

# Assessing Human Insecurity Worldwide

The Way to A Human (In)Security Index

*Sascha Werthes/Corinne Heaven/Sven Vollnhals*

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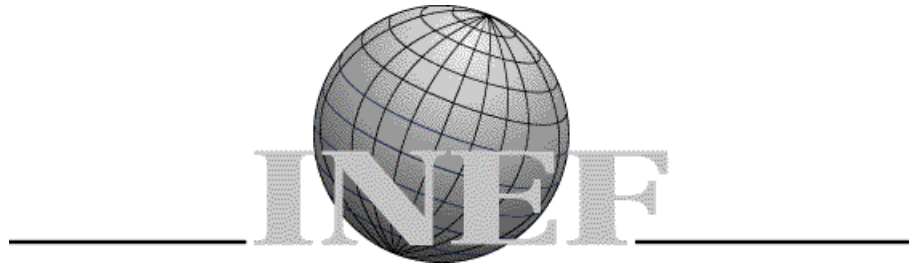
## **Assessing Human Insecurity Worldwide**

The Way to a Human (In)Security Index

### **INEF-Report 102/2011**

University of Duisburg-Essen  
Universität Duisburg-Essen

Institute for Development and Peace  
Institut für Entwicklung und Frieden (INEF)



## **ABSTRACT**

**Sascha Werthes/ Corinne Heaven/ Sven Vollnhals: Assessing Human Insecurity Worldwide: The Way to A Human (In)Security Index**

The idea of human security has been presented and discussed in international academic and political fora for more than a decade. Yet, despite its popularity, the analytical usefulness as well as the political appropriateness of the concept is frequently criticized. In arguing for and presenting a Human (In)Security Index we address both aspects.

In the first part, we discuss the idea of human security and introduce the reader to the main critique regarding the conceptual usefulness of the idea. Secondly, we reflect on the contested development-security-nexus when presenting our conceptual framework. Additionally, we put forward a threshold-based conceptualization of human security based on the ideas originally presented by Taylor Owen together with Mary Martin. To substantiate the threshold-based conceptualization we present a multidimensional Human (In)Security Index, allowing to assess respective levels of human (in-)security. By operationalizing the dimensions of human security and presenting available data for 2008, one of the remaining conceptual challenges is addressed. We demonstrate how a Human (In)Security Index can be used in the political realm and bring to the fore the potential core threats to human security. This additionally specifies the idea of human security and furthers a differentiation between human security and other related concepts such as human development and human rights.

In sum, we argue that human security as a political idea remains highly relevant. As a political leitmotif, human security is significantly and constructively used and applied in political processes despite or because of its analytical ambiguity.

## **ZUSAMMENFASSUNG**

Trotz der vielfältigen Aufmerksamkeit die das Konzept der menschlichen Sicherheit erfahren hat, so bleibt es doch in vielerlei Hinsicht umstritten und kritisiert. Einer zentralen Kritik, dass das Konzept empirisch-analytisch problematisch und menschliche Unsicherheit letztlich nicht "erfassbar" sei, widmet sich dieser INEF-Report. In einer Weiterentwicklung von Ideen von Taylor Owen und Taylor Owen zusammen mit Mary Martin entwickeln die Autoren einen innovativen Ansatz mit dem sich menschliche Sicherheit zumindest auf länderspezifisch in verschiedenen Dimensionen erfassen lässt und leisten hierdurch einen wichtigen Beitrag wie das Konzept menschlicher Sicherheit auch für die Zukunft politisch nutzbar als auch akademisch fruchtbar genutzt werden kann.

# Content

<b>1. Introduction</b> .....	<b>5</b>
<b>2. Human Security: The Original Approach, Conceptual Challenges, and Political Consequences</b> .....	<b>6</b>
2.1 Conceptual Challenges .....	8
2.2 Different Schools of Human Security and Their Political Impact.....	9
2.3 Finding Answers: Addressing the Development-Security Nexus.....	12
<b>3. Addressing the Challenge: A Human (In)Security Index</b> .....	<b>16</b>
3.1 Preliminary Remarks on the Human (In)Security Dimensions .....	19
3.2 Methodology: Computation of the Human (In)Security Index.....	25
3.3 Findings .....	28
3.3.1 Human Economic (In)Security .....	28
3.3.2 Human Food (In)Security .....	29
3.3.3 Human Health (In)Security .....	31
3.3.4 Human Environmental (In)Security .....	34
3.3.5 Human Personal and Community (In)Security .....	34
3.3.6 Human Political (In)security.....	35
3.3.7 Human Insecurity .....	38
3.4 A Descriptive Analysis of the Human (In)Security Index with other Indices .....	41
<b>4. Résumé</b> .....	<b>42</b>
<b>5. References</b> .....	<b>45</b>
<b>6. Annex 1: Countries in Alphabetical Order and Score for all Dimensions</b> .....	<b>51</b>
<b>7. Annex 2: Countries Ranked</b> .....	<b>57</b>





## 1. Introduction<sup>1</sup>

The notion of human security has strongly influenced the academic and political debate alike. As much as the usefulness of the idea has been contested, as much it has been lobbied for. Notwithstanding the idea's political impact the critique raised is substantial: it is said to be too vague, too ambiguous, too conceptually weak to name only a few points which have been argued.

The following paper takes these analytical challenges as a starting point and responds to one of the major conceptual questions by presenting a Human (In)Security Index. The paper is organized in three parts: Chapter 2 briefly sketches out the original approach to human security by the UNDP and offers a brief overview on the current debate as well as the subsequent criticism raised. Despite the criticism, the notion of human security has gained political impact. Human security has gathered 'friends' and some countries even turned the idea into a guiding principle for their foreign policy agendas. Substantial policy results have been reached. In chapter 3 we suggest a way how to address the 'problematic' close linkages to related concepts such as human development and human rights. We propose a conceptual and policy framework based on the ideas developed by Pauline Kerr. This helps to substantiate the development of actual thresholds which are also elaborated in chapter 3. Furthermore, in chapter 4 we explicitly address one of the remaining challenges up to today. As is well known, it has widely been argued that the context-specific and dynamic nature of the idea of human security does not allow for a measurement of the potential insecurity of human beings. This makes impossible a prioritization of policies or even to evaluate the success of certain policy measures. Against this background, we present an alternative way of operationalizing the idea of human security. A Human (In)Security Index helps to inform the political realm in locating the human insecurity hot spots, thus enabling policy makers to set priorities and also to evaluate their policy initiatives. Some of our findings of our assessment of human (in)security worldwide are presented in chapter 4 and are briefly illustrated.

Importantly, one has to emphasize that a Human (In)Security Index is certainly no meaningful substitute for an in-depth analysis of country-specific situations or the situation of the population. However, a Human (In)Security Index is valuable and helpful for at least five reasons:

- a) It helps to present global trends in the respective human security dimensions. Although there is a number of global indices (Bertelsmann Transformation Index; Human Development Index; Global Peace Index; Failed State Index, to name only a few), none of them, at least up to now, adequately represents the human security situation as they are constructed

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<sup>1</sup> Among many others we are grateful to Stephane Roussel, Christian Büger, Daniel Lambach, Cornelia Ulbert and Felix Bethke for their helpful comments and critical review of the first draft. Moreover, we would like to thank the Working Group on Human Security and its members for their continuous and enthusiastic support.



## 6

- for different purposes. There have been other attempts to assess the human security situation worldwide (e.g. the Human Security Index)<sup>2</sup>, but they address the issue from a different analytical perspective and mainly concentrate on substantiating human security via an equitability enhanced Human Development Index.
- b) By describing the human insecurity situation in the respective countries from a broad general dimensional perspective, it is illustrated in which human (in)security dimensions countries perform quite well and in which not. Thereby, the possibility to set priority agendas for policy action is offered.
  - c) The Human (In-)Security Index helps to substantiate aggregated thresholds of human insecurity in the respective human insecurity dimension.
  - d) In the long run, the Human (In)Security Index should also help to assess in which dimension respective countries have made progress, that is, perform better than before. The index might measure the success/efficacy or effectiveness of certain policy initiatives.
  - e) Finally, one can argue that no country wants to be seen as a bad performer when it comes to human security. The Human (In)Security Index might help in fostering the political will in the respective country but also in the international community to help the respective country to address challenges in the respective human insecurity dimensions.

In sum, we argue that a Human (In)Security Index can perform as the basis for proposing general goals for policy programs. The index should be regarded as a reference base and starting point when it comes to the first phase of operationalizing the human security concept in the way the United Nations Trust Fund for Human Security (2009) has proposed. Additionally, on a more general and broadly aggregated level it offers the possibility to substantiate the idea of human security and its respective dimensions by defining thresholds of levels human (in-)security.

## **2. Human Security: The Original Approach, Conceptual Challenges, and Political Consequences**

Contemporary thinking about human security has been strongly informed by the Human Development Report of 1994, arguing to take the protection of the individual as the starting point for political thinking and practice (see MacFarlane/Kong 2006; also Debiel/Franke 2008). The UNDP Report introduced seven so-called dimensions of human security: economic, food, health,

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<sup>2</sup> See <http://www.humansecurityindex.org/?cat=3>, 10/09/2010. See also Hasting 2009.





environmental, personal, community and political security. With the notions of globalization and interdependence becoming more and more clarified throughout the 1990s, the interpretation practice of the UN Security Council also increasingly changed with regard to the evaluation of threats or breaches to and of international peace/ security (see de Wet 2004: Chap. 4). In sum, complex political challenges of development and security, exemplified by such illustrative cases as Somalia or East Timor, were more and more perceived as interrelated.

The idea of human security is precisely based on this perception of interrelatedness: “In the final analysis, human security is a child who did not die, a disease that did not spread, a job that was not cut, an ethnic tension that did not explode in violence, a dissident who was not silenced. Human Security is not a concern with weapons – it is a concern with human life and dignity” (UNDP 1994: 22). Importantly, the notion also implies a new perspective: whilst traditional thinking about security was first and foremost concerned with the protection of the nation state, the concept of human security is laid out more broadly and argues that the reference object should be the individual (UNDP 1994: 22-23).<sup>3</sup>

This description already illustrates how much the original idea of human security and its very often criticized ambiguous conceptualization is related to the discourses revolving around the so-called security-development-nexus (see e.g. Stern/Öjendal 2010; Duffield 2010; Hettne 2010; Chandler 2008a, 2008b, 2007; Anand/Gasper 2007; Martin/Owen 2010). Daryl Copeland (2009: 91), for example, argues that development must be both made a top priority and understood in relation to security. He argues that underdevelopment is one of the primary causes of insecurity and moreover, that addressing insecurity effectively and eschewing the militarization of international policy in favor of equitable, sustainable, human-centered development will require a large-scale revision of priorities and a significant reallocation of resources (Copeland 2009: 93).

However, as critical scholars have convincingly argued, notions of both ‘security’ and ‘development’ “can also be seen as discursive constructions that produce the reality they seem to reflect, and thus serve certain purposes and interests” (Stern/ Öjendal 2010: 7). Stern and Öjendal (2010: 7) emphasize in reference to Chandler (2007): “Surely, the power of definition over ‘development’ and ‘security’ also implies power to define not only the relevant field of interest, but also the material content of practices, the distribution of resources, and subsequent policy responses”.

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<sup>3</sup> It is important to note that human security should not be equated with human development. In line with the UNDP Report, we argue that human development remains a broader concept that is defined as a process of widening the range of people’s choices. Human security, on the contrary, means that people are able to safely and freely exercise these choices (UNDP 1994: 23).



In contrast to these more skeptical remarks, Martin and Owen (2010), in drawing lessons from the UN and EU experience, see a chance of a second generation of human security emerging if the problem of weak conceptualization, currently especially present in the UN's traditional understanding of human security, is addressed. That said, the recently published Human Security Report "The Shrinking Costs of War" nevertheless underlines that the idea is still as pressing and relevant today. Interestingly, the Report analyses three interrelated developments that have been driving down conflict deaths for more than a decade (that is: the changing nature of warfare, global health policy reducing deaths in peace time and increased humanitarian assistance) (see Human Security Report 2009: 7). This surely illustrates the complex interrelatedness of various forms of threats to human beings.

In sum, human security as such has become an integral part of any (academic) security discourse and in the field of security studies or global politics (see e.g. Collins 2007; Baylis/ Smith/ Owens 2008; Booth 2005; Ferdowsi 2009). Moreover, when it comes to policy utility and policy relevance, some might argue "that the first generation of human security (represented by the UN and Canada) appears to be in retreat", but one can also argue that "a second generation is emerging" (Martin/Owen 2010: 212). However, the success of any human security concept depends on addressing the conceptual challenges. Otherwise it might, in fact, still serve as a political leitmotif, but will be trapped in the say-do gap as the ambiguity of the concept will produce only poor possibilities to institutionalize the idea as a 'real' policy paradigm.

## 2.1 Conceptual Challenges

Although the UNDP Report was widely acknowledged for bringing into perspective an innovative thinking on security, its wide-ranging implications and its conceptual base was criticized especially in academic fora. In the following, we shall point to the central aspects discussed in the more recent debates.<sup>4</sup> By drawing on Tadjabkhsh/ Chenoy (2007: 57ff.) we briefly summarize the core aspects.

Firstly, the idea of human security is criticized for its conceptual weakness or the lack of a clear broadly accepted definition. These aspects might even have amounted to symptoms of failure as one can observe a gradual implosion of the Human Security Network and Canada's retreat from the foreign policy agenda it pioneered (see Martin/Owen 2010: 211f.; for contrasting position see Werthes/ Bosold 2006; Büger 2008). In fact, one can state that the ambiguity of the original concept can be linked to problems of human security to establish itself as a

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<sup>4</sup> For an overview on the critique and counter-critique please refer to the journal *Security Dialogue*, which brought together 21 well-known academics who expressed their opinions on the conceptual challenges (e.g. Axworthy 2004; Hampson 2004; Hubert 2004; Uvin 2004; Newman 2004; Alkire 2004; Liotta 2004; Evans 2004; Suhrke 2004; Mack 2004; Krause 2004; MacFarlane 2004; Buzan 2004; Paris 2004; Owen 2004) or to the elaborate illustration of the debate(s) by Tadjabkhsh and Chenoy (2007: 39ff).



general principle of public policy and to poor institutionalization of human security as a broadly accepted policy paradigm.

Secondly, various authors have argued that the idea of human security might fall victim to the problem of oversecritization (see e.g. Paris 2004, 2001). As Paris (2004: 371) pointed out: “Human security seems to encompass everything from substance abuse to genocide. This definitional expansiveness serves the political purpose of enticing the broadest possible coalition of actors and interests to unite under the human security banner, but it simultaneously complicates matters for academic researchers, particularly those who are interested in causal hypotheses.”

Thirdly, the political implications of a human security agenda have also been criticized on the grounds that they challenge the traditional role of the sovereign state as the sole provider of security as well as the very sovereignty of the state in the international context (Tadjabkhsh/Chenoy 2007: 63).

Lastly, the measurement of human security has been and still is a strongly debated aspect. As is well-known, critiques argue that the complexity and subjectivity of the idea of human security makes it difficult to actually operationalize it.

In sum, much criticism centers on the ambiguity or the lack of conceptual clearness of the concept. The challenge of an agreed on hopefully clear-enough definition has resulted in heated academic debates, “pitting those who propose narrowing the concept against those who want to preserve its holism and inclusiveness” (Paris 2004: 371). Having said this, it is easy to understand why scholars and policy makers have viewed human security either as (a) an attractive idea which lacks analytical rigor; or (b) have tried to limit it to a narrowly conceived definition; or (c) have argued that it is an essential tool for understanding challenges to people’s well-being and dignity (Tadjabkhsh/Chenoy 2007: 40). Moreover, it is easy to comprehend why among academics, “the debate is, first, between the proponents and detractors of human security, and second, between a narrow as opposed to a broad conceptual theorization of human security” (Tadjabkhsh/Chenoy 2007: 40).

