
Global Climate Risk Index (CRI) 2009 – how extreme weather events affect countries

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Rationale and limitations

- 4th edition issued, based on data from Munich Re NatCatSERVICE®, *International Monetary Fund (socio-economic data)*
- Extreme weather events - storms, floods, others (droughts etc.) - play an important role in the public discussion about climate change and, at least in the short term, raise attention on this issue
- a single weather event never can be traced to climate change for statistical reasons, long timescale analysis needed
- absolute figures (damages, deaths) have a limited significance regarding the actual impact of these events for a country
- it serves as a complementary tool of analysis, indicating a certain level of countries' vulnerability
- important indicators – affected people (not casualties) – do not exist with sufficient reliability, they are not included

Objectives of the Climate Risk Index (CRI)

- periodical sensitisation (annually) of the (interested) public for:
- how vulnerable are the different countries to climate change impacts?
- which trends can be identified for certain countries?
- raise attention for the trends in number and intensity of extreme weather events on the one hand
- present options to reduce vulnerability to weather extremes on the other hand
- promote discussion about options to be taken

Annual Climate Risk Index for 2007

Rankings in indicators

Average ranking*

Ranking 2007 (2006)	Country	CRI Score	Rank death toll	Rank deaths per 100,000 inhabitants	Rank absolute losses	Rank los- ses per unit GDP	Human Develop- ment Index (2005)
1 (20)	Bangladesh	3,00	1	1	3	6	140
2 (2)	Korea, DPR	10,33	5	5	19	14	x
3 (120)	Nicaragua	12,25	17	6	21	9	110
3 (116)	Oman	12,25	34	7	6	3	58
5 (11)	Pakistan	13,17	4	16	9	20	136
6 (17)	Bolivia	13,42	15	10	17	13	117
7 (52)	Papua New Guinea	15,75	11	4	40	16	145
8 (4)	Viet Nam	16,25	8	23	13	19	105
9 (79)	Greece	17,50	20	14	12	21	24
10 (58)	Tajikistan	17,83	42	18	15	1	122

*weighting: death toll ¼, deaths per inhabitants ¼, absolute losses 1/6, losses per GDP 2/6

Annual Climate Risk Index for 2007 (II)

Results in indicators

Ranking 2007 (2006)	Country	CRI Score	Death toll	Deaths per 100,000 inhabitants	Absolute losses (in US\$ PPP)	Losses per unit GDP	Human Development Index (2005)
1 (20)	Bangladesh	3,00	4729	2,98	10774	5,17	140
2 (2)	Korea DPR	10,33	554	2,33	623	1,49	x
3 (120)	Nicaragua	12,25	111	1,98	509	3,20	110
3 (116)	Oman	12,25	49	1,89	4269	6,92	58
5 (11)	Pakistan	13,17	928	0,57	2539	0,62	136
6 (17)	Bolivia	13,42	131	1,38	646	1,61	117
7 (52)	Papua New Guinea	15,75	172	2,72	135	1,13	145
8 (4)	Viet Nam	16,25	346	0,40	1639	0,74	105
9 (79)	Greece	17,50	99	0,89	1789	0,55	24
10 (58)	Tajikistan	17,83	34	0,50	1235	10,44	122

