

# Challenges and opportunities for defining and measuring human security

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As a concept that challenges the very core of the traditional security paradigm, human security has attracted strong critique. Prevalent among these many and often well-reasoned challenges are those that address its ambiguity. With the objectives of the security infrastructure widening well beyond the preservation of state integrity, critics rightly ask, what is and is not a security threat?

Addressing this concern directly must be a principle objective of human security proponents. *Laissez-faire* attitudes will undoubtedly lead to unclear policy directives and allow the dominant realist security paradigm to further dismiss the threats that fall outside of its narrow mandate.

Here I will address three interrelated issues, the history and definition of human security, the measurement of human security, and the relationship between components of human security, such as human rights, and the broader concept.

First, who has tried to define human security and what have they included as relevant threats? Within this section I will suggest that a hybrid definition, one that includes a broad range of threats but establishes a threshold of severity, is the most appropriate. Second, I will address the feasibility of empirically measuring human security. While not detailing a methodology here, I will argue that monitoring and empirically measuring are both possible and indeed critical to the normative future of human security. Third, I will use human rights abuses as an example of how a threshold-based definition sets criteria for the inclusion of some, but not all, threats in any different component of human security.

## *Human security defined: philosophic roots to a new definition*

### PHILOSOPHIC ROOTS

The debate over the referent object of security is not new. At its core, human security is a comparably undisciplined argument for a return to enlightenment liberalism.<sup>1</sup> Indeed, many of the basic principles of human security are crude reflections of Montesquieu, Rousseau and Condorcet, but so too are principles of state security rooted in the work of intellectuals such as Kant, Hobbes and

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Grotius, whose opposing state-centred worldview arguably prevailed over these more pluralistic beliefs. Since the debate over the relationship between the individual and state as the focus of security is not new, some comment on past perspectives is useful.<sup>2</sup>

One side of the security debate of the eighteenth century is rooted in pluralist beliefs focusing on the protection of the individual.<sup>3</sup> For Montesquieu, this was a singular focus on freedom and the perceived rights of individuals over the dictated security provided by the state. Security for Adam Smith meant the protection of the individual from ‘sudden or violent attack on one’s person or property’—this security being the most important prerequisite for a successful and ‘opulent’ society. Similarly, Condorcet described a societal contract in which the security of the individual was the central principle. If freedom from fear is not guaranteed, he argued, then individuals could not be effective members of a political relationship.

This liberal perspective was widespread, but not unanimous. Although in agreement over the vital role of individual safety, others believed that this could best be achieved as a consequence of the security of the state—the state, thus, acting as protector from both external and internal threats.

For Hobbes, it meant little whether a man’s insecurity was at the hands of a local thief or an invading army. Protection from either, he believed, was the absolute responsibility of the state. For this protection, the citizen should give up any and all individual rights to his country, his protector—security prevailing over liberty.<sup>4</sup> While also looking at the role of the state in providing individual security, Kant envisioned a higher authority still. He proposed a universalist international order: a global society, based primarily on the moral imperative of a common good as seen by its member nations.<sup>5</sup> As a middle ground between the two, Grotius proposed a more moderate international dynamic, one not guided by supranational law, but by a balance of power amongst states and a social contract between them and their citizens. For Grotius, the mutual interests of independent but co-existing state entities would ensure the security of all.

Although each gave rise to a different school of international thought (Hobbes to realism, Kant to global security, Grotius to international security), all based the primary responsibility of protecting individual security in the hands of the state. This would become the dominant worldview, overtaking more liberal thinking, until the end of the Cold War.

#### FROM TRADITIONAL TO HUMAN SECURITY

Although human security’s ostensible roots can be found in early liberal philosophic writings, its practical manifestation is representative of a post-Cold War scepticism toward the dominant traditional security paradigm.