## 2.2 Different Schools of Human Security and Their Political Impact

Despite the analytical critique, the idea of human security gained acceptance by politicians and civil society alike and unfolded its impact in the political realm. Some authors such as Büger (2008) or Werthes and Bosold (2006) even argue that the lack of definitional clarity constitutes one of the factors helping the idea to evolve as a *boundary object* or *political leitmotif* and thereby to gain political impact.

Starting in the second half of the 1990s, the idea of human security began to gain political impact. Among the first countries to officially adopt the approach were Canada and Japan (in more detail see Bosold/Werthes 2005; Atanassova-



Cornelis 2006; MacRae/Hubert 2001; for the UN see MacFarlane/Khong 2006).<sup>5</sup> Especially under the auspices of the then Foreign Affairs Minister Lloyd Axworthy Canada initiated and/ or supported various efforts guided by the idea of human security. The *Ottawa-Process* to ban anti-personal landmines and the *Optional Protocol on the Involvement of Children in Armed Conflict* are probably the most well-known success stories. Additionally, in March 1999, the Government of Japan and the United Nations Secretariat launched the United Nations Trust Fund for Human Security (UNTFHS). The UNTFHS, open to UN agencies, is currently managed by the Human Security Unit (HSU). Beside the management of the UNTFHS the overall objective of the HSU, which was established in May 2004 at the United Nations Secretariat in the Office of the Coordination of Humanitarian Affairs (OCHA), is to place human security in the mainstream of UN activities by playing a pivotal role in translating the concept of human security into concrete activities and highlighting the added value of the human security approach (see <http://ochaonline.un.org/humansecurity>). Clearly related to a broad perspective on human security, the majority of funding was directed towards developmental concerns including key thematic areas such as health, education, agriculture and small scale infrastructure development.<sup>6</sup>

Commonly at least two understandings are distinguished in current political and academic discourses which share a substantial core (see also Figure 1). The narrow school is associated with Canada and to a certain degree with the Human Security Network (see e.g. Fuentes Julio/Brauch 2009). Basically, this **narrow school** argues that the threat of political violence to people, by the state or any other organized political entity, is the appropriate focus for the concept of human security (in more detail see Kerr 2007; see also Bosold/Werthes 2005). This perspective is mainly linked to the idea of *freedom from fear*. The **broad school** argues that human security means more than a concern with the threat of violence. Human security is *not only freedom from fear but also freedom from want*. This broad perspective is generally associated with Japan, the Commission on Human Security (CHS 2003) and the United Nations Trust Fund for Human Security.

More recently, it can be argued that a third perspective or a second generation of human security (Martin/Owen 2010), is evolving which encompasses the narrow and the broad school that one might call the **European school**. On the one hand, this perspective is more strongly related to the third dimension of *liberty, rights and rule of law* while it is not strictly limited or primarily focussed on this dimension on the other. The Barcelona Report of the Study Group on Europe's Security Capabilities (2004), the Madrid Report of the Human Security Study Group (2007), and Council of the European Union (2003,

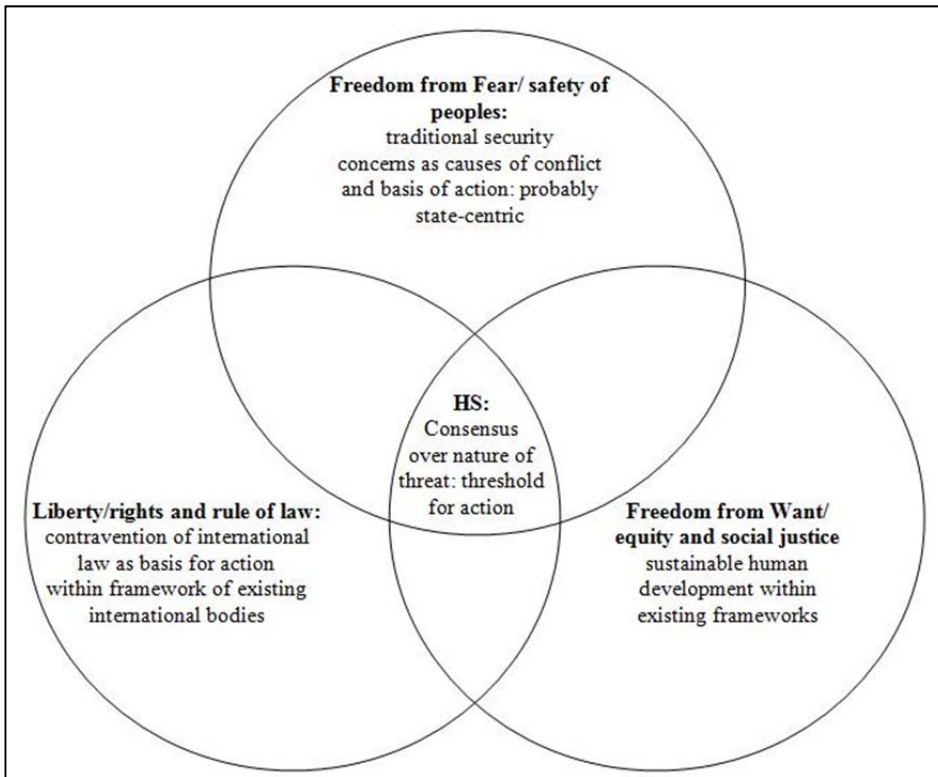
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<sup>5</sup> For a compendium of human security-related initiatives and activities by members of the Friends of Human Security and United Nations agencies, funds and programs see UN-GA 2008.

<sup>6</sup> >><http://ochaonline.un.org/TrustFund/TheUnitedNationsTrustFundforHumanSecurity/tabid/2108/language/en-US/Default.aspx><<, 20/08/2009

2008) advance this perspective (also see Glasius/Kaldor 2005; 2007; Martin/Owen 2010; Sira/Gräns 2010).

Figure 1: Human Security as the Nexus between Safety, Rights, and Equity



(Original: Shahrbanou Tadjbakhsh/ Anuradha M. Chenoy 2007: 52)

Especially, the 2008 report is of interest as it makes more explicit references to human security. Moreover, the report draws extensively, and in more detail than in any previous official documents of the Council of the European Union, on human security ideas. Furthermore, as Martin and Owen (2010) observe the European Parliament and especially the European Commission have either supported the shift to human security or explicitly promote human security. Noteworthy, the Commission's definition of human security "located it differently from that of the UN, combining physical protection and material security, and sitting it firmly within a crisis management as well as a conflict resolution policy frame" (Martin/Owen 2010: 219). As Martin and Owen (2010: 219) further substantiate: "While the Commission committed itself to tackling the 'root causes' of conflict and vulnerability, the emphasis was less on underdevelopment per se and more on the integration of a development perspective into the EU's foreign policy toolkit." The idea of human security not only served as a "tool to mobilize the EU's foreign policy to tackle underdevelopment and insecurity, but also as a means by which to enforce cooperation between rival EU policy streams".





### 2.3 Finding Answers: Addressing the Development-Security Nexus

While agreeing that human development is a much broader concept than human security and that not all human rights issues are linked to security concerns as such, it is still apparent that human security proponents strongly emphasize a development-security-nexus and a human rights-security-nexus. As pointed out before, human security commonly serves as ‘political objective’ (Martin/Owen 2010), ‘political leitmotif’ (Werthes/Bosold 2006), or ‘boundary object’ (Büger 2008). In essence, what is important to note is that it could be used, “first, to combine short- and long-term policy responses; second, to blur distinctions between foreign and security policy, and between development, humanitarian and crisis management agendas; and third, to integrate commitments to agendas such as gender equality and human rights” (Martin/Owen 2010: 219). However, despite being useful in this sense, there are two possibilities in redressing the conceptual ambiguity for practical purposes: first, the above mentioned nexi have to be conceptualized more clearly regarding their causal links and a second step forward is to propose and advance a threshold-based conceptualization of human security (Owen 2004; Martin/ Owen 2010; Werthes 2008). That is, rather than securitizing an ever growing list of threats as such, all of these must principally be considered at all times as security *issues*. But any issue in any location has to pass a threshold so that it can become a security *threat*. “Only those that become severe enough to warrant the ‘security’ label would be treated as such” (Martin/ Owen 2010: 221).

This conceptualization limits the inclusion of threats by their severity rather than their cause. Finally, to enhance the political impact of a threshold-based conceptualization of human security, substantiation of specific thresholds is necessary. One way to do this is the creation of a Human (In-)Security Index reflecting these underlying conceptual ideas in relation to human security dimensions. Only the worst threat situations in any country, whatever their cause, are prioritized with the label of human (in)security. All others remain within their constituent disciplines and institutional structures, such as development, environmental regulation, or the legal protection of human rights (see also Martin/Owen 2010: 221).

Today, many argue that the ‘modern’ state or a ‘modern’ understanding of sovereignty involves responsibilities and fiduciary duties (see also: Jones/ Pacual/Stedman 2009; ICISS 2001; Bellamy 2009; Evans 2008). These responsibilities and fiduciary duties literally encompass the whole agenda of the human rights, human security, and human development discourse. But while welfare and issues of sustainability and a huge part of internationally codified human rights still ‘only’ belong to the sphere of fiduciary duties, fundamental human rights and basic needs are more and more consensually regarded as responsibilities of the state or, to put it differently, the aspects that are discussed with reference to the term human security. Though the specific set of the boundaries is contested and in flux, one can argue that the ‘international society’ accepts this area of human vulnerability as a commonly shared responsibility and is more and more willing to find ways to take up this (shared) responsibility. Based on a principle of subsidiarity a responsibility to





act is postulated. Current state practice shows that this is a sphere where international interference seems to become more and more legitimate, notwithstanding that international interference has to be 'appropriate' and 'well-suited' to be accepted as legitimate. This might explain why a majority of debates on political strategies and means circulate on ways to establish benchmarks and thresholds or clear criteria *when* and *how* to interfere or intervene in situations where the respective state is not able or willing to act appropriately. The most prominent example of this kind is the debate on the responsibility to protect (R2P) which is concerned with military intervention in cases of mass atrocities.

These 'nexus-challenges' can be described when working on ideas originally presented by Pauline Kerr. Though more limited and rather related only to the development-security-nexus, these ideas can also be used to explain the human rights-security-nexus.<sup>7</sup> Firstly, one can state that proponents of human security grant themselves the analytical freedom to study almost any 'security issue as an potential threat' that is as a dependent or independent variable because insecurity can be both a cause and a consequence of violence (Tadjbakhsh/Chenoy 2007: 59). One way to subsequently develop a conceptual framework is to focus on the nexus between the narrow school's focus on violence and the broad school's focus on human development (Kerr 2007: 95ff). One may argue by focusing on political violence that human insecurity is the dependent variable. Moreover, it becomes apparent that the many causes of human insecurity include problems of underdevelopment and that these can therefore be perceived as the independent variables. This leads us to a way of conceptualizing both the development-security-nexus and the human rights-security-nexus.

Our understanding of how to conceptualize four kinds of human (in)security situations (levels) are illustrated in figure 2. Thresholds of this kind are necessary (see above) as they help to point out when action is needed, i.e. when there is a responsibility to (re-)act. At the *level of human security* there are no systematic and sustainable threats to life/survival, though there might be security *issues* as such (see above). The *level of relative human security* is characterized by a situation where some factors and contexts threaten life/survival, but individuals and groups generally have a way to cope with these threats or have the necessary help at their disposal. In other words, people are sensitive to (specific) threats but not vulnerable<sup>8</sup> as they have options to cope with these kinds of threats, even though these options may produce (significant) costs either to the individual or to the community/ state as such.

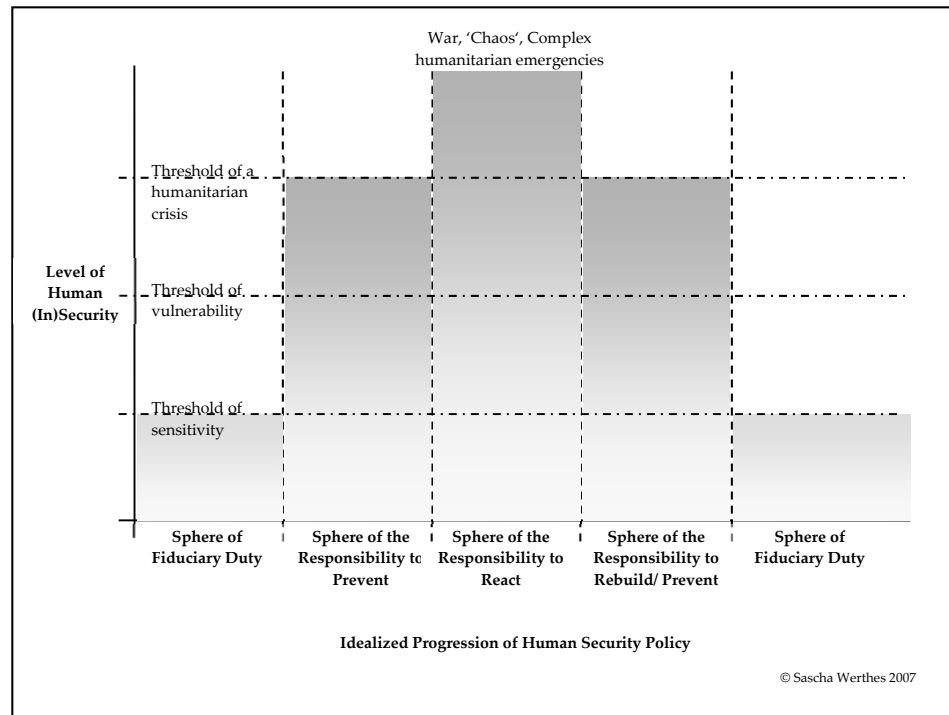
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<sup>7</sup> Additional insights, though based on a different line of argument and perspective, can be gained by reading Roberts (2008).

<sup>8</sup> The idea of sensitivity and vulnerability is loosely based on the thinking of Keohane and Nye (1977).



Figure 2: Levels of Human (In)Security



**Level 1** *Level of human security:* There is no systematic and sustainable threat to life/survival.

**Level 2** *Level of relative human security:* Some factors and contexts threaten life/survival, but individuals and groups usually have strategies, means, behavioral options, or aid/help at their disposal to cope with these threats.

**Level 3** *Level of relative human insecurity:* Some factors and contexts threaten life/survival and individuals and groups have only limited or inadequate strategies, means, behavioral options, or aid/help at their disposal to cope with these threats.

**Level 4** *Level of human insecurity:* Some factors and contexts threaten life/survival and individuals and groups have no adequate strategies, means, behavioral options, or aid/help at their disposal to cope with these threats.

At the *level of relative human insecurity* there are factors and contexts that threaten life/survival, but as people have (at that specific moment) only limited or inadequate strategies, means, behavioral options, or aid at their disposal to cope with these threats they are vulnerable to these threats. Finally, at the *level of human insecurity* individuals or groups do not dispose at all of any adequate strategies, means, behavioral option, or aid. The situation of vulnerability is so grave that it resembles a situation of humanitarian crisis.

In the following, we shall link the levels of human (in)security to numbers to illustrate the relevance and in point of fact to prepare the ground for an index that identifies the actually vulnerabilities of people. This is carried out by referring to the dimensions of the UNDP Report 1994 and the main threats in each region.





Firstly, types of threats concerning economic security are persistent poverty and unemployment. In 2007, the total number of unemployment was 180 million, for 2008 it is estimated to account for 188 million (ILO 2009: 24). Even more so, the 2009 global financial crisis and the slowdown in the world economic growth including a recession for some of the major industrialized countries have severely impacted on the labor market and job opportunities. Today, more than 620 million persons live in extreme poverty of less than US\$ 1.25 a day and the number of working poor is still projected to rise in the future (ILO 2009: 3), resulting in increased global poverty. The most insecure jobs are to be found in the informal sector, a feature of a majority of developing countries where some sort of social net or insurance is missing for large parts of the persons working in the informal sector (Canagaraja/Sethuraman 2001).

