

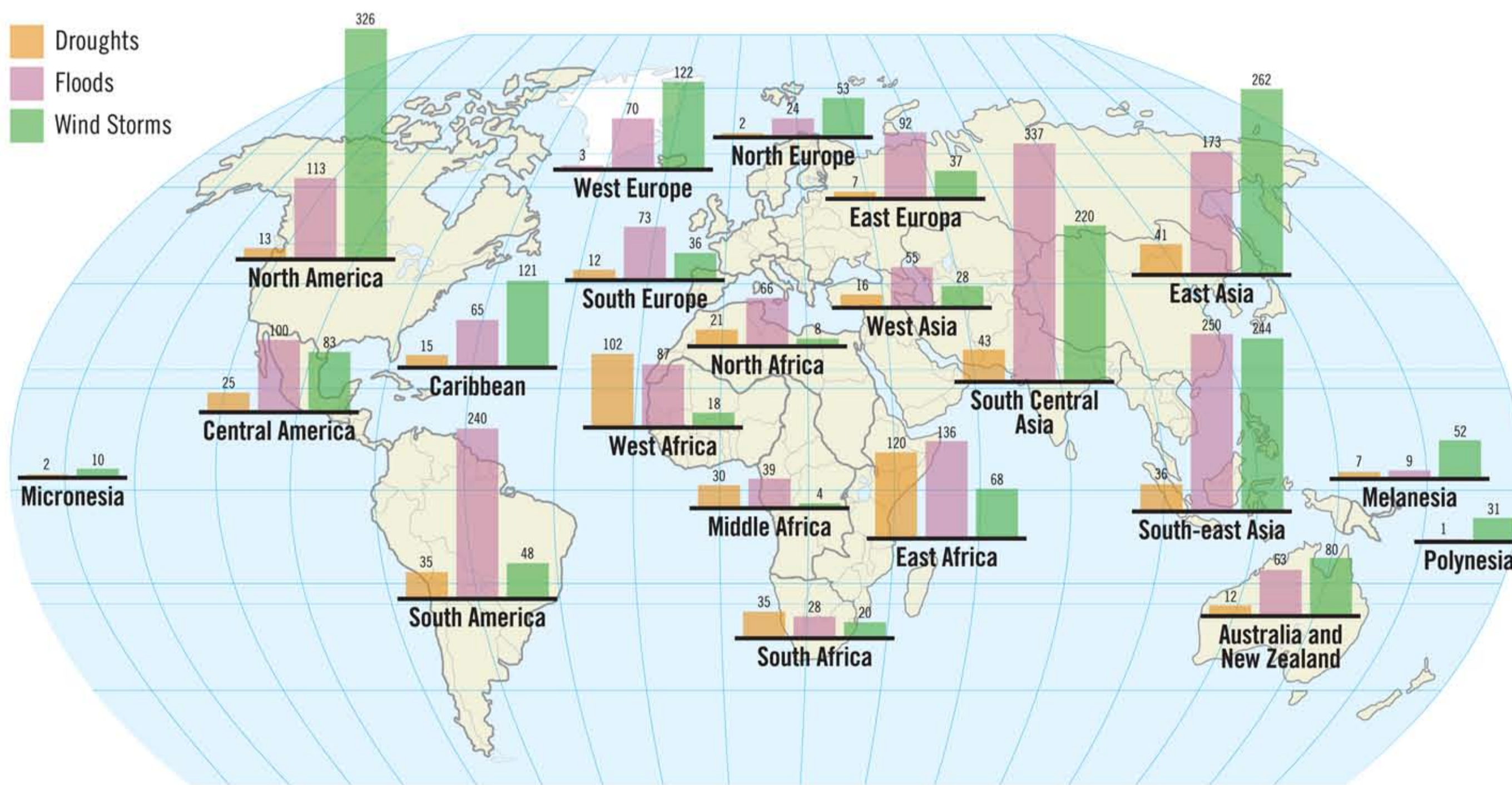
Water, natural hazards and disasters

Over the past 20 years, 90% of natural disasters have been water-related incidents such as floods, droughts, landslides or landflows among others. Floods and droughts are the freshwater disasters that cause the greatest number of casualties and have the worst consequences on socioeconomic development, especially in developing countries.



