CRED CRUNCH

Issue No. 42 **What is the human cost of weather-related disasters (1995-2015)?** *April 2016*

Over the last twenty years, the overwhelming majority (90%) of disasters have been caused by floods, storms, heatwaves and other weather-related events. In total, 6,457 weather-related disasters were recorded worldwide by EM-DAT. Over this period, weather-related disasters claimed 606,000 lives, an average of some 30,000 per annum, with an additional 4.1 billion people injured, left homeless or in need of emergency assistance.

Weather-related disasters are becoming increasingly frequent, due largely to a sustained rise in the numbers of floods and storms. Flooding alone accounted for 47% of all weather-related disasters (1995-2015), affecting 2.3 billion people, the majority of whom (95%) live in Asia. While less frequent than flooding, storms were the most deadly type of weather-related disaster, killing more than 242,000 people in the past 21 years; that is 40% of the global total for all weather-related disasters. The vast majority of these deaths (89%) occurred in lower-income countries, even though they experienced just 26% of all storms.

Heatwaves and extreme cold were particularly deadly in terms of the numbers of lives lost in each event (405 deaths per disaster on average). High-income countries reported that 76% of weather-related disaster deaths were due to extreme temperatures, mainly heatwaves. Overall, mortality from heatwaves helped push the average toll from weather-related disasters up to 99 per event in high-income countries. This is second only to lower-middle-income countries in terms of the average number killed per disaster. While this ranking is subject to reporting bias (due in part to under-recording in low-income countries) the data still demonstrate the widespread impact of weather-related disasters on rich and poor alike.

In total, EM-DAT recorded an average of 335 weather-related disasters per year between 2005 and 2014, an increase of 14% from 1995-2004 and almost twice the level recorded during 1985-1994. While scientists cannot calculate what percentage of this rise is due to climate change, predictions of more extreme weather in future almost certainly mean that we will witness a continued upward trend in weather-related disasters in the decades ahead.

CRED EM-DAT Team

Figure 1. Number of weather-related disasters reported per country (1995-2015)

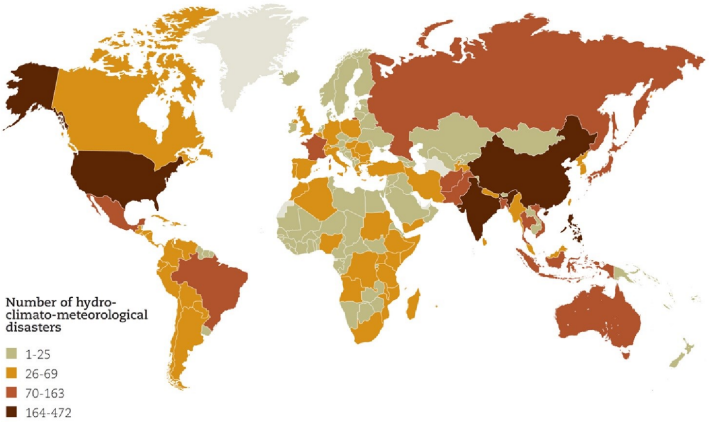
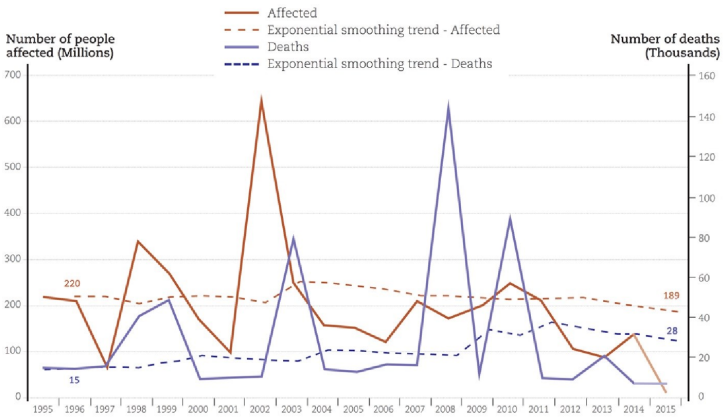


Figure 2. Trends in the numbers of people affected and killed annually by weather-related disaster worldwide (1995-2015)



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

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Figure 3. Number of people affected by weather-related disaster type (1995-2015)

