

Between 1994 and 2013, EM-DAT recorded 6,873 natural disasters worldwide, which claimed 1.35 million lives. In addition, 218 million people were affected by natural disasters on average per annum.

The frequency of geophysical disasters remained broadly constant, but a sustained rise in climate-related events (mainly floods and storms) pushed total occurrences significantly higher. From a disasters analysis point of view, population growth and patterns of economic development are more important than climate change or cyclical variations in weather when explaining this upward trend. Today, building in flood plains, earthquakes zones and other high-risk areas has increased the likelihood that a routine natural hazard will become a major catastrophe.

While disasters have become more frequent during the past 20 years, the average number of people affected has fallen (Fig.A). Death rates, on the other hand, increased. This partly reflects the huge loss of life in three megadisasters (the 2004 Asian tsunami, Cyclone Nargis in 2008 and the 2010 Haitian earthquake). However, the trend remains upward even when these three events are excluded from the statistics.

Flooding caused the majority of disasters and affecting nearly 2.5 billion people (Fig. B).

Earthquakes (including tsunamis) killed more people than all other types of disaster put together, claiming nearly 750,000 lives (Fig.C). Tsunamis were the most deadly sub-type of earthquake.

Income levels impact on disaster death tolls. When low- and lower-middle-income countries are grouped together and compared to high- and upper-middle-income countries, higher-income countries experienced 56% of disasters but lost 32% of lives, while lower-income countries experienced 44% of disasters but suffered 68% of deaths (Fig.D). Low-income countries account for 43 deaths per one million inhabitants, while in high-income countries the death rate is only nine per million (Fig.E).

This demonstrates that levels of economic development, rather than exposure to hazards per se, are major determinants of mortality.

In economic terms, the global pattern of economic losses as a percentage of GDP varies starkly from the pattern of global losses in absolute terms (Fig.F), revealing the relative greater economic impact on low-income countries.

In CRED's view, EM-DAT data point to several major conclusions:

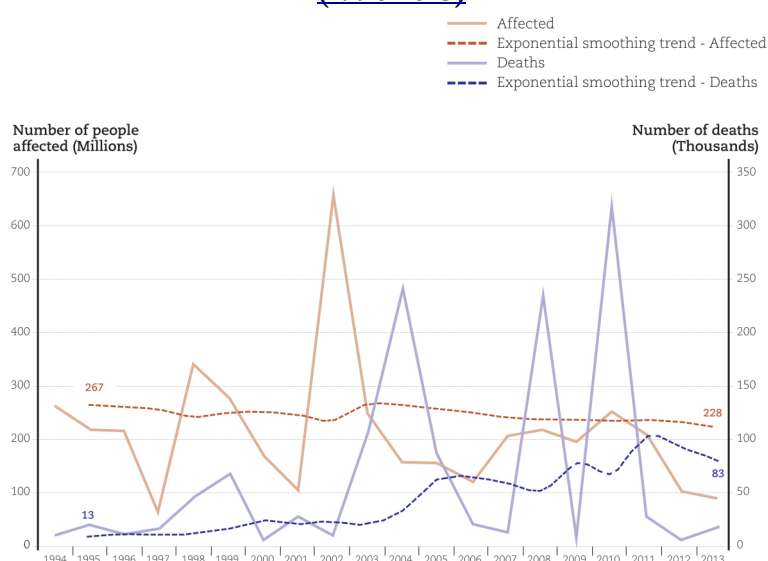
- Rising death rates at a time when the numbers of people affected are falling highlights the continued vulnerability of communities to natural hazards (Fig.A). Given the accuracy of today's weather forecasting and developments in early warnings, we believe more work must be done to evaluate the real outcomes of disaster risk reduction interventions on human lives and livelihoods.
- In view of the disproportionate burden of natural hazards in lower-income countries, mitigation measures in less developed countries require significant improvement.
- Better flood control for poorer communities at high risk of recurrent flooding would be an important step in the right direction. Effective, low-cost solutions exist, including afforestation, floodplain zoning or better warnings. Such actions would also bring development benefits.
- In light of predictions that climate change will increase the frequency of storms and other extreme weather events, better management, mitigation and deployment of storm warnings could save more lives in future.
- Reducing the size of drought-vulnerable populations should be a global priority over the next decade, given the effectiveness of early warnings and the vast numbers of people affected (Fig. X).
- Better research into how and why households and communities are affected by disasters is urgently needed so that responses are based on evidence, rather than assumptions. Without such micro-level research, future DRR and disaster prevention will not be effective.

