GLOBAL CLIMATE RISK INDEX 2009

WEATHER-RELATED LOSS EVENTS AND THEIR IMPACTS ON COUNTRIES IN 2007 AND IN A LONG-TERM COMPARISON

Sven Harmeling

GERMANWATCH

Summary

Extreme weather events are generally expected to increase in frequency and intensity due to global climate change. They have the potential to significantly undermine progress towards the achievement of the Millennium Development Goals (MDGs). The Global Climate Risk Index 2009 analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heatwaves etc.). These analyses are based on the well-known assessments of the Munich Re database NatCatSERVICE®. The figures for 2007 reveal that poorer countries dominate the ranking of the most affected countries (the Down10), while in the past decade hurricanes in the Caribbean region caused significant losses and deaths and thus impact on the decadal ranking.

In various respects, inter alia regarding the losses in relation to the GDP or deaths in relation to the population, less developed countries are affected more than industrialised countries. In terms of adaptation to climate change, it is important to note that there exist many synergies between disaster risk reduction activities and adaptation. Bangladesh is one of the outstanding examples which have undertaken already multiple measures. Thus strengthening disaster risk reduction is a key challenge for effective adaptation. However, an international insurance mechanism can serve as an important complement within a comprehensive adaptation regime. Both prevention and insurance are on the agenda of the UNFCCC negotiations towards an agreement in 2009 in Copenhagen, and progress here is very important for the prospects of a large number of vulnerable people worldwide.

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1 Key results and political implications

The Germanwatch Global Climate Risk Index analyses how severely countries have been affected in 2007 and in the decade 1998-2007 by weather-related loss events like hurricanes or floods. It is based on the data of the NatCatSERVICE® of Munich Re and takes into account the following indicators: total number of deaths, deaths per 100,000 inhabitants, absolute losses in million US$ purchasing power parities (PPP) and losses per unit GDP in %. The four indicators imply certain levels of development and vulnerability to multiple risks. This approach thus reflects both the physical impacts of extreme weather events as well as the specific national circumstances which determine the adaptive capacity of countries and their population. The Climate Risk Index does not take into account the number of non-lethally affected people, like those who are injured or displaced, but have not lost their lives. While in principle it would be important to also include these human impacts of weather extremes, there is no data available which is sufficiently reliable across all countries, in particular because of the difficulties of defining what "affectedness" means.[1] In the following, the results of the countries most affected are summarised. The full table of analysis can be found in the Annex.

1.1 Countries most affected in 2007

According to this analysis, in **2007 Bangladesh, the Democratic People´s Republic Korea and Nicaragua** have been most affected by extreme weather events. All these countries are relatively regularly affected through storms and flooding, as can be seen in the Climate Risk Index editions 2006, 2007 and 2008.[2] In total in 2007, 1,066 events were registered, causing 15,240 casualties and economic losses of US$ 70,160 million or 88,106 million in PPP. Less than a third of this had been insured (table 1).

Table 1: Extreme weather events from 2004 to 2007: global figures

	Number of events	Death toll	Absolute losses in million US$	Insured losses in million US$
2004	718	11,953	94,231	42,353
2005	716	10,975	214,863	96,864
2006	953	12,422	47,670	15,204
2007	1,066	15,240	70,160	25,597

Source: Germanwatch based on Munich Re NatCat*SERVICE®*

Bangladesh, one of the Least Developed Countries, had to suffer both from a significant number of deaths as well as direct economic losses exceeding more than US$ 10 billion (in Purchasing Power Parities) (table 2). The majority of the 10 countries most affected ("Down10") rank low both in terms of per capita income and their level of human development. Oman, Papua New Guinea, Bolivia and Greece have entered the Down10 for the first time (see also Box 1).[3] Table 3 shows the rankings of the countries within the different indicators.

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[1] Data on affected people can for example be taken from the publicly available database of the Centre for Research on the Epidemiology of disasters (CRED): http://www.cred.be/
[2] Anemüller, Monreal, Bals 2006, Harmeling 2007, Harmeling & Bals 2007
[3] Germanwatch calculated the Global Climate Risk Index for the first time in 2006.

Table 2: The Annual Climate Risk Index (CRI): Results in specific indicators of the 10 countries most affected by extreme weather events in 2007

Ranking 2007 (2006)	Country	CRI score	Death toll	Deaths per 100,000 inhabitants	Absolute losses (in million US$ PPP)	Losses per unit GDP	For comparison: Human Development Index (2005)
1 (20)	**Bangladesh**	3.00	4,729	2.98	10,774	5.17	140
2 (2)	**Korea, DPR**	10.33	554	2.33	623	1.49	no data
3 (120)	**Nicaragua**	12.25	111	1.98	509	3.20	110
3 (116)	**Oman**	12.25	49	1.89	4,269	6.92	58
5 (11)	**Pakistan**	13.17	928	0.57	2,539	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	1,639	0.74	105
9 (79)	**Greece**	17.50	99	0.89	1,789	0.55	24
10 (58)	**Tajikistan**	17.83	34	0.50	1,235	10.44	122

Box 1: Key events in 2007: selected media reports

Bangladesh, 16 November 2007, Cyclone Sidr: *"'From my window, I can see tins ripped off the roofs and tree branches flying under the sky covered with thick clouds,' said Moulvi Feroze Ahmed, a local government official on St. Martin's island in the Bay of Bengal near the storm. "It looks like the sea is coming to grab us,' he said."[4]*

Korea, DPR, August 2007: **"***North Korea has asked for international help after it reported massive flooding had left hundreds of people dead or missing. Pyongyang said floodwaters had left 'tens of thousands of hectares of farmland (to be) inundated, buried under silt and washed away'."[5]*

Nicaragua, 4 September 2007: *"Nicaraguan villagers spent four days in shark-infested seas clinging to driftwood or smashed houses and boats after Hurricane Felix battered the Caribbean coast, survivors said on Saturday."[6]*

Oman, 6 June 2007: *"Even with the weaker wind speeds, Gonu, which means a bag made of palm leaves in the language of the Maldives, is believed to be the strongest cyclone to threaten the Arabian Peninsula since record-keeping started in 1945."[7]*

Bolivia, floodings between December 2006 and March 2007: *"Across the country, as many as 400,000 people have been affected by the worst floods in 25 years. The humanitarian situation remains critical in Beni, which lies in Bolivia's Amazon plain. In the municipality of Trinidad, 40 per cent of flood victims are children now living with their parents in provisional shelters set up in public schools or in tents."[8]*

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[4] Rahman 2007
[5] ITN 2007
[6] Harris 2007
[7] Al-Nahdy 2007
[8] http://www.betterbytheyear.org/bolivia/Bolivia_worst_flood.pdf

Table 3: The Annual Climate Risk Index (CRI): Rankings in specific indicators of the 10 countries most affected by extreme weather events in 2007

Ranking 2007 (2006)	Country	CRI score	Rank death toll	Rank deaths per 100,000 inhabitants	Rank absolute losses	Rank losses per unit GDP	For comparison: Human Development Index (2005)
1 (20)	**Bangladesh**	**3.00**	1	1	3	6	140
2 (2)	**Korea, DPR**	**10.33**	5	5	19	14	no data
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

1.2 Countries most affected from 1998 to 2007

When analysing the impacts during the **last decade (1998-2007), Honduras, Bangladesh and Nicaragua** rank highest (Table 4). In particular the increase in stronger hurricanes in the Caribbean impacts on these statistics.

