

CRED CRUNCH



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“Disaster Data: A Balanced Perspective”

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Natural Disasters¹ in Countries with Very High Human Development

Merely halfway through the year 2011, disaster figures continue to show the tremendous impacts that natural disasters have on human societies. The end of 2010 and the first months of 2011 were particularly marked by extreme events in several developed countries.

The Tōhoku earthquake and tsunami that struck Japan on March 11th, 2011 caused over 28,000 deaths and had the highest earthquake mortality in Japan since 1923, only followed by the Kobe earthquake of 1995. The Kobe earthquake killed nearly 5,300 people and caused the largest economic losses, until 2011. Floods in Australia in December 2010 and January 2011 caused the highest damages (5.1 billion US\$) in the country since 1981, when droughts cost 14.4 billion US\$. The Christchurch earthquakes in 2010 and 2011 were among the most destructive disasters that New Zealand has ever experienced and multiple tornados in the United States in the spring of 2011 were the most severe in decades.

Data shows that natural disasters in Very High Human Development Countries (VHDC)⁴ have claimed more than 127,500 lives since 1990, affected over 59 million others and caused more than 1,543 billion US\$ of damages.

The majority of deaths over the last decade in VHDC were due to the 2003 heat wave in Europe, which killed over 72,000 people, and the Tōhoku earthquake and tsunami in Japan. These contributed to mortality figures for 2001-2011² that are more than 8 times bigger than those seen during 1990-2000. Damages caused by disasters in VHDC during 2001-2011 increased by 52% compared to the 1990-2000 period.

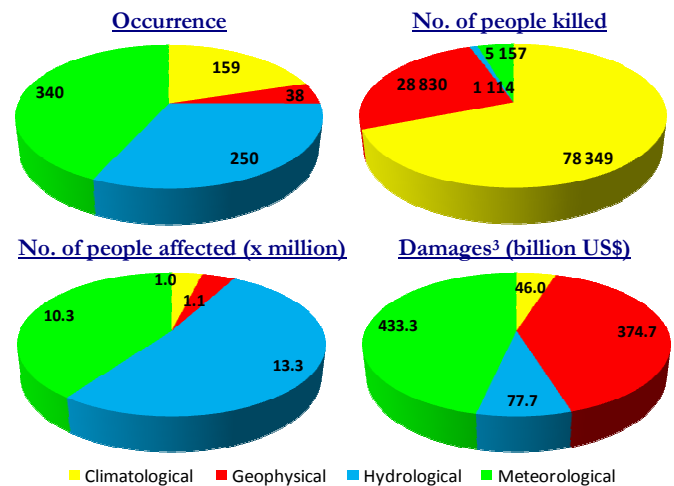
This issue of the CRED CRUNCH focuses on natural disaster impacts in the highly developed countries. Based on scientifically-sound disaster statistics and studies, greater insight can be gained on the vulnerabilities of populations in VHDC to natural disasters, which in turn can be used to reduce and prevent future losses worldwide.

Debarati Guha-Sapir
Director, CRED

Natural disasters¹ in VHDC: summary

	1990-2000	2001-2011 ²
No. of country-level disasters	806	787
No. of countries affected	34	34
No. of people killed	14,076	113,450
No. of people affected	33,485,760	25,618,177
Economic damages (US\$) ³	611.7 billion	931.7 billion

Distribution of natural disaster¹ impact in VHDC by subgroup: 2001-2011²

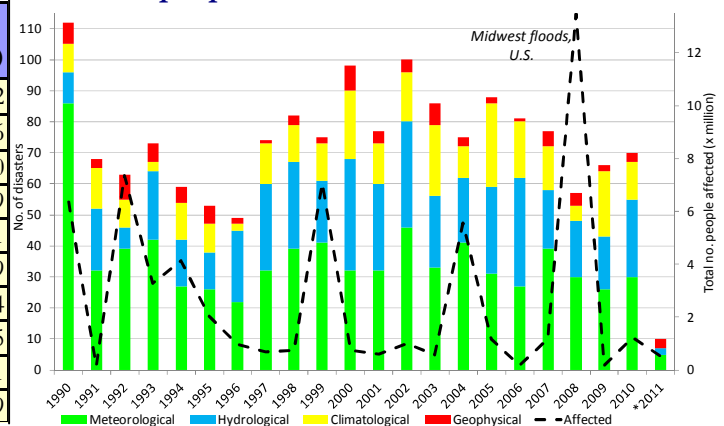


Natural disaster¹ impact in VHDC: 2001-2011²

Top 10 countries by disaster occurrence

Country	No. disasters	No. killed	No. affected	Damages ³ (billion US\$)
United States	228	4,514	20,792,250	386.2
Australia	65	615	314,418	18.6
Japan	62	29,046	1,570,365	382.0
France	42	21,082	559,596	17.9
Canada	34	31	18,403	2.1
Germany	33	9,505	332,324	29.9
Italy	32	20,508	83,248	13.4
Korea Rep	26	580	558,195	12.5
United Kingdom	26	370	387,126	12.1
Greece	26	108	17,003	2.9

Natural disaster¹ occurrence by subgroup and no. of people affected in VHDC: 1990-2011²



1. The CRED CRUNCH newsletter does not include epidemics and insect infestations as natural disasters unless explicitly stated.

