



## Methodology

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We collected data for the following factors: (i) food dependency , (ii) vulnerability to natural disasters, and (iii) government effectiveness. We subsequently ranked these countries (using percentilised scores) on the basis of how they score relative to one another and combined the results into an aggregated ‘humanitarian catastrophe monitor’.

For food dependency we use data from the UN Food and Agriculture Organization for 2011. Food dependency is defined as the share of food consumption expenditure in total consumption expenditure.<sup>1</sup> We ranked the countries with a score of 1 indicating the highest level of food dependency and a score of 0 the lowest.

For vulnerability to natural disasters we use data from the *International Disaster Database* of the Belgian *Université Catholique de Louvain*.<sup>2</sup> We calculated the percentage of the population killed, injured, or homeless as a result of natural disasters over the 2000-2009 period. Our analysis includes the following natural disasters: drought, earthquake, epidemic, extreme temperature, flood, insect infestation, mass movement dry, mass movement wet, storm, volcano, and wildfire. We subsequently ranked countries with 1 indicating the highest vulnerability to natural disasters and 0 the lowest.

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1 “SS Website ESS : Statistics home”, November 8, 2011, <http://www.fao.org/economic/ess/ess-home/en/>. For the definition, see Sibrian Ricardo, Seevalingum Ramasawmy, and Jorge Mernies, *Measuring Hunger at Subnational Levels from Household Surveys Using the FAO Approach*, Statistics Division Working Paper (Food and Agriculture Organization of the United Nations, March 2008).

2 EM-DAT, The International Disaster Database, “Disaster Database EM-DAT”, n.d., <http://www.emdat.be/database>.



Government effectiveness is based on the World Bank's 'Government Effectiveness'-index 2010.<sup>3</sup> This index ranks on a scale from -2.5 (low) to + 2.5 (high) how citizens rate the "quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies."<sup>4</sup>

The overall risk score is the average score of the three component risk scores (in essence, the sum total of the component risk scores divided by three).

<u>Indicator</u>	<u>Definition</u>	<u>Source</u>	<u>Year</u>
Food Dependency	The share of food consumption expenditure in total consumption expenditure	UN Food and Agriculture Organization statistics	2011
Vulnerability to Natural Disasters	Percentage of population killed, injured, or homeless as a result of natural disasters (drought, earthquake, epidemic, extreme temperature, flood, insect infestation, mass movement dry, mass movement wet, storm, volcano, and wildfire)	EM-DAT: <i>The OFDA/CRED International Disaster Database</i> of the Belgian Université Catholique de Louvain	2000-2009

<sup>3</sup> The World Bank, "World Governance Indicators - Spread Sheet - Government Effectiveness", 2011, <http://info.worldbank.org/governance/wgi/index.asp>.

<sup>4</sup> Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. "The Worldwide Governance Indicators: Methodology and Analytical Issues - World Bank Policy Research Working Paper No. 5430", SSRN eLibrary (September 2010). [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1682130](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130), 4.



<p>Government Effectiveness</p>	<p><i>“Citizens’ rating of the quality and independence from political pressure of public services and civil servants, the quality of the making and implementation of policy, and the government’s commitment to policies”</i></p>	<p>World Bank’s ‘Government Effectiveness’-index</p>	<p>2010</p>
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