Occurrence of droughts, floods and wind storms (1973-2002)*

* Includes disasters that meet the following criteria established by the Centre for Research on the Epidemiology of Disasters (CRED): ten or more people reported killed; 100 people reported affected; a call for international assistance and/or declaration of state of emergency. Source: United Nations International Strategy for Disaster Reduction (UNISDR), based on the CRED's International Emergency Disasters Database (EM-DAT), Catholic University of Louvain, 2003



Distribution of water-related disasters by region (1990-2004)

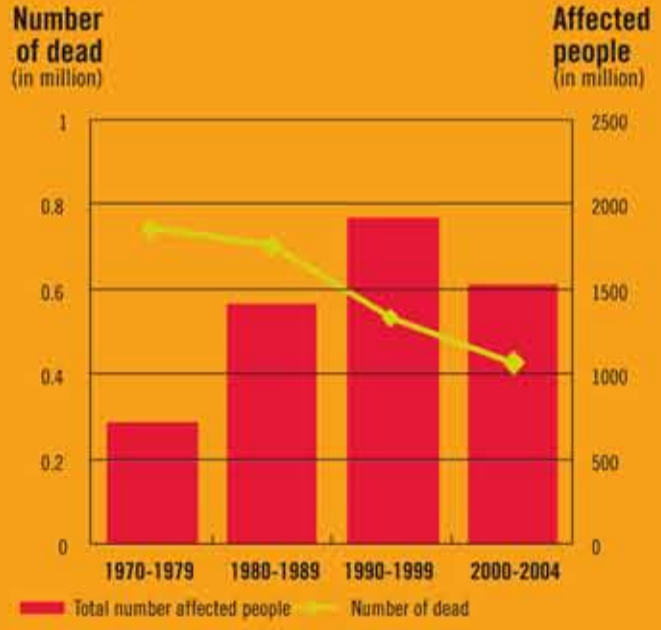
Source: UN-WDR2, based on data from OFDA-CRED, Catholic University of Louvain (Belgium), and analysis by Public Works Research Institute (PWRI), Tsukuba (Japan), 2005.



Natural risk is the likelihood that the population of a particular area will suffer damage as a consequence of a natural process. Risk = vulnerability x hazard

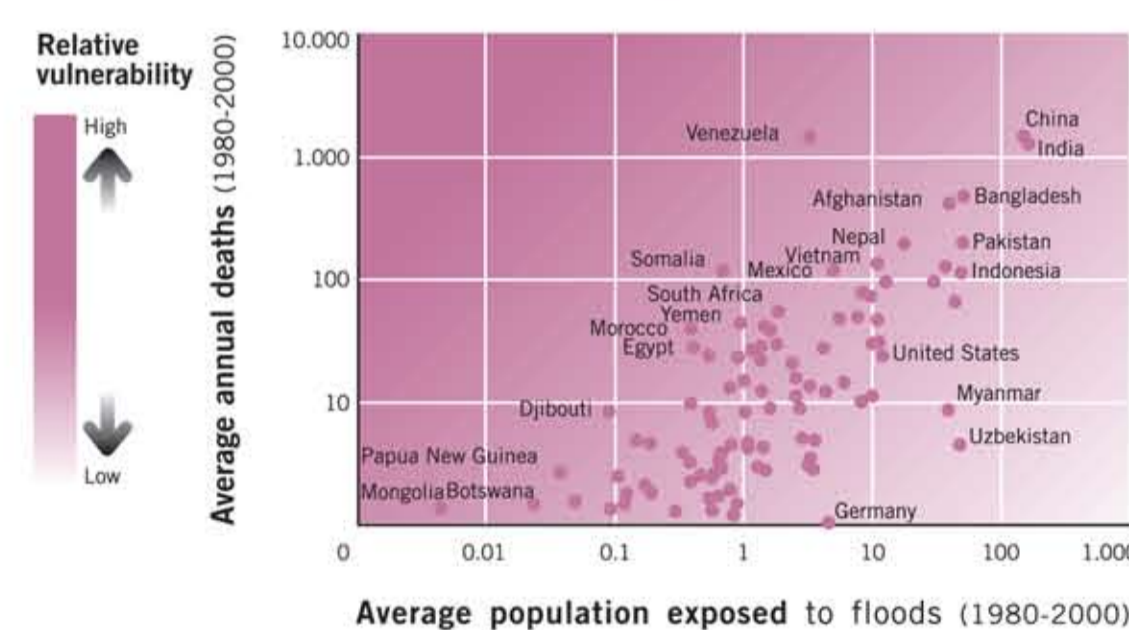
Number of dead and affected people in water-related disasters