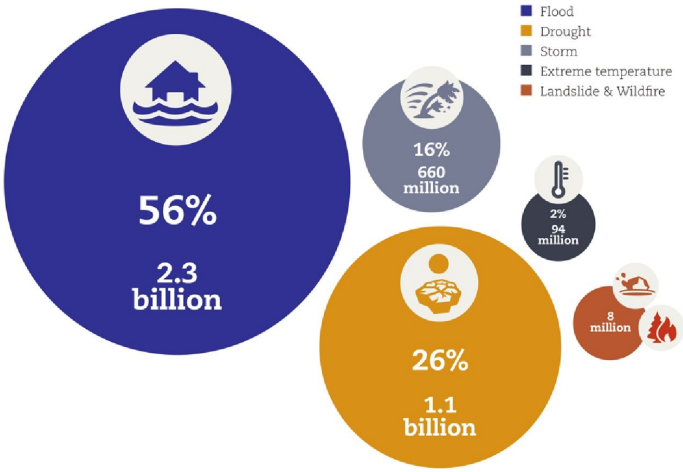

Figure 4. Number of people killed by weather-related disaster type (1995-2015)

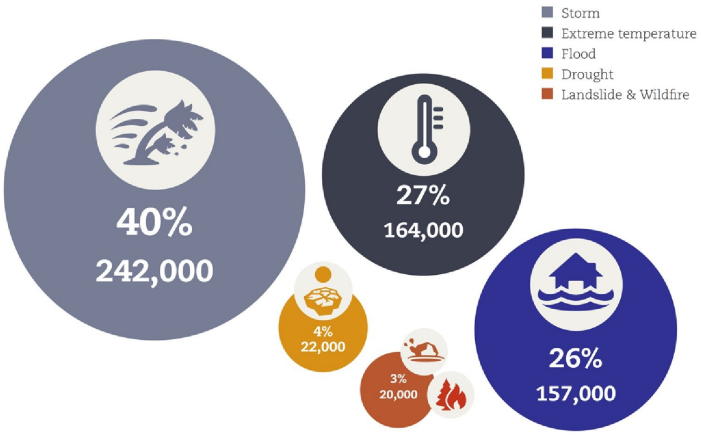

Figure 5. Total number of deaths compared to the average number of deaths per disaster by income group for weather-related disasters (1995-2015)

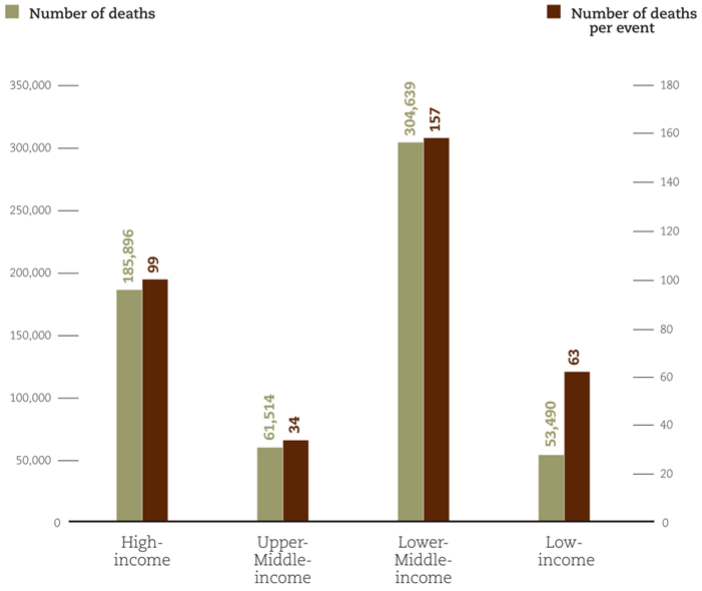

Figure 6. Economic losses in absolute values and as a % of GDP from weather-related disasters (1995-2015)

CRED News

♦The full report 'The human cost of weather related disasters' can be downloaded at : http://cred.be/HCWRD

♦CRED is delighted to present the 2016 Summer Course on Assessing Public Health in Emergency Situations (APHES). This course will take place on July 4-15, 2016 in Brussels, Belgium. More information at www.aphes.be.

♦Publication of 4 new articles in scientific journals, all available at : http://cred.be/publications

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