But also the risks from more frequent events, such as in Bangladesh, India and Viet Nam, play an important role. Venezuela is the only country in the decadal Down10 where one single event (floodings in 1999) caused almost all of the deaths and losses in the past decade. Figure 1 displays these countries against the background of a climate change risk hotspot map taken from a recent CARE report.[9]

Table 4: The Decadal Climate Risk Index (CRI): Results in specific indicators of the 10 countries most affected by extreme weather events from 1998 to 2007.

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

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[9] CARE 2008
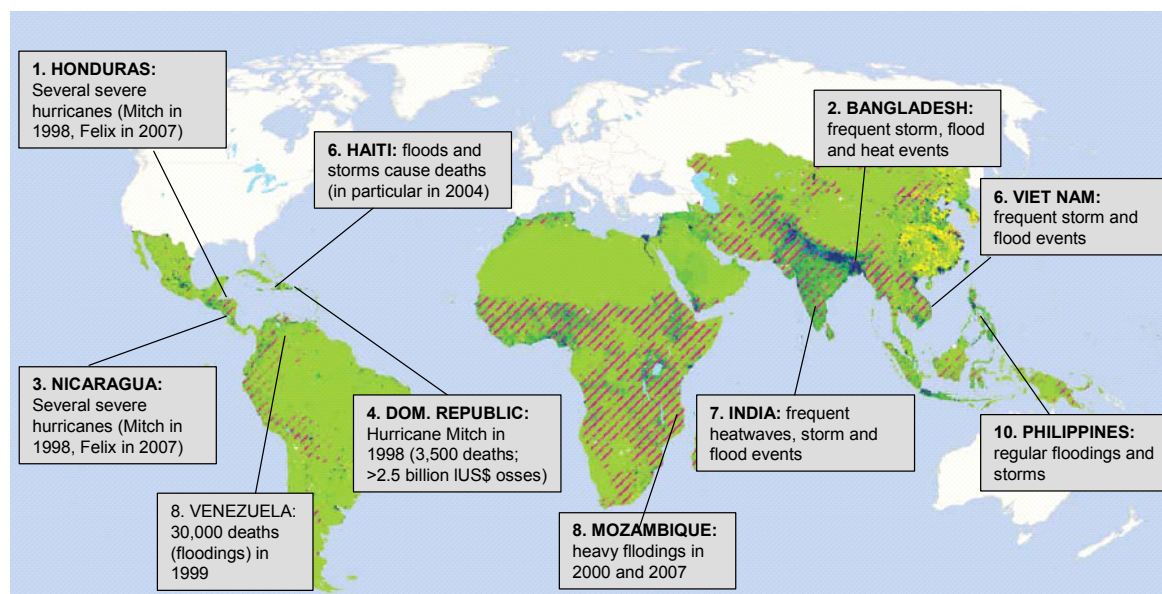
Figure 1: World map of hazard hotspots and countries most affected from 1998-2007 according to the Climate Risk Index

Source: the underlying map is taken from CARE 2008

On the map, blue areas with striped overlay represent risk hotspots with predicted significant increase in population density. The darker the underlying colour, the higher is the expected increase in population density.

It shows that some of last decade's Down10 countries will have to face a growing population in the future. This is likely to generate additional challenges for developing effective disaster risk reduction and adaptation policies as well as a greater need for humanitarian assistance. Table 5 displays the specific rankings of the ten countries most affected with regard to the indicators analysed.

Table 5: The Decadal Climate Risk Index (CRI): Rankings in specific indicators of the 10 countries most affected by extreme weather events from 1998 to 2007.

CRI 1998-2007	Country	CRI score	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

1.3 Political implications

It is not surprising that among those countries most affected, developed countries are less represented. While the absolute amounts of damages by extreme weather events often go into the billions of dollars there, it is mostly a marginal amount compared to countries' economic capability. They have more resources to prepare for extreme events and to make their infrastructure resilient. Given the latest IPCC report as well as more recent climate change science results, it is likely that the occurrence and intensity of extreme weather events will increase in the future. Those countries already struggling to cope with the impacts of past events are at risk from global warming and its role as a driver of more severe extremes.

Numerous approaches, initiatives and activities exist and are expanding over the globe to prepare for climate risks and adapt to their possible consequences, as much as this is possible.[10] It is very valuable that the collaboration between the Disaster Risk Reduction (DRR) and the adaptation community is improving, and realising the synergies while being aware of differences is crucial. However, their implementation appears to be still too limited. The UNFCCC negotiations on a Copenhagen climate change agreement can play a key role in strengthening countries' abilities to manage climate-related risks. The risk management module could be understood as a two-pillar-approach, including a prevention pillar and an insurance pillar (see figure 2). Leveraging financing from innovative sources being discussed in the negotiations, in particular from auctioning of international emission allowances (Assigned Amount Units, AAUs), can contribute to significantly expanding actions on the national and international level. As a matter of strategic spending, the work of existing institutions with proven expertise may be expanded. [11]

The establishment of an international insurance mechanism as an outcome of the post-2012 negotiations can be regarded as an integral and promising new instrument, which could spread the risk of damages from very severe weather catastrophes among vulnerable developing countries (see box 2).

Box 2: Recommendations on Disaster Risk Reduction and adaptation to climate change

A recent report by the British disaster relief organisation Tearfund gives the following recommendations on Disaster Risk Reduction (DRR) and adaptation[12]:

➢ "Increase awareness and understanding of adaptation and DRR synergies and differences. Develop and widely disseminate simple, shared conceptual frameworks, briefing papers, guidance notes and case studies; share experience and knowledge; host multi-stakeholder seminars and workshops and engage in staff training.

➢ Encourage systematic dialogue, information exchange and joint working between climate change and disaster reduction bodies, focal points and experts, in collaboration with development policy makers and practitioners. This should include:

-   Joint development of DRR plans and adaptation strategies, as well as implementation policies and mechanisms for mainstreaming adaptation and DRR into development planning.

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[10] See e.g. UNFCCC 2008a and b
[11] See Harmeling 2008; Müller 2008
[12] Tearfund 2007

- Establishment of inter-ministerial committees at national government level to ensure inter-sectoral, multi-stakeholder co-ordination.

- Inclusion of adaptation policy makers and practitioners in National Platforms for DRR, and formal cross-linking of these platforms and national climate change teams.

- Inclusion of DRR policy makers and experts in the national climate change adaptation policy team/climate change committee."

The proposal of the expert network the Munich Climate Insurance Initiative on how such a scheme could look like can be found in chapter 3. The costs should be covered from the future UNFCCC framework and thus primarily from countries that have caused global warming through high emissions and that have the economic capacity to support such a system. Poznan, with the AWG-LCA workshop on risk management and insurance taking place on 4th December, has a unique opportunity in moving forward with conceptualising such an insurance mechanism.