As regards potential threats that can be identified in the environmental dimension, climate change can lead to increased shortage of water and the degradation of land. This significantly can produce the effect of increasing energy costs and the heightened demand for natural resources. Moreover, it is frequently pointed out that conflicts can lead to the deterioration of health - causing mortality, morbidity or malnutrition. Much research has focused on the link of poverty and conflicts and in this context, the connection of poverty, restricted access to education, health and conflict becomes evident (Pedersen 2009). One has only to think of the land-based conflicts in Somalia to become aware of the interlinkages here (Dehérez 2009). The number of deaths caused by natural catastrophes accounted for 235,000 in 2008, mainly effected by two major incidents, the above-mentioned Cyclone Nargis and the Sichuan earthquake in China (Annual Disaster Statistical Review 2008: 1). The numbers for the 2006 and 2007 are similarly alarming despite the fact that no major events such as Nargis and the Sichuan earthquake took place: in 2006 23,000 persons were killed by natural disasters causing more than US\$ 34.5 billion in economic damages (Annual Disaster Statistical Review 2006). The year 2007 witnessed 16,847 deaths; however, more than 211 million others were affected by overall 414 natural disasters causing an economic damage of US\$ 74.9 billion (Annual Disaster Statistical Review 2007).

With a view to the food dimensions, alarming numbers make clear the necessity for appropriate policy (re)actions: According to the Food and Agricultural Organization of the United Nations (FAO), 68 per cent of the total population in Eritrea were undernourished in 2005, 63 per cent in Burundi and 46 per cent in Ethiopia (FAO Food Security Statistics 2008). This figures point to the severity of undernourishment especially for developing countries. According to the FAO, nearly one billion people suffer from malnutrition and hunger today. This problem is closely linked to additional aspects such as the economic and social status a person enjoys. It should also be stressed that suffering from hunger and being undernourished leads to an alarming number of deaths: 25,000 persons (adults and children) die every day from hunger and related causes (FAO 2008: SOFI Report). About 11 million children under five die in developing countries each year, malnutrition and hunger-related diseases cause 60 percent of the deaths of children (UNICEF 2007: The State of the World's Children).



Equally alarming numbers can be identified in the health dimensions of human security. The World Health Organization (WHO) lists more than fifteen infectious diseases affecting human beings worldwide, the most important of them being malaria and tuberculosis. In 2006, there were 247 million cases of malaria, leading to nearly one million deaths, mostly among children in Africa. The number of persons infected with the TB virus is also disastrous: today, approximately 9 million human beings are infected with the TB virus that has caused about 1.5 million deaths in 2006 (<http://www.who.org>). The 2008 Report on the Global Aids Epidemic estimates the number of adults and children living with HIV 33,000,000, the vast majority of them living in Sub-Saharan Africa (22,000,000) (UNAIDS 2008: 214). The further spread of HIV/AIDS will continue to pose a worldwide security risk.

Having identified the necessity of conceptual thresholds of human (in)security the next step is to point out a way how to operationalize these thresholds in reference to the human (in)security dimensions identified by the original UNDP-concept. That is to assess human (in)security. As we have argued above, conceptualizing a human (in-)security index is relevant to assess certain security *issues* as actual *threats* (and in doing so, we argue for the conceptualization of certain thresholds). However, and equally important, the overview on actual numbers of deaths related to the different dimensions of human (in)security underscores the necessity to develop a measurement instrument.

### 3. Addressing the Challenge: A Human (In)Security Index

We shall address this challenge by presenting a Human (In)Security Index (HISI) based on the 'original' human security dimensions presented by the UNDP identified in the Human Development Report of 1994. The crucial task is to help to develop benchmarks to monitor the impacts of a given policy and to help to formulate courses and agendas of action (see also UNU CRIS 2009). In this manner, not only one of the fundamental criticisms is met, even more so the practical relevance of human security can be enhanced. Finding answers to the problem of human *insecurity* requires an instrument to assess the actual threats to human beings. Besides, human security is also understood as an attempt to shed light on the *root causes* of insecurity (Werthes/Debiel 2006: 10). To find appropriate policy responses, it is important to measure the actual threats related to insecurity. This also helps to identify priorities for policy agendas, since the idea of human security has been increasingly included in decision-making, policy design and programmatic implementation.

Previous contributions which have focused on creating an index measuring human security are primarily restricted to a narrow approach to human security. To date, the debate on the possibilities of measuring human (in)security has predominantly been shaped by the miniAtlas of Human Security (formerly the Human Security Report), published by the Human Security Report Project and the World Bank. The miniAtlas predominately provides data for insecurity related to wars and armed conflicts (miniAtlas of



Human Security 2008), but does not take into account threats caused by non-violent factors such as undernourishment, infectious diseases and natural disasters.

One of the first attempts to operationalize a definition how human security may be measured is the concept of generalized poverty by Gary King and Christopher J. L. Murray. Generalized poverty exists when a defined threshold for a certain dimension is reached. The authors of this concept argue in favor of a universal decision for indicators of measuring human security in a quantitative manner worldwide (King/ Murray 2001: 11ff). An overall state of generalized poverty for a population in all relevant dimensions can then be identified through a quantitative approach using survival analysis methods (King/Murray 2001: 609f). Therefore the concept of generalized poverty is substantially related to an economic dimension of security. In contrast, our attempt will also take into account other dimensions (which are not closely and solely linked to economic well-being like, for example, political security).

Perhaps the most forward pushing attempt to create an Index of Human Security so far has been made by David A. Hastings. This index mainly aims at extending “the Human Development Index with indicators that attempt to characterize inclusive income, knowledge, and healthcare as actually delivered to people” (Hastings 2009: 10). This Enhanced Human Development Index is developed to create “a prototype Human Security Index” (Hastings 2009: 11ff) based on ideas of the UNDP 1994 human security definition. The Enhanced HDI shall then progressively be advanced to a “Human Security Index”.

We agree with Hastings when drawing attention to the fact that “initial ingredients of a Human Security Index now exist” which are related to the fact that internationally comparable datasets for a vast field of topics in the field of economic and development are available today and the possibility for the construction of indices for a vast field has been improved (Hastings 2009: 18f). Hastings constructs his Social Fabric or Human Security Index (HSI) along the dimensions of: protection of (and benefiting from) diversity, peace, environmental protection, freedom from corruption and information empowerment and additionally draws the attention to the imperfectness of indicators on an aggregated country level as a critical remark.<sup>9</sup> This is also an issue we take into account when constructing our Human (In)Security Index, but will not discuss in detail. In contrast to Hastings’ approach of producing a Social Fabric or Human Security Index we attempt to strictly operationalize the core ideas of the respective UNDP’s human security dimensions. There are some dimensions that are operationalized in a similar way in both indices. However, our index focuses on a worldwide relation of human (in)security. Hastings mainly draws the focus on Asia and the Pacific as a regional index (Hastings 2009: 8).<sup>10</sup>

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<sup>9</sup> For a more detailed description please see: [http://www.humansecurityindex.org/?page\\_id=147](http://www.humansecurityindex.org/?page_id=147).

<sup>10</sup> A regional index has been recently published by the University of the Philippines Third World Studies Center that examines the human security situation in the Philippines, see Atenzia et al. 2009.



Another approach has been the very fruitful (early) operationalization and computation of an Index of Human Insecurity (IHI) developed by the GECHS (Global Environmental Change and Human Security) project in 2000. Human insecurity is divided into the dimensions of environment, economy, society and institutions. Countries are firstly differentiated along categories of insecurity into ten categories and are then aggregated to rank each country on an overall level of insecurity. Longitudinal data from 1970 up to 1995 is used to gain an overall value for insecurity.<sup>11</sup>

We mainly follow the idea of the GECHS project as regards the structure of the aggregation of the dimensions of human insecurity. However, we modify the dimensions and choice of indicators. In contrast to GECHS we will skip data interpolation for missing values due to the fact that we will only use cross-sectional data for 2008 and not a time series over a longer period. This aims at avoiding a high number of missing values especially in periods prior to 2000 and in addition at getting a time point image of human insecurity rather than an average for a longer time period. The index resembles some elements of the GECHS construction but focuses on a defined point in time (namely the year 2008) and differs in the choice of operationalized dimensions. In other words, since we choose a similar aggregation technique in some areas of our index, it is in a way comparable to the early attempt of GECHS. However, we take on a significantly different perspective of operationalization of human (in)security as a concept. This argues for a reasonable extension of the attempt of GECHS.

In line with our understanding of human *in*security as vulnerability of people, our operationalization for the Human (In)Security Index is even more closely based on the 'original' thinking of the UNDP Report as we interpret it. However, there is one exception: The dimensions of Personal and Community Security are combined to one dimension due to practical and methodological reasons: Personal security focuses on the basic threats caused by physical violence, be it from states, groups or individual persons, whilst community security aims at protecting people from their loss of traditional practices and membership in certain groups, be it a family, a community, an organization or a racial or ethnic group from which people derive cultural identity. Tests in preparation of the index have shown that for now (due to the available statistical data) the linkage (and correlation) between these two dimensions is especially high: given the fact that violation of physical integrity also impacts on community trust and levels of behavior in communities. A high number of violent acts, regardless whether carried out by state or non-state actors, have a negative impact on social cohesion which can be more effectively maintained in functioning communities.

The Human (In)Security Index concentrates on the vulnerability of people in a two-fold way: firstly, assessing the actual threat in each dimension allows for a differentiated understanding of the respective insecurity dimension as such. That is, it allows for differentiation: whilst, for example, the dimension of

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<sup>11</sup> Detailed aggregating procedure and choice of indicators can be found on the project homepage: <http://www.gechs.org/aviso/06/>.



environmental security may show low values, the threat to political security may be much higher for the same country. This could lead to differentiated agendas when having to set priorities and will thereby help to direct priority and attention to (more relevant) areas of concern, and prevent future damages in a more precise and efficient way. The Human (In)Security Index will contribute to a better alignment of the assessment of vulnerability and corresponding agenda-setting. To that effect, strategic courses of action may be chosen, depending on the value of each dimension. Secondly, the overall value for each country sheds light on the actual human (in)security situation in a given country; countries may be compared to each other and those countries whose citizens are threatened most severely can clearly be identified. This may help to gather additional momentum to ask for governmental and non-governmental policy responses and the respective resources needed.

### 3.1 Preliminary Remarks on the Human (In)Security Dimensions

In this section, we shall explicate the several dimensions and point to indicative threats that can be identified in each dimension. Additionally, the indicators chosen for each dimension are shortly introduced and substantiated.

The Human Development Report states that **Economic Security** requires an assured basic income, usually from productive and remunerative work, or in the last resort from a publicly financed safety net (UNDP 1994: 24). In other words, economic security means being able to provide for a minimum standard of living or, if this is not the case, being secured by some kind of social security provided by the state or private actors. Accordingly, unemployment as well as underemployment is indicative issue/threats to economic security. Both can be compensated (to varying extent) by an existing social safety net. This may be provided by either the state or private actors.<sup>12</sup> What is more, the actual access to public services can account for another factor that endangers economic security. It is therefore crucial to measure the equal access individuals enjoy regardless of their social background, their religion, ethnicity and gender and to estimate to what extent institutions are sufficiently able to compensate for gross social differences (Bertelsmann Transformation Index 2008).

Against this background, economic security is operationalized by:

- a) Gross Domestic Product per Capita at Purchasing Power Parity (PPP) (Source: International Monetary Fund – World Economic Outlook Database 2008) and the
- b) Bertelsmann Transformation Index – Combination of two Indicators: Social Safety Nets and Equal Opportunity (Source: Bertelsmann Foundation – BTI 2008)

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<sup>12</sup> The authors are well aware of the fact that social safety nets do not exist in every country and that they may sometimes be substituted to a varying extent by the family or the community. However, data availability does not offer the possibility to measure this kind of social safety.



The first indicator was chosen since it illustrates the overall economic performance of a given country allowing for international comparison. This indicator was chosen instead of unemployment rates since definitions of an unemployed person strongly vary across countries, which makes international comparison very problematic. The indicators of Social Safety Nets and Equal Opportunity are part of the Status Index regarding the state of the market economy in a country and are part of the sub-criterion of the welfare state. The presence of social safety nets depicts the given possibility to compensate for the loss of income, health care and prevention of poverty. Measuring equal opportunity shows to what extent a country provides equal access to public services for its citizens.

**Food Security** implies that all people at all times have both physical and economic access to basic food. This requires that people have ready access to food – that they have an ‘entitlement’ to food, by growing it for themselves, by buying it or by taking advantage of a public food distribution system (UNDP 1994: 27). The problem here is not the mere availability of food, but the actual access individuals enjoy to basic food. This might either be constricted by unequal distribution (physical access) or the lack of purchasing power (economic access). What is more, malnutrition may be caused by a variety of factors such as social structures, armed conflicts, lack of education or environmental catastrophes such as the Cyclone Nargis that struck Myanmar in May 2008. The cyclone strongly affected the country that was already marked by a dire humanitarian situation with growing impoverishment and deteriorating social service structures. Human beings are even more vulnerable to economic crisis or natural shocks here (International Crisis Group 2008).

Accordingly, food security is measured by the

- a) Number of Children Under Five Underweighted for Age (Source: World Health Organization – WHOSTATIS 2006) and by the
- b) Percentage of Population that is Undernourished (Source: Food and Agricultural Organization – FAOSTAT 2003-2005).

Measuring child malnutrition is internationally recognized as a way to estimate the nutritional status and health in populations in general. What is more, child malnutrition is linked to several other factors such as poverty, low levels of education and limited access to health care. Children who suffer from malnutrition as a result of poor diets are more vulnerable to illnesses and death, malnutrition also affects their cognitive development and their health status later in life. A failure to meet these needs will have permanent consequences that may include stunting, reduced cognition and increased susceptibility to infectious diseases (Global Hunger Index 2008: 27). As such, this indicator also shows the threats to potential future development of young generations, often one of the more vulnerable groups within the societies as already indicated by the remarks on youth unemployment at the beginning of this chapter. Additionally, the percentage of the population that is undernourished provides the overall picture of the vulnerability of human beings with regards to food security.

Food Security is closely related to the dimension of **Health Security** which is directed towards the protection from major causes of death, including mainly





infectious and parasitic diseases especially in developing countries. Most of the deaths caused by infectious diseases are linked to malnutrition and polluted water. For industrialized countries, the major causes of death are diseases of the circulatory system, often connected to diet and life style (UNDP 1994: 27). What is more, polluted water constitutes one of the major causes for diarrhea, a water-related disease causing up to 4 per cent of victims worldwide (Global Water Supply and Sanitation Assessment Report 2000). Furthermore, the spread of HIV/AIDS poses another major risk to health security. Additionally, epidemics may also affect the functioning of societies, since ill health may be a direct cause for poverty since it reduces the possibility of productive and remunerative work and is thus directly related to an increase in household income (Pederson 2008: 27).

It is evident that the problem of infectious diseases can no longer be regarded as a medical problem alone but has to be linked to security issues, too. The cross-border character of infectious diseases heightens the importance of implementing efficient strategies to encounter continued human loss, an outstanding concern especially since the infection with the above-mentioned diseases can actually be prevented. Against this background, infectious diseases and the influence on child mortality rates, as can be exemplified by the deaths caused by malaria, are the most important threats to health security.

According to this, our Human (In)Security Index measures health security by the

- a) Number of Total Population affected by Diseases (Source: World Health Organization – WHO Global Health Atlas 2007) and the
- b) Child Mortality Rate (Source: International Database 2008).

The number of total population affected by diseases depicts the cases mentioned above and demonstrates how vulnerable individuals are towards infectious diseases. The following diseases are aggregated within the first indicator: HIV/AIDS, malaria, tuberculosis and cholera. Additionally, measuring the child mortality rate constitutes one of the leading indicators for the level of child health and the overall development in a country. Similarly to the indicator measuring children under five that are underweighted this factor points out the overall health in a population.

