

The Human Security Index: An Update and a New Release

David A. Hastings¹

¹HumanSecurityIndex.org
Email: roiet101@aol.com

ABSTRACT

Human Security Index Version 2.0 is hereby released. Version one was released in 2008. Since then an improved conceptual framework and development process have evolved. Version 2 encompasses over 230 countries. Human Security Indices have been prototyped for the USA and a developing country, to assess the feasibility of more community-level HSIs. Website <http://www.HumanSecurityIndex.org> has been established for presenting and discussing HSI-relevant issues. It will have more details on Version 2 after December 2010.

The HSI aims to characterize the security of an individual or group at home, in one's village, country, and the Earth. Is everyone treated well, not unduly deprived of education/knowledge and a healthy and peaceful life? The HSI aims to support existing and future developers of well-intentioned indicators which may be used by development analysts/strategists/implementers, by emphasizing outcomes rather than modalities.

The HSI is now conceptually framed in a trinity of economic, environmental, and social fabric. The Economic Fabric Index attempts to characterize financial resources, including protection from financial catastrophe, for everyone. The Environmental Fabric Index blends risk of environmental disasters, environmentally healthy living conditions, environmental sustainability and governance. The Social Fabric Index blends diversity, education and information empowerment, food security, governance, health, and peacefulness. All this is a work-in-progress, with additional input datasets being evolved.

Maps on each major component, and of the composite Human Security Index itself, indicate some situations which might initially be unexpected. They suggest that a HSI is a potentially valuable complement or replacement of traditional reportage, for deeper understanding of the situations of people and communities.

1. INTRODUCTION

Since 1990 the Human Development Index has facilitated the advancement of thinking beyond mere “economic growth” commonly reported as Gross Domestic Product, to something more comprehensive. The 1994 Human Development Report (UNDP, 1994) included an essay on the even more comprehensive concept of human security, fostering discussions on possible meanings and usefulness of such a concept (Bajpai, 2000; King and Murray, 2001; Pitsuwan, 2007; HRH Prince el Hassan bin Talal, 2008; United Nations, 2010) and on a possible measurement (Bajpai, 2000; Tadjbakhsh, 2008). Much discussion has been top-down, wrestling with concepts, design, and institutionalization.

Over the past decade I used 35+ years' experience (in the field & digital analysis lab, and on research & development teams) in indicator development to attempt a prototype. That effort appeared to be bottom-up in its approach: “What is available that could qualify for input to a Human Security Index?” However, I had been working on my own, unnamed, human development index since 1986 (four years prior to publication of the first UN HDI), and on concepts of characterizing development since 1972. This experience provided design

guidance behind the scenes of the outwardly bottom-up process. That, plus many discussions with UN and other colleagues, resulted in the HSI release of 2008 (Hastings, 2008, 2009).

2. EXAMPLES OF CONSIDERATIONS BLENDED INTO THE HSI SINCE V.1

2.1 Global context external to the project

2.1.1 *Corporate Social Responsibility: economic, environmental & social triple bottom line*

Elkington (e.g. 1998) coined the term the “triple bottom line”, in reference to corporate social responsibility. But what about the superset of institutional social responsibility, including corporations but also governmental, religious, educational, and social service institutions? The concept of sustainable development also often thinks around such terms.

2.1.2 *The “Sarkozy Report”*

In 2008, the President of France convened a Commission to “investigate the limits of GDP as an indicator of economic performance and social progress” and to assess possible alternative measurement tools. The resultant report (Stiglitz, *et.al*, 2009) seems like it may be aiming for something like a HSI (though perhaps with broader institutional strength than the current project). This may not be the first call for an internationally recognized replacement for GDP. But the result of that process has gained some attention. Will it be sustained?

2.2 Context internal to the project

One of the outcomes of the release of Global HSI Version 1 was a challenge to attempt a community-level Human Security Index for a country. This has now been done. A county level HSI for the USA is now in prototype. A provincial level HSI for a developing country is evolving. Results confirm that such efforts are feasible and timely – and can support research and policy-making. They show that HSI development is a two-step process – the evolution of a working database compendium on appropriate economic, environmental and social situations, and the use of such a database for analyses and models – including the HSI.

