2024 Disasters in Numbers

393 Reported Disasters

16,753 Deaths

167.2 Million People Affected

242 Billion US$ Economic Damage

A Hot and Stormy Year

UCLouvain

CRED Centre for Research on the Epidemiology of Disasters

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Executive Summary

In 2024,[1] the Emergency Events Database (EM-DAT) recorded 393 natural hazard-related disasters.[2] These events caused 16,753 fatalities and affected 167.2 million people. Economic losses totaled US$241.95 billion. The year 2024 was marked by extreme temperature events in Asia that caused thousands of deaths, severe droughts in Africa affecting over 25 million people,[3] and devastating tropical storms in the United States of America (USA), with cumulative damage exceeding US$100 billion.

With 16,753 reported deaths, the year under review stands below the 2004-2023 average of 65,566 deaths, primarily due to the absence of mass disasters — such as significant earthquakes, tsunamis, storms, or heat waves — whose death toll per event can exceed 10,000. Nevertheless, several extreme temperature-related events in Asia rank among the year's top 10 deadliest events.

In June 2024, an extreme heat event in Saudi Arabia during the Hajj pilgrimage to Mecca claimed more than 1,300 lives as temperatures exceeded 50°C. Other Asian countries also experienced severe heat waves and record-breaking temperatures in 2024, including India, Bangladesh, Pakistan, Cambodia, Laos, Thailand, Myanmar, Vietnam, and the Philippines. However, the actual human impact is likely underreported and not fully reflected in EM-DAT.

Based on available data, heat waves in India between March and June reportedly caused 733 deaths, while 568 people died in Pakistan. In Bangladesh, around 33 million children were affected by extreme heat.[4] In the USA, preliminary estimates suggest 1,006 deaths, though this only includes data from the cities of Phoenix (Arizona) and Las Vegas (Nevada). In Europe, excess mortality — from extreme temperature events — was reported in Mediterranean countries, such as Italy and Greece, but final figures were not yet available at the time of reporting.

In Afghanistan, severe winter conditions, including cold spells, snowfalls, blizzards, landslides, and floods, led to nearly 1,200 deaths, according to the Afghanistan Red Crescent Society (ARCS) and the Afghanistan National Disaster Management Authority (ANDMA).[5] On May 24, a major landslide struck Enga Province in Papua New Guinea, resulting in one of the country's most severe disasters in recent memory. United Nations agencies estimated around 670 fatalities, though most victims remain buried under the debris, making the final toll uncertain. In Japan, on January 1, a powerful earthquake claimed 551 lives and was among the top 10 costliest disasters of 2024, with estimated damage totaling US$15 billion.

Floods caused the highest number of fatalities in Africa. From July to September, 576 people died in Chad, while floods in Niger from June to October claimed 396 lives. In India and Bangladesh, 8 million and 5.8 million people, respectively, were affected by heavy monsoon rains, flash floods, and thunderstorms in late August, while another 5.1 million people were affected in Bangladesh earlier in June and July. In Spain, floods in late October and early November, especially in the Valencia region, were among the 2024 top 10 costliest globally, with damage totaling US$11 billion. In Brazil, early May floods, landslides, and mudslides in the Rio Grande do Sul region caused an estimated US$7 billion in damage.

Tropical storms also had a major impact globally. In early September, Typhoon Yagi caused the highest number of fatalities in Myanmar, killing 460 people and causing extensive damage and casualties in other countries as well, notably Vietnam, with 345 fatalities reported. In total, at least 29 million people across Southeast Asia were affected by destructive cyclones, including Typhoon Gaemi (Carina) and Prapiroon (Butchoy) in July, and Trami (Kristine) in October. Earlier in the year, Cyclone Remal in Bangladesh affected approximately 4.6 million people. The USA also experienced significant impacts from storms in 2024, including major hurricanes such as Helene, Milton, and Beryl, which rank among the most costly in this annual report.

Droughts severely affected several African countries. In 2024, extreme drought conditions impacted approximately 9.8 million people in Zambia, 7.6 million in Zimbabwe, and 6.1 million in Malawi, exacerbating food and water shortages. In Brazil, an unprecedented drought in the Amazon region, one of the most severe in centuries, caused an estimated US$6 billion in damage. The USA also experienced a drought, primarily in the southern, eastern, and northwestern regions, with estimated losses of US$5.4 billion. The EM-DAT data indicate that, overall, 2024 was more costly in terms of disaster-related damage than the average year over the past two decades.

1 Date of reference: 2025-04-08.

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 In this report, drought figures include events declared in 2024 and their provisional impact at the date of reference. Hence, events declared in previous years and still ongoing in 2024 are not included.