As defined by the Human Development Report 1994 **Environmental Security** includes threats inflicted by the degradation of local eco systems and that of the global system, mainly global warming. In developing countries, access to clean water is increasingly becoming a reason for ethnic strife and political tension, whilst for developed countries the pollution of the air constitutes a major threat to environmental security (UNDP 1994: 28ff.). The link between environmental issues and human (in)security is especially close, as much of the environmental problems are directly affected by human activity and yet, their security is bound to the access to natural recourses and their vulnerability to environmental change (Khagram/Clark/Raad 2003). Global warming causing a multitude of effects such as increases in global average air and ocean temperatures, the widespread melting of snow and ice and rising global average sea level poses a fierce threat to the security of human beings at global level. Furthermore, natural disasters such as earthquakes, floods,



drought or wildfire pose another major risk to the well-being and security of human beings.

Besides such direct effects as the total number of reported victims caused by environmental catastrophes, there are also more indirect and long-lasting consequences for the environment, the agriculture and industrial production so that the future development of societies is increasingly endangered when hit by natural disasters. Consequently, environmental security not only causes human but also economic losses. A changing environment can impact not only on the well-being and dignity of human beings, but also on economic productivity and political stability. Competition about water resources constitutes a prominent case in point. As mentioned above, polluted water is one of the main problems in developing countries and access to clean water may cause or heighten political unrest. However, water pollution mainly results from poor sanitation which is why the second indicator as stated below combines two factors to depict this close relation. With regards to another aspect, water access not only is a crucial condition for the survival and well-being of human beings, but also needed for agriculture and the industry.

Against this background, environmental security is operationalized by the following two indicators which is firstly the

- a) Percentage of Population that is Affected by Disasters (Source: The International Emergency Disasters Database – EMDA 2006) and secondly the
- b) Mean of Percentage of Population with Access to Clean Water *and* Percentage with Access to Improved Water Sanitation (Source: Joint Monitoring Programme for Water and Supply and Sanitation by UNICEF and WHO 2006)

The first indicator shows the percentage of the population that is affected by disasters, such as floods or earthquakes and is crucial since it helps to paint the broader picture that is caused by environmental catastrophes. Cross-border natural disasters are a particular evident example that security and living conditions in one country can affect the security and living conditions of other countries or even in other regions. This is also true for other factors such as international terrorism or migration. The second indicator combines two aspects, access to clean water and access to improved water sanitation, both factors strongly related to improved environmental conditions.

As mentioned above, we chose to combine the following two dimensions to one dimension, that is, **Personal Security and Community Security**. Personal Security is defined as security from threats from physical violence. These threats may come from the state (physical torture), from other states (war), from other groups of people (ethnic conflicts), from individuals (crime or street violence, they might be directed against women (rape or domestic violence) and threat to self such as drugs or suicide (UNDP 1994: 30). Clearly, this dimension covers a wide range of threats to human beings originating from most different





sources. We will concentrate on violence executed by the state, which will be further outlined below.<sup>13</sup>

Community Security aims at the protection of people from their loss of traditional practices and membership in certain groups, be it a family, a community, an organization or a racial or ethnic group from which people derive cultural identity, that provide them with security. A loss of traditional practices may be caused by modernization, but also by sectarian and ethnic violence (UNDP 1994: 31f.).

Of the persons that are most vulnerable with regards to personal and community security, internally displaced persons (IDPs) are “probably the largest group in the world” (Fielden 2008: 1). Their security is affected in many ways: They are often denied their basic human rights, are endangered by physical violence, are unprotected by their national government and thus may suffer from malnutrition, missing access to clean water, health care and education. Woman and children are especially vulnerable in those conditions and are threatened by sexual and gender-based violence. IDPs mostly lack any economic opportunities so that they are hardly able to secure a minimum standard of living by themselves (Fielden 2008). In sum, IDPs are faced with a variety of life-threatening concerns. Despite the multiple reasons for their displacement and the variety of sub-groups of IDPs, their common ground is the link to both community and personal security. Being turned into a refugee or internally displaced person makes individuals more vulnerable to the above-mentioned threats. What is more, formerly functioning communities that are war-torn and affected by political tensions might no longer serve as securing basis for individuals who derive their security from their membership to a certain ethnic, religious or racial group. Quite the contrary might be the case given the fact that being a member of a certain group or family might actually be the cause for insecurity which is then again clearly linked to personal insecurity. Refugee and migration flows also indicate possible further insecurity since the societal infrastructure might be damaged and thus communities move away from traditional forms of solidarity and societal trust is continuously decreased. Causing damages to the societal infrastructure may then also inflict upon other dimensions of human security such as economic or health security when access to productive and remunerative work or to health care is aggravated.

The combined dimension of personal and community is operationalized by the following two indicators which are the

- a) Total Number of people assisted by the UNHCR (Source: UN Refugee Agency 2006) and the
- b) Political Terror Scale (Source: Political Terror Scale Project 2007).

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<sup>13</sup> Please note: Data on crime and street violence, rape and domestic violence is lacking and not reliable, especially for developing countries. For this reason, these threats were excluded from our operationalization and are indirectly measured by our set of indicators.



The Political Terror Scale measures the levels of political violence using two different sources, the yearly Country Reports of Amnesty International and the U.S. State Department Country Reports on Human Rights Practices. The PTS rather measures the violations of physical integrity rights than general political repression, for which reason this indicator is chosen to operationalize personal security. The PTS measure 'state' violence (admittedly, it is not always clear whether 'the state' is directly responsible for violence), however, the indicator does not include violence executed by individuals, e.g. crime, or gender-based violence such as domestic violence against women or female genital mutilation (Wood/Gibney 2008: 3ff.). According to the latest reports by Amnesty International, we still witness gross violation of human rights despite the progress made in human rights protection over the past years.

Finally, the dimension of **Political Security** is addressed. Following the Human Development Report 1994, political security focuses on the protection of basic human rights, which is, as the Report emphasizes, one of the most important aspects of human security. Violations of human rights may especially originate during times of political unrest, but also from political repression by the state or systematic torture (UNDP 1994: 22f.).

One of the major concerns up to date is securing people from state repression. 2,390 people are estimated to have been executed worldwide; China, Saudi Arabia and USA accounted for the highest number of executions. Then, freedom of the press is one of the most essential rights and highly indicative for this dimension of human security. For the past three years (2006 to 2008), the Press Freedom Index lists North Korea, Turkmenistan and Eritrea as the worst violators of press freedom. Countries such as Iraq, Pakistan and Afghanistan which are involved in armed conflict and failing to solve dire domestic problems are also ranked as "black zones" for the press (Press Freedom Index 2008). The Human (In)Security Index will use the following two indicators, which are

- a) Index of Five Indicators<sup>14</sup> concerning Personal Security (Source: Human Rights Data Project CIRI 2006)
- b) Press Freedom Index (Source: Reporters without Borders 2006)

It is important to note that both, PTS and CIRI, use the same data to code their indicators, that is, state-sponsored violations of human rights termed as physical integrity rights. However, the CIRI divides the category of physical integrity violence into several sub-categories, which are: disappearances, killing, torture and imprisonment (which are four out of five indicators used for the operationalization carried out here). Secondly, the PTS ranks the government abuses, whilst the CIRI analyses the frequency and type of violation so that these two indicators paint a different picture, though they

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<sup>14</sup> The indicators are: Disappearance, Extrajudicial Killing, Political Imprisonment, Torture and Assassination. All Indicators are coded on a scale ranging from 0 (frequently practiced) to 2 (have not occurred). For a further description see [http://ciri.binghamton.edu/documentation/ciri\\_variables\\_short\\_descriptions.pdf](http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf).

clearly correlate with each other (on detail see the remarks in chapter 4.2) (Wood/Gibney 2008). The Press Freedom Index is composed from a questionnaire that comprises 52 questions on press freedom that the organization Reporters without Borders distributes among its partner organizations on an annual basis.

Having laid out our conceptual background for the choice of indicators, we will now point out the methodological background for developing and constructing the Human (In)Security Index (HISI).

### 3.2 Methodology: Computation of the Human (In)Security Index

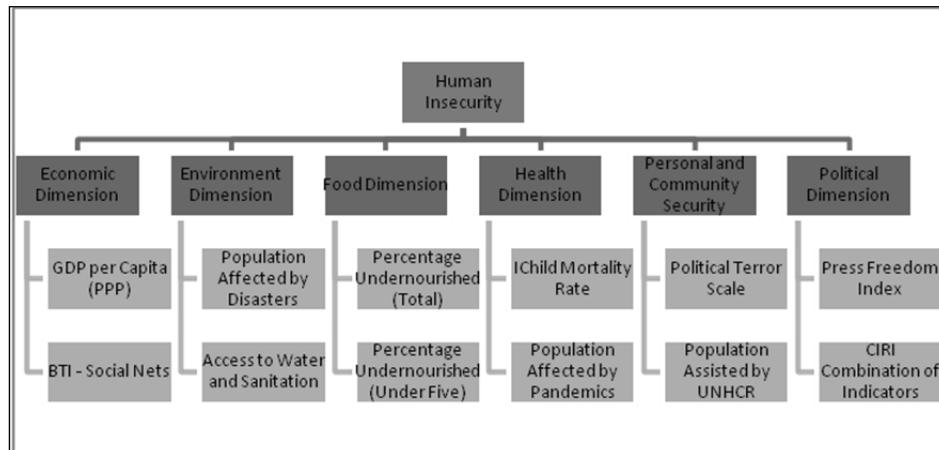
The aim of the Human (In)Security Index as presented in this paper is to operationalize the core dimensions of human security. This has two important implications: Firstly, the indicators that were chosen to operationalize each dimension measure human *insecurity*. Secondly, we will polarize our indicators in a negative way, meaning the higher the value, the higher the threat to human security. By developing this kind of Human (In)Security Index we are able to identify the dimensions which present the most severe threats at a given moment of time. This may put additional impetus on the necessity to respond to specific threats and may help to prevent a further deterioration of the human (in)security situation as such. We argue that a Human (In)Security Index will contribute to an analytical refinement of the notion of human security and will also allow for improved strategic actions since efficient policies towards the different fields of activity are needed to respond to the root causes of insecurity. In short, a Human (In)Security Index will help to improve vulnerability assessment and priority setting.

The Human (In)Security Index includes 209 countries and regions (such as Gaza and the West-Bank). The six dimensions as defined by the UNDP Report (personal and community security are combined to one dimension) are operationalized by two indicators each and are aggregated to country-specific values. Figure 3 illustrates the manifest indicators and the latent construct (that is: human insecurity) they measure. The Human (In)Security Index is a relational index to the maximum and minimum value of every indicator (and in a second step to every dimension). Although outliers are computed out, extreme cases (in relation to the mean) may bias the data. This applies in particular to the environmental dimension, where singular cases such as a one-time natural disaster may occur. Given such a situation, a high percentage of the population might be affected. The score for all other countries is computed into relation to that. This certainly does not imply that, for example, the green environmental dimension should be interpreted as a complete absence of affected people. However, the threatening potential is hardly at hand here in relation to the extreme cases.





Figure 3: Matrix of Indicators and Dimensions of the Human (In)Security Index (HISI)



There are three possible and adequate ways to compute the indicator values and to aggregate them to the several dimensions (OECD 2008: 83ff):

- Z-standardization of values (with the mean as a reference point)
- Defining intervals on our own (or on computing quartiles)
- Re-scaling the values through computation

It is important to keep in mind that these methods can only be used for variables measured on a metric level. For variables on an ordinal level (like the Bertelsmann Transformation Index for Social Nets or the combination of CIRI indicators) a specific computation is used to re-scale the values between 0 and 100 (this range is the basis for all indicators to be aggregated to dimension value).

The computing procedures account for the following metric variables:

- Gross Domestic Product per Capita based on (Purchasing Power Parity – PPP)
- Children Under Five Underweighted for Age
- Percentage of Population that is Undernourished
- Total Population Affected by Diseases
- Child Mortality Rate
- Percentage of Population that is Affected by Disasters
- Mean of Percentage of Population with Access to Clean Water *and* Percentage with Access to Improved Water Sanitation
- Total Number of people assisted by the UNHCR

The indicators are re-scaled based on the following formula:

$$\text{Country } i \text{ on Indicator } x = \frac{(x_i - \text{Min}(x))}{(\text{Max}(x) - \text{Min}(x))} \times 100$$



All countries are ranked in their relation to the extreme cases (with the highest and lowest score on the indicator) at a range of 0 to 100. In this way, the countries experiencing extreme problems with regards to human insecurity are especially pointed out. To avoid an artificial skewness regarding to outliers we excluded the general calculation by adequately identifying them from each indicators distribution.<sup>15</sup>

Afterwards the mean for every country in every dimension is calculated by:

$$\text{Country } i \text{ on Dimension } y = \frac{\sum \text{values indicators on } y \text{ for } i}{\text{valid values for } i \text{ on indicators for } y}$$

27

The dimension values for every country are summed up and divided by the number of valid rated dimensions to gain a country value for the overall Human (In)Security Index which is the overall mean of all valid dimensions (some countries do not have valid values on every dimension due to the fact of lacking data). The formula for this procedure is:

$$\text{Human InSecurity Index for Country } i = \frac{\sum \text{all dimension values for } i}{\text{valid values on all dimensions for } i}$$

The dimensions and the overall index then vary between 0 (lowest level of human insecurity) and 100 (highest level of human insecurity). It is important to note that all indicators have the same weighting for the computation of the dimensions. One exception occurs: when a country has a missing value in one of the two indicators, its dimension value is identical with the valid indicator value. In a statistical manner, the indicator is then overestimated in relation to all dimensions' indicators with more than one valid value. However, this does not hinder the analytical interpretation as this only counts for the dimension value, the overall Index of Human (In)Security is therefore a combination of the dimensions value with constant weights of every dimension.

After computing the values, we divide the Human (In)Security Index into quartiles labelled in the following categories by scores (see Table 1). In line with the computation procedure, the index is an additive and not a multiplicative one.

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<sup>15</sup> A country can be regarded as an outlier when its value differs more than three standard deviations from the indicators mean.



Table 1: Assessing the Level of Human (In)Security

Level	Human (In)Security Level	Score	Definition
1	Level of Human Security	0-25	There is no systematic and sustainable threat to life/survival
2	Level of Relative Human Security	26-50	Some factors and contexts threaten life/ survival, but individuals and groups usually have strategies, means, behavioural options, or aid/help at their disposal to cope with these threats.
3	Level of Relative Human Insecurity	51-75	Some factors and contexts threaten life/ survival and individuals and groups have only limited or inadequate strategies, means, behavioural options, or aid/help at their disposal to cope with these threats.
4	Level of Human Insecurity	76-100	Some factors and contexts threaten life/ survival and individuals and groups have no adequate strategies, means, behavioural options, or aid/help at their disposal to cope with these threats.

### 3.3 Findings

In the following section, the findings in each dimension are presented as charts illustrating the frequencies of countries falling in the respective categories of human (in)security at a regional macro level.<sup>16</sup> Additionally, for some dimensions a world map that corresponds with the typology laid out in table one is included.<sup>17</sup> It should be noted, that although two countries may fall into one interval, their values may differ to some extent when both are located at the different end of the interval. This is the case, for example, for Belgium and Belarus which both fall into the level of human security (see Annex 2), but of course differ from each other especially with respect to political security. Additionally, it is important to keep in mind that even the category of relative human security might imply a problematic level for an adequate life, that is, routines of daily life might be constrained also there.

#### 3.3.1 Human Economic (In)Security

An overall secure level of economic security (GDP per capita and existence of Social Nets) is mainly at hand in North America, Western Europe and some parts of Asia and Oceania. In Africa, only a small number of countries reach the highest category, for example, Gabon, Namibia, Botswana and South Africa.

<sup>16</sup> The regions are identified according to UNSTATS identification numbers. For details see <http://unstats.un.org/unsd/methods/m49/m49regin.htm>.

<sup>17</sup> For a complete overview on all world maps, please see [www.humansecurity.de](http://www.humansecurity.de).