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## A. People affected & killed annually by natural disasters (1994-2013)

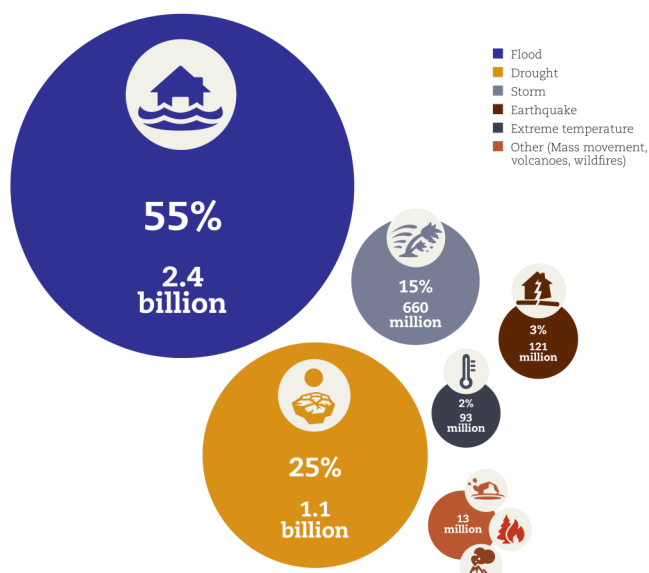


*All figures presented come from "EM-DAT: The OFDA/CRED International Disaster Database"*

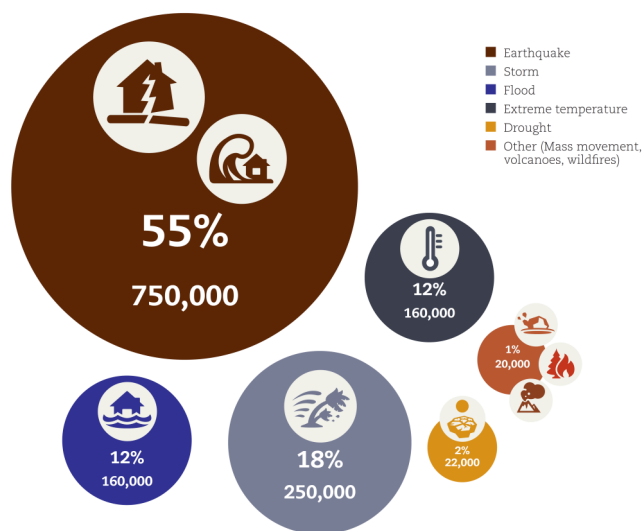
<sup>1</sup>Analyses come from the CRED report **“The Human Cost of Natural Disasters: A global perspective (2015)”**



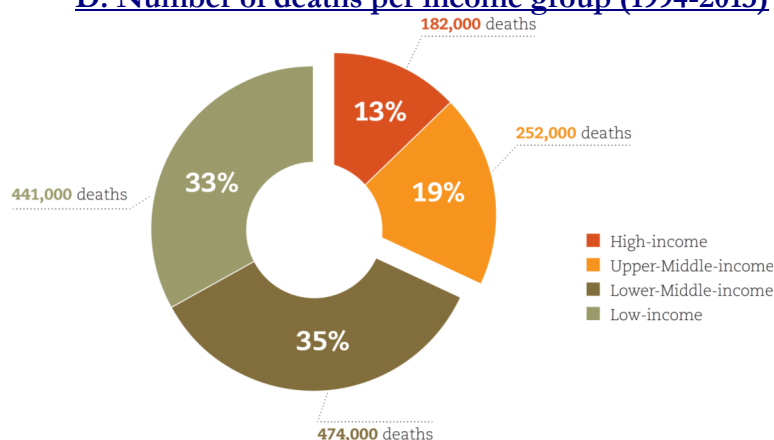
## B. Number of people affected by disaster type (1994-2013)