4 This number referred to children affected by nationwide school closures, a government measure to reduce the risks of dehydration and heatstroke. ReliefWeb OCHA reported that local media indicated 70% of Bangladesh's population was impacted, without further detail on the nature of the impact.

5 The death toll for this compound hazard event has been reported by the International Red Cross and Crescent Society (IFRC), itself referring to ARCS and ANDMA as sources.

Occurrence of Disasters [6]

Figure 1

Number of Disasters by Continent and Top 10 Countries[7] in 2024

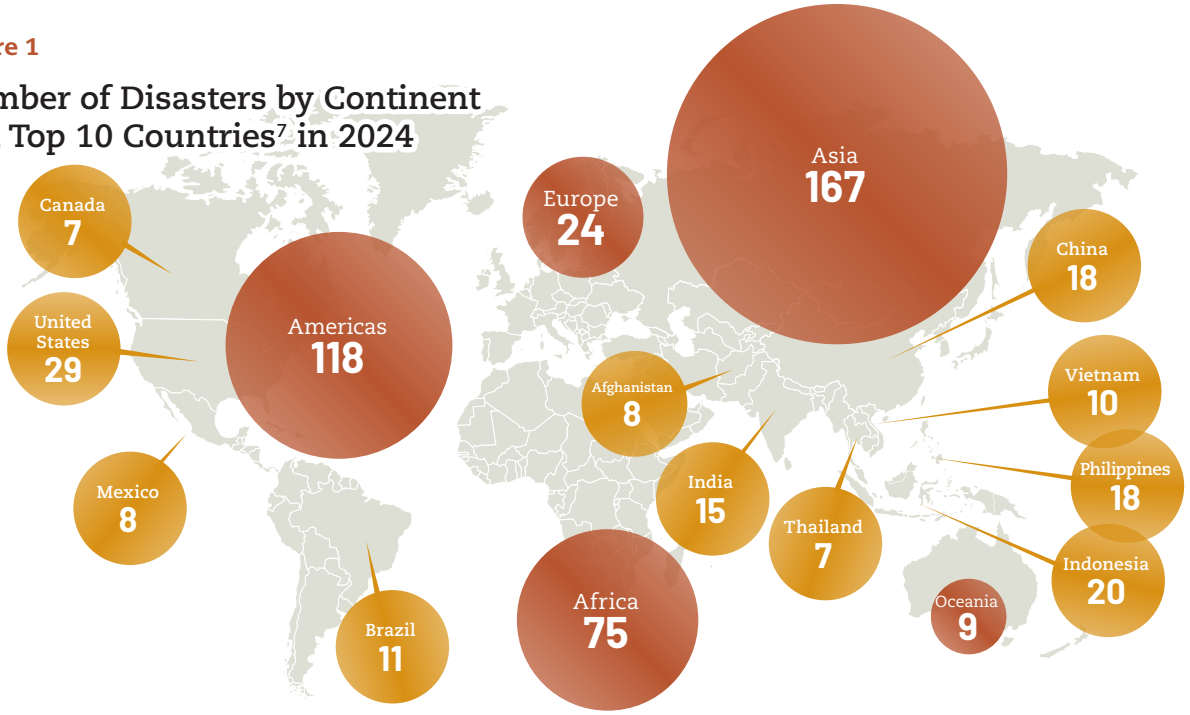
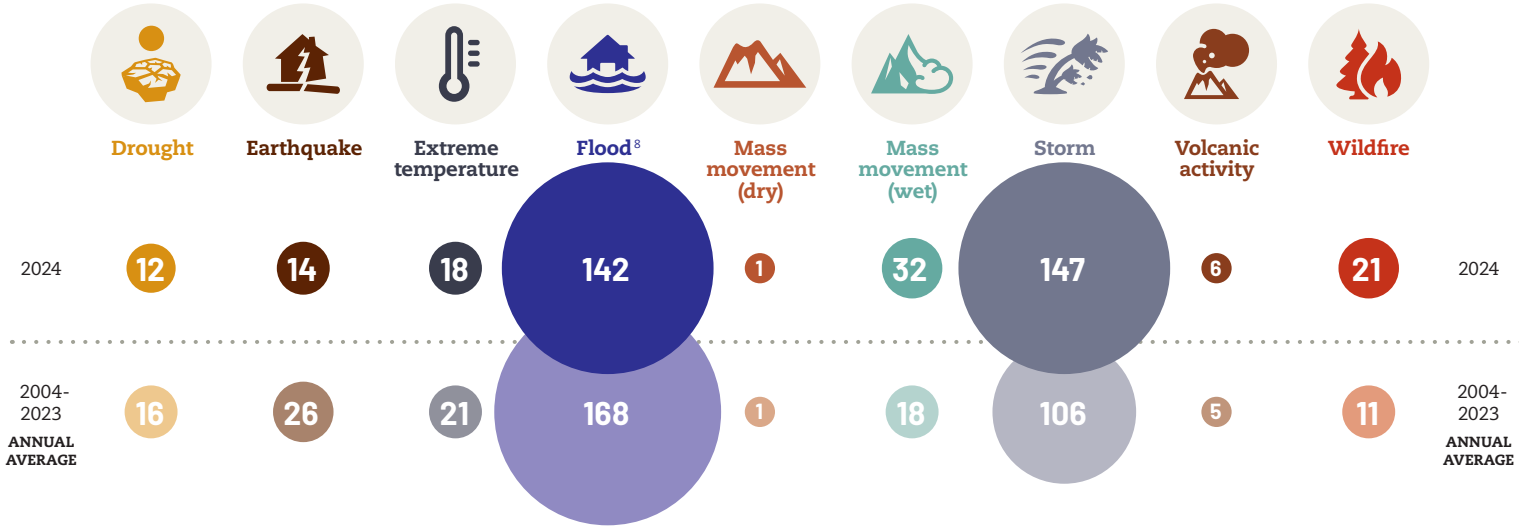