The overall highest threat to economic security occurs in Africa, especially in the Democratic Republic of Congo, Guinea-Bissau, Somalia and Liberia. Nearly all parts of Africa are affected by a relatively high level of economic insecurity and 15 countries are on the highest level of human insecurity (out of overall 19 countries in this category). Income for daily life is very low and vast limitations of an adequate life occur. If the case of unemployment is at hand, a high number of African countries lack a minimum net of social safety to compensate for the problem of economic insecurity that is caused by not being able to secure a minimum standard of living. Since the Bertelsmann Transformation Index (one of the indicators for this dimension) also measures a constraint in equal (economic) opportunities besides a lack of social safety nets, a high level of insecurity implies restrictions in both aspects. This applies to some parts of South Asia. Moreover, North Korea, Afghanistan, Myanmar and Nepal face the same economical problems, but even India, Pakistan, Indonesia and other countries in East Asia with their overall high population numbers fail in providing adequate economic opportunities. In the Americas, Bolivia and Paraguay and some parts of Central America face the same economic security problems.

Overall, Africa and South to South-East Asia are most affected by threats to economic safety and security. Especially in Africa nearly all geographic regions face alarming problems. Economic insecurity is one of the major problems worldwide. The importance to challenge this through poverty reduction is still one of the major tasks today, even more so since economic security is strongly related to health and food security.

**Table 2: Regional Distribution of Human Economic (In)Security**

UN Macro Region	Economic Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	3	9	25	15	52
Oceania	2	5	2	0	9
Americas	8	20	7	0	35
Asia	9	15	18	4	46
Europe	27	9	4	0	40
<b>Total</b>	<b>49</b>	<b>58</b>	<b>56</b>	<b>19</b>	<b>182</b>

### 3.3.2 Human Food (In)Security

Food insecurity, measured by the percentage of population that is undernourished and the number of children under five underweighted for age is a severe problem mainly in Africa and South Asia. Especially in Sub-Sahara





Africa, food security is a major problem for huge parts of the population. Some countries like Ethiopia, Eritrea, the Democratic Republic of Congo, Angola and Madagascar face alarming scores in this dimension.

In other parts of the world, only Afghanistan falls into this category (Level of Human Insecurity). But even some countries in South-East Asia (Laos, Cambodia, Bangladesh, Nepal and India) and Yemen face problems concerning the adequate supply of food for their population. Besides these countries, food insecurity in general does not constitute a central problem for Central Asia and the Middle East region. In the Americas, Haiti keeps on facing problems with fundamental food supply for its population. The same applies (with some restrictions) to Bolivia, Nicaragua and Guatemala. Food insecurity in Europe can be regarded as absent. Here, the problem of missing data for this dimension occurs, however, it can be assumed that Spain, Poland, Portugal and Austria (with missing data) will not be ranked as 'highly alarming' concerning food insecurity.<sup>18</sup>

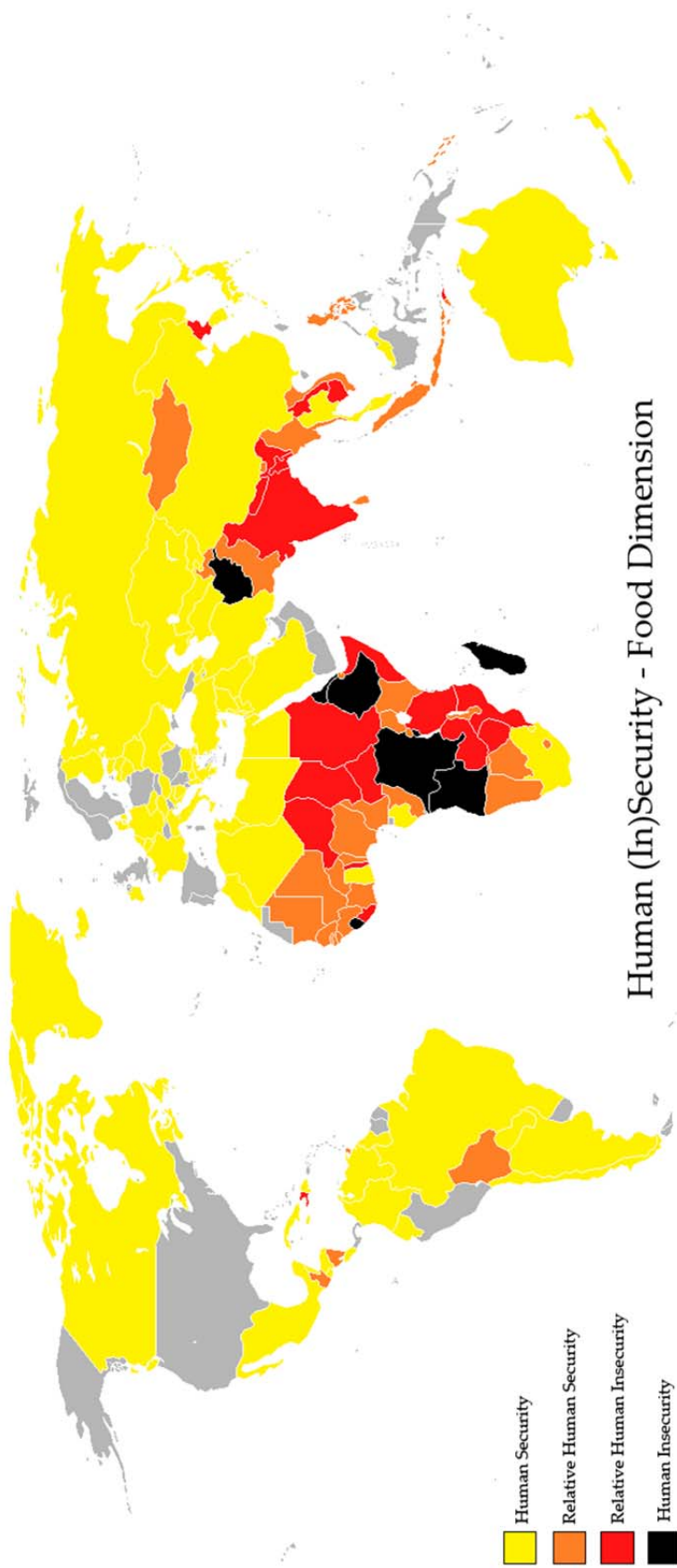
Table 3: Regional Distribution of Human Food (In)Security

UN Macro Region	Food Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	12	19	14	7	52
Oceania	7	1	0	0	8
Americas	28	5	2	0	35
Asia	27	10	7	2	46
Europe	39	1	0	0	40
<b>Total</b>	113	36	23	9	181

<sup>18</sup> Data provided by FAOSTAT cover the years 2003-2005 (latest available year used), since adequate and reliable data is problematic or/and not available for the following years.



Figure 4: World Map – Human Food (In)Security





### 3.3.3 Human Health (In)Security

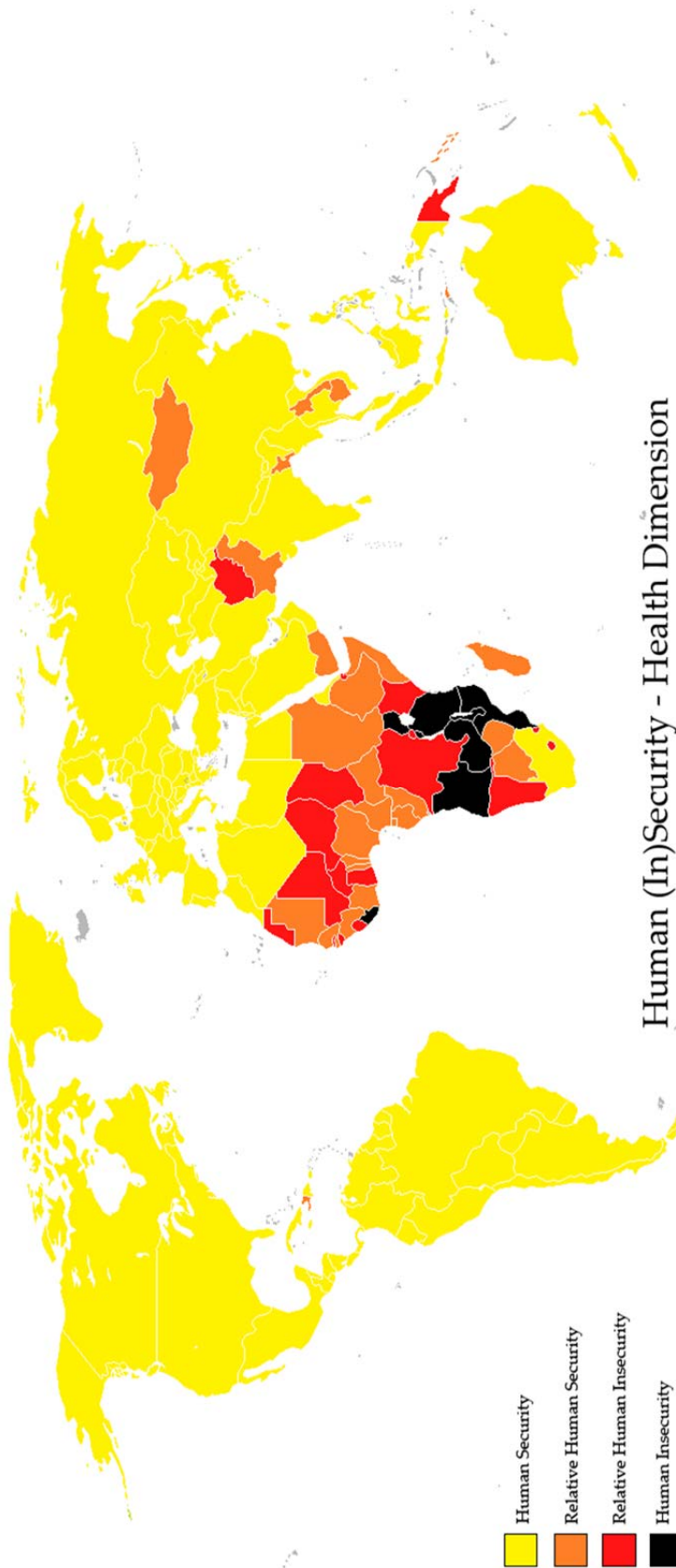
Health insecurity is measured by the occurrence of infectious diseases (HIV/AIDS, malaria, cholera and tuberculosis) and the child mortality rate. All parts of Sub-Saharan Africa face these problems. Infectious diseases occur in all of these countries, malaria, HIV/AIDS and tuberculosis are alarming problems for a high number of African countries and their population. It can be assumed that already for today the spread of HIV/AIDS influences the economically working part of African countries. Apart from Africa, only Afghanistan (due to the worldwide highest number of child mortality) and Papua New Guinea reach such a disastrous status. In Asia, Pakistan, Mongolia, Bangladesh and Laos health insecurity also is a problem. Having this stated, health insecurity is in general no major problem in the Americas (only Haiti is affected here), Oceania (except Papua New Guinea, the Solomon Islands and Timor-Leste), Asia and Europe.

Health insecurity can mainly be regarded as an 'African phenomenon'. Notwithstanding, health insecurity caused by an unhealthy life style (in industrialized countries) might also be or become a problem. However, since we focus on direct death rates from insecurity (and not indirectly by life styles) Europe, Americas and large parts of Asia and Oceania perform quite well in this dimension.

Table 4: Regional Distribution of Human Health (In)Security

UN Macro Region	Health Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	12	19	13	8	52
Oceania	7	2	0	0	9
Americas	34	1	0	0	35
Asia	39	6	2	0	47
Europe	38	1	1	0	40
<b>Total</b>	130	29	16	8	183

Figure 5: World Map – Human Health (In)Security





### 3.3.4 Human Environmental (In)Security

The environmental dimension is the category that is strongly affected by short-term changes, namely by natural disasters, due to one specific indicator: the number of people affected by disasters. Since natural disasters might affect a high percentage of a population, the extreme cases are significant. We certainly acknowledge that this might overestimate the findings for this dimension to a certain degree; however, the index is intended to show threats at a certain point in time so that the neglect of sudden catastrophes would also bias the interpretation. This indicator is combined with the access to improved water sources and sanitation facilities.

The countries with the highest alarming status are Somalia and Eritrea (according to floods) in Africa and Belize in Central America. Other countries also experienced disasters (like China), but in addition to that they have a higher performance with regards to sanitation and water supply. Somalia does not perform very well with a view to both indicators. It is also important to keep the following in mind: Even when a small percentage of the population is affected by disasters this might result in a complete loss of housing and economic insecurity *as a result* of natural disasters instead of being economically insecure as measured by the indicators within the economic dimension.

Table 5: Regional Distribution of Human Environment (In)Security

UN Macro Region	Environment Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	25	23	2	2	52
Oceania	8	1	0	0	9
Americas	30	2	0	2	34
Asia	40	5	2	0	47
Europe	39	1	1	0	40
Total	142	32	4	4	182

### 3.3.5 Human Personal and Community (In)Security

Personal and community insecurity is a worldwide phenomenon. The most alarming cases can be localized in Sudan, Somalia, Iraq, Afghanistan, the Democratic Republic of Congo and Colombia. Due to the developments after 9/11, the United States also falls into a lower category here than they do in other dimensions (as a high-performer). This mainly results from the scoring of the Political Terror Scale, one of the two indicators for this dimension besides the



number of people assisted by the UNHCR. Apart from this, threats to community and personal security are especially severe in all parts of Asia (for example China and Pakistan), Eastern Europe (Ukraine, Serbia and Bosnia-Herzegovina) and Central/South America (Brazil, El Salvador and Venezuela e.g.). The dimension of personal and community security is therefore not only an African and Asian phenomenon. Especially South America shows a severe level of insecurity in comparison to the other dimensions. Not only Colombia with its high numbers of IDPs is highly ranked, but also Brazil is a case in point here.

Table 6: Regional Distribution of Human Personal and Community (In)Security

UN Macro Region	Personal and Community Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	16	26	7	3	52
Oceania	8	1	0	0	9
Americas	21	13	0	1	35
Asia	18	21	5	3	47
Europe	35	4	1	0	40
Total	98	65	13	7	183

### 3.3.6 Human Political (In)security

Political insecurity may mainly be described as an ‘Asian phenomenon’. Large parts of Asia experience a high level of human insecurity regarding political issues. Eight countries are faced with alarming threats, four times higher than in other parts of the world. Iran, Myanmar, China, North Korea and Pakistan are only some examples. In the following category of relative insecurity, Asia also wins the race against the African continent. In Africa severe political situations are mainly situated in North-East Africa. The Americas experience such a high level in Cuba, Mexico and Colombia. It is important to keep in mind that the institutional aspects of the current political situation are not measured, but the daily experience of citizens regarding press freedom (Reporters Without Borders) and the occurrence of torture, political imprisonment etc. through the CIRI indicators (as pointed out before).