Decadal Climate Risk Index for 1998-2007

Rankings in indicators

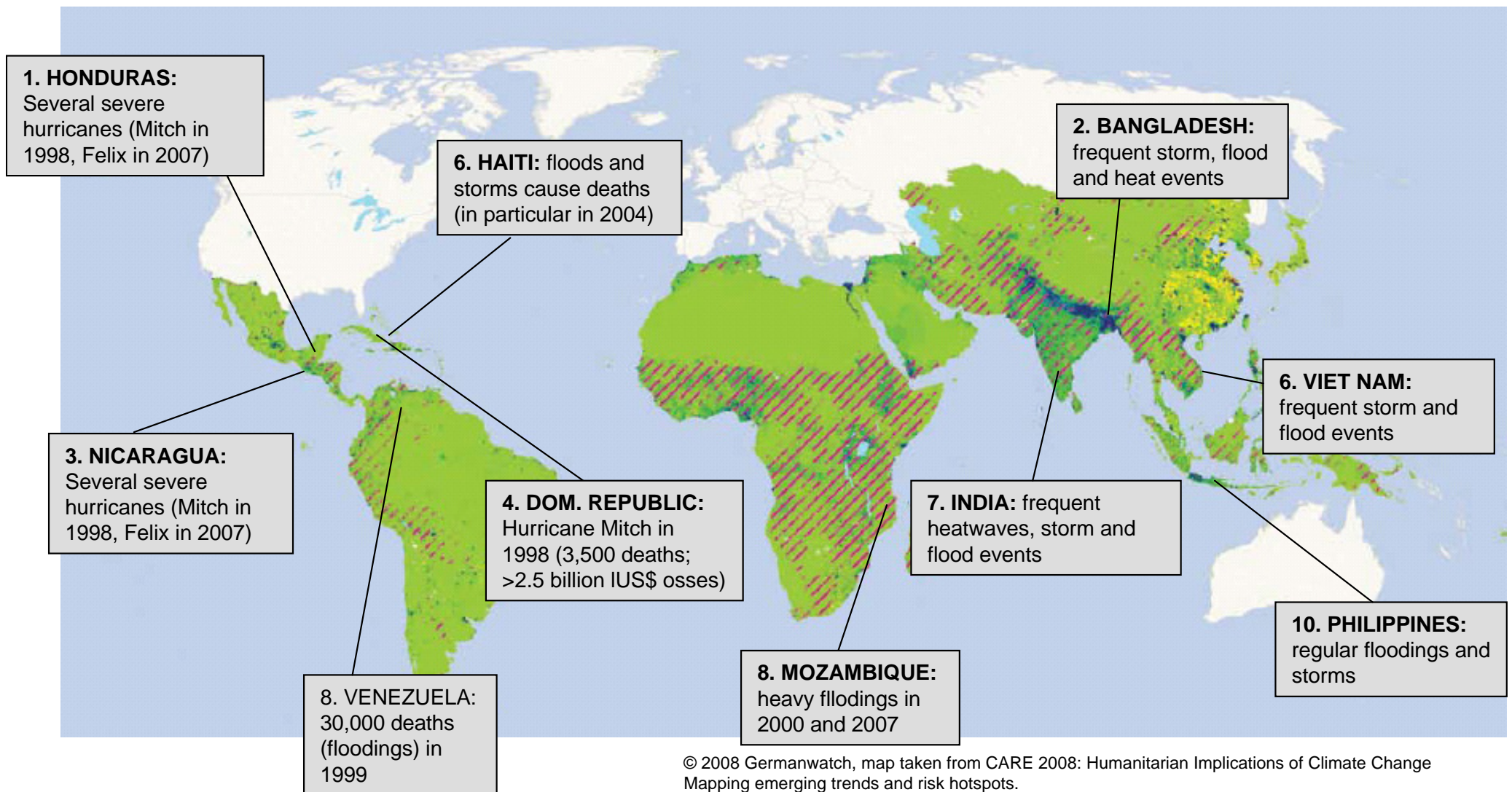
CRI 1998-2007	Country	CRI value	Rank death tolls	Rank deaths per 100,000 inhabitants	Rank total losses in PPP	Rank total losses per GDP
1	Honduras	6,75	7	2	15	6
2	Bangladesh	10,92	5	24	4	9
3	Nicaragua	11,67	16	4	26	7
4	Dominican Republic	14,83	11	7	28	17
5	Haiti	15,75	14	5	44	11
6	Viet Nam	18,33	13	35	10	14
7	India	18,83	1	39	3	25
8	Mozambique	24,75	26	27	45	12
8	Venezuela	24,75	2	1	30	57
10	Philippines	25,83	9	27	21	40

