

CRED CRUNCH



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“Poverty & Death: Disaster Mortality, 1996-2015”

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Sustainable development is a matter of life and death. That’s the only conclusion that can be reasonably drawn from any examination of mortality trends from major disasters over the last twenty years.



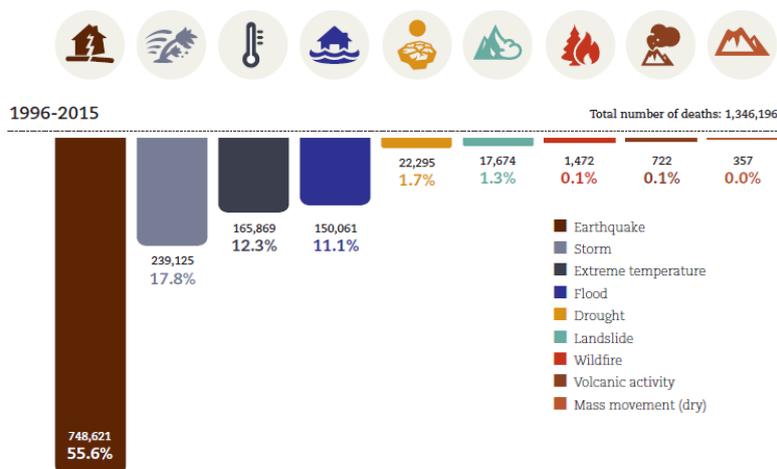
It’s all too easy for historic events to fade into the background, but the megadisasters which each killed more than 100,000 people during the last 20 years are harbingers of events which have yet to happen, and which will happen if we do not continue global efforts to eradicate poverty and achieve the other sustainable development goals outlined in the 2030 Development Agenda.

Within weeks of the Indian Ocean Tsunami claiming almost 230,000 lives in December 2004, the realization had dawned that this was the world’s first global so-called ‘natural’ disaster, leaving millions bereaved and homeless in the countries that border that vast ocean, along with the families of the 9,000 tourists who died because they happened to be in the wrong place at the wrong time.

The wrong place means a place where exposure to a disaster is exacerbated by poverty, lack of early warning systems, poor risk governance and an absence of the civil protection mechanisms that are taken for granted in high-income countries.

Of the 1.35 million people killed by natural hazards over the past 20 years, more than half died in earthquakes (Fig. A), with the remainder due to weather- and climate-related hazards. The overwhelming majority of these deaths occurred in low- and middle-income countries (Fig. B). The poorest nations paid the highest price in terms of the numbers killed per disaster and per 100,000 population (Fig. C).

A) Number of deaths per disaster type, 1996-2015



EM-DAT recorded 749,000 earthquake deaths in the past 20 years (Fig. A), with 357,000 lives lost between 2006 and 2015, the majority in the devastating earthquake in Haiti in 2010. In the previous decade (1996-2005) earthquakes claimed 392,000 lives, a figure inflated by another megadisaster, the 2004 Indian Ocean Tsunami.

Analysis of EM-DAT data shows that tsunamis are the deadliest type of major natural hazard on the planet in terms of the proportion of victims killed. This high level of mortality explains why World Tsunami Awareness Day is being inaugurated on November 5, 2016.

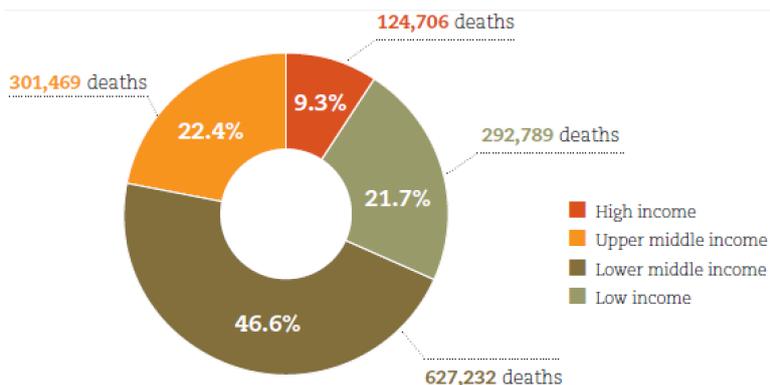
All figures presented in the CRED CRUNCH come from EM-DAT: The OFDA/CRED International Disaster Database”

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

Tsunamis also pose a significant threat to critical infrastructure, including nuclear power plants and airports. These increasing risks demonstrate the need for a commensurate effort to reduce potential tsunami impacts.