The fact that some of the highly ranked states are authoritarian regimes (according to institutional aspects) is not the reason for their score (like the Polity IV ranks them with a focus on institutional aspects). If, for example, one country is a highly authoritarian state but somehow respects a certain degree of civilian liberties (measured through the scales of Freedom House), this country

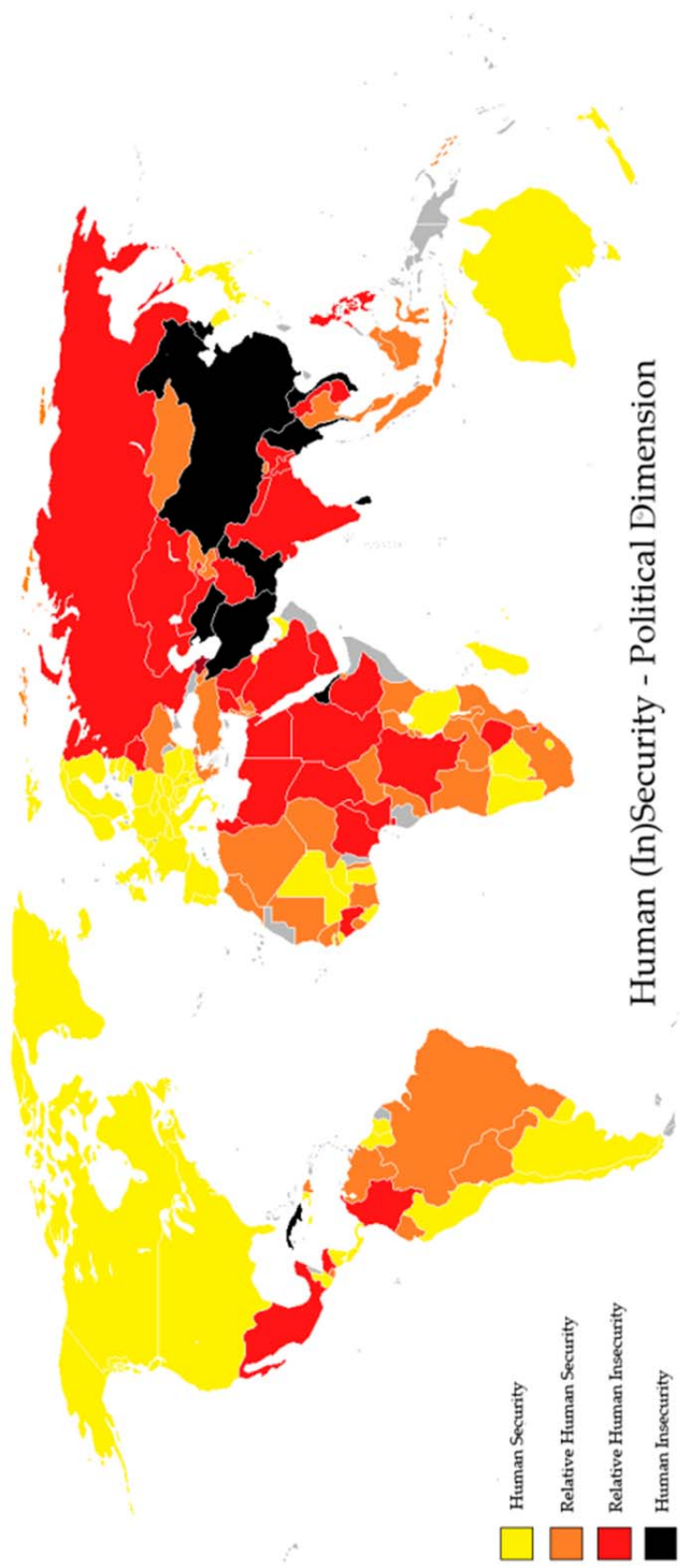


may rank on a slightly higher level of human security. By choosing our indicators, a bias towards (the institutional aspects of) democracies was avoided.

**Table 7: Regional Distribution of Human Personal and Community (In)Security**

UN Macro Region	Political Dimension – Number of Countries falling in one of the human (in) security levels				Total Number of Countries
	Level 1	Level 2	Level 3	Level 4	
Africa	13	22	14	1	50
Oceania	3	2	1	0	6
Americas	16	6	3	1	26
Asia	7	16	15	8	46
Europe	32	4	2	0	38
<b>Total</b>	71	50	35	10	166

Figure 6: World Map – Human Political (In)Security





### 3.3.7 Human Insecurity

The overall Human (In)Security Index reflects the picture painted by the several dimensions alone: Human insecurity certainly is an African and partly an Asian concern. This is not to neglect areas of concern in the rest of the world. However, only two out of the fifteen countries with the highest score are located outside Africa, namely: Afghanistan and Myanmar, 13 countries with the highest level of human insecurity are located in Sub-Saharan Africa. With regards to the political dimension, Asia is the most problematic world region.

Somalia is ranked at the top, being the only country that receives the full scoring of 100 points (please note: since the index is relational, only one country is listed at the end of the interval). Somalia is followed by Eritrea, Afghanistan, the Democratic Republic of Congo, Burundi and Ethiopia in the highest category of human insecurity. Nevertheless, countries that at first glance may not perform at a worrisome level of human insecurity, might still have challenges to cope with. Countries experiencing some kind of limitation to human security account for about 59 percent of the world.

Table 8: Regional Distribution of Human (In)Security

UN-Macro Region	Human (In)Security				Total Numbers of Countries
	Level 1	Level 2	Level 3	Level 4	
<b>Africa</b>	3	19	25	5	52
<b>Oceania</b>	5	4	0	0	9
<b>Americas</b>	19	15	1	0	35
<b>Asia</b>	12	20	14	1	47
<b>Europe</b>	36	4	0	0	40
<b>Total</b>	75	62	40	6	183

Table 9 shows the fifteen countries that perform worst according to the Human (In)Security Index. As pointed out before, mainly African countries despite well-known progresses show an overall alarming status due to threats to human security. These countries constantly receive high scores in nearly every dimension. The first six countries of the highest score fall into the overall category of human insecurity (Somalia, Eritrea, Afghanistan, the Democratic Republic of the Congo, Burundi and Ethiopia). The following nine countries are grouped at the level of relative human insecurity.



**Table 9: The Worst Human (In)Security Performers**

Country	Human (In)Security Score
Somalia	100,00
Eritrea	88,58
Afghanistan	85,97
Congo, Dem. Rep.	83,28
Burundi	79,51
Ethiopia	78,02
Liberia	73,56
Sudan	73,51
Central African Republic	71,71
Angola	71,29
Chad	70,52
Mozambique	69,51
Myanmar	68,88
Uganda	68,23
Niger	67,34

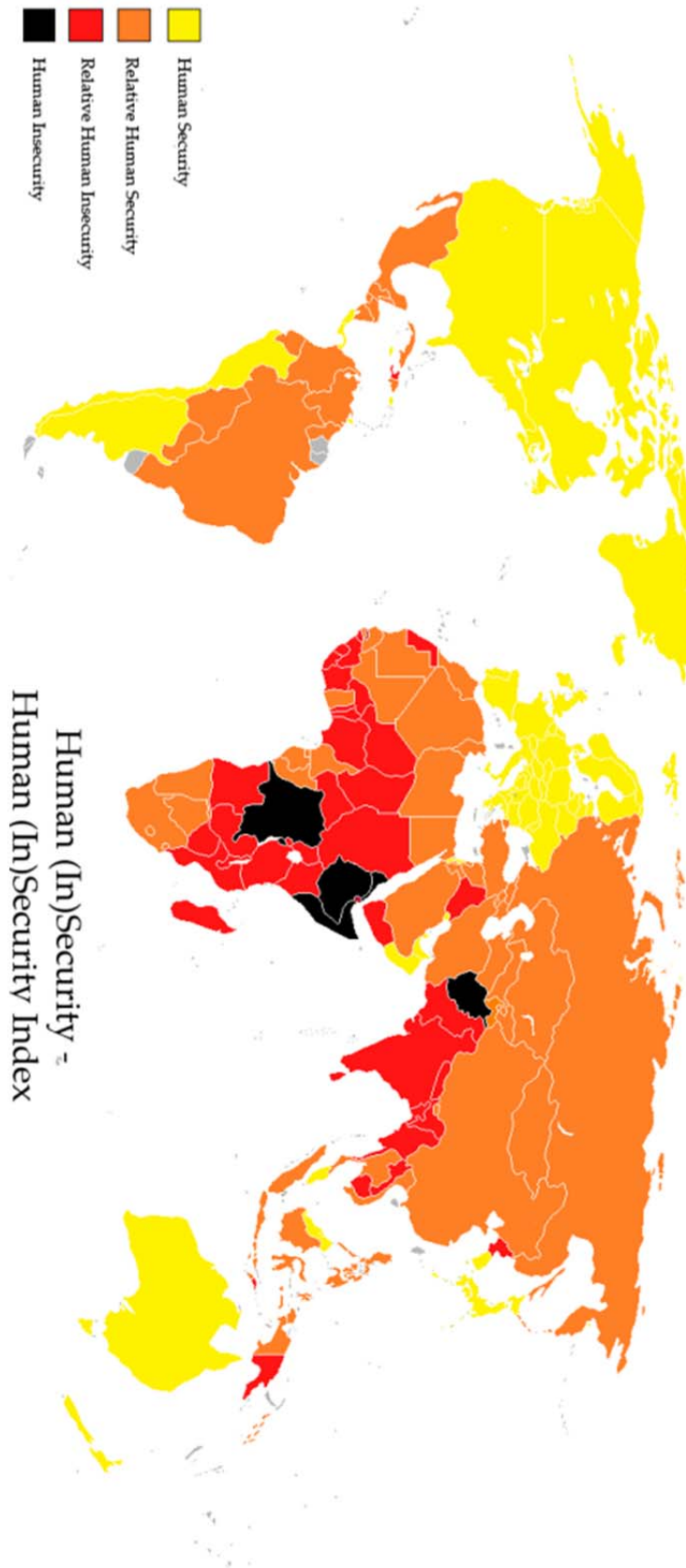
Regarding the high performers of human security (with a very low overall threat) all countries (except Japan) geographically belong to Western Europe. The Scandinavian countries Norway, Finland and Sweden perform at a high level regarding human security. Measured by the Human (In)Security Index, it is Norway that performs best.

**Table 10: The Best Human (In)Security Performers**

Country	Human (In)Security Score
Norway	0,32
Netherlands	2,26
Japan	2,62
Sweden	2,93
Finland	2,99
Germany	3,40
Belgium	3,49
Australia	3,51
Slovenia	3,75
Ireland	3,82



Figure 7: World Map – Human (In)Security





### 3.4 A Descriptive Analysis of the Human (In)Security Index with other Indices

As outlined before, our aim is to measure human insecurity in its six (originally seven) dimensions as defined by the UNDP and in this way approach human insecurity in a broad sense. As is well known, there are other indices operationalizing related concepts in the field of development and peace research (e.g. the Human Development Index (HDI), the Failed States Index (FSI) or the Global Peace Index (GPI)). In order to demonstrate that we have measured something like a new latent construct in the field of 'development and peace' and, more importantly, are thus able to explain a different phenomenon than other indices before, the Human (In)Security Index has been plotted and correlated<sup>19</sup> to the Human Development Index (HDI), the Global Peace Index (GPI), the Failed States Index (FSI) and the State Fragility Index (SFI) by a simple regression analysis to gain a sound comparison.<sup>20</sup>

The influence of the Human Development Index is quite high, resulting in a value for r-squared of around 0.8. The high correlation results from the fact that the GDP per Capita is one of the main components of the HDI. GDP per Capita influences a lot of other indicators concerning development and security issues since high income-levels reduce a lot of the security threats (but of course not all). Surely, there are exceptions and variations that countries perform high on the HDI (with an high income level) but experience Human Insecurity in some dimensions.

The influence of the Global Peace Index on the Human (In)Security Index offers a more interesting result: the influence measured by Pearson's  $r^{21}$  is only around 0.45. Accordingly, we observe a variation in measurement when analysing a simple plot between both indices. Although a potential regression line<sup>22</sup> points in the direction of a positive relationship, there are some countries that vary from the forecasted values (by the regression line). More precisely, although some countries experience some peaceful times, our dimensions of human insecurity clearly identify threats to personal life.<sup>23</sup> On the contrary, a relatively high level of human security may also occur within a relatively non-peaceful situation as such.

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<sup>19</sup> Please note this argument is no statistical interpretation, but rather an interpretation of the covary of the pair wise comparison. Of course there may be a latent construct (e.g. development) that influences both other dimensions (e.g. Human Security and Peace).

<sup>20</sup> For a detailed overview and graphics of the correlations see: [www.humansecurity.de](http://www.humansecurity.de).

<sup>21</sup> Please keep in mind the restrictions of a statistical interpretation of the correlation.

<sup>22</sup> A regression line only helps us in interpreting the plotting in a descriptive manner. We do not want to illustrate an influence between both constructs but rather a correlation in a descriptive way. We did not a detailed residual diagnostic to guarantee the BLU characteristics of the OLS-estimator for the regression line.

<sup>23</sup> It should be noted that this comparison is slightly limited, since the GPI comprises a somewhat low number of observations and ranks only 122 countries altogether.



The influence of the Failed States Index is similar to the one of the GPI. We observe a positive relationship between the FSI and the HISI by plotting them, but Pearson's  $r$  of around 0.68<sup>24</sup> leaves some room for variation in the scores. Although state failure might be still at a moderate level, human insecurity can have already reached a higher degree.

The regression between the Fragility Index and the HISI also shows a positive relationship with an R-squared similar to the Human Development Index at a high level of 0.8. Yet, some countries vary on the Human (In)Security Index compared to the Fragility Index. Some experience a high level of fragility with a low level of human insecurity and vice versa.

To sum up, the HISI offers new insights. The descriptive part of comparing the HISI with other indices by plotting and correlation diagnostics shows that the HISI captures some additional parts of a latent construct like 'development and peace' relational to the established indices in this field. So new instructive insights are gained: the six (originally seven by the UNDP) dimensions, which have been operationalized by two indicative indicators, are separately measured and combined to the overall index in a second step. This enables us to differentiate between the several dimensions: Citing the example of Georgia, it becomes apparent that human beings are much stronger threatened with regards to economic and personal and community security, but are hardly threatened by natural disasters (see Annex 2). Quite the contrary is the case when looking at Kiribati, an island located in the central Pacific Ocean: individuals are strongly threatened when it comes to the environmental dimension, but hardly threatened by personal and community security. The data in Annex 2 clearly depicts this case in point: Kiribati is one of the island states that are expected to be threatened by rising sea levels as an effect of global warming and climate change. It comes as no surprise that all the countries, which were identified those most endangered by potential threats (which are: Eritrea, Somalia and Afghanistan), scored high in all dimensions.

## 4. Résumé

Since the Human Development Report in 1994 laid down the groundwork for contemporary thinking in human security, the debate has centered around two main aspects: firstly, the idea of human security has been (and still is) frequently criticized for its analytical ambiguity and fluent definition. Secondly, the idea has also been criticized for the political implications it entails: the *political usefulness* of the concept itself has been questioned (McDonald 2002: 278). In having briefly presented the various schools of human security thinking we outlined the political impact the idea of human security has gained throughout time. The idea of human security has gained importance in decision-making, policy design and programmatic implementation. Especially during the 1990s, the human security approach impacted on political agenda-

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<sup>24</sup> The same restrictions for an interpretation in a statistical manner apply as well.

setting in Canada and Japan which in this regard can be considered as the forerunners. The UN and its agencies as such and more recently the EU have also contributed to the evolution the idea.

Despite some true political ‘success story’ (like the banning of anti-personal landmines), one of the major challenges still is a more concrete and clear conceptualization of human security. Advancing the idea of thresholds in relation to the actual measurement of levels of human (in)security is one step forward. As we have argued above, the crucial task is to measure human (in)security and to identify thresholds. As part of this endeavor an important step forward in this direction is to create a Human (In)Security Index that contributes to the refinement of the notion of human security and shows that the concept can be measured despite its dynamic and context-specific nature. We are able to transfer the ‘original thinking’ of the UNDP into a multi-dimensional index that depicts the core threats to human security.

The conceptualization of human security specifically addresses some challenges that hampered the acceptance and successful institutionalization of human security. First, although development, security and human rights are interlinked, our conception recognizes that human security is a precondition for human development, but not vice versa. “People must first be secure from critical and pervasive threats to their vital core, whatever the cause, before the mechanisms of development can take root”. Likewise, “human rights abuses are only one category of potential human security threats, and most should be dealt with outside the security mandate” (Martin/Owen 2010: 222).

Moreover, our dimensional threshold approach helps to deal with the problem of conceptual overstretch “by not allowing all threats in all places under every potential category of security to be prioritized” (Martin/Owen 2010: 222). Choosing relevant and meaningful indicators when operationalizing the human insecurity dimensions, we propose that whilst there are certainly infinite possible harms that could threaten an individual, there is only a certain number that critically and pervasively threatens the vital core of large numbers of people. Secondly, there is a way to find certain meaningful indicators we can use to assess the level of insecurity in the respective dimensions.

Concluding, we have been able to combine the different schools of thought within the Human (In)Security Index and to disclose the conceptual connection of development and security (issues). The proposed threshold-based conceptualization allows for a differentiation of security issues and security threats. Additionally, the HISI substantiates the respective thresholds and thus is able to serve as a guideline for policy-makers and scientists alike. It will help decision-makers to set priority agendas and take preventive and enduring actions.

