among women due to lack of privacy, the location of latrines and a lack of hygiene. Enarson also offers several situations of 'threat multipliers', such as the example of food, fuel and water-gathering exposing women to violence, in which food insecurity leads to a decrease in personal security.

Enarson argues that empowerment is only possible if gender is given appropriate attention. If disaster recovery is not done properly, then future prevention

is compromised. Sustainable, gender-sensitive and holistic recovery is the foundation upon which we can reduce vulnerability, mitigate hazards, and build capacity, thereby prioritising prevention consistent with the content of the 1994 HDR.

Naomi Zack agrees that existing vulnerabilities are often worsened by sudden disaster onset, but that this can be mitigated by investing resources in small local groups that have already demonstrated their resilience. Many such groups tend to be maintained by women in poor countries, and by religious organisations in wealthier countries. These are the groups which, with adequate direct preparation for disaster, and direct strategic aid during a response period, might offer vulnerable populations the best chances for disaster resilience and recovery, a strategy which is consistent with the human security approach. Through these examples Zack illustrates the importance of community security in empowering and supporting people after disasters.

Zack characterises human security as a normative and progressive approach, and addresses the issue of vulnerability through a consideration of Hurricane Katrina, illustrating how forms of insecurity can also occur in wealthy Western countries. She offers the Catholic Vietnamese American community in New Orleans as an example of a disaster-resilient religiously based group in a wealthy society. Following the September 2005 Hurricane Katrina, by early December 2005, 600 Vietnamese individuals had returned and were at work cleaning and repairing their neighbourhood. By spring 2007, less than 50% of African American residents had returned to this neighbourhood, compared to 90% of the Vietnamese Americans. Zack argues that this was possible because there was a pre-existing leadership structure among the Vietnamese Americans that could be mobilised after Katrina, which had direct experience and shared memories of group migration and interdependence from Vietnam.

Zack also proposes various ways in which women may be more resilient than men after a disaster, and offers a list of existing women's organisations that could be preliminarily considered for implementing disaster preparation, response, recovery and mitigation programmes. A focus on viable women's groups within vulnerable populations places emphasis on potential resilience, and reflects the concern with both vulnerability and empowerment which is found in the human security approach. Such local disaster preparation would constitute a 'bottom-up' effort that empowers people, developing out of existing cultural practices, in sharp contrast to an imposed 'top-down' approach, which can suffer from a series of problems, as Bolton explores in his contribution.

Chan and Southgate explore the human security and public health approaches, identifying considerable overlap and room for synergy. In their chapter they focus on the neglected problem of chronic disease needs after disasters. These ailments are generally of long duration and slow progression, often they cannot be prevented with vaccination or cured with medication, and are more common in older age. The global burden of chronic disease is growing rapidly, particularly in middle-income countries, and this issue is becoming a major concern to health-care professionals, health system planners and governments worldwide, including those involved in disaster response.

Natural disasters can exacerbate existing vulnerabilities by worsening a person's existing condition, or interrupting the supply of drugs they need. Stress and life-style disruptions can also cause new chronic diseases to become apparent. Although those with chronic diseases now represent a large proportion of patients requiring care after a disaster, evidence and experience suggest that chronic disease needs are largely neglected. Medical response teams are too often composed only of trauma specialists, but they also should include GPs. Using the 2008 Wenchuan earthquake as an example, Chan and Southgate argue that chronic disease needs were not widely acknowledged or provided for; there was a lack of appropriate human resources, and hospital and clinic services were not orientated to the needs of the elderly or others with chronic diseases.

Chan and Southgate propose three areas for improvement: a multidisciplinary platform to coordinate relief response; a human security needs assessment to identify vulnerable groups; and the setting of thresholds for action, to be determined by trying to measure human security. It is suggested that changes along these lines would not only improve the public health response to post-disaster chronic disease needs – as well as the overall response to disasters – but would move the concept of human security forward by giving it a concrete operational role in disaster response.

