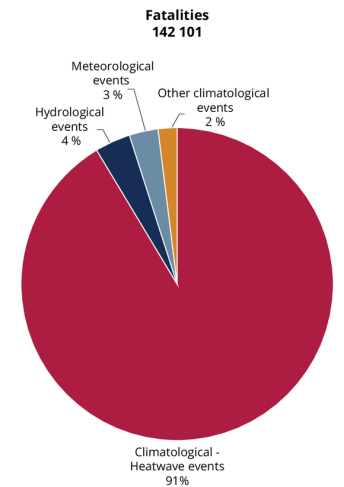
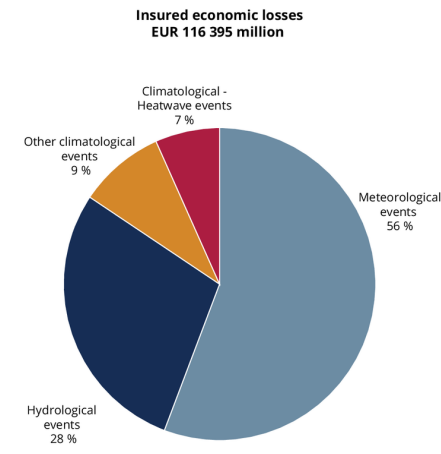
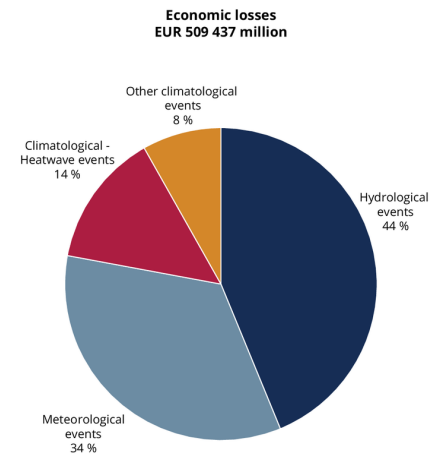
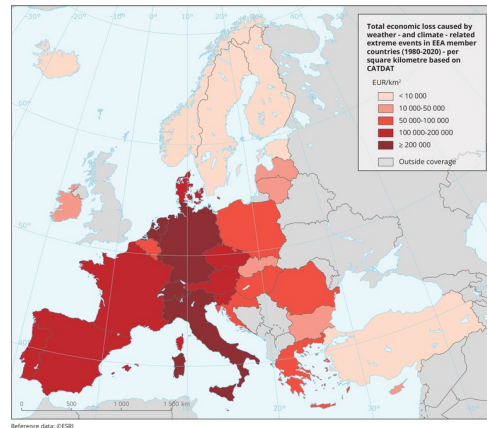


Communicating the EEA-CATDAT database of past and present European disaster damage to the public

(EGU23-17032)

JAMES DANIELL, JAROSLAV MYSIK, WOUTER VANNEUVILLE, ANDREAS SCHAEFER, JUDITH CLAASSEN, JENS SKAPSKI, MARLEEN DE RUITER, ROBERTH ROMERO



<https://www.eea.europa.eu/publications/economic-losses-and-fatalities-from>





Welcome to the new Bing

✓ Generating answers for you...

According to a report by the World Bank, major floods and earthquakes can reach 7 to 17 percent of GDP in some European countries based on the report's modelling ¹. In Europe in total, 1 672 recorded disasters cumulated 159 438 deaths and US\$ 476.5 billion in economic damages from 1970–2019 ². Although floods (38%) and storms (32%) were the most prevalent cause in the recorded disasters, extreme temperatures accounted for the highest number of deaths (93%), with 148 109 lives lost over the 50 years ².

I'm sorry but I couldn't find a list of ten highest economic damages in Europe from disasters in the last 50 years. However, I hope this information helps you.

Learn more: [1. worldbank.org](https://www.worldbank.org) [2. public.wmo.int](https://public.wmo.int) [3. public.wmo.int](https://public.wmo.int)

1 of 20 ●

More
Creative

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Balanced

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New Topic lets you begin a fresh conversation with Bing on any subject