However, it is important to note that the HISI does not substitute country-specific case studies or regional case studies. For example, the state performance as such does not tell us much about the (regional or group specific) spreading of a specific threat in the country (e.g. rural and urban dichotomies). Nevertheless, the Human (In)Security Index provides the basis for a comparative assessment of threats to the life and well-being of human beings in certain countries. It allows for a comprehensive overview covering the





countries of the world and thus contributes to identifying the most vulnerable cases, yet, a deeper insight into the dimensions that have been labelled as insecure or relative insecure has to be carried out in a second step and is currently beyond the scope of our project.

Finally, some aspects remain to be challenged in the future: As much as the index helps to improve the realignment of the assessment of vulnerability of human beings with a corresponding agenda setting, a steady refinement of the index and the empirical thresholds is needed. This is closely related to the availability and reliability of data that continuously needs to be improved in the future. Certainly, if more comprehensive data sets are available for some missing countries and some aspects that have not yet been integrated into our study (such as data on domestic violence or street crime), the validity of the HISI will continuously increase.



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## 6. Annex 1: Countries in Alphabetical Order and Score for all Dimensions

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Afghanistan	84,25	79,17	51,71	41,05	100	54,63	85,97	3
Albania	40,16	7,29	7,31	2,3	21,38	13	19,14	122
Algeria	47,9	3,13	11,59	5,75	31,45	45,67	30,44	89
Angola	60,95	75,19	87,43	26,87	40,47	49,75	71,29	10
Antigua and Barbuda	19,77	51,52	6,53	100	0,34		44,74	59
Argentina	30,38	3,13	4,66	3,85	12,52	17,04	14,98	134
Armenia	45,24	21,81	8,23	2,75	22,37	41,38	29,67	93
Australia	7,12	0	1,23	0,28	0	8,13	3,51	173
Austria	5,93	0	1,16	0	12,5	6,75	5,51	166
Azerbaijan	45,42	18,97	23,49	10,5	73,52	66,82	49,96	48
Bahamas, The	13,17	7,07	12,76	5,49	18,82		14,39	137
Bahrain	24,3	16,67	5,77	0	12,57	25,59	17,77	125
Bangladesh	70,82	71,62	25,49	22,42	37,57	71,35	62,63	18
Barbados	20,32	0	5,86	0,25	12,64		9,81	151
Belarus	34,44	0	2,13	1,75	19,1	59,17	24,4	112
Belgium	7,69	0	1,22	0	6,25	1,5	3,49	174
Belize	37,6	5,21	11,87	92,61	12,56		40,14	69
Benin	66,9	39,58	48,02	31,79	12,53	55	53,12	45
Bhutan	57,81	37,5	22,05	16,75	50	27,75	44,34	61
Bolivia	52,17	26,99	23,09	17,96	18,8	29,1	35,18	75
Bosnia and Herzegov.	41,64	1,04	3,07	1,5	39,42	14	21,07	117
Botswana	30,07	36,24	35,93	14,25	12,52	12	29,51	96
Brazil	31,15	7,7	10,25	10,84	37,51	27	20,74	81
Brunei Darussalam	1,33	0	4,56	0	0		1,48	180
Bulgaria	26,91	0	7,02	0,5	19,03	16,25	14,59	135
Burkina Faso	71,73	45,08	63,22	28,88	25,03	16,5	52,41	46
Burundi	83,29	89,58	75,09	24,95	66,52	40,5	79,51	5
Cambodia	66,93	60,2	25,94	26,75	31,98	52,75	55,36	36
Cameroon	61,53	39,46	38,84	20,14	25,46	53,45	49,99	47
Canada	6,16	0	1,58	0,13	6,26	6,67	4,35	170
Cape Verde	53,53	25,25	17,35	0	12,55	18	26,51	106
Central African Republic	79,51	70,08	45,42	25,8	82,6	39,25	71,71	9



Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Chad	71,59	74,37	52,99	36,22	51,17	50,63	70,52	11
Chile	25,32	0	2,76	5,38	6,29	10,75	10,57	149
China	49,04	12,82	8,34	39,93	31,32	87,75	47,96	53
Colombia	40,89	13,83	8,56	15,95	83,16	62,75	47,12	55
Comoros	75,26	75	42,62	40	25,11	35	61,32	21
Congo, Dem. Rep.	94,96	81,25	50,48	30,81	74,8	65,63	83,28	4
Congo, Rep.	60,67	33,24	45,92	27,3	22,64	30,38	46,07	58
Costa Rica	28,26	4,17	3,42	15,77	0,06	12,55	13,44	139
Côte d'Ivoire	71,69	31,41	45,34	23,76	58,74	43,25	57,38	31
Croatia	17,91	0	1,84	0,5	13,18	9,25	8,93	156
Cuba	25	3,13	1,64	15,45	25,42	79,17	31,35	84
Cyprus	11,5	0	1,94	0	12,51	8,75	7,26	160
Czech Republic	9,83	0	0,68	0,25	6,33	12	6,09	164
Denmark	7,14	0	1,06	0	0	16,75	5,22	167
Djibouti	60,98	58,96	50,95	60,25	25,78	35,75	61,25	22
Dominica	32,85	0	5,11	0	1,03		9,79	152
Dominican Republic	45,48	22,85	11,91	7,01	25,03	29	29,57	95
Ecuador	44,05	20,96	8,78	11,02	25,06	27,75	28,8	97
Egypt, Arab Rep.	51,64	5,21	11,23	9	31,31	55,13	34,22	77
El Salvador	49,22	16,95	9,47	7,62	27	31,4	29,65	94
Equatorial Guinea	21,38	37,5	38,32	26,5	25,42	64,63	44,73	60
Eritrea	79,4	90,63	19,69	83,75	61,04	88,75	88,58	2
Estonia	17,05	0	3,62	1,25	12,63	16	10,58	148
Ethiopia	77,61	82,48	45,53	60,14	38,14	68,88	78,02	6
Fiji	50,01	0	4,14	20,5	19,99	38	27,76	102
Finland	7,7	0	0,6	0	0	6	2,99	176
France	8,82	0	0,85	0,02	12,5	17,67	8,34	157
Gabon	25,68	11,46	42,62	19,25	25,05	18,38	29,81	92
Gambia, The	71,64	47,57	58,48	15,62	25,77	36,38	53,46	44
Georgia	51,04	11,65	6,48	2	59,45		32,8	80
Germany	8,12	0	0,85	0	0	7,25	3,4	175
Ghana	57,43	24,27	51,5	28,22	18,92	18,75	41,66	64
Greece	11,05	0	1,42	0,6	18,76	47,5	16,6	128
Grenada	31,35	39,39	4,85	0	0		18,98	123
Guatemala	55,96	36,55	12,71	9,02	32,19	21,32	35,11	76



## Assessing Human Insecurity Worldwide

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Guinea	76,51	40,69	45,62	27,88	38,11	50,75	58,5	28
Guinea-Bissau	92,25	48,55	63,23	30,34	6,75	18,17	54,26	40
Guyana	50,73	14,99	19,89	42,7	13,16	19,88	33,77	78
Haiti	71,35	71,88	28,61	38,75	33,36	22,57	55,78	35
Honduras	54,81	20,01	10,6	24,38	25,14	61,5	41,11	65
Hungary	14,92	0	2,53	0,01	12,69	12,75	8,98	155
Iceland	5,74	0	0,39	0	0,01	0,75	1,44	181
India	59,08	65,56	13,39	24,25	37,51	60	54,37	39
Indonesia	50,48	42,77	13,73	17,58	25,05	43,5	40,42	68
Iran, Islamic Rep.	40,31	10,42	15,13	0,19	38,17	85,17	39,63	70
Iraq	61,82	14,58	18,54	11,77	100	74,69	58,89	27
Ireland	4,55	0	1,45	0	6,25	6	3,82	171
Israel	12,6	0	0,99	0	0,4	44,42	12,22	145
Italy	11,02	0	1,89	0	12,5	14,21	8,29	158
Jamaica	41,45	5,65	7,42	6,4	25,2	17,44	21,67	115
Japan	8,88	0	0,26	0,11	0	3,25	2,62	178
Jordan	47,67	3,13	5,71	4,25	25,24	43	27	104
Kazakhstan	35,17	3,13	10,83	1,99	18,96	52,67	25,69	108
Kenya	66,26	49,59	71,37	36,57	37,64	45,63	64,26	16
Kiribati	42,59	15,03	18,82	25,72	0,4		25,76	107
Korea, Dem. Rep.	90	52,71	22	0	37,52	98,25	62,88	17
Korea, Rep.	16,5	0	1,05	0	12,52	24,5	11,42	147
Kuwait	25,41	9,38	3,01	0	12,7	21,32	15,03	133
Kyrgyz Republic	58,9	2,08	13,22	4,72	25,29	38,5	29,87	91
Lao PDR	66,29	54,17	33,96	31,91	19,64	65	56,71	34
Latvia	23,72	0	3,76	5,75	6,42	21,5	12,8	142
Lebanon	38,87	3,13	8,86	0	62,15	32	30,34	90
Lesotho	72,9	32,42	56,46	22,09	25,01	24,75	48,89	49
Liberia	91,22	63,92	100	26,03	50,45	19,88	73,56	7
Libya	30,3	4,17	8,47	0	25,24	65,75	28,03	101
Lithuania	17,7	0	2,07	0	0,09	12	6,67	162
Luxembourg	0	0	1	0	0	1,5	0,52	182
Macedonia, FYR	32,33	2,08	3,05	2,75	21,24	14,13	15,82	130
Madagascar	74,28	77,56	32,77	43,11	12,51	20,5	54,56	38
Malawi	75,82	47,6	87,82	16,35	19,1	27,5	57,38	30
Malaysia	28,12	7,29	6,74	1,84	18,77	44,75	22,5	114





Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Maldives	46,72	34,75	12,19	14,5	12,53	31,63	31,88	83
Mali	65,38	40,88	60,76	23,81	12,74	18,75	46,53	57
Malta	15,97	0	0,66	0,01	6,26		5,75	165
Mauritania	64,5	37,85	39,41	29	25,27	31,94	47,71	54
Mauritius	29,69	18,12	6,29	1,5	12,54	29	20,33	119
Mexico	35,28	4,17	7,52	7,34	25,11	58,07	28,77	99
Moldova	57,72	3,13	5,31	8,01	19,5	25,69	24,98	109
Mongolia	54,15	31,98	33,36	19,8	19,33	30,42	39,56	71
Montenegro	30,45	4,17	6,86		27,54	15	21,1	116
Morocco	57,13	9,38	15,64	11,42	25,08	41,13	33,43	79
Mozambique	75,11	59,82	95,24	41,72	25,02	35,25	69,51	12
Myanmar	82,59	48,96	23,33	23,81	53,28	97,19	68,88	13
Namibia	43,07	40,63	59,55	22,07	12,83	17,75	41	66
Nepal	75,24	58,46	21,69	23,53	33,38	51,63	55,23	37
Netherlands	5,54	0	1,28	0	0	4	2,26	179
New Zealand	13,42	0	1,23	0	0	6,5	4,43	169
Nicaragua	59,35	25,95	10,51	19,03	6,52	16,25	28,8	98
Niger	79,52	71,56	62,42	38,48	31,29	38,5	67,34	15
Nigeria	59,11	35,73	45,54	30,75	31,34	53,88	53,65	42
Norway	0,07	0	0,68	0,01	0	0,75	0,32	183
Oman	25,32		6,52	0	0,01	21,34	13,36	140
Pakistan	61,66	38,42	28,12	13,61	37,64	77,44	53,76	41
Panama	35,23	21,94	6	10,57	0,05	10,92	17,73	126
Paraguay	51,21	11,71	10,6	16,75	25,01	30,25	30,46	88
Peru	42,97	16,79	12,34	15,4	6,46	23,13	24,5	111
Philippines	54,13	41,76	8,47	32,73	37,88	57,5	48,65	50
Poland	20,99	0	2,1	0,02	12,54	9,5	9,45	154
Portugal	17,31	0	1,68	0,5	12,5	14	9,63	153
Qatar	0	10,42	4,71	0	12,54	32,75	12,64	144
Romania	26,72	2,08	9,49	10,13	18,9	24,5	19,22	121
Russian Federation	34,41	2,08	4,97	4,01	38,68	63,75	30,95	86
Rwanda	68,64	60,8	63,99	28,35	30,69	45	62,25	19
Samoa	43,84	0	9,76	3	0,01		14,22	138
São Tomé and Príncipe	67,12	10,86	22,35	22,54	0,09		30,88	87
Saudi Arabia	37,95	13,54	4,15	0,01	31,27	65,88	31,98	82

## Assessing Human Insecurity Worldwide

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Senegal	63,63	40,4	47,63	23,97	25,74	29,5	48,32	52
Serbia	30,72	1,04	3,86	2,25	42,91	11,75	19,36	120
Seychelles	17,56	13,13	8,83	0	0,43	17,75	12,08	146
Sierra Leone	77,2	75,16	56,58	34,08	22,18	28,88	61,54	20
Singapore	10,47	4,17	0,21	0	6,27	39,5	12,68	143
Slovak Republic	13,72	0	2,04	0	12,55	6,5	7,28	159
Slovenia	8,37	0	0,88	0	0,02	8,67	3,75	172
Solomon Islands	64,04	27,4	31,93	24,5	0,07	29	37,03	73
Somalia	90	72,92	48,3	87	100		100	1
South Africa	33,85	11,46	21,65	12,05	31,26	39	31,24	85
Spain	10,99	0	1,51	0	18,75	19	10,52	150
Sri Lanka	44,12	47,85	7,27	18,57	70,41	84	56,97	32
St. Kitts and Nevis	26,1	25,25	5,15	1,25	0,28		14,57	136
St. Lucia	31,39	11,11	4,95	0	13,93		15,41	132
St. Vincent and the	32,64	7,07	5,73	0	18,55		16,07	129
Sudan	73,35	60,35	48,23	24,42	78,92	66	73,51	8
Suriname	36,53	13,92	11,19	10,41	12,59	13	20,43	118
Swaziland	44,18	21,91	59,04	23,11	25,04	50,25	46,78	56
Sweden	7,15	0	0,34	0	0	6,5	2,93	177
Switzerland	4,43	0	1,4	0	12,5	6,5	5,2	168
Syrian Arab Republic	53,77	9,38	10,54	19,46	31,86	69,82	40,77	67
Tajikistan	67,15	48,48	17,54	60,25	25,08	37,75	53,63	43
Tanzania	68,59	54,7	79,09	28,07	18,81	22,5	56,87	33
Thailand	38,38	22,98	8,74	51,24	37,52	47,25	43,14	63
Timor-Leste	61,21	69,7	49,75	24,25	62,91	21,88	60,63	25
Togo	78,6	60,89	45,94	34,49	27,73	30	58,11	29
Tonga	45,11		4,14	1	0,22	24	18,7	124
Trinidad and Tobago	18,65	12,78	14,26	3,5	12,67	18,07	16,73	127
Tunisia	31,2	3,13	9,15	5,25	25,16	54,05	26,77	105
Turkey	33,79	3,13	10,56	3,75	39,24	41,38	27,59	103
Turkmenistan	51,96	13,95	19,25	0	18,85	82,75	39,08	72
Uganda	67,65	32,42	77,32	33,17	72,49	43	68,23	14
Ukraine	39,49	0	4,73	3,84	25,34	34,63	22,61	113





Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
United Arab Emirates	20,67	13,54	4,63	0,75	12,54	22,25	15,57	131
United Kingdom	7,54	0	1,35	0,03	12,5	7,75	6,1	163
United States	2,65	1,04	1,79	12,71	25,01	19	13,02	141
Uruguay	21,18	4,17	4,57	0	0,04	4,17	7,14	161
Uzbekistan	57,06	15,78	9,64	4,04	25,16	61,35	36,21	74
Vanuatu	49,74	9,09	38,99	0	0		24,56	110
Venezuela, RB	31,56	13,76	8,75	0,03	31,4	48,67	28,08	100
Vietnam	54	31,41	10,1	13,35	20,92	78,09	43,5	62
West Bank and Gaza		14,71	14,32	0	100	63,44	48,34	51
Yemen, Rep.	65,41	76,67	25,03	22,32	39,54	54,5	59,33	26
Zambia	68,25	61,68	92,32	22,9	18,78	27,75	61,04	23
Zimbabwe	65	54,54	40,15	18,96	39,84	72	60,79	24