Source: UN-WDR2, based on data from OFDA-CRED and analysis done in 2005 by PWRI, Tsukuba.

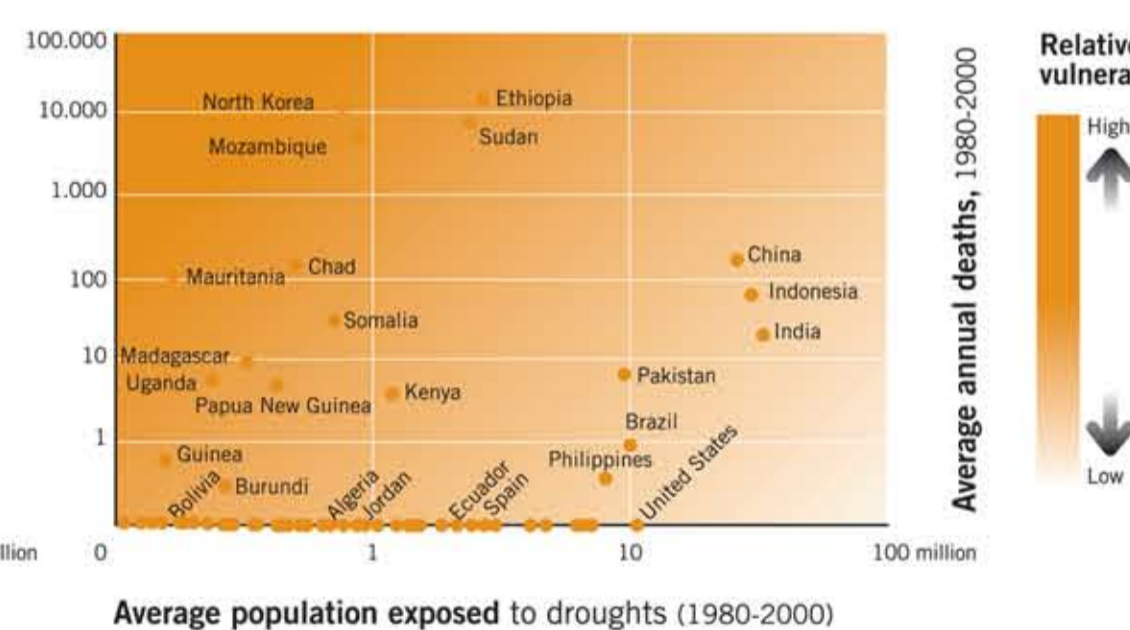


Economic losses in developing countries are up to five times greater than in developed countries. Improving risk management is crucial if we are to break the vicious cycle of poverty.

Relative vulnerability for floods



Relative vulnerability for droughts



Vulnerability refers to the number of deaths and/or the amount of material damage as a percentage of the total number of people and/or assets exposed. The vulnerability of inhabited areas can be reduced through proper protection. Hazard refers to the probability of occurrence of a particular natural phenomenon with negative consequences.

In order to reduce risks and plan effective prevention, mitigation and rescue measures, all causes of disasters whether natural or derived from human activities must be analysed. Efforts to reduce natural disaster risks must be gradually and systematically integrated into policies, sustainable development programmes and plans for poverty reduction.



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