Traditional state-centred security reached a peak during the Cold War. For forty years, the major world powers entrusted the security of their populace, and to a certain extent of the world, to a balance of power among states. For this prevailing realist view, the referent object of security is the state and presumes, in a very Hobbesian fashion, that if the state is secure, then so too will those that live within it.<sup>6</sup> This type of security relied primarily on an anarchistic balance of power (power as the sole controlling mechanism), the military build-up of two superpowers, and on the absolute sovereignty of the nation-state. States were deemed in the scholarly literature and security analysis to be entirely rational entities, with the maximization of power guiding national interests and policy.<sup>7</sup> Security was seen as protection from invading armies; protection was provided by technical and military capabilities; and wars were never to be fought on home soil—rather, proxy wars were used if direct combat were necessary.

**Table 1. Traditional and human security**

Type of security	Referent object	Responsibility to protect	Possible threats
Traditional security	The state	The integrity of the state	Interstate war Nuclear proliferation Revolution
Human security	The individual	The integrity of the individual	Disease Poverty Natural disaster Violence Landmines Human rights abuses

With the fall of the Berlin Wall it became clear that despite the macro-level stability created by the East-West military balance of the Cold War, citizens were not necessarily safe. They may not have suffered from outright nuclear attack, but they were being killed by the remnants of proxy wars, environmental disaster, poverty, disease, hunger, violence and human rights abuses. Ironically, the faith placed in the realist worldview, and the security it provided, masked the actual issues threatening the individual. Once the central foci of security, the protection of the person was all too often negated by an over-attention on the state. By allowing key issues to fall through the cracks, 'traditional security' failed at its primary objective: protecting the individual.

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This led to the challenging of the notion of traditional security by such concepts as cooperative, comprehensive, societal, collective, international and human security.<sup>8</sup> Although these concepts move away from a focus on inter-state relations, human security takes the most dramatic step by making the referent object not the state, society or community, but the individual. This shift is meant to direct research and policy towards the actual issues threatening peoples' lives.

As an example of the difficulty of articulating the concept, Rothschild describes human security philosophically as part of both a broadening and a deepening of what we once viewed as security. She argues that the focus on state security must be extended to include supranational systems as well as the individual condition, and the range of included harms must be broadened to include serious threats to either. Also, the responsibility to ensure security must be diffused to include local governments, international agreements, NGOs, public opinion, and the financial market. Although not an explicit definition, this conceptualization provides an example of how narrow the traditional paradigm has been, as well as how complex the expansion of the concept can become.<sup>9</sup>

Although many attempts have been made to more specifically define what is an inherently ambiguous concept (as it by definition encompasses a potentially unlimited list of threats), two conceptual schools of thought have emerged in which most definitions can be grouped. These are the broad and narrow conceptions of human security.<sup>10</sup> A spectrum has been used to describe the possible definitions of human security. It can be seen in its broad sense as incorporating a long list of possible threats, from traditional security threats such as war to more development-oriented threats such as health, poverty and the environment. In its narrow sense, the spectrum, although still focused on the individual, and therefore incorporating many more threats than traditional security, is limited to violent threats such as landmines, small arms, violence and intra-state conflict.

## HUMAN SECURITY DEFINED: THE BROAD CONCEPTION

Security can no longer be narrowly defined as the absence of armed conflict, be it between or within states. Gross abuses of human rights, the large-scale displacement of civilian populations, international terrorism, the AIDS pandemic, drug and arms trafficking and environmental disasters present a direct threat to human security, forcing us to adopt a much more coordinated approach to a range of issues.<sup>11</sup> Secretary-General Kofi Annan

Most of the definitions of human security are rooted in the broad school of thought. Although critics rightfully point to a potential ambiguity from grouping so many threats under one heading, clarity emerges if three key attributes of the broad conception are considered: its scope of coverage, its system-based approach to understanding causal relationships, and its focus on the vital core of the individual. These three critical aspects of broadly defined human security are exemplified by the concept of human security as advocated by the United Nations Development Programme (UNDP), Jorge Nef and the independent Commission on Human Security.