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│   │              │  │              │  │ e.g., sea-level   │  │
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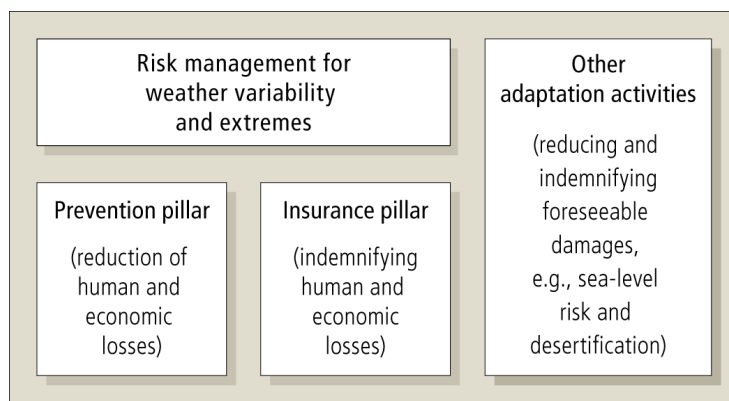
Figure 2: Risk management, prevention and insurance as in the context of adaptation

Source: MCII 2008

1.4 Impacts and adaptation: the Bangladesh case

Bangladesh is said to be one of the countries most affected by the adverse impacts of climate change, such as rising sea levels, more intense cyclones, floodings and heat waves. These increasingly challenge development progress, in a densely populated country which belongs to the group of Least Developed Countries (LDCs). However, Bangladesh is an example for substantive developing country action on adaptation. Government, civil society and international donors have undertaken a number of activities in the last 30 years. According to the Bangladesh Climate Change Strategy and Action Plan, these include *"flood management schemes to raise the agricultural productivity of many thousands of km of low-lying rural areas […]; coastal embankment projects, involving over 6,000 km of embankments and polder schemes, designed to raise agricultural productivity in coastal areas by preventing tidal flooding and incursion of saline water; over 2,000 cyclone shelters to provide refuges for communities from storm surges caused by tropical cyclones and 200 shelters from river floods; comprehensive disaster management projects, involving community-based programmes and early warning systems for floods and*

cyclones" etc.[13] Initial investments necessary to implement the most urgent activities in response to different climate change threats of this 10-year-strategy amount to US$ 500 million in the first two years (figure 3). Bangladesh is moving much faster and more comprehensively towards a long-term adaptation strategy than many other developing and developed countries around the world. The country takes action to address the threat of climate challenge for the sake of its own people, almost having no alternative, although it has contributed almost nothing to the cause of climate change. This is one of many examples of action taken by vulnerable countries that clearly deserves the support from the international community and the post-2012 climate change regime.
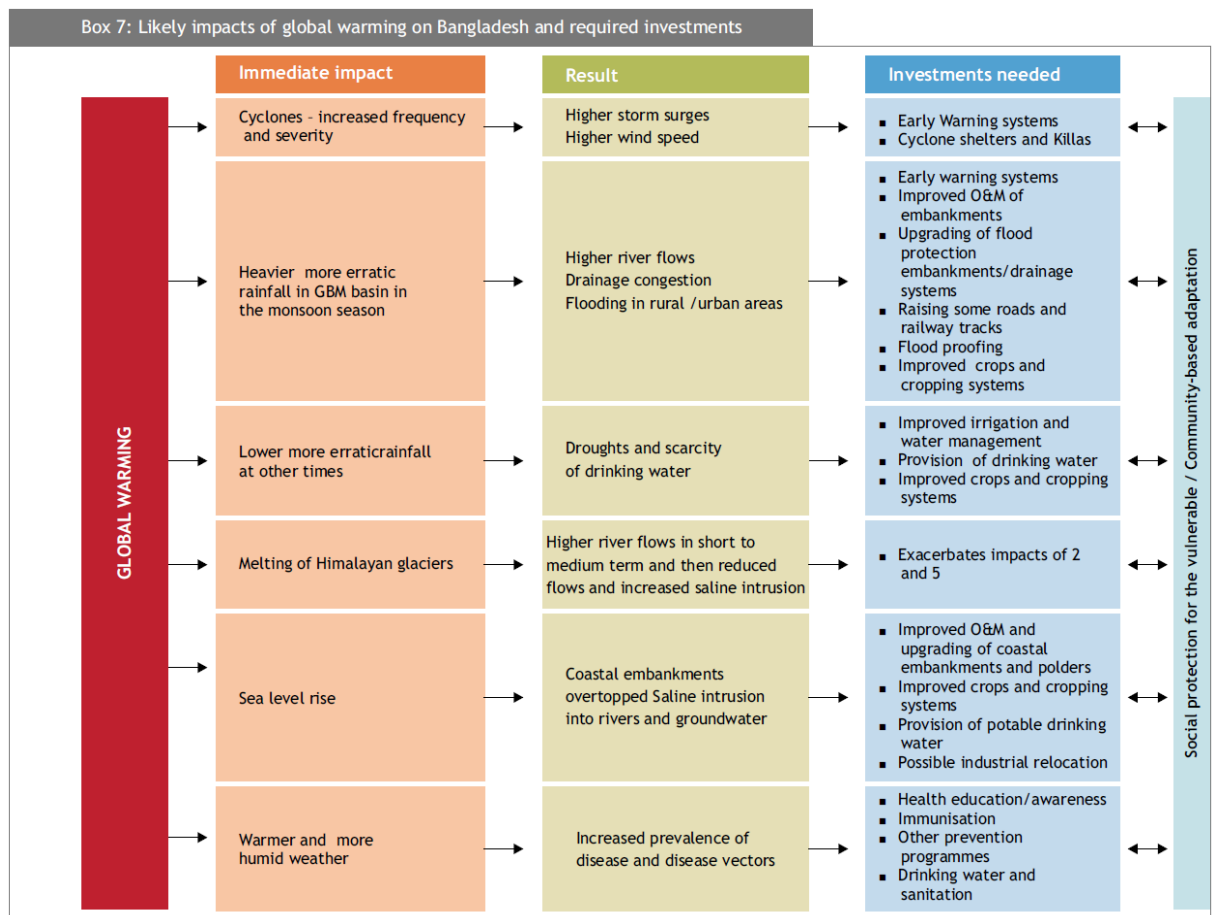
Figure 3: Likely impacts of global warming on Bangladesh and required investments

Source: Bangladesh 2008: 24

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[13] Bangladesh 2008

2 Additional analyses, including Germany, Switzerland and Austria

This chapter contains some additional graphs and figures to present more detailed analyses of the impacts of extreme weather events in 2007 and the last decade. The full data tables can be found in the Annex.

Table 6: Annual Climate Risk Index 2007 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

Table 7: Decadal Climate Risk Index 1998-2007 for Germany, Austria and Switzerland

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	Switzerla	30.00	115	1.60	551	0.23
34	Austria	49.33	18	0.23	590	0.23

Table 8: Down10 countries with highest deaths tolls and most deaths per 100,000 inhabitants

x = no Data

Rank	Country	Death toll 2007	Average 1998-2007	Rank	Country	Deaths per 100,000 inhabitants 2007	Average 1998-2007
1	Bangladesh	4,729	1,093	1	Bangladesh	2.98	0.70
2	India	2,502	4,532	2	Liechtenstein	2.90	X
3	China	1,332	1,477	3	Dominica	2.87	0.69
4	Pakistan	928	397	4	Papua New Guinea	2.72	4.84
5	Korea, DPR	554	135	5	Korea, DPR	2.33	0.60
6	United States	481	480	6	Nicaragua	1.98	5.68
7	Indonesia	470	408	7	Oman	1.89	0.34
8	Viet Nam	346	406	8	Haiti	1.72	5.06
9	Afghanistan	304	267	9	Dominican Republic	1.53	5.02
10	Nepal	285	291	10	Bolivia	1.38	0.51