Figure 2

Occurrence by Disaster Type: 2024 Compared to the 2004-2023 Annual Average

371 2004 to 2023 < 393 in 2024



6 The reported disaster count may vary based on hazard frequency as well as the aggregation methods of reporting sources defining the extent of a disaster event.

7 Two countries share the 10th rank with seven disasters, so 11 countries are listed.

8 Including one glacial lake outburst flood event.

Human Impact: Total Deaths[9]

Figure 3

Proportion of Deaths by Continent in 2024

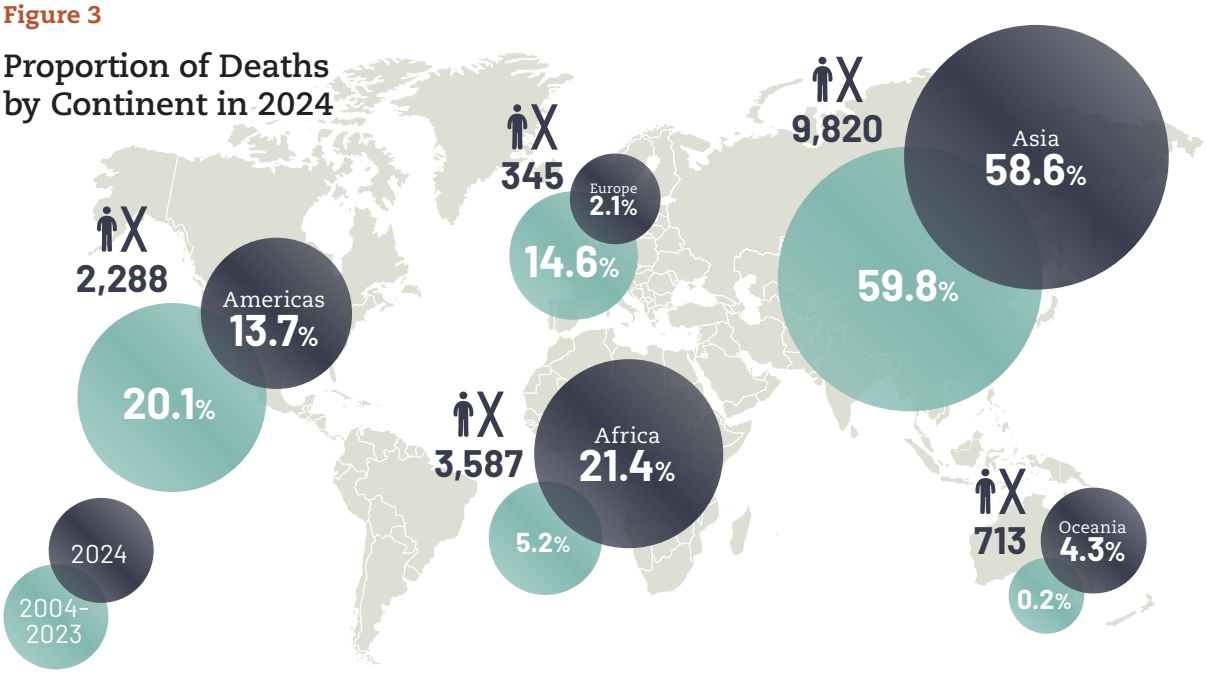


Figure 4

Number of Deaths by Disaster Type: 2024 Compared to 2004-2023 Annual Average

65,566 (2004 to 2023) > 16,753 (in 2024)