First, the UNDP conceptualization establishes human security's broad scope. The 1994 UNDP *Human Development Report* is generally seen as the first significant attempt at articulating the broad approach to human security. The report describes human security as having two principal aspects: the *freedom* from chronic threats such as hunger, disease and repression, coupled with the *protection* from sudden calamities. The report concedes that the definition is broad, but explains that this is simply a reflection of the number of significant harms that go unmitigated. As a conceptual structure, the UNDP proposes seven components of human security: economic, food, health, environmental, personal, community and political security.<sup>12</sup>

- Economic security threatened by poverty;
- Food security threatened by hunger and famine;
- Health security threatened by injury and disease;
- Environmental security threatened by pollution, environmental degradation and resource depletion;
- Personal security threatened by various forms of violence;
- Political security threatened by political repression;
- Community security threatened by social unrest and instability.<sup>13</sup>

What is important about this categorization is that it sets the boundaries of the definition very broadly, clearly separating itself from past security re-conceptualizations. Also, it forces other definitions of human security to justify their narrowing from this very broad starting point.

Second, there is the importance of a components-based approach to defining human security.<sup>14</sup> Jorge Nef, for example, describes five interconnected sub-systems of human security: ecosystem, economy, society, polity and culture. For Nef, these five are all in complex interplay, their linkages defining the nature of systemic balance. More crudely, this points out that if causality is going to be addressed, then the system boundaries must be set very broadly in order to capture all of the possible significant variables. Acknowledgment of the interconnectedness of human security components, however defined, is absolutely critical both to understanding causality and properly addressing policy.

A third significant attribute of the broad conception of human security is its focus on the vital core of the individual. This is essential in order to separate 'human security' from 'human development', a term which is more linked with well-being than dire emergencies.<sup>15</sup> The independent Commission on

Human Security, established at the initiative of the Government of Japan, stresses the importance of focusing human security on the vital core of the individual, rather than on anything and everything that can cause harm.<sup>16</sup> Instead of providing a 'laundry list' of threats, the Commission sets criteria that, once surpassed, indicates an issue has become a threat to human security. They also presume that although institutions cannot be expected to protect people from all harms, they should at least address those that unnecessarily take lives.

With these three attributes in mind, the broad conception of human security becomes more clear. It must be inclusive, it must separate its components into different types of security in order to address causality, and it must set a threshold demarcating the vital core in order to separate itself from human development.

#### HUMAN SECURITY DEFINED: THE NARROW CONCEPTION

On the other end of the spectrum of human security definitions is the 'narrow' approach. By using a definition that primarily focuses on violent threats, the narrow approach clearly separates human security from the more expansive and already established field of international development. This approach acknowledges the broad conception as a phase in the development of human security, but envisions a much more focused definition, one centred on violent threats, as an instrument of policy.

The narrow definition, therefore, restricts the parameters of human security to violent threats against the individual. This can come from a vast array of threats, including the drug trade, landmines, ethnic discord, state failure, trafficking in small arms, etc. It must, as former Canadian Foreign Minister Lloyd Axworthy points out, be countered primarily by the use of soft power, such as diplomatic resources, economic persuasion, and the use of intelligence and information technology.<sup>17</sup>

The *Human Security Report* (first edition to be published mid-2004) at Centre for Human Security at the University of British Columbia<sup>18</sup> uses a narrowly defined understanding of human security, limiting its scope for pragmatic and methodological reasons.<sup>19</sup> For instance, pragmatically, the UNDP's annual *Human Development Report* already covers the freedom from want side of the spectrum, so they feel another such report would be redundant. Methodologically, the report proposal argues, understanding the relationship between underdevelopment and violence necessarily requires a separation of the dependant and independent variables.<sup>20</sup>

A strong argument for the narrow conception is simply the number of successful international initiatives using its parameters. In fact, most of the significant policy advances achieved in the name of human security have used this narrow definition. For instance, the Mine Ban Convention, the International Criminal Court, as well as the recent international focus on child soldiers, small arms and the role of non-state actors in conflict, have all been undertaken using a narrow human security perspective.

A less dichotomous way to look at the human security spectrum is to assess how much of the possible range of threats each definition incorporates. Few conceptualizations incorporate the full range of seven threat categories originally noted by UNDP. Indeed, as the list of included harms increases, so to does the difficulty in articulating and measuring the concept. The resulting paradox—that the closer one gets the original conception of human security, the more difficult operationalizing it becomes—is a major stumbling block. However, the conceptual and practical difficulty of such a task is no excuse. If human security conceptualizations do not radically deviate from current understandings of traditional security or development, then they provide little added utility to the mechanisms already in place.