3. HSI VERSION 2 FORMULATION AND RESULTS

Data used, and their organization into Global HSI Version 2 are shown in Table 1. The Economic, Environmental and Social Fabric Indices are mapped in Figures 1-3. The HSI itself is mapped in Figure 4. Data used in Global HSI Version 2, and further documentation, should be posted on project Website HumanSecurityIndex.org by the end of 2010.

As can be seen from Table 1, HSI Version 2 is closer to UNDP's (1994) draft concept of human security than was Version 1 (Hastings, 2008, 2009) by adding food security, for example. A workshop, symposium, and numerous discussion sessions over the past two years have resulted in a design framework that better balances top-down conceptualizing and bottom-up compilation of ideas, data, and formulation approaches to the HSI. Over 30 datasets/indicators are used. Several sources have improved completeness, accessibility, documentation, and usefulness of their data. Each input dataset (and source) appears to have imperfections – as is expected with any such data. However, signal enhancement, in which several observations are combined so as to improve signal-to-noise, can lead to lessened impacts of individual dataset imperfections on the broad view of the HSI.

Table 1. Data and components of Global Human Security Index Version 2.

<i>Input data/indicator fields</i>	<i>{sources}</i> →	<i>Components</i> →	<i>Index</i>
Income resources in the pocket of typical people (derived from 2* below)		Economic Fabric Index	Human Security Index
*GDP Per capita at purchasing power parity	{IMF, WDI, CIA}		
*Income equality (Gini Coefficient)	{SWIID, WIID, WDI, CIA}		
Protection from financial catastrophe (derived from 3@ below)			
@Foreign exchange reserves (% of imports)	{WDI, IMF, CIA}		
@External debt % of GDP	{WDI, CIA}		
@Current account balance % of GDP	{IMF, WDI, CIA}		
<<Wish list: median income to replace GDP, an index of national account governance.>>			
Environmental Vulnerability Index	{SOPAC}	Environmental Fabric Index	
Environmental Performance Index	{Yale U & Columbia U}		
Greenhouse gas emissions per capita	{WRI}		
Population growth rate 2010-2050	{Census.gov, UN Pop.Div., SPC}		
Literacy rate	{UNESCO, WDI, CIA}	<i>Education & info empowerment</i> Social Fabric Index	
Connection Index (derived from 3# below)			
#Telephone fixed lines per capita	{ITU}		
#Mobile telephone accounts per capita	{ITU}		
#Internet users per capita	{ITU}		
Press Freedom Index	{Reporters Sans Frontieres}		
<<Wish list: Press Effectiveness Index>>			
Gender Gap Index	{WEF}	<i>Diversity</i> Social Fabric Index	
<<Wish list indices: race, ethnicity, religion, age, “disability” issues>>			
Global Peace Index	{VisionOfHumanity.org}	<i>Peacefulness</i> Social Fabric Index	
World Prison Population List/Brief	{Kings College London}		
Political Terror Scale	{PoliticalTerrorScale.org}		
% of people undernourished	{FAO, CGIAR-IFPRI}	<i>Food security</i> Social Fabric Index	
% of people below local poverty index	{WDI, CIA}		
Food imports compared to exports and GDP	{WDI}		
% of population food insecure {needing emergency aid}	{USDA}		
% of productive land per capita 2000+	{WDI}		
% change in productive land 2000+ / 1960+	{derived from WDI}		
Life expectancy at birth	{WHO, WDI, CIA}	<i>Health</i> Social Fabric Index	
% of LE that is unhealthy	{WHO}		
% of population using improved water source	{UNESCO, WDI}		
Health outcome equality	{Perle [Dundee] & Tang [Queensland]}		
Political stability, no violence	{WGI}	<i>Governance</i> Social Fabric Index	
Control of illegal corruption	{WGI}		
Legal corruption	{Kaufmann & Vicente WB}		

Figure 1 shows that countries with high economic fabric might not all be high GDP economies. Several countries which may have successfully dedicated focus on progress for all their people, rather than on negativity or benefits merely for special interests, may have higher Economic Fabric Index results than might some high GDP economies.