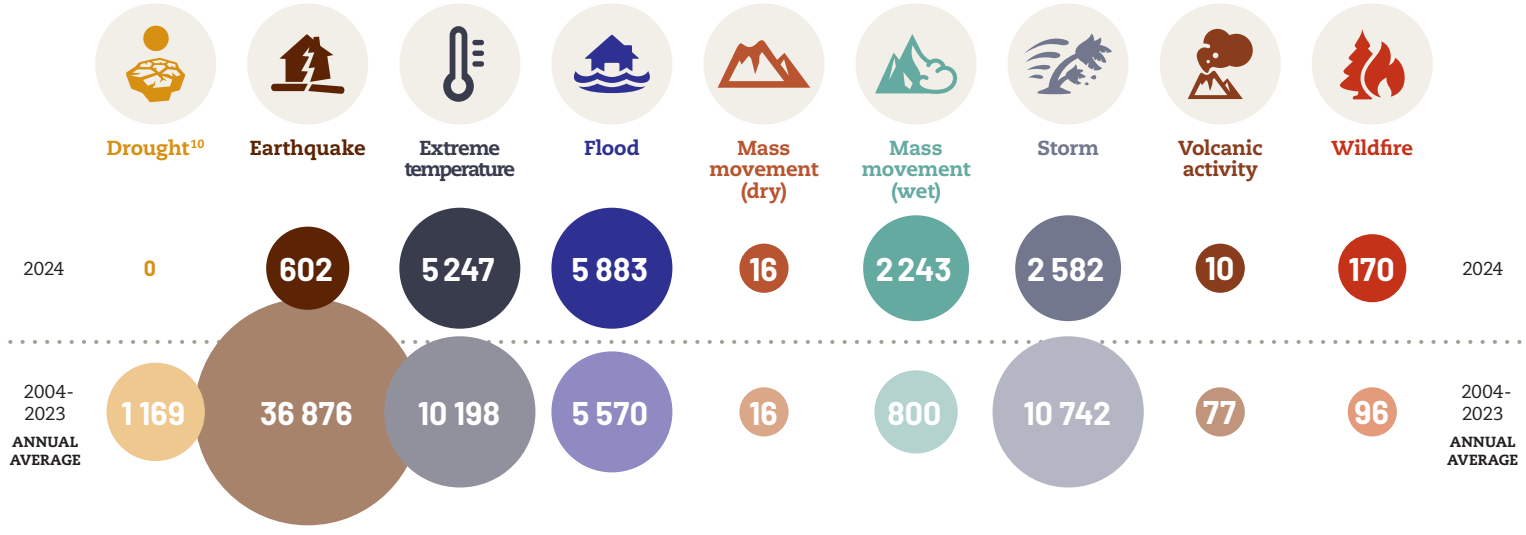


Table 1 Top 10 Mortality – 2024

Saudi Arabia	Heat Wave	1,301	
Afghanistan	Severe Winter Conditions	1,197	
USA	Heat Wave	1,006	
India	Heat Wave	733	
Papua New Guinea	Landslide	670	
Chad	Flood	576	
Pakistan	Heat Wave	568	
Japan	Earthquake	551	
Myanmar	Typhoon Yagi	460	
Niger	Flood	396	

9 The total deaths indicator includes persons confirmed as dead, and persons reported missing and presumed dead.

10 EM-DAT data, including null values, reflect reported impacts from various sources and may substantially differ from actual impacts if the latter are systematically underreported. Drought-related mortality, for instance, is usually not reported.

Human Impact: Total Affected [11]