In his chapter Vesselin Popovski discusses the relationship between human security and human rights, and claims that they are mutually reinforcing. Echoing the position taken in the 2003 CHS Report, he suggests that human security helps identify the rights that are at stake in a particular situation, and that human rights help answer the question of how human security should be promoted. Popovski argues that state negligence before and after natural disasters effectively jeopardises human security as well as violating human rights. People suffer as a result of both action and inaction, which suggests that states have to accept more responsibility for preventing 'natural' disasters. States can no longer make excuses that little can be done to mitigate catastrophic natural hazards, as contemporary science has developed advanced technologies to predict and address such hazards.

Victims of natural disasters can argue that state negligence – both pre-disaster and post-disaster – constitutes a human rights violation, litigate in courts and seek remedies. Using examples from court cases in Italy, Russia, Spain, Turkey, the United States and at the European Court of Human Rights, the chapter discusses a range of legal actions that have been undertaken in domestic and international courts in regards to state negligence following natural and manmade disasters. Popovski argues that these cases culminated in the decision taken in the European Court of Human Rights in the case of *Budayeva vs. Russia*, which became the first in history where an international court identified state negligence before and after a natural disaster as constituting a violation of human rights.

This chapter offers a reminder that understanding the human element of 'natural' disasters is important not only for recognising vulnerabilities, but also for identifying responsibility and improving accountability. Popovski provides a sustained challenge to MacFarlane and Khong's (2006, p. 245) attempt to define human security in terms 'of some entity or set of individuals who are organizing

to do us in'. He shows that defining agency only in the sense of direct action is overly reductive, and that governments can still be held to account for what they do *not* do. Societies in which governments feel strong pressure to be vigilant will seek to better mitigate the impact of future disasters, fostering greater disaster resilience. The chapter therefore demonstrates how more robust human rights litigation can offer a path towards the reduction of human insecurity.

Jennifer Hyndman's chapter introduces the concept of 'dual disasters' to the study of human security: these are situations in which natural disasters or humanitarian crises occur within the context of an existing conflict (see also Hyndman 2011). The chapter demonstrates how the consequences of an environmental disaster – the 2004 Indian Ocean tsunami – intersected with other forms of vulnerability resulting from armed conflict in Sri Lanka. An examination of this case study demonstrates how three decades of armed conflict and displacement produced unique preconditions for even more acute insecurity in the face of the subsequent environmental disaster.

Hyndman cautions against generalising vulnerability and argues that it is often caused by the combination of at least two more specific aspects of identity. In the Sri Lankan case women were more vulnerable to the effects of the tsunami, and according to some estimates 80% of the victims in particular areas were female. Hyndman also notes that many women died because they were attending Sunday markets located on the main coastal roads, a task identified as 'women's work'. Yet wealthy women would not have been likely to attend such markets – it was the combination of being female *and* poor that created vulnerability in this case.

To illustrate the relevance of the human security approach for dual disasters the Sri Lankan case is juxtaposed with a second case in Somalia, where war and drought created humanitarian crisis and widespread human displacement in the early 1990s, and then again in 2011. These case studies demonstrate that dual disasters can be analysed when they are synchronised, as in Sri Lanka, but also over time when the repetition of dual disasters in the same place may have serious implications for human security and the capacity to respond to such emergencies, as in Somalia.

Hyndman concludes by arguing that human security should focus its attention on the processes that produce and reproduce vulnerability, rather than on the 'vulnerable' *per se*. Seriously addressing many of the longer-term problems associated with disasters must entail considering the social and structural practices that have led to dual disasters. Echoing human security's emphasis on prevention, Hyndman argues that it is not enough to merely respond to disasters as they unfold. As an example of this, Hyndman characterises the triage philosophy adopted in the Somali refugee camps as short-termist, and argues that whilst emergencies always attract funding, the quality of life and preconditions for empowerment in the camps are ultimately very poor, with refugees not having access to comprehensive health, food and economic security. There is of course a humanitarian duty to assist the currently vulnerable, but also a longer-term duty to analyse the processes through which vulnerabilities emerge, and are then reproduced and exacerbated.