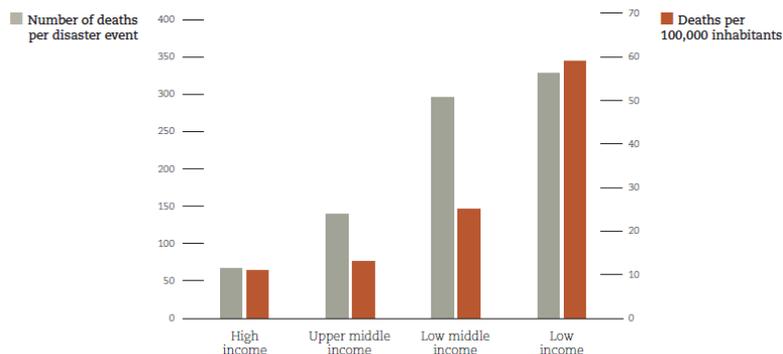
Natural hazards strike countries regardless of national income, but the severity of the impacts are directly related to income and development levels. This is particularly evident for disaster mortality. In absolute terms, middle-income countries bore the brunt of disaster mortality between 1996 and 2015 (Fig. B).

B) Number of deaths per income group for all natural hazards, 1996-2015



In terms of lives lost per disaster, however, low-income countries experienced by far the highest rate of mortality. On average, 327 people died per disaster in low-income countries in the past 20 years, almost five times more than the average toll in high-income countries. There is also a stark upward progression in the number of deaths per 100,000 inhabitants in poorer nations, with low-income countries suffering more than five times the number of disaster deaths by this measure than high-income countries (Fig. C). Great disparities are also evident between upper-middle-income and lower-middle-income countries. Today some 613 million people live in 31 low-income countries. Many of these countries are either in post-conflict or conflict situations and lack the resources to account adequately for their disaster losses or to reduce their vulnerability to disasters. Thus disaster mortality in low-income countries is probably even higher than indicated in EM-DAT.

C) Number of deaths per disaster event compared to the number of deaths per 100,000 inhabitants per income group, 1996-2015



The global plan for reducing disaster losses, the Sendai Framework for Disaster Risk Reduction, adopted by all UN member States in March 2015, sets a target for a substantial reduction in global disaster mortality; the statistics in this report point towards several major conclusions with implications for achieving this target:

- The high death tolls from earthquakes, including tsunamis, over the last 20 years is a deeply troubling trend given the pace of urbanization around the world in many seismic zones. This underlines the need to promote the mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, building codes and investing in earthquake-resistant infrastructure, notably housing, schools, health facilities and work places. The private sector, and the construction industry in particular, need to be partners in this endeavour;
- While better data is needed on overall disaster mortality, particularly in relation to weather- and climate-related hazards in low-income and lower-middle-income countries, it is clear that there needs to be more focus on alleviating the impact of climate change on countries which contribute least to greenhouse gas emissions but which suffer disproportionate losses of life because of extreme weather events exacerbated by rising sea levels and the warming of the land and sea.

UNISDR/CRED, 2016¹

CRED News

◆¹ This CRED CRUNCH was adapted from:

- UNISDR/CRED (2016). "Poverty & Death: Disaster Mortality, 1996-2015". URL: http://cred.be/sites/default/files/CRED_Disaster_Mortality.pdf

- UNISDR/CRED (2016). "Tsunami Disaster Risk, 2016 - Past impacts and projections". URL: http://www.cred.be/sites/default/files/CRED_Tsunami_disaster_risk2016.pdf

◆ Two articles recently published:

- ABELLO J., CUESTA J.G., CERRO B.R., GUHA-SAPIR D. (2016) Factors associated with the time of admission among notified Dengue fever cases in Region VIII Philippines from 2008 to 2014. *PLOS Neglected Tropical Diseases*: 13p.

- VOIGT S., GIULIO-TONOLO F., LYONS J., KUČERA J.; JONES B., SCHNEIDERHAN T., PLATZECK G.; KAKU K.; HAZARIKA M.K., CZARAN L, LI S., PEDERSEN W., JAMES G.K., PROY C.; MUTHIKE D.M., BEQUIGNON J., GUHA-SAPIR D. (2016) Global trends in satellite-based emergency mapping. *Science*; 353 (6296): 247-252.

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.

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