Despite principally aligned worldviews, proponents of the broad and the narrow definitions of human security have yet to come up with a single, consensus-commanding definition. In order for human security to have a meaningful impact, its proponents must agree upon a single definition and end what is a self-destructive debate.

#### A NEW DEFINITION

I propose that the broad versus narrow conceptualization, while theoretically useful, is practically counter-productive. It implies that the narrower the definition, the easier the threat assessment and indicator selection and the more precise the final account will be. This need not be the case. Human security threats should be included not because they fall into a particular category, such as violence, but because of their actual severity. In this conception, what human security means is not defined by an arbitrary list, but by what threats are actually affecting people.

With the goal of remaining both broad and concise, a 'hybrid' human security definition must recognize that there is no difference between a death from a flood or from a gun, all preventable harms should be considered threats to human security. However, as varying harms require dramatically different policy responses, any possible threat must be assessed based on its severity. Only those that surpass a threshold of severity should be included. Also, the definition needs conceptual differentiation—it must be able to separate and categorize all possible threats for meaningful analytic study. This is done by grouping human security threats into six categories. The definition takes two parts.

The first part of the definition is derived from the Commission on Human Security: *Human security is the protection of the vital core of all human lives from critical and pervasive threats*. The advantage of this definition is that it remains true to the broad nature of human security, while clearly separating it from more general concepts of human well-being and development. Making the referent object 'all human lives' both focuses on the individual while also indicating a universalism in its mandate. As the highest level of human insecurity is likely to occur in the developing world, this is particularly important.

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The threshold for what is deemed a human security threat is set by the terms 'vital core' and 'critical and pervasive threats'. This is important in order to ingrain a necessary degree of severity within the concept. The vital core, as the Commission

on Human Security points out, is what constitutes a minimum level of survival. Reference to 'critical and pervasive threats' establishes both severity and immediacy. As there are an unlimited number of possible threats, only the most serious, those that take or seriously threaten lives, are included. This threshold is also critically important for the threat identification aspect of human security. Setting the parameter wide with the UNDP conceptualization one could imagine thousands of possible human security issues. However, following this definition, only those that are critical and pervasive, are considered threats to human security.

The second part of the definition addresses the issue of conceptual clarity. It establishes clear categories under which all human security threats are ordered. These categories are not threats themselves, but rather are conceptual groupings, providing a degree of disciplinary alignment to what is an overarching concept: *Individuals require protection from environmental, economic, food, health, personal and political threats*.

By grouping all possible threats into six categories, human security becomes both more manageable and analytically useful. These categories are based on the original UNDP definition discussed in the previous section.<sup>21</sup> The final definition is therefore: *Human security is the protection of the vital core of all human lives from critical and pervasive environmental, economic, food, health, personal and political threats*.

Perhaps most importantly, this definition is dynamic. It refrains from simply listing threats, recognizing that no possible list can be conclusive, and that it is the protection of the individual that should be the focus.

### *Measuring human security*

If we accept that certain conditions surpass a threshold of severity and become not only human rights' violations, environmental problems or isolated violent acts, but instead threats to human security, then we must have a very clear idea about what these threats are and where these exist. This, by nature, requires a method of empirically assessing, or measuring, human security.

While the validity of the normative interpretation of human security is relatively uncontested, at least among proponents of the concept, its analytic utility is fiercely debated. It is one thing to say that individuals are at risk from a much wider array of threats than the current security paradigm addresses—it is quite another to identify, measure and assess these many possible harms. Central to this debate are the parameters with which one selects human security threats. If, for example, a broad definition of human security is used, all threats that could potentially harm an individual should be included. A global assessment using this criteria is impossible. Quite simply, people can be harmed by such of vast array of threats that complete coverage is conceptually, practically and analytically unfeasible. Practitioners have circumvented this reality using two self-defeating qualifiers in their measurement attempts—researcher- and data-defined threat identification and inclusion. Both marginalize the very core principle of the human security concept, that actual insecurity must drive our response mechanisms.