Paul Zeccola's contribution explores the interplay between multiple threats to human security in Aceh, Indonesia, after the 2004 tsunami, in the context of a violent separatist conflict which has been in progress since 1976. Even before the tsunami Acehnese suffered threats under at least five of the seven categories of human security identified in the 1994 report. Zeccola notes that many people had sought refuge from earlier phases of the conflict in coastal towns that were imagined to be relative safe-havens, only to later be exposed to the wrath of the tsunami. Afterwards, the international humanitarian community had to decide how to respond to this 'dual disaster' in a politically sensitive environment. Zeccola shows that international aid agencies made a sustained effort to separate tsunami assistance from conflict issues, and to almost exclusively focus on the former. Aid was skewed in favour of tsunami survivors while conflict-affected people received very little assistance. NGOs restricted their missions because of security, access and funding concerns, and made distinctions between 'tsunami-affected' and 'conflict-affected' geographical areas.

In this case issues relating to health and food security were initially prioritised over concerns with political and community security. The tsunami response, especially during the emergency phase, was a success. This achievement could have been compromised had the international aid agencies not accepted the frame of reference dictated to them by the Indonesian government and security forces. This was a positive outcome, but in the short term at least, not an example of a positive multiplier effect. A separation between different categories of human security was necessary, with some being prioritised at the expense of others in the short term. From a longer-term perspective, Zeccola suggests that the approach adopted by international NGOs may have contributed to the success of the peace process, thus also improving levels of individual and community security from violence.

Matthew Bolton's chapter also examines the role played by external actors in a disaster context, by looking at post-earthquake Haiti and its implications for human security. Deploying a theoretical framework drawn from Zygmunt Bauman's concept of 'liquid modernity' he demonstrates that the international community suffers from what he refers to as 'structural short-termism', which has had severe consequences for human security in Haiti.

Bolton argues that as a result of the earthquake that gravely weakened the capacity of the Haitian state, a network of actors, international and local, public and private, military and civilian, rushed to fill the vacuum. This grouping had various attributes: it was highly globalised with many external actors acquiring significant sovereignty over the lives of ordinary Haitians, as providers of key public goods. It became increasingly privatised as 3,000 to 10,000 NGOs operated in Haiti, many with their own funding streams and policies. The international relief in Haiti also became militarised, with UN and US military actors deeply integrated into the aid effort, and increasingly technocratic, as aid agencies strove to identify and apply generic 'best practices' to complex human problems. The earthquake response also created greater fragmentation within the Haitian political system, as aid distribution re-enforced divisions between the core and periphery of the country. Lastly, as Bolton illustrates in numerous ways, the

interest of the international community in Haiti was transitory, peaking in 2010 and tailing away rapidly thereafter.

For Bolton, all of these developments signify an ever-more transient liquid modernity, when arguably what is required to achieve greater human security is a 'heavier', or more stable modernity, characterised by robust institutions and built on positive, enduring, sustainable, inclusive social relations. The short-term interventionist approach to international aid has eroded the social contract and accompanying conditions of human security in Haiti. Instead, the international aid effort has had only a limited effect in promoting human security, as accountability for security and social service provision has been effectively transferred into structures that are diffuse, centrifugal, rapidly changing and poorly informed about local political, cultural and economic realities.

Building on some of Bolton's theoretical observations, Robin Cameron's chapter seeks to further develop the 'human' dimension of human security, identifying it as vital both to the study of natural disasters and to the broader revitalisation of the approach. Focusing on contemporary critical infrastructure protection policy, Cameron discusses the securitisation of elements of domestic disaster response, and resilience approaches more generally. He suggests that the focus of human security must be extended beyond a narrow focus on material conditions and should also encompass conditions of 'existential security'. With better awareness of the relational and socially embedded forms of security that exist within communities, material accounts of human security can be understood in greater depth, in a way that can be considered truly human.