Table 9: Down10 countries with highest absolute losses and highest losses per unit GDP

x = no Data

Rank	Country	Losses in million USD (PPP)	Average 1998-2007	Rank	Country	Average losses per GDP in %	Average 1998-2007
1	China	17,333	38,180	1	Tajikistan	10.44	2.8
2	United States	12,366	34,410	2	Guadeloupe	8.17	X
3	Bangladesh	10,774	4,425	3	Oman	6.92	0.97
4	United Kingdom	7,262	1,293	4	Moldova, Republic of	6.45	1.08
5	Germany	4,342	2,903	5	Dominica	5.48	0.96
6	Oman	4,270	429	6	Bangladesh	5.17	3.02
7	Mexico	4,168	1,977	7	Saint Lucia	3.88	0.51
8	Indonesia	3,099	2,241	8	Martinique	3.54	X
9	Pakistan	2,539	333	9	Nicaragua	3.20	4.3
10	India	2,129	12,047	10	Madagascar	2.57	0.45
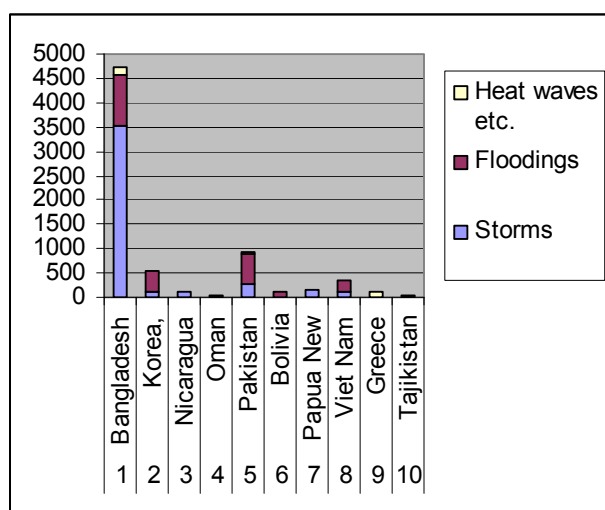
Figure 4: Down10 countries according to table 3 and their death figures in 2007
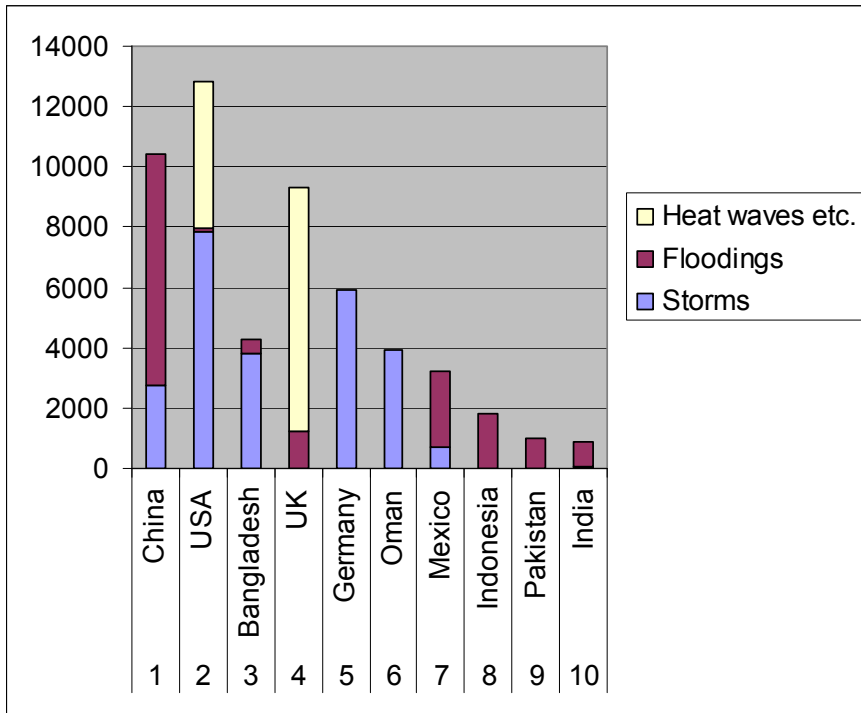
Figure 5: Countries with highest losses (in million US$, nominal)

Please note that in contrast to table 9, this figure shows nominal values and not values in purchasing power parities.

Figure 6: Countries with highest losses in million USD, nominal and in PPP

3 Executive Summary: MCII Proposal for Climate Risk Insurance

Risks and losses from climate-related natural hazards are rising, averaging US$100 billion per annum in the last decade alone. Insurance tools provide financial security against droughts, floods, tropical cyclones and other forms of weather variability and extremes. This suite of financial instruments has emerged as an opportunity for developing countries in their concurrent efforts to reduce poverty and adapt to c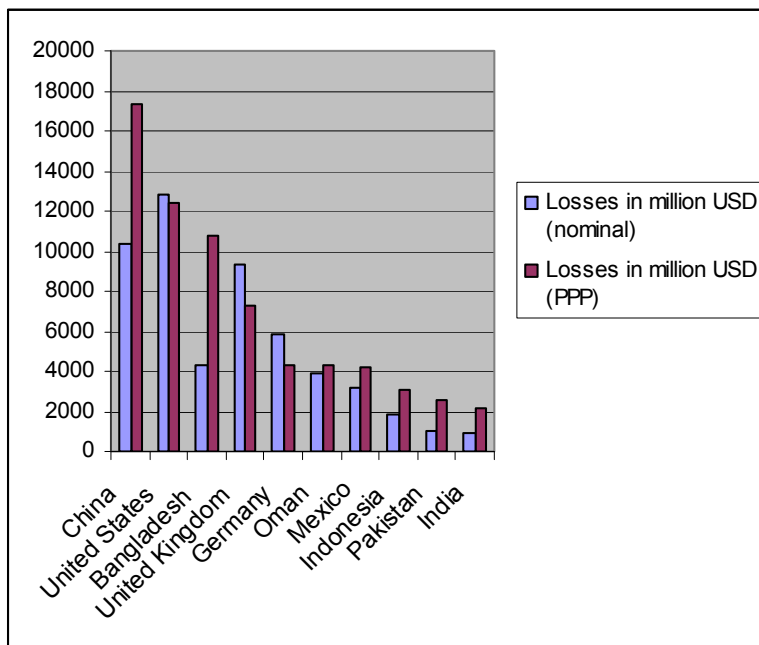limate change. Insurance alone will not address all of the risks or adaptation challenges that arise with increasing climate risks, like desertification or sea level rise. But it can be a strong complementary aspect of a wider adaptation framework.

The **Bali Action Plan** (BAP) calls for "consideration of risk sharing and transfer mechanisms, such as insurance" to address loss and damage in developing countries particularly vulnerable to climate change. For the **inclusion of insurance instruments in the post-2012 adaptation regime**, the potential role of risk-pooling and risk-transfer systems must be firmly established.

In helping to meet this challenge, the Munich Climate Insurance Initiative (MCII) proposes a way to include insurance instruments for adapting to climate change in a post-2012 agreement. This insurance module would

> (1) follow the principles set out by the UNFCCC for **financing and disbursing adaptation funds**
> (2) provide **assistance to the most vulnerable**, and
> (3) **include private market** participation.

The first part of the module is a **Prevention Pillar** emphasizing risk reduction. The second part of the module is an **Insurance Pillar** with two tiers. Each tier addresses one portion—or layer—of climate-related risks. The first tier of the Insurance Pillar takes the form of a *Climate Insurance Pool (CIP)* that would absorb a pre-defined proportion of high-level risks of disaster losses, particularly in vulnerable non-Annex 1 countries, at no cost to the beneficiary countries. The second tier of the Insurance Pillar, a *Climate Insurance Assistance facility*, would address middle-level risk and facilitate public safety nets and public-private insurance solutions. Low-level losses would continue to be borne by exposed communities, and are therefore not addressed in this proposal. The Least Developed Countries and Small Island States under a certain income threshold will not be required to pay for participation in the Prevention Pillar and the Insurance Pillar.

