

Flood disasters in Europe

This issue of the CRED Crunch reveals the human and economic impacts of floods, with a special focus on Europe. Floods are the most common natural disaster in the world but also in Europe. They have a significant impact on the health and mental status of communities.

General floods can be defined as gradually rising inland water levels due to high total depth of rainfall or snowmelt, caused when a body of water (e.g. rivers, lakes) overflows its normal confines. These floods are longer term events that may last for days or weeks, in contrast to flash floods which are rapid inland floods with a short duration^b. Flood-prone European countries, such as Romania, France or Greece, have annually recurring floods, which continuously cause human suffering and economic damages.

Although research has addressed the human and health impact of floods in Europe, results remain inconclusive and more evidence is needed to determine the long-term effects of these disasters.

Approaches to measure the impact of floods at a higher resolution using GIS can benefit health and disaster research, and can shed light on spatial distributions of flood occurrence and their consequences on the health of communities. Spatial disaster information is available in EM-DAT and its use is being explored in several studies. Linking this information with community-level public health data can reinforce the scientific body of evidence on the effects of disasters on human society, in Europe and worldwide.

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Director, CRED

Top 10 flood¹ disasters by reported no. of people affected in EU: 2000-2009

Country	Date	No. killed	No. affected	Damages ³ (billion US\$)
UK	Jul 2007	7	340,000	4.1
Germany	Aug 2002	27	330,100	13.8
Czech Rep	Aug 2002	18	200,000	2.9
Romania	Apr 2000	9	60,400	0.1
Austria	Aug 2002	9	60,000	2.9
Hungary	Mar-May 2006	0	32,000	NA
Romania	Sep 2005	10	30,800	NA
UK	Jun-Jul 2007	6	30,000	4.1
Romania	Mar-Apr 2006	6	17,000	NA
Romania	Jul 2005	24	14,700	0.9

1. Flash floods and Storm surges/ Coastal floods not included. 3. in 2009 US\$ value.
2. EU-27 Member States. 4. biological dis. not included.

a. From: Health impacts of floods in Europe: data gaps and information needs. Microdis report, in print.
b. Wirtz, A., Regina Belon, Debarati Guha Sapir (2009). Disaster Category Classification and Peril Terminology for Operational Purposes. CRED: Brussels, MunichRe: Munich.

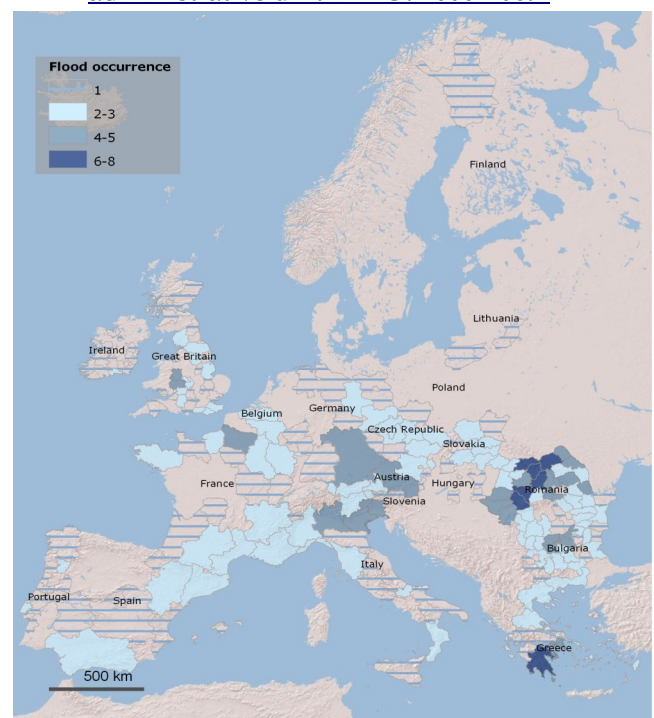
Flood disasters¹ in Europe²: Summary

	1980-2009	2000-2009
No. floods	239	147
No. countries affected	22	19
No. killed	1309	511
No. affected (million)	3.0	1.3
Econ. damage (billion US\$) ³	92.3	45.0