Figure 5

Proportion of Affected by Continent in 2024

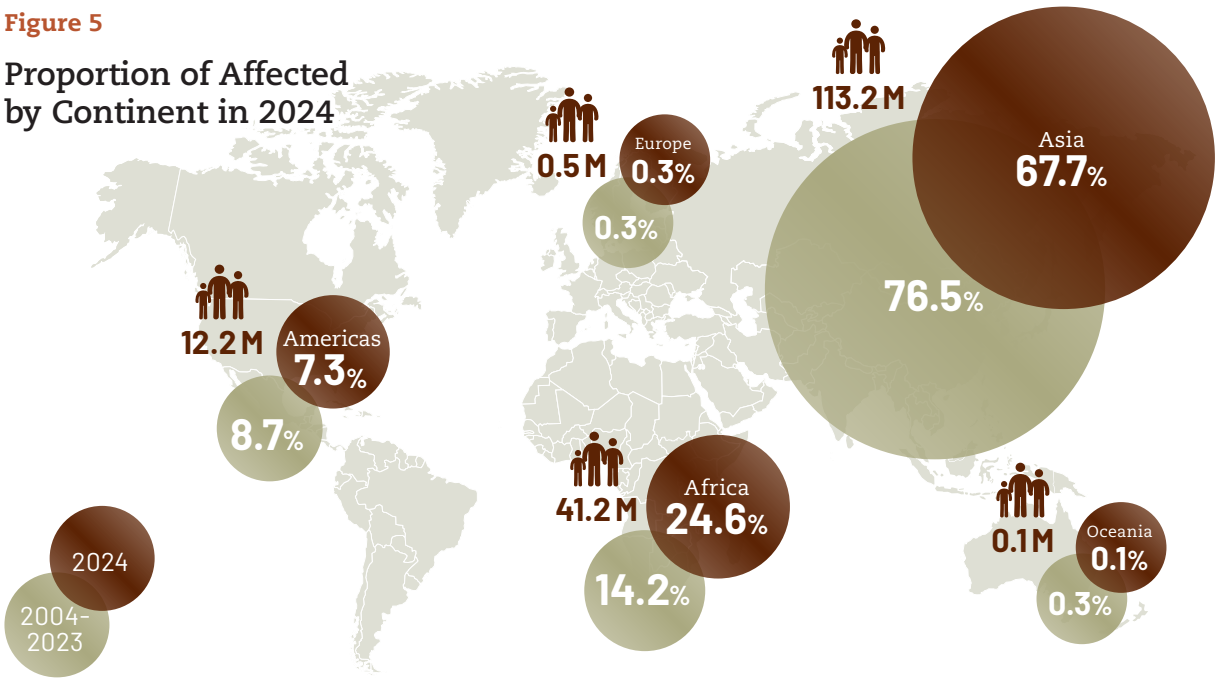


Figure 6

Number of Affected by Disaster Type: 2024 Compared to 2004-2023 Annual Average

168.7 (2004 to 2023) > 167.2 (in 2024)

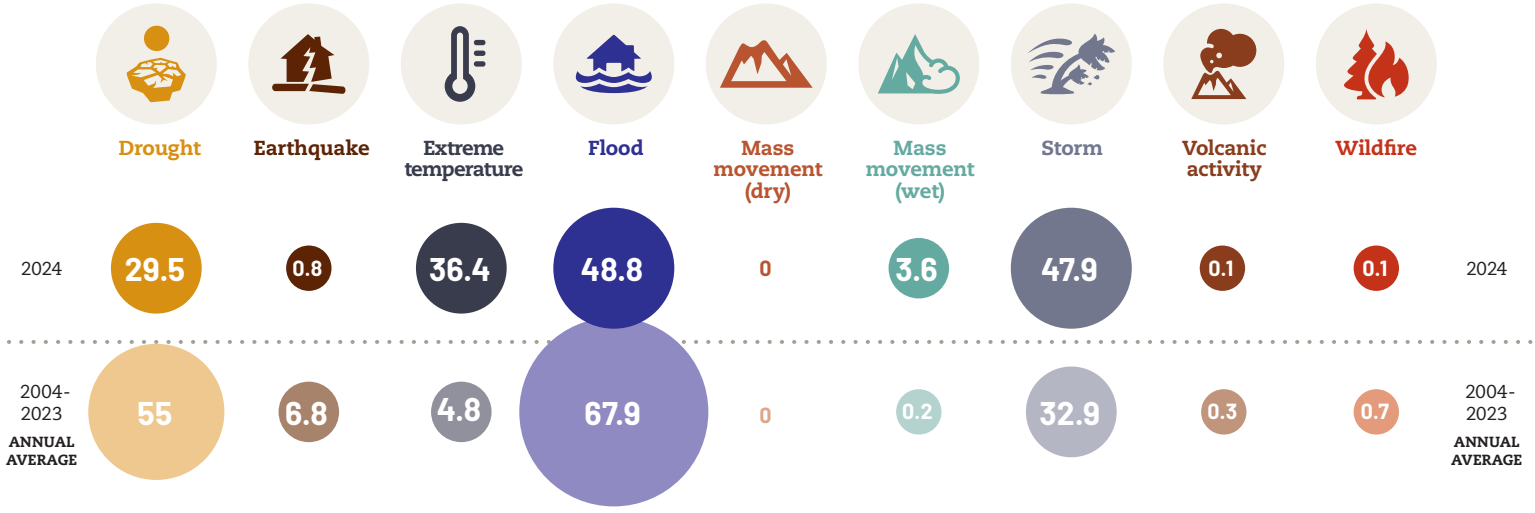


Table 2 Top 10 Total Affected – 2024

Bangladesh	Heat Wave	33 million	
Zambia	Drought	9.8 million	
Philippines	Typhoon Trami	9.7 million	
India	Flood	8 million	
Zimbabwe	Drought	7.6 million	
Philippines	Typhoon Gaemi and Prapiroon	6.5 million	
Malawi	Drought	6.1 million	
Bangladesh	Flood (August)	5.8 million	
Bangladesh	Flood (June-July)	5.1 million	
Bangladesh	Tropical Cyclone Remal	4.6 million	