One way to overcome an unmanageable list of possible human security threats is to simply list which threats will and will not be included in the research design. This 'laundry list' method is subject to the political, institutional and cultural biases of the research designer. Methodologies using this approach will inevitably leave out numerous causes of insecurity. For example, a violence-based measurement methodology doesn't account for the 18,000,000 annual deaths from communicable disease.

The second way around the broad nature of human security is to let data availability drive the assessment parameters. One could compile all available datasets depicting conceivable threats to human security. An assumption with this approach is that if a harm is serious enough, someone will most likely measure it. The problem with this is that it takes a considerable institutional capacity to compile a global scale data set. There are few institutions capable of doing this, and their mandates almost certainly dictate the types of threats they will prioritize. In addition, the very point of human security is to shift our attention to threats usually not considered, and most likely not measured, on a global scale. An unbalanced focus on economic data is also sure to occur in a data driven threat assessment.

The problem then is how can a measure stay true to the broad nature of human security, in other words not leave out any serious threat harming individuals, while at the same time limit or refine its included threats to a manageable and measurable list?

The solutions lie in the threshold set by the 'vital core' component of the proposed definition and by using a regional focus. The list of all possible threats to human security in the world is vast, the list of *relevant* harms for a particular region or country, however, is considerably more refined. Using regional relevance as the criteria for threat selection means that no serious harm will be excluded, staying true to the broad conception of human security, but also improves the chances of acquiring relevant data. Regionally relevant threats would be identified using the threshold of severity definition suggested above.

Further, I suggest that a human security assessment should use local-level, rather than national-level, data. The nature of human security is such that significant variance occurs not just between countries, but within them. Diseases, poverty, violence levels or the location of landmines vary dramatically throughout countries.

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A measure that fails to account for this nuance is simply using too coarse a resolution and blurs the human security picture.

Once data depicting the regionally relevant human security threats are collected, they can then be spatially analysed. This can be done in a Geographic Information System (GIS). Layering human security data in a GIS, whether they be hydrologic flood data, economic poverty data or epidemiological disease data, allows for innovative aggregation of information and powerful spatial analysis.

Further, spatial analysis can find 'hotspots' of aggregated human insecurity (regions suffering from multiple security threats) and can help us understand the spatial relationships between these threats. For example, using spatial statistics and building statistical models, one can determine correlations between the human security threats measured and a wide array of socio-economic variables.

Over the past two years I have developed such a methodology. Using Cambodia as a case study, this methodology has been tested and the threat data has gone through rigorous statistical analysis. The results is an interdisciplinary spatial database of broad ranging Cambodia-specific human security threats. These thirteen identified threats include landmines, flooding, HIV/AIDS and domestic violence. When spatially analysed, clear hotspots of human insecurity were identified and strong spatial correlations between threats emerged.<sup>22</sup>

The broad conception of human security *can* be accurately measured. Threats must simply be limited using their severity and regional significance, rather than a preconceived list of threats or the global availability of data. Moreover, the strong correlations between threats, such as landmine and flood victims, or intensity of bombing campaigns and poverty severity, reinforce the importance of the inclusive nature of human security. Narrow definitions of the concept simply leave out too many critical threats and ignore too much valuable local data.

### *Human rights and human security*

Part of the difficulty of the threshold-based human security measure is that certain aspects of each component of human security will not qualify as a security threat. By definition, only those threats that pose a critical and pervasive risk to the vital core are included. Others, while undoubtedly important, should be addressed using existing non-security mechanisms. The case of human rights abuses provides a difficult but useful example.

Human rights and human security are very different concepts. While rights signify the basic legal entitlements of individuals, security involves personal safety. Rights generally depict conditions in which all people are entitled to live, security addresses the very survival of those people.

As outlined in the human security definition proposed above, using the term security has certain prerequisites. Security carries with it a level of urgency that should only be used to address imminent disasters. Certainly some human rights abuses would qualify as human security threats, but not all. Mass human rights abuses against a group in a society is clearly a threat to human security. A suppression of religious freedom, while a concern, would not in most cases qualify as a human security threat.