Perhaps no country combines efficient energy use, low greenhouse gas emissions, sustainable population pressures, low vulnerability to natural hazards, thorough delivery of healthy water-air-sanitation, policies and programmes making good progress toward environmental safety and sustainability (Figure 2).

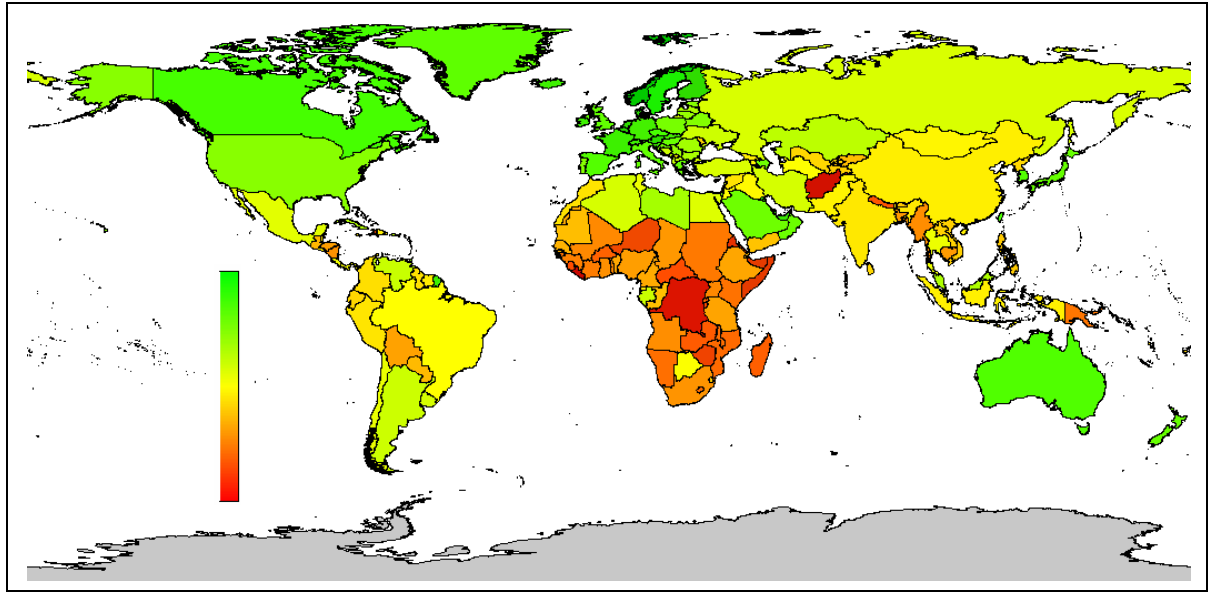


Figure 1. Global Human Security Index Version 2: Economic Fabric Index.