11 Sum of people injured, homeless, and otherwise affected.

Economic Losses [12]

Figure 7

Proportion of Economic Losses by Continent in 2024

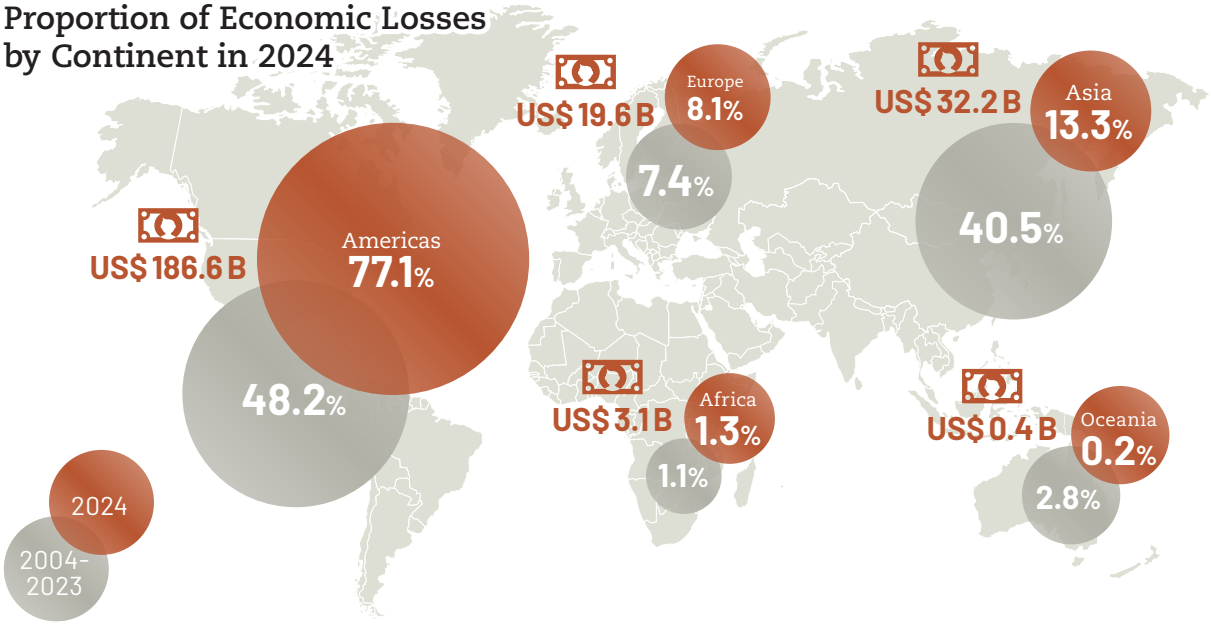


Figure 8

Economic Losses (US$ billion) by Disaster Type: 2024 Compared to the 2004-2023 Annual Average

209.6 (2004 to 2023) < 242 (in 2024)