Prevention Pillar

Insurance activities must be viewed as part of a risk management strategy that includes, first and foremost, activities that prevent human and economic losses from climate variability and extremes. The proposed Prevention Pillar links carefully designed insurance instruments to risk reduction efforts. Participation in the Insurance Pillar can include demonstrating progress on a credible risk management strategy. The cost for the Prevention Pillar depends on the the number of countries involved and the scope of prevention and risk reduction activities which participating countries request.

Insurance Pillar Tier 1 would require approximately USD 3.2 bn and USD 5.1 billion annually to fund, depending on negotiations and participating countries. The key features of Tier 1 include:
▪ **CIP Premium Paying Entities**: The CIP receives a fixed annual allocation from a multilateral adaptation fund based on the expected climate change related losses. (some recent

proposals are based on criteria such as capability ("ability to pay") and responsibility ("polluter pays").

- **Beneficiaries of CIP Coverage**: Countries that participate in the insurance program that fall victim to rare but extreme climate-related disasters that go beyond their capacity to respond and recover;
- **Risk Carrier:** CIP operations will be managed by a dedicated professional insurance team that will be responsible for risk pricing, loss evaluation and indemnity payments, as well as placing reinsurance.

Negotiators considering the creation of a Climate Insurance Pool might ask: Why invest adaptation funds in a CIP when we could, instead, allocate these same funds to national adaptation programs that include an insurance module? One answer: Disbursing a portion of climate adaptation funds to the CIP pools the risks of extraordinary losses, costing far less money or requiring far less reinsurance than if each country created its own fund or made individual insurance arrangements.[14]
Insurance Pillar Tier 2 would address middle-layer risks by providing resources to **enable public/private insurance systems for vulnerable communities**. Many examples of programs for these middle-layer risks exist: micro-insurance for agriculture (like in Malawi), re-insurance for aid agencies (as in Ethiopia), and pooled solutions for countries in certain regions (like the Caribbean). Each of these initiatives was made possible with outside technical and financial support. Tier 2 could directly **enable the poor to participate**, if deemed appropriate, through targeted support and minimally-distorting subsidies that would not crowd out private incentives for wider market segments.

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[14] The CIP will utilize market based pricing of its cover and will transfer risk to private risk carriers. This helps avoid distorting private capital markets or catastrophe risk reinsurance markets.

4 Methodological Remarks

The presented exminations are based on the worldwide acknowledged data collection and analysis provided by the division GeoRiskResearch (NatCat*SERVICE*®) of the Munich Re. Munich Re collects and analyses the number of total damage caused by weather events, the number of deaths and assesses the insured and total economic losses. For the countries of the world, the Munich Re collects the number of total losses caused by weather events, the number of deaths, the insured damages and total economic damages. The last two indicators are stated in million US$ (original values, inflation adjusted).

In the present analyses, only weather related events - storms, floods, as well as temperature extremes and mass movements (heat and cold waves etc.) - are incorporated. Geological factors like earthquakes, volcanic eruptions or tsunamis, for which data is also available, do not play a role in this context because they do not depend on the weather and therefore are not related to climate change. To enhance the manageability of the large amount of data, the different categories within the weather related events were combined. For single cases - for especially devastating events - it is stated whether they concern floods, storms, or another type of event.

It is important to note that this event related-examination does not allow for an assessment of continuous changes of important climate parameters. A long-term decline in precipitation that was shown for some African countries as a consequence of climate change cannot be displayed by the index. Such parameters nevertheless often substantially influence important development factors like agricultural outputs and the availability of drinking water.

The present data does also not allow for conclusions about the distribution of damages below the national level, although this would be interesting with regards to content. However, the data quality would only be sufficient for a small number of countries.

Analysed indicators

For this examination the following indicators were analysed in this paper:
1.   number of deaths,
2.   number of deaths per 100 000 inhabitants,
3.   sum of losses in US$ in purchasing power parities (PPP) as well as
4.   losses in proportion to gross domestic product (GDP).

For the indicators 2. to 4., primarily economic and population data by the International Monetary Fund was included. However, it has to be added that especially for small (e.g. Pacific small island states) or politically extremely instable countries (e.g. Somalia), the required data is not always available in sufficient quality for the whole observed time period. For those countries, reliable analyses are not possible.

The Climate Risk Index 2009 is based on the figures from 2007 and the decadal analyses 1998-2007. This ranking represents the most affected countries. Each country´s index score has been derived from a country's combined ranking in all four analyses, adding up the rankings according to the following weighting: death toll 1/4, deaths per inhabitants 1/4, absolute losses 1/6, losses per GDP 2/6.

The current IPCC report reveals the highly dangerous consequences of climate change. Therefore, an analysis of the already observable changes in climate conditions in different regions indicates

which countries are particularly endangered. Although regarding socio-economic variables in comparison to damages and deaths caused by weather extremes – as was done in the present analysis - does not allow for an exact measurement of the vulnerability, it can at least provide an estimate. In most of the cases, already afflicted countries will probably also be especially endangered by possible future changes in climate conditions .

Despite the historic analysis, a deterministic recording of the past to the future is not suggestive. On the one hand, the extent to which the probability for damaging events as a consequence of climate change to occur is reflected by the statistical past is very low. Additionally, new phenomena can occur in states or regions. In the year 2004, for example, a hurricane was registered in the South Atlantic offshore Brazil's coast for the first time ever. The cyclone that hit Oman in 2007 is of similar significance. Accordingly, the analyses of the Climate Risk Index should not be seen as the only evidence for which countries are already afflicted or will undoubtedly be affected by the anthropogenic climate change. After all, people can in principle fall back on different adaptation measures. However, to which extent these can be implemented effectively depends on several factors which altogether determine the degree of vulnerability.

The relative consequences of weather extremes also depend on economic and population growth

Identifying relative values in this index represents an important complement to the otherwise often dominating absolute values because it allows for analysing country specific data concerning damages in relation to real conditions in the countries. It is obvious, for example, that one billion US$ for a rich country like the USA entail much less economic consequences than for one of the world's poorest countries. This is being backed up by the relative analyses.

It should be noted that values and therefore the rankings of countries regarding the respective indicators do not only change due to the absolute impacts of extreme whether events, but also due to economic and population growth. If, for example, population grows, which is the case in most of the countries, the same absolute number of deaths leads to a relatively lower assessment in the following year. The same applies to economic growth. However, this does not affect the significance of the relative approach. The ability of society to cope with damages, through precaution, mitigation and disaster preparedness, insurances or the improved availability of means for emergency aid, generally rises along with increasing economic strength. Nevertheless, an improved ability does not necessarily imply enhanced implementation of effective preparation and response measures.

While absolute numbers tend to overestimate populous or economically capable countries, relative values place stronger weight on smaller and poorer countries. To give consideration to both effects, the analysis of the Climate Risk Index is based on absolute and on relative scores, with a weighting that gives the relative losses a slightly higher importance than the absolute losses..

The indicator "damages in purchasing power parities" allows for a more comprehensive estimation of how different societies are actually affected

The indicator "absolute damages in US$" is being identified through purchasing power parities (PPP), because using this figure better expresses how people are actually affected by the loss of one Dollar than using nominal exchange rates. Purchasing power parities are currency exchange rates, which permit a comparison of the GDP that incorporate price differences between countries. Simplified, this means that a farmer in India can buy more crop with one US$ than a farmer in the USA. Therefore, the real consequences of the same nominal damage are much higher in India. For most of the countries, US$ values according to exchange rates must therefore be multiplied by values bigger than one.