Decadal Climate Risk Index for 1998-2007

Results in indicators

CRI 1998-2007	Country	CRI score	Average death toll	Average deaths per 100,000 inhabitants	Average total losses (in million US\$ PPP)	Average losses per GDP in %
1	Honduras	6.75	579	8.50	1,166	5.15
2	Bangladesh	10.92	1,093	0.70	4,426	3.02
3	Nicaragua	11.67	308	5.70	528	4.30
4	Dominican Republic	14.83	414	5.00	503	0.98
5	Haiti	15.75	402	5.10	232	2.42
6	Viet Nam	18.33	406	0.50	2,152	1.47
7	India	18.83	4,532	0.40	12,047	0.62
8	Mozambique	24.75	121	0.60	228	1.98
8	Venezuela	24.75	3,012	11.9	433	0.18
10	Philippines	25.83	472	0.60	698	0.33

Map of Decadal Climate Risk Index 1998-2007



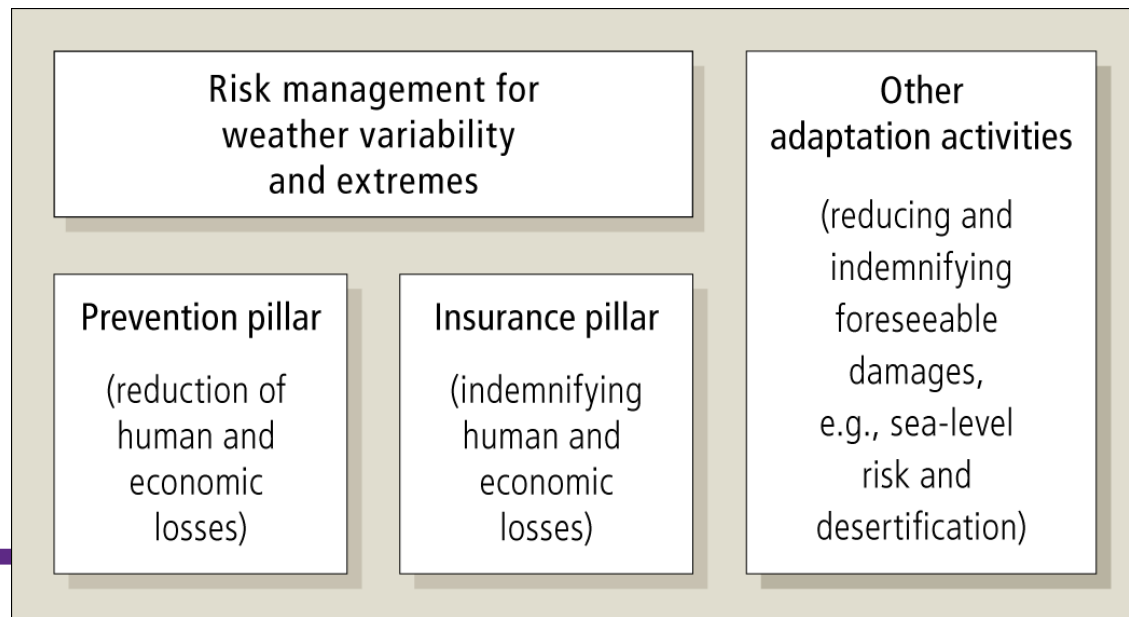
Results for Germany, Austria and Switzerland

Rank CRI 2007	Country	CRI score	Death toll	Deaths per 100,000 inhabitants	Losses (in million US\$ PPP)	Losses per GDP in %
31	Austria	40,00	18	0,22	533,73	0,17
32	Switzerland	40,25	19	0,25	438,91	0,15
41	Germany	49,08	28	0,03	4341,53	0,15

Rank CRI 1998-2007	Country	CRI score	Average death toll	Average deaths per 100,000 inhabitants	Average total losses (in million US\$ PPP)	Average losses per GDP in %
15	Germany	28,67	729	0,89	2904	0,12
18	Switzerland	30,00	115	1,60	551	0,23
34	Austria	49,33	18	0,23	590	0,23

Conclusions and political implications

- the Climate Risk Index serves as a complementary tool of analysis, indicating a certain level of countries' vulnerability
- poorer countries are much more affected, partly as a consequence of their socio-economic vulnerability
- significantly enhanced action - prevention and insurance - is needed and should be supported through a UNFCCC Copenhagen agreement
Poznan workshop under AWG-LCA on 4th december should be used to concretise options for action



Source: Munich Climate Insurance Initiative

DOWNLOAD:

www.germanwatch.org/cri

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