EU countries with greatest flood¹ occurrence: 2000-2009

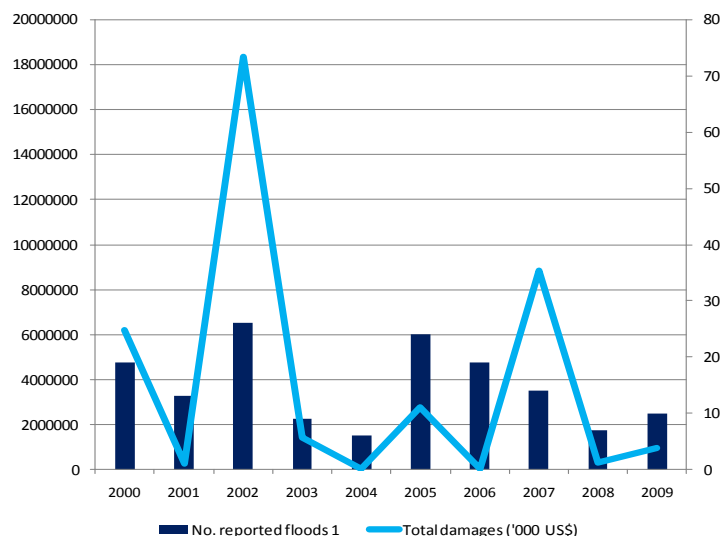
Country	No. floods	No. killed	No. affected	Damages ³ (billion US\$)
Romania	25	169	187,400	1.7
France	14	34	22,500	1.6
Greece	14	15	12,200	0.7
Italy	13	72	20,000	2.1
UK	12	26	379,500	16.6
Bulgaria	11	52	13,300	0.5
Hungary	8	1	45,800	0.2
Austria	6	14	61,400	3.8
Czech rep	6	38	218,800	3.1
Germany	6	29	331,600	14.1

Flood¹ occurrence by sub-national administrative unit in EU: 2000-2009^a



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

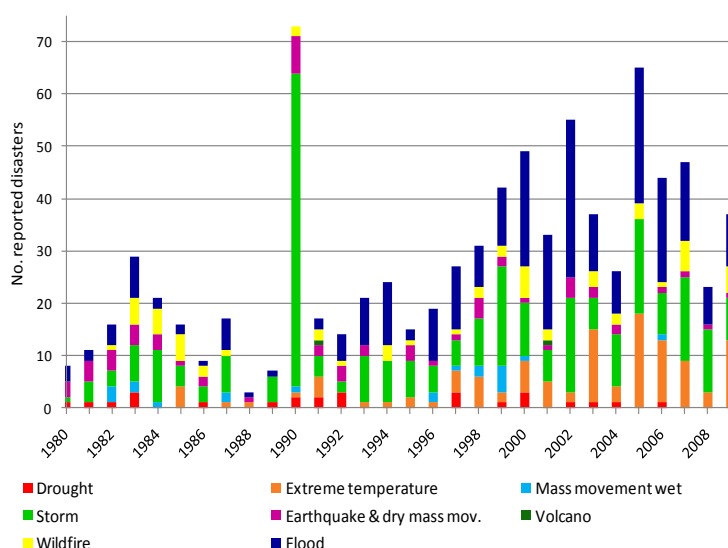
Trend in flood¹ occurrence and economic damages in EU: 2000-2009



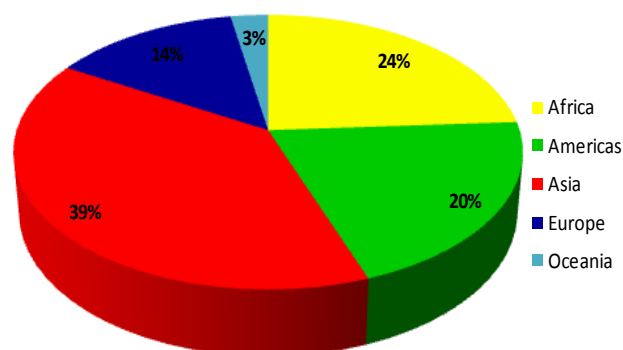
Top 10 flood¹ disasters by reported no. of people affected worldwide: 2000-2009

Country	Month	Year	No. affected
China P Rep	Jun-Jul	2003	150,146,000
China P Rep	Jun-Jul	2007	105,004,000
India	Jun-Aug	2002	42,000,000
China P Rep	Jul	2009	39,372,000
Bangladesh	Jun-Aug	2004	36,000,000
China P Rep	Jul	2004	33,652,000
India	Jun-Aug	2004	33,000,000
India	Sep-Oct	2000	24,600,000
India	Aug	2000	22,000,000
India	Jul-Aug	2005	20,000,000

Trend in number of reported natural⁴ disasters per disaster type in EU: 1980-2009



Share of reported flood occurrence by continent: 2000-2009



CRED News

- The MICRODIS Final Steering Committee Meeting will take place on December 3-4, 2010 in Delhi, India at the University of Delhi. More information on www.microdis-eu.be.
- CRED is pleased to announce its new working paper 'Moving towards harmonization of disaster data: A study of six Asian databases', soon available through the following [link](#).
- The recently published CE-DAT background paper to the World Development Report 2011, entitled 'Demographic And Health Consequences of Civil Conflict' can be downloaded [here](#).
- CRED is pleased to present the 2011 Summer Course on Assessing Public Health in Emergency Situations (APHES). This course will take place on July 4-15, 2011 in Brussels, Belgium. More information at www.aphes.be.
- CRED is happy to announce that the press conference presenting a first overview of 2010 disaster figures will be held, in collaboration with UNISDR, on 20th of January, 2011 in Geneva

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