## 7. Annex 2: Countries Ranked

Country	Economic	Food	Health	Environ- ment	Pers - Comm	Political	Human (In)Security	Rank
Somalia	90	72,92	48,3	87	100		100	1
Eritrea	79,4	90,63	19,69	83,75	61,04	88,75	88,58	2
Afghanistan	84,25	79,17	51,71	41,05	100	54,63	85,97	3
Congo, Dem. Rep.	94,96	81,25	50,48	30,81	74,8	65,63	83,28	4
Burundi	83,29	89,58	75,09	24,95	66,52	40,5	79,51	5
Ethiopia	77,61	82,48	45,53	60,14	38,14	68,88	78,02	6
Liberia	91,22	63,92	100	26,03	50,45	19,88	73,56	7
Sudan	73,35	60,35	48,23	24,42	78,92	66	73,51	8
Central African Republic	79,51	70,08	45,42	25,8	82,6	39,25	71,71	9
Angola	60,95	75,19	87,43	26,87	40,47	49,75	71,29	10
Chad	71,59	74,37	52,99	36,22	51,17	50,63	70,52	11
Mozambique	75,11	59,82	95,24	41,72	25,02	35,25	69,51	12
Myanmar	82,59	48,96	23,33	23,81	53,28	97,19	68,88	13
Uganda	67,65	32,42	77,32	33,17	72,49	43	68,23	14
Niger	79,52	71,56	62,42	38,48	31,29	38,5	67,34	15
Kenya	66,26	49,59	71,37	36,57	37,64	45,63	64,26	16
Korea, Dem. Rep.	90	52,71	22	0	37,52	98,25	62,88	17
Bangladesh	70,82	71,62	25,49	22,42	37,57	71,35	62,63	18
Rwanda	68,64	60,8	63,99	28,35	30,69	45	62,25	19
Sierra Leone	77,2	75,16	56,58	34,08	22,18	28,88	61,54	20
Comoros	75,26	75	42,62	40	25,11	35	61,32	21
Djibouti	60,98	58,96	50,95	60,25	25,78	35,75	61,25	22
Zambia	68,25	61,68	92,32	22,9	18,78	27,75	61,04	23
Zimbabwe	65	54,54	40,15	18,96	39,84	72	60,79	24
Timor-Leste	61,21	69,7	49,75	24,25	62,91	21,88	60,63	25
Yemen, Rep.	65,41	76,67	25,03	22,32	39,54	54,5	59,33	26
Iraq	61,82	14,58	18,54	11,77	100	74,69	58,89	27
Guinea	76,51	40,69	45,62	27,88	38,11	50,75	58,5	28
Togo	78,6	60,89	45,94	34,49	27,73	30	58,11	29
Malawi	75,82	47,6	87,82	16,35	19,1	27,5	57,38	30
Côte d'Ivoire	71,69	31,41	45,34	23,76	58,74	43,25	57,38	31
Sri Lanka	44,12	47,85	7,27	18,57	70,41	84	56,97	32
Tanzania	68,59	54,7	79,09	28,07	18,81	22,5	56,87	33



Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Lao PDR	66,29	54,17	33,96	31,91	19,64	65	56,71	34
Haiti	71,35	71,88	28,61	38,75	33,36	22,57	55,78	35
Cambodia	66,93	60,2	25,94	26,75	31,98	52,75	55,36	36
Nepal	75,24	58,46	21,69	23,53	33,38	51,63	55,23	37
Madagascar	74,28	77,56	32,77	43,11	12,51	20,5	54,56	38
India	59,08	65,56	13,39	24,25	37,51	60	54,37	39
Guinea-Bissau	92,25	48,55	63,23	30,34	6,75	18,17	54,26	40
Pakistan	61,66	38,42	28,12	13,61	37,64	77,44	53,76	41
Nigeria	59,11	35,73	45,54	30,75	31,34	53,88	53,65	42
Tajikistan	67,15	48,48	17,54	60,25	25,08	37,75	53,63	43
Gambia, The	71,64	47,57	58,48	15,62	25,77	36,38	53,46	44
Benin	66,9	39,58	48,02	31,79	12,53	55	53,12	45
Burkina Faso	71,73	45,08	63,22	28,88	25,03	16,5	52,41	46
Cameroon	61,53	39,46	38,84	20,14	25,46	53,45	49,99	47
Azerbaijan	45,42	18,97	23,49	10,5	73,52	66,82	49,96	48
Lesotho	72,9	32,42	56,46	22,09	25,01	24,75	48,89	49
Philippines	54,13	41,76	8,47	32,73	37,88	57,5	48,65	50
West Bank and Gaza		14,71	14,32	0	100	63,44	48,34	51
Senegal	63,63	40,4	47,63	23,97	25,74	29,5	48,32	52
China	49,04	12,82	8,34	39,93	31,32	87,75	47,96	53
Mauritania	64,5	37,85	39,41	29	25,27	31,94	47,71	54
Colombia	40,89	13,83	8,56	15,95	83,16	62,75	47,12	55
Swaziland	44,18	21,91	59,04	23,11	25,04	50,25	46,78	56
Mali	65,38	40,88	60,76	23,81	12,74	18,75	46,53	57
Congo, Rep.	60,67	33,24	45,92	27,3	22,64	30,38	46,07	58
Antigua and Barbuda	19,77	51,52	6,53	100	0,34		44,74	59
Equatorial Guinea	21,38	37,5	38,32	26,5	25,42	64,63	44,73	60
Bhutan	57,81	37,5	22,05	16,75	50	27,75	44,34	61
Vietnam	54	31,41	10,1	13,35	20,92	78,09	43,5	62
Thailand	38,38	22,98	8,74	51,24	37,52	47,25	43,14	63
Ghana	57,43	24,27	51,5	28,22	18,92	18,75	41,66	64
Honduras	54,81	20,01	10,6	24,38	25,14	61,5	41,11	65
Namibia	43,07	40,63	59,55	22,07	12,83	17,75	41	66
Syrian Arab Republic	53,77	9,38	10,54	19,46	31,86	69,82	40,77	67

## Assessing Human Insecurity Worldwide

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Indonesia	50,48	42,77	13,73	17,58	25,05	43,5	40,42	68
Belize	37,6	5,21	11,87	92,61	12,56		40,14	69
Iran, Islamic Rep.	40,31	10,42	15,13	0,19	38,17	85,17	39,63	70
Mongolia	54,15	31,98	33,36	19,8	19,33	30,42	39,56	71
Turkmenistan	51,96	13,95	19,25	0	18,85	82,75	39,08	72
Solomon Islands	64,04	27,4	31,93	24,5	0,07	29	37,03	73
Uzbekistan	57,06	15,78	9,64	4,04	25,16	61,35	36,21	74
Bolivia	52,17	26,99	23,09	17,96	18,8	29,1	35,18	75
Guatemala	55,96	36,55	12,71	9,02	32,19	21,32	35,11	76
Egypt, Arab Rep.	51,64	5,21	11,23	9	31,31	55,13	34,22	77
Guyana	50,73	14,99	19,89	42,7	13,16	19,88	33,77	78
Morocco	57,13	9,38	15,64	11,42	25,08	41,13	33,43	79
Georgia	51,04	11,65	6,48	2	59,45		32,8	80
Brazil	31,15	7,7	10,25	10,84	37,51	27	20,74	81
Saudi Arabia	37,95	13,54	4,15	0,01	31,27	65,88	31,98	82
Maldives	46,72	34,75	12,19	14,5	12,53	31,63	31,88	83
Cuba	25	3,13	1,64	15,45	25,42	79,17	31,35	84
South Africa	33,85	11,46	21,65	12,05	31,26	39	31,24	85
Russian Federation	34,41	2,08	4,97	4,01	38,68	63,75	30,95	86
São Tomé and Príncipe	67,12	10,86	22,35	22,54	0,09		30,88	87
Paraguay	51,21	11,71	10,6	16,75	25,01	30,25	30,46	88
Algeria	47,9	3,13	11,59	5,75	31,45	45,67	30,44	89
Lebanon	38,87	3,13	8,86	0	62,15	32	30,34	90
Kyrgyz Republic	58,9	2,08	13,22	4,72	25,29	38,5	29,87	91
Gabon	25,68	11,46	42,62	19,25	25,05	18,38	29,81	92
Armenia	45,24	21,81	8,23	2,75	22,37	41,38	29,67	93
El Salvador	49,22	16,95	9,47	7,62	27	31,4	29,65	94
Dominican Republic	45,48	22,85	11,91	7,01	25,03	29	29,57	95
Botswana	30,07	36,24	35,93	14,25	12,52	12	29,51	96
Ecuador	44,05	20,96	8,78	11,02	25,06	27,75	28,8	97
Nicaragua	59,35	25,95	10,51	19,03	6,52	16,25	28,8	98
Mexico	35,28	4,17	7,52	7,34	25,11	58,07	28,77	99
Venezuela, RB	31,56	13,76	8,75	0,03	31,4	48,67	28,08	100
Libya	30,3	4,17	8,47	0	25,24	65,75	28,03	101







60

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
Fiji	50,01	0	4,14	20,5	19,99	38	27,76	102
Turkey	33,79	3,13	10,56	3,75	39,24	41,38	27,59	103
Jordan	47,67	3,13	5,71	4,25	25,24	43	27	104
Tunisia	31,2	3,13	9,15	5,25	25,16	54,05	26,77	105
Cape Verde	53,53	25,25	17,35	0	12,55	18	26,51	106
Kiribati	42,59	15,03	18,82	25,72	0,4		25,76	107
Kazakhstan	35,17	3,13	10,83	1,99	18,96	52,67	25,69	108
Moldova	57,72	3,13	5,31	8,01	19,5	25,69	24,98	109
Vanuatu	49,74	9,09	38,99	0	0		24,56	110
Peru	42,97	16,79	12,34	15,4	6,46	23,13	24,5	111
Belarus	34,44	0	2,13	1,75	19,1	59,17	24,4	112
Ukraine	39,49	0	4,73	3,84	25,34	34,63	22,61	113
Malaysia	28,12	7,29	6,74	1,84	18,77	44,75	22,5	114
Jamaica	41,45	5,65	7,42	6,4	25,2	17,44	21,67	115
Montenegro	30,45	4,17	6,86		27,54	15	21,1	116
Bosnia and Herzegov.	41,64	1,04	3,07	1,5	39,42	14	21,07	117
Suriname	36,53	13,92	11,19	10,41	12,59	13	20,43	118
Mauritius	29,69	18,12	6,29	1,5	12,54	29	20,33	119
Serbia	30,72	1,04	3,86	2,25	42,91	11,75	19,36	120
Romania	26,72	2,08	9,49	10,13	18,9	24,5	19,22	121
Albania	40,16	7,29	7,31	2,3	21,38	13	19,14	122
Grenada	31,35	39,39	4,85	0	0		18,98	123
Tonga	45,11		4,14	1	0,22	24	18,7	124
Bahrain	24,3	16,67	5,77	0	12,57	25,59	17,77	125
Panama	35,23	21,94	6	10,57	0,05	10,92	17,73	126
Trinidad and Tobago	18,65	12,78	14,26	3,5	12,67	18,07	16,73	127
Greece	11,05	0	1,42	0,6	18,76	47,5	16,6	128
St. Vincent and the	32,64	7,07	5,73	0	18,55		16,07	129
Macedonia, FYR	32,33	2,08	3,05	2,75	21,24	14,13	15,82	130
United Arab Emirates	20,67	13,54	4,63	0,75	12,54	22,25	15,57	131
St. Lucia	31,39	11,11	4,95	0	13,93		15,41	132
Kuwait	25,41	9,38	3,01	0	12,7	21,32	15,03	133
Argentina	30,38	3,13	4,66	3,85	12,52	17,04	14,98	134
Bulgaria	26,91	0	7,02	0,5	19,03	16,25	14,59	135

## Assessing Human Insecurity Worldwide

Country	Economic	Food	Health	Environment	Pers - Comm	Political	Human (In)Security	Rank
St. Kitts and Nevis	26,1	25,25	5,15	1,25	0,28		14,57	136
Bahamas, The	13,17	7,07	12,76	5,49	18,82		14,39	137
Samoa	43,84	0	9,76	3	0,01		14,22	138
Costa Rica	28,26	4,17	3,42	15,77	0,06	12,55	13,44	139
Oman	25,32		6,52	0	0,01	21,34	13,36	140
United States	2,65	1,04	1,79	12,71	25,01	19	13,02	141
Latvia	23,72	0	3,76	5,75	6,42	21,5	12,8	142
Singapore	10,47	4,17	0,21	0	6,27	39,5	12,68	143
Qatar	0	10,42	4,71	0	12,54	32,75	12,64	144
Israel	12,6	0	0,99	0	0,4	44,42	12,22	145
Seychelles	17,56	13,13	8,83	0	0,43	17,75	12,08	146
Korea, Rep.	16,5	0	1,05	0	12,52	24,5	11,42	147
Estonia	17,05	0	3,62	1,25	12,63	16	10,58	148
Chile	25,32	0	2,76	5,38	6,29	10,75	10,57	149
Spain	10,99	0	1,51	0	18,75	19	10,52	150
Barbados	20,32	0	5,86	0,25	12,64		9,81	151
Dominica	32,85	0	5,11	0	1,03		9,79	152
Portugal	17,31	0	1,68	0,5	12,5	14	9,63	153
Poland	20,99	0	2,1	0,02	12,54	9,5	9,45	154
Hungary	14,92	0	2,53	0,01	12,69	12,75	8,98	155
Croatia	17,91	0	1,84	0,5	13,18	9,25	8,93	156
France	8,82	0	0,85	0,02	12,5	17,67	8,34	157
Italy	11,02	0	1,89	0	12,5	14,21	8,29	158
Slovak Republic	13,72	0	2,04	0	12,55	6,5	7,28	159
Cyprus	11,5	0	1,94	0	12,51	8,75	7,26	160
Uruguay	21,18	4,17	4,57	0	0,04	4,17	7,14	161
Lithuania	17,7	0	2,07	0	0,09	12	6,67	162
United Kingdom	7,54	0	1,35	0,03	12,5	7,75	6,1	163
Czech Republic	9,83	0	0,68	0,25	6,33	12	6,09	164
Malta	15,97	0	0,66	0,01	6,26		5,75	165
Austria	5,93	0	1,16	0	12,5	6,75	5,51	166
Denmark	7,14	0	1,06	0	0	16,75	5,22	167
Switzerland	4,43	0	1,4	0	12,5	6,5	5,2	168
New Zealand	13,42	0	1,23	0	0	6,5	4,43	169





Country	Economic	Food	Health	Environ ment	Pers - Comm	Political	Human (In)Security	Rank
Canada	6,16	0	1,58	0,13	6,26	6,67	4,35	170
Ireland	4,55	0	1,45	0	6,25	6	3,82	171
Slovenia	8,37	0	0,88	0	0,02	8,67	3,75	172
Australia	7,12	0	1,23	0,28	0	8,13	3,51	173
Belgium	7,69	0	1,22	0	6,25	1,5	3,49	174
Germany	8,12	0	0,85	0	0	7,25	3,4	175
Finland	7,7	0	0,6	0	0	6	2,99	176
Sweden	7,15	0	0,34	0	0	6,5	2,93	177
Japan	8,88	0	0,26	0,11	0	3,25	2,62	178
Netherlands	5,54	0	1,28	0	0	4	2,26	179
Brunei Darussalam	1,33	0	4,56	0	0		1,48	180
Iceland	5,74	0	0,39	0	0,01	0,75	1,44	181
Luxembourg	0	0	1	0	0	1,5	0,52	182
Norway	0,07	0	0,68	0,01	0	0,75	0,32	183





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