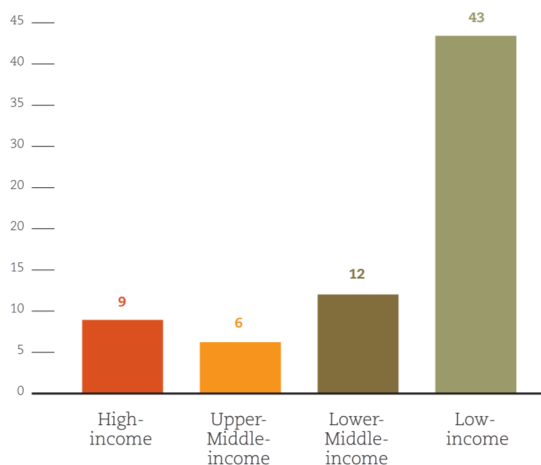
## C. Number of deaths by disaster type (1994-2013)



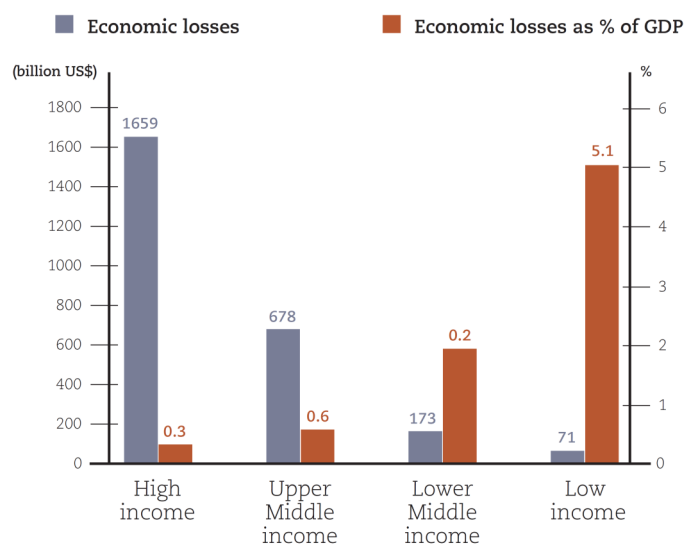
## D. Number of deaths per income group (1994-2013)



## E. Number of deaths per one million inhabitants by income group (1994-2013)



## F. Economic losses in absolute values and compared to GDP (1994-2013)



## CRED News

- ◆ The full report “The Human Cost of Natural Disasters: A global perspective (2015)” is available online :

[http://emdat.be/human\\_cost\\_natdis](http://emdat.be/human_cost_natdis)

- ◆ CRED is pleased to announce the publication of the article in *PLOS Currents Disasters* : « The humanitarian situation in Syria: A snapshot in the Third Year of the crisis », Doocy S., Delbiso T.D., IOCC/GOPA study team, Guha-Sapir D. [http://cred.be/sites/default/files/Humanitarian\\_situation\\_in\\_Syria.pdf](http://cred.be/sites/default/files/Humanitarian_situation_in_Syria.pdf)

- ◆ CRED is delighted to present the 2015 Summer Course on Assessing Public Health in Emergency Situations (APHES). This course will take place on July 6-17, 2015 in Brussels, Belgium. More information at [www.aphes.be](http://www.aphes.be).

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](mailto:contact@emdat.be) or visit [www.emdat.be](http://www.emdat.be)