The Universal Declaration of Human Rights, for example, lists many conditions that, while certainly harmful, do not surpass the threshold of severity to be treated as security threats rather than criminal, political or legal issues.

The idea of a threshold of severity, whereby human rights abuses manifest into something that might require action outside of the mandate of the legal charters meant to preserve them, is not new. The International Commission on Intervention and State Sovereignty (ICISS)<sup>23</sup> recently outlined conditions that must be met before international humanitarian intervention could be used to preserve a group's human rights. They explicitly argue that certain human rights abuses cross a line of severity and should trigger an international response and, if necessary, military intervention. I would argue that situations that meet the ICISS threshold are indeed human security threats.

What is most important is the recognition that protection from human rights' abuses is one component of insuring human security. Individuals also need protection from poverty, disasters, conflict and disease. Put another way, *protection from gross violations of human rights is a necessary, but not sufficient, condition of human security*. The same threshold must, of course, be applied to other human security categories. Just as the legal system, whether national or international, is the appropriate mechanism for addressing *most* human rights abuses, international environmental organizations and treaties are the appropriate institutions to deal with *most* environmental problems. Some, however, surpass a threshold and become human security concerns. When they do, we must have both a monitoring system that can identify them and a security infrastructure that can effectively mitigate the threat.

## Conclusion

Although new in its present manifestation, the core principle of human security, that the individual rather than the state should be at the centre of security policy, has its roots in eighteenth century enlightenment liberalism. Although the ideas of Montesquieu, Rousseau and Condorcet have since been overshadowed by the dominant traditional state-based security paradigm, the end of the Cold War has provided room for a shift in security thinking. The majority of hardship and death in the world is not caused by inter-state war but rather by disease, poverty, natural disasters, civil conflict and small arms. As the primary threats have changed, so too must our security mechanisms.

Early conceptualizations of human security, all of which shift the referent from the state to the individual, have run into problems of definitional clarity and measurement methodology. It is proposed here that a threshold-based definition be used to let the actual risks determine what human security is and is not. From this, a regionally defined human security measure can be produced. This stays true to the original broad focus of the concept but renders it analytically and practically useful for addressing today's climate of insecurity.

The conception and apparatus of security should not be used to address every and all possible threats to the individual. It should, however, be capable of protecting people from the most serious harms they face. Until we can ensure that people are safe not just from inter-state war and nuclear proliferation, but also from preventable disease, starvation, civil conflict and terrorism, then we have failed in the primary objective of security—to protect.

## Notes

1. E. Rothschild, 1995, *What is Security?*, *Daedalus*, vol. 124, no. 43, pp. 53–90.
2. The dichotomous nature of this debate is worth noting. It is a pattern seen in the traditional security versus human security debate as well as with the broad versus narrow conception of human security itself. As I will argue, only by returning to the core protection of the individual from all serious threats will we be fulfilling our societal responsibilities of protection.