5 Annex

X = no data

Table 10: Annual Climate Risk Index for 2007: all countries

Rank CRI for 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 %
22	Afghanistan	33.75	304	15.19	1.12	0.08
94	Albania	84.00	3	1.55	0.09	0.01
64	Algeria	68.00	71	0.67	0.21	0.00
51	Angola	60.58	122	0.30	0.72	0.00
73	Argentina	71.33	21	32.54	0.05	0.01
126	Armenia	106.17	0	1.42	0.00	0.01
26	Australia	37.50	26	1823.40	0.13	0.24
31	Austria	40.00	18	533.73	0.22	0.17
136	Azerbaijan	114.17	0	0.63	0.00	0.00
102	Bahamas	88.92	1	0.24	0.30	0.00
116	Bahrain	96.17	1	0.12	0.13	0.00
1	Bangladesh	3.00	4729	10774.41	2.98	5.17
97	Belarus	84.83	2	20.99	0.02	0.02
65	Belgium	68.58	3	328.44	0.03	0.09
92	Belize	82.75	0	8.67	0.00	0.36
84	Benin	76.92	3	8.76	0.03	0.07
115	Bhutan	94.67	0	2.31	0.00	0.07
6	Bolivia	13.42	131	646.46	1.38	1.61
111	Bosnia and Herzegovina	93.17	1	2.92	0.03	0.01
67	Brazil	70.00	71	63.10	0.04	0.00
68	Bulgaria	70.08	18	3.21	0.24	0.00
23	Burkina Faso	34.50	52	40.19	0.35	0.24
55	Burundi	64.33	6	3.85	0.07	0.13
99	Cambodia	86.33	6	1.33	0.04	0.01
134	Cameroon	111.08	1	0.16	0.01	0.00
69	Canada	70.33	17	123.20	0.05	0.01
131	Central African Republic	109.83	0	0.30	0.00	0.01
83	Chad	75.50	24	0.26	0.22	0.00
109	Chile	92.83	10	0.04	0.06	0.00
17	China	26.67	1332	17332.59	0.10	0.25
61	Colombia	67.50	67	2.32	0.15	0.00
139	Congo	118.58	0	0.10	0.00	0.00
70	Congo, the Democratic Republic of the	70.92	46	1.53	0.07	0.01
30	Costa Rica	39.42	18	105.31	0.40	0.23
137	Cote d'Ivoire (Ivory Coast)	114.33	0	1.37	0.00	0.00
60	Croatia	65.92	25	1.63	0.55	0.00
46	Cuba	55.25	3	1402.94	0.03	1.12
138	Cyprus	116.08	0	0.46	0.00	0.00
56	Czech Republic	65.00	4	236.69	0.04	0.09
105	Denmark	90.33	0	110.13	0.00	0.05
25	Dominica	37.17	2	37.64	2.87	5.48
12	Dominican Republic	19.75	149	234.19	1.53	0.33
141	Ecuador	119.75	0	0.09	0.00	0.00
132	Egypt	110.42	2	0.13	0.00	0.00
112	El Salvador	93.25	5	0.15	0.07	0.00
117	Eritrea	96.92	3	0.12	0.06	0.00
85	Ethiopia	77.33	63	0.30	0.08	0.00
29	Fiji	39.25	4	64.00	0.48	1.72
142	Finland	120.83	0	0.03	0.00	0.00
71	France	71.08	20	181.35	0.03	0.01
108	Gambia	92.75	0	2.69	0.00	0.13
107	Georgia	91.67	2	1.08	0.05	0.01
41	Germany	49.08	28	4341.53	0.03	0.15
37	Ghana	45.58	56	17.77	0.24	0.06
9	Greece	17.50	99	1789.49	0.89	0.55
113	Grenada	93.50	0	1.72	0.00	0.15
71	Guadeloupe	71.08	0	350.20	0.00	8.17
52	Guatemala	61.33	16	20.06	0.12	0.03
121	Guinea	103.50	0	2.29	0.00	0.02

Rank CRI for 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 %
16	Haiti	25.17	165	28.25	1.72	0.25
33	Honduras	40.58	9	456.83	0.13	1.49
122	Iceland	104.08	0	1.94	0.00	0.02
19	India	29.50	2502	2128.52	0.21	0.07
13	Indonesia	21.08	470	3099.10	0.20	0.37
43	Iran, Islamic Republic of	51.75	43	404.59	0.06	0.05
79	Ireland	74.42	5	16.52	0.12	0.01
118	Israel	97.00	4	0.01	0.06	0.00
93	Italy	83.17	26	1.63	0.04	0.00
34	Jamaica	41.92	4	460.18	0.15	2.23
57	Japan	65.17	21	992.79	0.02	0.02
133	Jordan	110.75	1	0.01	0.02	0.00
144	Kazakhstan	122.33	0	0.06	0.00	0.00
80	Kenya	74.75	34	2.44	0.09	0.00
2	Korea, Democratic People's Republic of	10.33	554	623.12	2.33	1.49
114	Korea, Republic of	93.83	15	0.26	0.03	0.00
140	Kyrgyzstan	118.92	0	0.31	0.00	0.00
106	Lao People's Democratic Republic	91.58	1	2.43	0.02	0.02
129	Latvia	108.33	0	2.41	0.00	0.01
128	Lebanon	108.08	1	0.17	0.02	0.00
73	Liberia	71.33	3	1.67	0.08	0.12
98	Liechtenstein	85.00	1	0.01	2.90	0.00
145	Lithuania	122.75	0	0.07	0.00	0.00
124	Macedonia, the former Yugoslav Republic	104.25	1	0.09	0.05	0.00
11	Madagascar	18.00	83	495.92	0.42	2.57
109	Malawi	92.83	2	1.69	0.01	0.02
81	Malaysia	75.00	34	1.36	0.13	0.00
82	Mali	75.25	15	1.55	0.12	0.01
143	Malta	122.00	0	0.11	0.00	0.00
24	Martinique	36.75	2	452.20	0.50	3.54
88	Mauritania	80.75	2	1.64	0.06	0.03
54	Mauritius	63.50	2	17.26	0.16	0.12
21	Mexico	31.08	109	4167.71	0.10	0.28
76	Moldova, Republic of	71.58	0	633.27	0.00	6.45
89	Mongolia	82.33	7	0.08	0.26	0.00
127	Morocco	106.75	4	0.01	0.01	0.00
15	Mozambique	21.92	105	177.62	0.49	1.04
95	Myanmar	84.25	10	4.16	0.02	0.01
87	Namibia	79.25	6	0.36	0.29	0.00
18	Nepal	29.42	285	37.57	1.01	0.13
53	Netherlands	63.00	6	428.19	0.04	0.07
101	Netherlands Antilles	88.00	0	10.00	0.00	0.33
103	New Zealand	90.25	0	125.81	0.00	0.11
3	Nicaragua	12.25	111	509.42	1.98	3.20
50	Niger	58.67	10	16.74	0.07	0.19
59	Nigeria	65.50	80	14.71	0.05	0.01
91	Norway	82.58	1	74.73	0.02	0.03
3	Oman	12.25	49	4269.79	1.89	6.92
5	Pakistan	13.17	928	2539.08	0.57	0.62
119	Panama	97.92	2	0.24	0.06	0.00
7	Papua New Guinea	15.75	172	135.25	2.72	1.13
146	Paraguay	123.83	0	0.08	0.00	0.00
48	Peru	56.33	35	33.45	0.13	0.02
44	Philippines	53.17	89	49.95	0.10	0.02
62	Poland	67.83	16	115.87	0.04	0.02