Cameron contrasts the cases of Hurricane Katrina and Hurricane Sandy, arguing that the former has become an exemplary study of how *not* to deal with natural disasters. This can be seen through the erosion of existential security along the lines of existing vulnerabilities, rather than the fostering of empowerment through the cultivation of community. The combination of critical infrastructure policy and 'risk management' adopted in New Orleans helped to construct survivors as criminals, or at the very least suspects; communities who couldn't be trusted in their own city for fear they would engage in looting and violence. The influence of critical infrastructure policy on decision-making is important, according to Cameron, because it legitimates a focus on the protection of property and material 'things', rather than a focus on people and their connection to place.

Unlike in New Orleans, Cameron argues, the protection and restoration of critical infrastructure in New York did not seem to be treated as an end in itself, but rather as a service that had value for people. New York was much better prepared; local, state and federal officials communicated clearly with citizens ahead of and after Hurricane Sandy in a way that afforded a sense of empowerment and collective connection with the city. While such communication is not especially innovative, it seemed to create a sense of existential security that was not present in New Orleans, where authorities responded with less clarity and greater use of martial power against citizens. In addition to the greater levels of personal physical security in New York, a sense of place was cultivated in a way

that provided collective meaning, and enabled people to overcome the disruption posed by the hazard.

The volume ends with a short conclusion by one of the editors, Christopher Hobson, who highlights some of the key themes of the book. He also emphasises prevention as lying at the heart of a human security approach to natural disasters. Recalling Machiavelli's understanding of the role that *fortuna* plays in human affairs, Hobson notes that it may be impossible to completely prevent natural hazards, but there is still considerable room in which human behaviours and choices can shape how vulnerable or secure people are. He argues that it is necessary to do as much as possible to encourage and foster a preventative, forward-thinking perspective on natural disasters, along the lines proposed by the human security approach developed in this book.

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## 2 Human security after the shock

### Vulnerability and empowerment

*Christopher Hobson*

#### Introduction

When one thinks of human security, generally the context that comes to mind is war and conflict. Natural disasters have tended to be overlooked by this agenda, although they cause many of the same problems: widespread death, massive destruction, extensive displacement and heightened vulnerability for people. For such reasons the UNDP's 1994 *Human Development Report* and the Commission on Human Security explicitly identified natural disasters as a threat to human security (UNDP 1994, p. 29; Commission on Human Security 2003, pp. 83–85). As noted in the introduction, those adopting a 'broad' approach have followed this interpretation, but there has been little work considering the issue in detail. Meanwhile, proponents of a 'narrow' definition regard it as beyond the purview of human security, arguing that the focus should be limited to physical violence and conflict. Yet it is unclear why death, suffering and vulnerability caused by physical violence are more troubling than when triggered by a flood or earthquake. Considering that a fundamental part of this approach is re-orientating our understanding of security towards incorporating the most severe and immediate threats that people face, it makes little sense to arbitrarily prioritise one kind over the other.

Looking at the sheer number of lives directly impacted by natural disasters, it would seem very strange if the issue of human security did *not* apply. To take some prominent examples: the 2004 Indian Ocean tsunami resulted in 226,408 deaths; Cyclone Nargis in Myanmar in 2008 caused 138,366 deaths; and there were more than 316,000 fatalities in the 2010 Haiti earthquake (McLean 2010, p. 160; 'Haiti raises' 2011). If one widens the scope to displaced persons – a useful measure for identifying cases of human insecurity (Kaldor et al. 2007, p. 279) – the figures are staggering: the 2008 Sichuan earthquake displaced over 15 million people; 11 million people were displaced during the 2010 Pakistan floods; and in 2010 over 42 million people were displaced in total by natural disasters (Yonetani 2011, p. 4; Internal Displacement Monitoring Centre 2012). As shocking as these numbers are, they cannot be considered exceptional. In the 2000s, more than 2,323 million people were affected by disasters, with more than 1 million killed (Ferris & Petz 2012, p. 6). Research strongly indicates that extreme weather events are becoming more frequent and severe as a result of climate change, which