2. 2011 January-May provisional data.

3. In 2010 US\$ value.

4. The UNDP Human Development Index ranks 42 countries as VHDC. See <http://hdrstats.undp.org/en/indicators/49806.html>.

All figures presented in the CRED CRUNCH come from "EM-DAT: The OFDA/CRED International Disaster Database"

Top 10 natural disasters¹ in Japan: 2001-2011²

By number of deaths			By economic damages		
Event	Date	No. killed	Event	Date	Damages ³ (billion US\$)
Earthquake & tsunami	Mar 2011	28,050	Earthquake & tsunami	Mar 2011	305.6
Heat wave	Jul 2010	170	Earthquake	Oct 2004	32.3
Storm	Dec 2005-Jan 2006	100	Earthquake	Jul 2007	13.1
Typhoon 'Tokage'	Oct 2004	89	Typhoon 'Songda'	Sep 2004	10.4
Storm	Dec 2004-Jan 2005	88	Typhoon 'Shanshan'	Sep 2006	2.7
Heat wave	Aug 2007	62	Typhoon 'Tokage'	Oct 2004	2.7
Typhoon 'Songda'	Sep 2004	41	Typhoon 'Chaba'	Aug 2004	2.3
Earthquake	Oct 2004	40	Flash flood	Jul 2004	2.2
Flood	Jun-Jul 2006	34	Typhoon 'Nabi'	Sep 2005	1.1
Typhoon 'Nabi'	Sep 2005	32	Typhoon 'Fitow'	Aug-Sep 2007	1.1

Top 10 natural disasters¹ in Australia: 2001-2011²

By number of deaths			By economic damages		
Event	Date	No. killed	Event	Date	Damages ³ (billion US\$)
Heat wave	Jan-Feb 2009	347	Flood	Dec 2010-Jan 2011	5.1
Wildfire	Feb 2009	180	Drought	Apr-Nov 2002	2.4
Flood	Dec 2010-Jan 2011	16	Storm	Mar 2010	1.4
Wildfire	Jan 2005	16	Flash flood	Jun 2007	1.4
Flash flood	Jun 2007	9	Storm	Mar 2010	1.3
Flood	Jan-Feb 2009	7	Wildfire	Feb 2009	1.3
Wildfire	Jan-Feb 2003	4	Tropical cyclone 'Larry'	Mar-Apr 2006	1.3
Flood	Nov 2008	4	Flood	Feb 2008	1.1
Flood	Mar 2001	3	Flood	Jan 2008	0.6
Flood	Jun-Jul 2005	3	Storm	Nov 2008	0.5

Top 10 natural disasters¹ in the United States: 2001-2011²

By number of deaths			By economic damages		
Event	Date	No. killed	Event	Date	Damages ³ (billion US\$)
Hurricane 'Katrina'	Aug-Sep 2005	1,833	Hurricane 'Katrina'	Aug-Sep 2005	139.5
Storm	Apr 2011	354	Hurricane 'Ike'	Sep 2008	30.4
Heat wave	Jul-Aug 2006	164	Hurricane 'Ivan'	Sep 2004	20.8
Storm	May 2011	123	Hurricane 'Charley'	Aug 2004	18.5
Hurricane 'Ike'	Sep 2008	82	Hurricane 'Rita'	Sep-Oct 2005	17.9
Storm	Jan 2007	65	Hurricane 'Wilma'	Oct 2005	16.0
Storm	Feb 2008	59	Hurricane 'Frances'	Sep 2004	12.7
Cold wave	Jan 2009	58	Flood	Jun 2008	10.1
Heat wave	Aug 2001	56	Hurricane 'Jeanne'	Sep 2004	9.2
Storm	Jan 2004	56	Hurricane 'Allison'	Jun 2001	7.4

CRED News

- CRED is pleased to present the Fifth Edition of the "Annual Disaster Statistical Review 2010: The numbers and trends". In the 5th edition, disaster figures for 2010 are analyzed and compared with previous years. The complete report can be downloaded at: http://www.cred.be/sites/default/files/ADSR_2010.pdf
- On June 9th and 10th, 2011, The CE-DAT team organized in Brussels a workshop entitled "Data from Conflict-Affected Regions: Filling-in the Blanks". Participants from international organizations, donor governments, academia and NGO's discussed collection methods and analyses of data on demographics, health, food security and violent events.
- CRED is happy to announce the publication of a new article in *Natural Hazards*: "Guha-Sapir D., Rodriguez-Llanes J.M., Jakubicka T. Using disaster footprints, population databases and GIS to overcome persistent problems for human impact assessment in flood events" {published on line 15 March 2011}.

Please note that disaster data are subject to change as validation and cross-referencing of the sources is undertaken and as new information becomes available. For any enquiries please contact contact@emdat.be or visit www.emdat.be