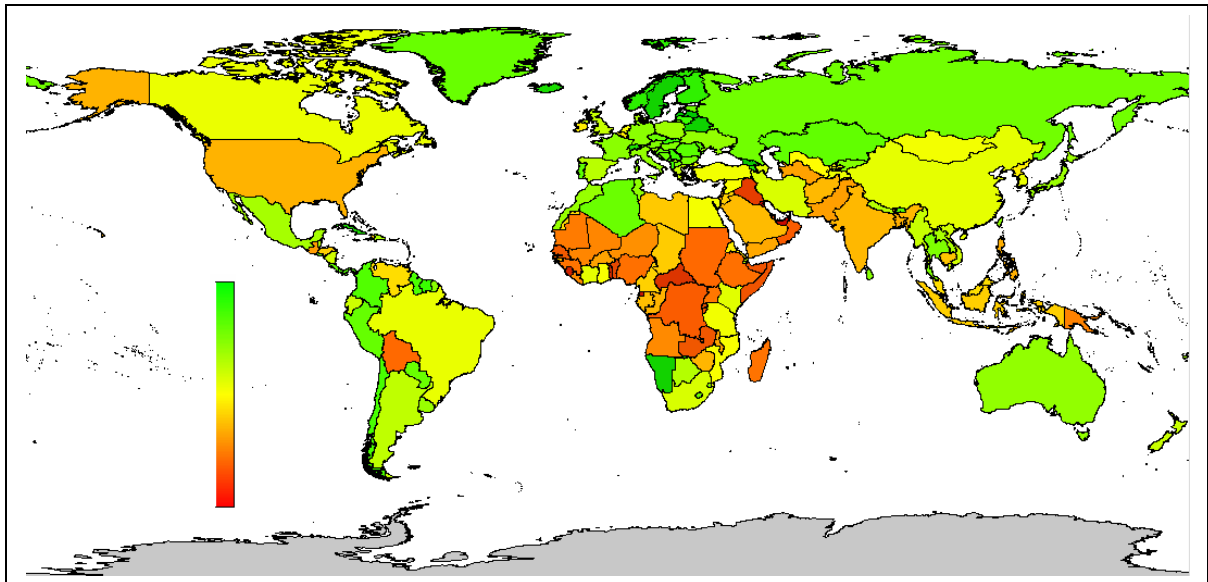


Figure 2. Global Human Security Index Version 2: Environmental Fabric Index.

Figure 3 shows a Social Fabric Index that has been substantially refined from V1. As with the other two fabric indices, arguably no single country excels in all covered arenas.

Figure 4 shows the blending of the Economic, Environmental and Social Fabric Indices into the HSI. The USA is in the mid ranges, with high GDP countered by low delivery of income and healthcare equality, low results on some sustainability issues, high “legal corruption” and world-leading incarceration rates.

More documentation for Global HSI Version 2 should appear on <http://www.HumanSecurityIndex.org> about the end of 2010. Information about the HSI USA should also appear, separately, within the next few months. Additional components for each component index are in conceptual design and development.

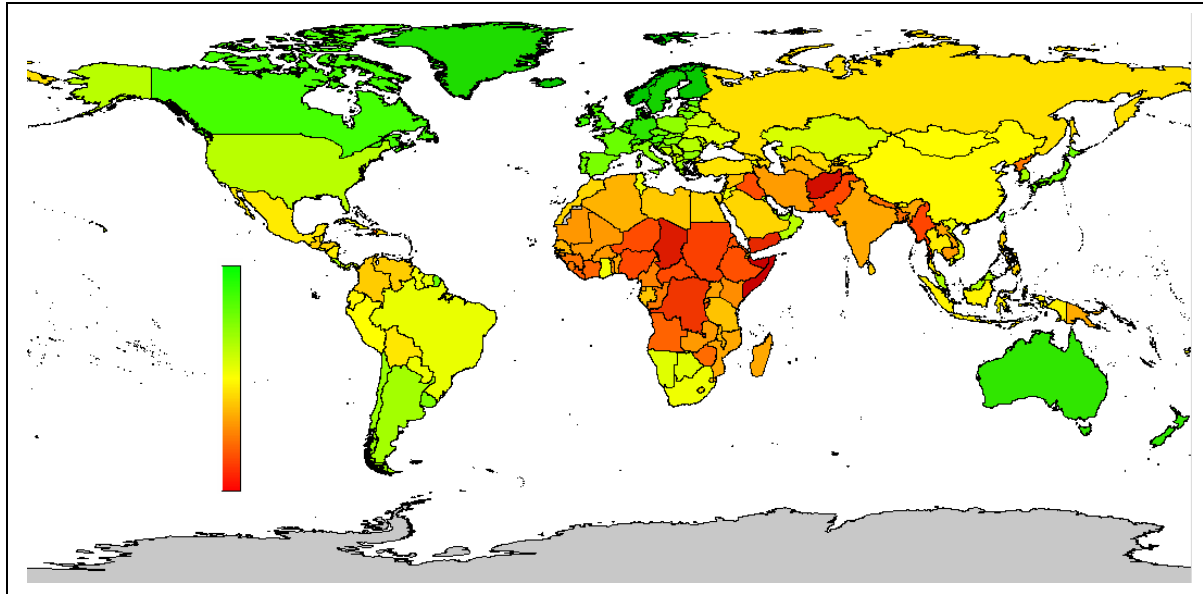


Figure 3. Global Human Security Index Version 2: Social Fabric Index.