Rank CRI for 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 %
147	Portugal	124.75	0	0.01	0.00	0.00
77	Republic of Yemen	72.00	43	1.14	0.19	0.00
39	Romania	48.33	52	60.77	0.24	0.02
100	Russian Federation (Asia)	87.58	15	53.89	0.01	0.00
49	Rwanda	57.42	20	3.15	0.21	0.04
27	Saint Lucia	38.50	2	68.75	1.21	3.88
135	Senegal	113.25	0	1.49	0.00	0.01
125	Serbia, Montenegro and Kosovo	105.58	1	1.86	0.01	0.00
148	Singapore	125.50	0	0.01	0.00	0.00
90	Slovakia	82.42	3	5.52	0.06	0.01
36	Slovenia	45.08	6	121.88	0.30	0.22
38	South Africa	46.58	70	158.87	0.14	0.03
58	Spain	65.42	12	468.74	0.03	0.03
45	Sri Lanka	54.75	41	13.23	0.21	0.02
14	Sudan	21.50	150	388.37	0.39	0.48
86	Swaziland	78.25	2	1.02	0.18	0.02
73	Sweden	71.33	4	111.17	0.04	0.03
32	Switzerland	40.25	19	438.91	0.25	0.15
122	Syrian Arab Republic	104.08	4	0.02	0.02	0.00
66	Taiwan	69.42	23	209.47	0.00	0.03
10	Tajikistan	17.83	34	1235.30	0.50	10.44
63	Thailand	67.92	66	13.75	0.10	0.00
28	Togo	38.67	23	17.32	0.35	0.33
96	Tunisia	84.50	13	0.18	0.13	0.00
103	Turkey	90.25	16	1.95	0.02	0.00
47	Uganda	56.25	51	5.16	0.17	0.02
78	Ukraine	72.75	6	166.95	0.01	0.05
35	United Kingdom	43.00	25	7261.57	0.04	0.33
20	United States	30.08	481	12365.84	0.16	0.09
42	Uruguay	51.17	6	66.08	0.18	0.18
129	Uzbekistan	108.33	3	0.02	0.01	0.00
120	Venezuela	98.00	5	1.36	0.02	0.00
8	Viet Nam	16.25	346	1639.20	0.40	0.74
40	Zambia	48.50	45	5.60	0.38	0.03

Table 11: Decadal Climate Risk Index for 1998-2007: all countries

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 %
32	Afghanistan	44.33	267.3	1.24	17	0.15
102	Albania	90.67	1.9	0.06	14	0.10
49	Algeria	59.00	98.3	0.31	96	0.06
	American Samoa	x	0.4	0.70	x	x
120	Angola	103.00	23.8	0.17	0	0.00
63	Antigua a	66.00	0.5	0.63	13	1.22
40	Argentina	52.67	22.5	0.06	1060	0.28
113	Armenia	97.92	0.0	0.00	40	0.41
46	Australia	56.67	20.8	0.10	1082	0.18
34	Austria	49.33	18.3	0.23	590	0.23
95	Azerbaija	88.50	2.2	0.03	66	0.22
33	Bahamas	47.50	1.8	0.57	250	3.72
123	Bahrain	105.92	5.8	0.83	0	0.00
2	Banglades	10.92	1093.0	0.75	4426	3.02
155	Barbados	133.42	0.1	0.04	1	0.02
119	Belgium	102.58	1.8	0.03	159	0.05
34	Belize	49.33	3.4	0.41	98	5.51
150	Benin	128.92	1.1	0.01	1	0.01
	Bermuda	x	0.4	0.00	x	x
126	Bhutan	110.33	0.0	0.00	0	0.01
65	Bolivia	66.92	45.9	0.00	96	0.31
109	Bosnia He	95.58	0.4	0.03	60	0.30
118	Botswana	100.58	1.0	5.15	1	0.01
80	Brazil	77.75	81.0	0.00	501	0.04
135	Brunei	119.50	0.0	2.63	0	0.00
52	Bulgaria	59.83	9.1	0.07	210	0.34
116	Burkina Fas	99.25	5.7	0.12	4	0.03
94	Burundi	88.25	14.1	0.10	1	0.06
122	Byelarus	105.83	6.7	0.02	15	0.02
25	Cambodia	36.67	50.0	0.38	147	0.92
128	Cameroon	111.33	8.6	0.05	1	0.00
75	Canada	72.92	16.9	0.05	530	0.05
57	Cayman Is	61.92	0.1	0.24	305	19.30
144	Central African Republic	125.67	1.2	0.03	0	0.02
132	Chad	116.75	3.1	0.04	2	0.02
110	Chile	95.75	6.6	0.04	89	0.05
13	China	28.00	1477.6	0.11	38181	0.90
79	Colombia	77.33	101.5	0.23	22	0.01
115	Congo, De	98.83	19.7	0.04	5	0.04
163	Congo, Re	143.17	0.9	0.03	0	0.00
	Cook Isla	x	0.1	0.45	x	x
84	Costa Rica	80.00	5.8	0.14	33	0.10
168	Cote D'Ivoire	148.92	0.0	0.00	0	0.00
64	Croatia	66.08	7.5	0.17	74	0.15
96	Cuba	88.58	5.7	0.06	9	0.07
86	Cyprus	84.58	6.4	0.88	3	0.02
47	Czech Rep	58.58	6.4	0.06	631	0.35
92	Denmark	87.42	1.1	0.02	334	0.20
106	Djibouti	94.42	7.0	1.00	0	0.01
67	Dominica	68.08	0.5	0.69	5	0.96
4	Dominican Rep	14.83	413.6	5.02	503	0.98
159	East Timor	140.17	0.2	0.02	0	0.01
85	Ecuador	80.42	25.9	0.20	15	0.02
143	Egypt	125.58	6.6	0.01	1	0.00
30	El Salvador	43.25	38.0	0.58	103	0.32
165	Eritrea	146.50	0.3	0.01	0	0.00
90	Estonia	86.17	0.8	0.06	39	0.21
58	Ethiopia	62.50	155.6	0.23	23	0.06
	Federated	x	4.1	4.10	x	x
53	Fiji	60.25	4.6	0.55	14	0.46
149	Finland	128.00	0.3	0.01	15	0.01
12	France	27.83	1535.4	2.56	1943	0.11
	French Gu	x	0.0	x	x	x
	French Po	x	1.8	x	x	x
78	Gambia, T	77.17	7.4	0.52	1	0.09
111	Georgia	96.00	2.0	0.05	21	0.16
15	Germany	28.67	729.0	0.89	2904	0.12