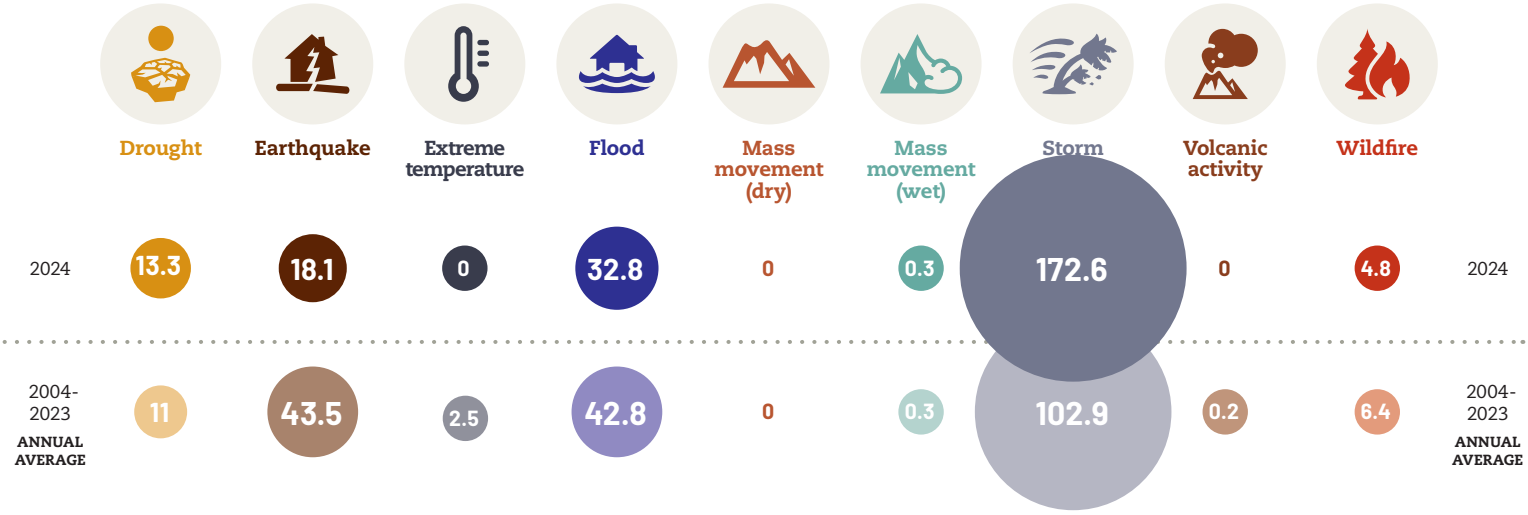


Table 3 Top 10 Economic Losses (US$) - 2024

USA	Hurricane Helene	56 billion	
USA	Hurricane Milton	38 billion	
Japan	Earthquake	15 billion	
Spain	Flood	11 billion	
USA	Hurricane Beryl	7.2 billion	
Brazil	Flood	7 billion	
USA	Storm (May)	6.6 billion	
Brazil	Drought	6 billion	
USA	Storm (March)	5.9 billion	
USA	Drought	5.4 billion	

12 Historical figures for economic losses are adjusted using the annual consumer price index (CPI) from OECD.

The 2024 Indian Ocean Tsunami: 20 Years On

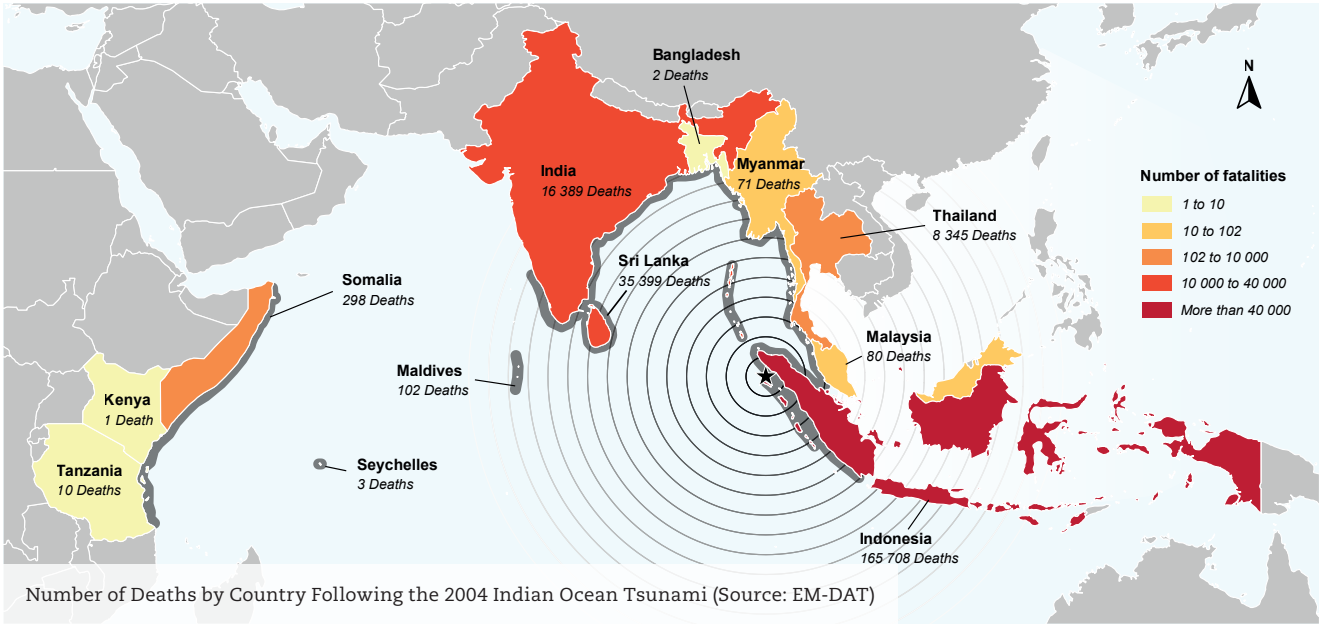
Twenty years ago, on December 26, 2004, a massive 9.1-magnitude earthquake hit the coast near Sumatra, Indonesia. It triggered the deadliest tsunami in modern history. Last December, press agencies and media outlets around the world marked the 20th anniversary by remembering the 226,408 lives lost, as recorded in the EM-DAT Emergency Events Database. As the 20th anniversary approached, several countries held commemorative events. These gatherings served not only to honor the victims and survivors but also to reflect on how far we have come in protecting communities from similar disasters.

