UCLouvain
Centre for Research on the Epidemiology of Disasters CRED

Disasters[1] Year in Review 2022

USAID FROM THE AMERICAN PEOPLE

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Climate in action

In 2022[1], the Emergency Event Database EM-DAT recorded 387 natural hazards and disasters worldwide[2] resulting in the loss of 30,704 lives[3] and affecting 185 million individuals. Economic losses totaled around US$ 223.8 billion. Heat waves caused over 16,000 excess deaths[4] in Europe, while droughts affected 88.9 million people in Africa. Hurricane Ian single-handedly caused damage costing US $ 100 billion in the Americas. The human and economic impact of disasters was relatively higher in Africa, e.g., with 16.4 % of the share of deaths compared to 3.8 % in the previous two decades. It was relatively lower in Asia despite Asia experiencing some of the most destructive disasters in 2022.

The total of 387 catastrophic events in 2022 is slightly higher than the average from 2002 to 2021 (370). The occurrence of each type of disaster was also close to the average levels in the last two decades.

In 2022, the total death toll of 30,704 was three times higher than in 2021 but below the 2002-2021 average of 60,955 deaths, the latter being influenced by a few mega-disasters, such as the 2010 Haiti earthquake (222,570 deaths). For a more useful comparison, the 2022 toll is almost twice the 2002-2021 median of 16,011 deaths.[5]

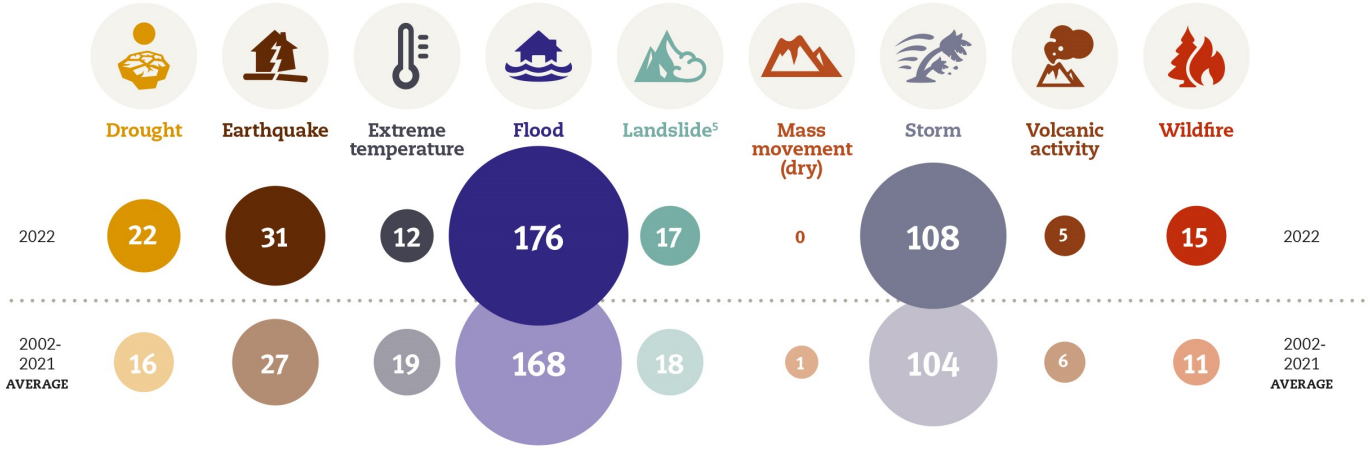
The impact of heat waves on the elderly is a statistic that is increasingly documented and reflected in EM-DAT's figures. Accordingly, heatwave-related excess mortality in Europe, with a provisional estimate of 16,305 deaths, accounted for over half of the total death toll in 2022. There were at least five record-breaking heat waves in Europe in 2022, with summer temperatures reaching 47°C.