107	Ghana	94.92	12.6	0.06	4	0.02
41	Greece	54.25	22.2	0.20	394	0.16
26	Grenada	38.17	4.0	3.89	170	18.89
	Guadeloup	x	0.4	x	x	x
	Guam	x	0.0	0.00	x	x
11	Guatemala	26.67	132.1	1.14	243	0.50
140	Guinea	124.33	2.6	0.03	1	0.01
66	Guyana	67.50	0.6	0.08	123	5.31
5	Haiti	15.75	402.3	5.06	232	2.42
1	Honduras	6.75	579.0	8.50	1166	5.15
138	Hong Kong	122.58	1.1	0.02	15	0.01
56	Hungary	61.83	15.5	0.15	158	0.11
158	Iceland	138.75	0.0	0.00	1	0.01
7	India	18.83	4532.3	0.42	12047	0.62
17	Indonesia	29.83	408.7	0.19	2241	0.37
24	Iran	36.25	93.3	0.14	3609	0.67
	Iraq	x	1.8	0.01	0	x
105	Ireland	93.83	3.2	0.08	51	0.04
139	Israel	123.00	1.0	0.02	16	0.01
20	Italy	31.92	440.8	0.77	1837	0.12
166	Ivory Coa	147.92	0.0	0.00	0	0.00
39	Jamaica	52.58	5.7	0.22	164	0.95
44	Japan	56.00	73.4	0.06	2777	0.08
134	Jordan	118.00	2.0	0.04	3	0.02
141	Kazakhsta	124.75	5.3	0.04	4	0.00
59	Kenya	62.83	53.0	0.17	33	0.08
	Korea, De	x	135.1	0.60	x	x
22	Korea, Re	34.00	138.9	0.29	2304	0.26
169	Kuwait	150.42	0.0	0.00	0	0.00
81	Kyrgyzsta	78.17	10.5	0.21	5	0.07
127	Laos	110.67	1.7	0.03	6	0.06
38	Latvia	51.75	8.0	0.34	120	0.48
160	Lebanon	140.67	0.9	0.03	0	0.00
157	Liberia	137.83	0.3	0.01	0	0.01
153	Libya	132.58	0.0	0.00	7	0.01
97	Lithuania	89.08	4.2	0.12	23	0.06
133	Macedonia	117.42	1.6	0.08	1	0.01
28	Madagascar	42.67	71.1	0.41	63	0.45
130	Malawi	115.17	4.1	0.03	2	0.02
71	Malaysia	68.83	27.7	0.11	185	0.07
154	Mali	132.92	3.1	0.03	0	0.00
131	Malta	115.92	0.0	0.00	7	0.09
	Marshall	x	0.0	x	x	x
	Martinique	x	0.2	x	x	x
103	Mauritani	91.00	5.6	0.21	2	0.05
93	Mauritius	88.17	0.6	0.05	60	0.56
27	Mexico	40.08	169.5	0.17	1977	0.17
62	Moldova	64.75	2.9	0.08	76	1.08
49	Mongolia	59.00	5.8	0.23	33	0.58
71	Morocco	68.83	13.0	0.04	305	0.32
8	Mozambiqu	24.75	120.9	0.65	228	1.98
89	Myanmar	86.00	34.2	0.06	12	0.03
121	Namibia	103.75	1.6	0.08	4	0.05
14	Nepal	28.50	291.9	1.14	107	0.47
48	Netherlan	58.67	101.7	0.63	174	0.03
	Netherlands Antilles	x	0.0	0.00	x	x
	New Caled	x	0.2	x	x	x
74	New Zeala	71.50	4.0	0.10	176	0.20
3	Nicaragua	11.67	307.6	5.68	528	4.30
98	Niger	89.92	3.8	0.03	15	0.23
88	Nigeria	85.33	66.2	0.05	26	0.01
	Niue	x	0.1	x	x	x
	Northern	x	0.2	x	x	x
137	Norway	120.42	1.1	0.02	27	0.01
28	Oman	42.67	8.3	0.34	430	0.97
31	Pakistan	43.33	397.6	0.27	333	0.11
100	Panama	90.42	13.7	0.45	2	0.01
19	Papua New	30.08	264.1	4.84	45	0.47
114	Paraguay	98.17	7.0	0.13	4	0.02
60	Peru	63.25	94.3	0.36	64	0.04
10	Philippin	25.83	472.1	0.58	698	0.33
69	Poland	68.75	33.3	0.09	259	0.06
36	Portugal	50.58	22.7	0.22	400	0.20
	Puerto Ri	x	1.4	0.04	x	x
	Reunion	x	0.3	x	x	x
23	Romania	34.67	57.3	0.26	809	0.47
42	Russia	54.83	191.6	0.13	1027	0.07
100	Rwanda	90.42	13.4	0.16	1	0.02
141	Saudi Ara	124.75	10.3	0.05	0	0.00

112	Senegal	96.92	8.9	0.08	3	0.02
147	Serbia and Montenegro	127.75	0.1	0.00	9	0.02
73	Seychelle	70.92	0.2	0.25	22	1.87
146	Sierra Le	127.17	2.0	0.04	0	0.01
164	Singapore	144.08	0.0	0.00	1	0.00
69	Slovakia	68.75	7.5	0.14	133	0.18
104	Slovenia	92.08	1.8	0.09	28	0.07
162	Solomon I	142.08	0.0	0.00	0	0.01
	Somalia	x	44.3	x	x	x
76	South Afr	74.25	43.6	0.10	147	0.04
51	Spain	59.67	41.4	0.10	928	0.09
82	Sri Lanka	78.67	46.5	0.24	11	0.02
43	St. Kitts	54.92	0.4	0.85	65	11.75
91	St. Lucia	87.33	0.2	0.12	7	0.51
68	St. Vince	68.25	0.8	0.75	5	0.66
55	Sudan	61.33	50.1	0.15	50	0.09
145	Suriname	126.33	0.3	0.06	0	0.01
151	Swaziland	129.08	1.1	0.11	0	0.00
99	Sweden	90.33	2.0	0.02	272	0.10
18	Switzerla	30.00	115.4	1.60	551	0.23
152	Syria	131.50	3.5	0.02	0	0.00
37	Taiwan	51.08	50.9	0.23	509	0.10
21	Tajikista	33.50	29.9	0.48	216	2.80
124	Tanzania,	108.08	18.4	0.05	1	0.00
45	Thailand	56.50	111.3	0.17	234	0.06
129	Togo	114.58	2.3	0.04	2	0.04
148	Tonga	127.92	0.1	0.00	2	0.04
161	Trinidad	140.83	0.6	0.05	0	0.00
156	Tunisia	134.33	3.9	0.04	0	0.00
61	Turkey	64.42	41.0	0.06	429	0.07
108	Uganda	95.50	31.4	0.12	2	0.01
54	Ukraine	60.50	86.9	0.18	131	0.06
167	United Arab Emirates	148.50	0.2	0.01	0	0.00
77	United Ki	76.17	17.9	0.03	1294	0.08
16	United St	29.67	480.6	0.17	34411	0.31
83	Uruguay	79.08	2.1	0.06	55	0.20
86	Uzbekista	84.58	20.3	0.08	16	0.04
136	Vanuatu	119.75	0.1	0.05	1	0.10
8	Venezuela	24.75	3011.7	11.92	433	0.18
6	Vietnam	18.33	406.1	0.50	2152	1.47
	Virgin Is	x	0.0	x	x	x
	Western S	x	0.1	0.06	x	x
117	Yemen	100.08	37.2	0.19	0	0.00
125	Zambia	108.42	6.2	0.06	1	0.01
	Zimbabwe	x	18.3	0.16	x	x

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Germanwatch

Following the motto "Observing, Analysing, Acting", Germanwatch has been actively promoting North-South equity and the preservation of livelihoods since 1991. In doing so, we focus on the politics and economics of the North with their worldwide consequences. The situation of marginalised people in the South is the starting point of our work. Together with our members and supporters as well as with other actors in civil society we intend to represent a strong lobby for sustainable development. We endeavour to approach our aims by advocating fair trade relations, responsible financial markets, compliance with human rights, and the prevention of dangerous climate change.

Germanwatch is funded by membership fees, donations, grants from the "Stiftung Zukunftsfähigkeit" (Foundation for Sustainability), and by grants from a number of other public and private donors.

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