Among the dozen countries affected by the Indian Ocean Tsunami, Indonesia, Sri Lanka, India, and Thailand suffered the worst damage. In some areas, tsunami waves reached up to 30 meters (100 feet) high, devastating coastal communities, tourist resorts, and critical infrastructure. The disaster displaced millions and caused long-term environmental damage due to saltwater flooding and widespread debris.

Since 2004, significant progress has been made in disaster preparedness and the development of early warning systems. At the time of the tsunami, early warning systems were only in place in the Pacific Ocean. Today, the Global Tsunami Warning System spans the Pacific, Indian Ocean, Mediterranean, Caribbean, and North-East Atlantic regions. It can detect tsunamis quickly and send alerts rapidly, helping to save lives [1]. Beyond alerts, new technologies now assist emergency teams in predicting the impact of earthquakes and tsunamis in near real-time. For example, the US Geological Survey (USGS) Prompt Assessment of Global Earthquakes for Response (PAGER) system, developed in response to the 2004 tragedy, estimates fatalities and economic damage within 30 minutes of a major earthquake [2]. These tools help guide fast, effective responses during emergencies.

However, creating accurate tsunami loss models remains complex. They require large amounts of data and computing power, especially since underwater earthquakes often trigger tsunamis [3]. Nowadays, global efforts are focused on building Multi-Hazard Early Warning Systems (MHEWS), which can warn people about a range of natural threats, as part of the United Nations initiative "Early Warning for All" (EW4ALL) [4].

The 2004 tsunami was one of the most devastating disasters of the 21st century. Since then, the world has learned important lessons. Remembering such events and fostering a culture of risk has proven instrumental in strengthening disaster preparedness. These efforts help to ensure that communities stay alert and better equipped to face future natural hazards.



Number of Deaths by Country Following the 2004 Indian Ocean Tsunami (Source: EM-DAT)

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3 Merz, B., et al. (2020). Impact Forecasting to Support Emergency Management of Natural Hazards. *Reviews of Geophysics, 58(4),* e2020RG000704. https://doi.org/10.1029/2020RG000704

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About EM-DAT

The Emergency Events Database (EM-DAT), maintained by the Centre for Research on the Epidemiology of Disasters (CRED) at University of Louvain (UCLouvain) since 1988, aims to archive significant disasters and support future disaster risk reduction strategies. EM-DAT provides information to assist humanitarian action at both national and international levels, enabling evidence-based decision-making in disaster preparedness and response. The database helps assess community vulnerability to disasters, offering valuable support to policymakers in setting priorities.

EM-DAT contains data on the occurrence and impacts of over 27,000 disasters related to natural and technological hazards from 1900 to the present. These data are compiled from a wide range of sources, including UN agencies, national governments, NGOs, research institutes, and the media. Sources are prioritized and selected based on their reliability. It is important to note that historical data may contain biases. For more information on the database and to access the data and accompanying documentation, please visit the EM-DAT website.

A disaster in EM-DAT is defined as: "a situation or event that overwhelms local capacity, necessitating a request for external assistance at the national or international level; it is an unforeseen and often sudden event that causes great damage, destruction, and human suffering." This annual report and figures include only disasters attributed to natural hazards, excluding biological and extraterrestrial hazards, and omits technological hazards, though they are recorded in EM-DAT.

To be included in the database, a disaster must meet at least one of the following criteria:

- 10 or more people reported killed
- 100 or more people reported affected
- declaration of a state of emergency
- a call for international assistance

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Centre for Research on the Epidemiology of Disasters (CRED). (2025). 2024 Disasters in Numbers. Brussels, Belgium: CRED. https://files.emdat.be/reports/2024_EMDAT_report.pdf

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The underlying EM-DAT data referenced in this report is subject to separate terms of use. For details on using EM-DAT data, please consult the EM-DAT website. Additionally, the figures presented in this report may change as new information becomes available. To access the latest data and updates since publication, please visit the EM-DAT website.

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