3. See Rothschild, *op. cit.*
4. R. Ullman, 1983, Redefining Security, *International Security*, vol. 8, no. 1, pp. 129–53; and Thomas Hobbes, *The Leviathan*.
5. H. Haftendorn, 1991, The Security Puzzle: Theory Building and Discipline Building in International Security, *International Security Quarterly*, vol. 35, no. 1, pp. 3–17.
6. K. Bajpai, 2000, *Human Security: Concept and Measurement*, University of Notre Dame, Kroc Institute Occasional Paper no. 19, at < [www.nd.edu/~krocinst/ocpapers/op\\_19\\_1.PDF](http://www.nd.edu/~krocinst/ocpapers/op_19_1.PDF)> .
7. W. Kim, 2001, *Human Security Concerns in Global Politics*. Prepared for the Ninth Council for Security Cooperation in the Asia Pacific Working Group Meeting on Comprehensive and Cooperative Security, Novotel Wellington, New Zealand, April.
8. J. Baylis, 1997, International Security in the Post-Cold War Era, in John Baylis and Steve Smith (eds), *The Globalization of World Politics*, Oxford, Oxford University Press.
9. Rothschild, *op. cit.*
10. It should be noted that I feel that this categorization is far too simplistic. Not just because most of the literature is based on the broad conception, but because many of the definitions used in the literature incorporate elements of both want and fear. Also, while some definitions might be broad in that they stress human development priorities, they may in fact still be very narrow in the scope of the threats they include—such is the case with the King and Murray conception (G. King and C. Murray, 2000, *Rethinking Human Security*, Harvard University Program on Humanitarian Policy and Conflict Research). A large amount of literature has emerged on human security, thus a full review falls out of the reach of this paper. For the three good literature reviews on human security see: S. Alkire, 2003, Concepts of Human Security, in L. Chen, S. Fukuda-Parr and E. Seidensticker (eds), *Human Security in a Global World*, The Global Equity Initiative, Asia Center, Harvard University; O. Hampson and J. Hay, 2002, *Human Security: A Review of Scholarly Literature*, paper presented to the Canadian Consortium on Human Security Annual Meeting, Ottawa, April; and The Harvard Program on Human Security at < [www.cbrss.harvard.edu/programs/hsecurity/hspapers.htm](http://www.cbrss.harvard.edu/programs/hsecurity/hspapers.htm)> .
11. *Report of the Secretary-General on the work of the Organization*, Official Records of the fifty-fifth session of the General Assembly, Supplement No. 1 (A/55/1) of 30 August 2000.
12. United Nations Development Programme, 1994, 'New Dimensions of Human Security', *Human Development Report 1994*, New York, Oxford University Press, pp. 22–25.
13. As summarized in Andrew Mack, forthcoming, 'Data Issues'.
14. J. Nef, 2003, *Human Security and Mutual Vulnerability, The Global Political Economy of Development and Underdevelopment* (second edition), Ottawa, IDRC Books.
15. This concept has been most recently articulated in Commission on Human Security, 2003, *Human Security Now: The Human Security Commission Report*, New York, at < [www.humansecurity-chs.org/](http://www.humansecurity-chs.org/)> .
16. *Ibid.*
17. L. Axworthy, 2001, Human Security and Global Governance: Putting People First, *Global Governance*, vol. 22, no. 1, p. 19.
18. See < [www.ligi.ubc.ca/chs.htm](http://www.ligi.ubc.ca/chs.htm)> .
19. A. Mack, 2002, *A Report on the Feasibility of Creating an Annual Human Security Report*, Program on Humanitarian Policy and Conflict Research, Harvard University, February. The Human Security Report is now based at the Center for Human Security in the Liu Institute for Global Issue at the University of British Columbia.
20. I will argue that this ambiguity is only true of the broad conception when all components are aggregated together. If kept on their own, all under the heading of human security threats, then meaningful correlation is possible. In fact, the very fact that they are all deemed human security threats forces a degree of comparison that might otherwise go unnoticed.
21. It should be noted that 'community security' included in UNDP's conception of human security was omitted from my definition. This was done because I feel it conflicts with the first part of the definition, limiting human security to critical and pervasive threats to the vital core. I do not feel that integrity of culture, while undeniably important, fits within this conception.
22. Details on the methodology can be found in T. Owen and O. Slaymaker, forthcoming, Human Security in Cambodia: a GIS Approach, *AMBIO The Journal of the Human Environment*; and in T. Owen, 2003, Measuring Human Security: Overcoming the Paradox, *Human Security Bulletin*, vol. 2, no. 3 (October), at < [www.prio.no/files/file44641\\_human\\_security\\_mapping.pdf](http://www.prio.no/files/file44641_human_security_mapping.pdf)> .
23. International Commission on Intervention and State Sovereignty, 2001, *The Responsibility to Protect. Report of the International Commission on Intervention and State Sovereignty*, at < [www.dfait-maeci.gc.ca/iciss-ciise/pdf/Commission-Report.pdf](http://www.dfait-maeci.gc.ca/iciss-ciise/pdf/Commission-Report.pdf)> .