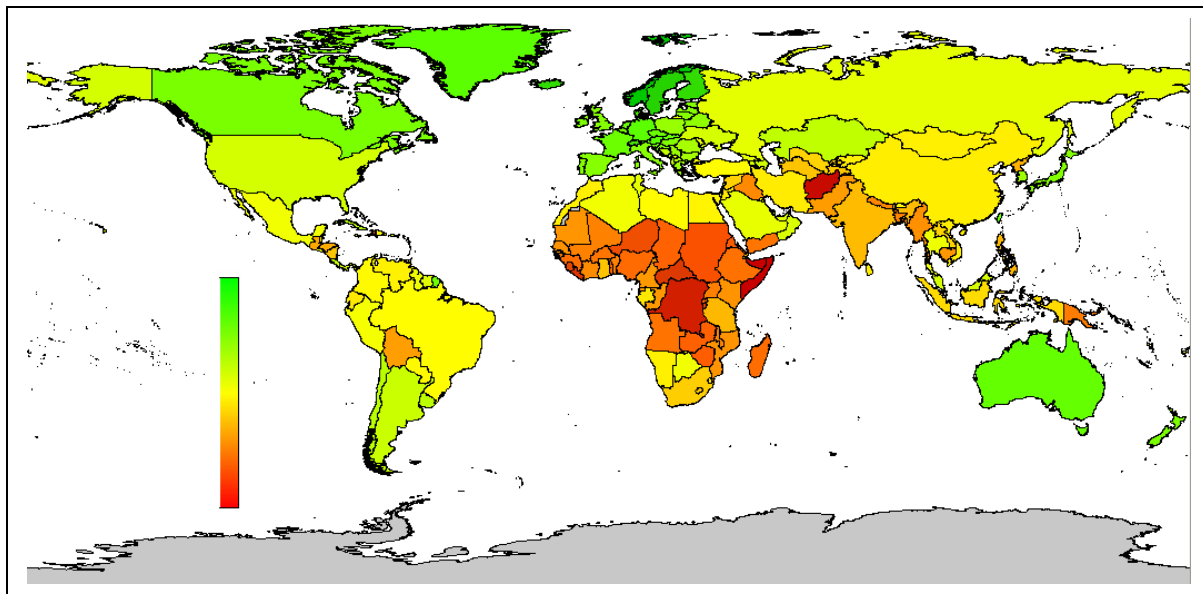


Figure 4. Global Human Security Index Version 2: Composite HSI.

4. SUMMARY AND TECHNICAL NOTES

Global HSI Version 2 is the result of considerable collaboration and peer review of philosophy, conceptual design, and fabrication. Indeed, the HSI is now viewed as one of several possible outputs of a (yet unnamed) database project. For example, would a full implementation of recommendations of Stiglitz *et al* (2009) lead to an enhanced version of such a database? Should it be called the “Humanospheric Ecosystems Database” for researchers - or the “Multiple Bottom Line Decision Support System” for others? Suggestions for a better name are welcome.

Although further improvements are planned, the Global HSI may be at least as ready to use as some software versions may have been when commercially released. The process

supports the hypothesis that one can best conceptualize and produce a Human Security Index from the playing field doing the work – while continuing to redesign and rebuild the effort.

Technically, the Global HSI is managed completely in open-source software. Tabular data are managed in OpenOffice.org, which interfaces well with .dbf attribute handling in GRASS-GIS Version 6.4 for Windows, which was evaluated by this project. The author began using GRASS under UNIX in 1987, and under Linux since 1994, so using the Windows version is interesting. GRASS has certainly progressed in its vector capabilities. I continue to appreciate the openness of GRASS, which lets me work directly on many files, using external tools or GRASS itself. Migration back to the Linux version of GRASS is planned, however – as is migration to a more robust database management system.

6. REFERENCES

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