The drought-induced famine in Uganda caused 2,465 deaths, making it the second deadliest disaster

[1] Preliminary data as of 2023-02-08.
[2] In this report, disasters are related to natural hazards, excluding biological and extra-terrestrial hazards, reported at the country level in EM-DAT.
[3] Death figures include missing persons.
[4] Information on European heat waves, which is based on provisional data, is subject to change.
[5] The median is the middle value of a variable, such that 50% of the observations are above it and 50% are below it.

Occurrence by disaster type: 2022 compared to the 2002-2021 annual average

370 2002 to 2021 < 387 in 2022



event in 2022 after the European heat waves. In addition, droughts impacted 88.9 million people in six African countries (the Democratic Republic of the Congo, Ethiopia, Nigeria, Sudan, Niger, and Burkina Faso) in 2022. Notable drought events[6] also occurred in China (where 6.1M people were affected, costing damage worth US$ 7.6 B), in the USA (US$ 22 B), and in Brazil (US$ 4 B).

The Pakistan June-September floods affected 33 million people, causing 1,739 deaths and economic damage costing US$ 15 billion. Monsoon floods also struck India (2,035 deaths, US$ 4.2 B), Bangladesh (7.2 M people affected), and China (US$ 5 B). In Nigeria, floods caused 603 deaths and resulted in an economic cost of US$ 4.2 billion, while there were 544 flood-related lives lost in South Africa. The February flood in Brazil killed 272 people, and the floods in Eastern Australia in February and March cost US$6.6 billion. The past year (2022) was marked by three major storm events, including two in the Philippines: Tropical Storm Megi in April (346 fatalities) and Tropical Storm Nalgae in October (3.3 M people affected). Hurricane Ian struck the USA, causing damage worth US$ 100 billion, making it the costliest disaster event of 2022.

As for earthquakes, three events stood out in 2022, with two of these ranking among the top ten deadliest disaster events: the southeastern Afghanistan earthquake in June (1,036 fatalities) and the Indonesia earthquake in November (334 fatalities). Finally, the Fukushima earthquake of 2022 resulted in damage costing US$ 8.8 billion, making it the event with the fourth-highest economic impact.

[6] Drought figures include only events starting in 2022 and their provisional impacts, i.e., it does not include previous events that continued into 2022.

Table 1

Top 10 mortality – 2022

Europe[10]	Heat Wave	16,305	Nigeria	Flood	603
Uganda	Drought	2,465	South Africa	Flood	544
India	Flood	2,035	Philippines	Tropical Storm 'Megi'	346
Pakistan	Flood	1,739	Indonesia	Earthquake	334
Afghanistan	Earthquake	1,036	Brazil	Flood	272

Table 2

Top 10 total affected – 2022

Pakistan	Flood	33.0 million	Bangladesh	Flood	7.2 million
Congo (Democratic Rep.)	Drought	26.0 million	China	Drought	6.1 million
Ethiopia	Drought	24.1 million	Niger	Drought	4.4 million
Nigeria	Drought	19.1 million	Burkina Faso	Drought	3.5 million
Sudan	Drought	11.8 million	Philippines	Storm 'Nalgae'	3.3 million

Table 3

Top 10 economic losses - 2022

USA	Hurricane 'Ian'	100.0 billion	Australia	Flood	6.6 billion
USA	Drought	22.0 billion	China	Flood	5.0 billion
Pakistan	Flood	15.0 billion	Nigeria	Flood	4.2 billion
Japan	Earthquake	8.8 billion	India	Flood	4.2 billion
China	Drought	7.6 billion	Brazil	Drought	4.0 billion

CRED updates and recent publications

- The CRED team has organized its first Scientific and Technical Advisory Group (STAG) meeting on March 20 and 21, 2023 in Brussels.
- This CRED Crunch issue is adapted from: *CRED.* '2022 Disasters in numbers', Brussels: CRED, 2023. The full report is available at https://cred.be/sites/default/files/2022_EMDAT_report.pdf

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Data: "EM-DAT: The OFDA/CRED International Disaster Database."
Data are subject to change, for enquires: contact@emdat.be
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