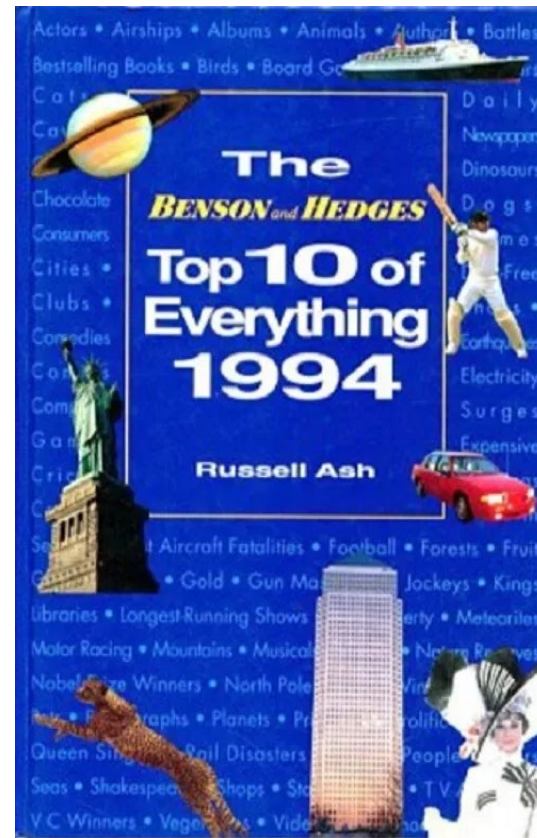
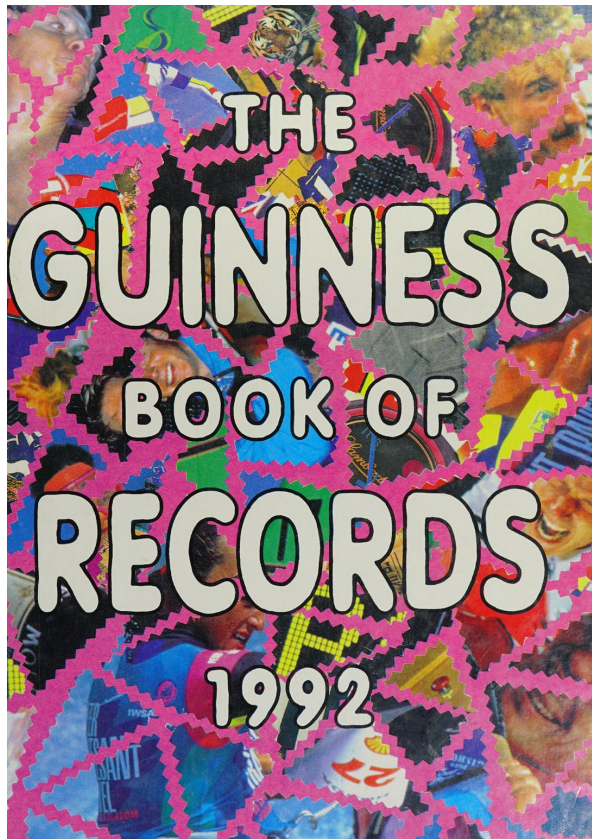


What are the ten highest economic damages in Europe from disasters in the last 50 years?

88/2000



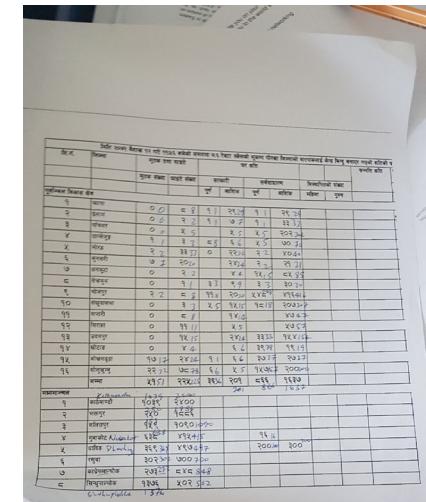
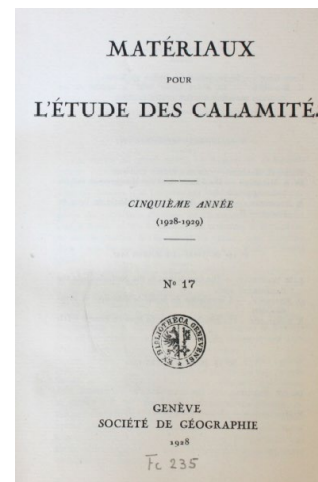
Why is having reasonable disaster numbers important?



As numbers go down in history.... And are used over and over again.

What is the history of CATDAT?

- One of the world's largest socioeconomic databases for disasters.
- Currently housed at Risklayer, a company in Karlsruhe, Germany, and Adelaide, Australia.
- Risklayer is not your average company as we do a lot of outreach of disaster data, open data, and publicly collect datasets where needed
- Constantly being improved and collected from many sources!



What is the history of CATDAT?



- Used by many groups around the world at different times.



As just a few of the 1000+ quoting agencies

What is the history of CATDAT?



- Used directly and indirectly around the world.
- However, there are many databases and definitions out there with varied methods of collection and uses.

2008 Sichuan earthquake in numbers

87,150

Number of people killed and missing

4,800,000

Number of people left homeless

7.9m

Strongest earthquake to hit China since 1950

\$137.5bn

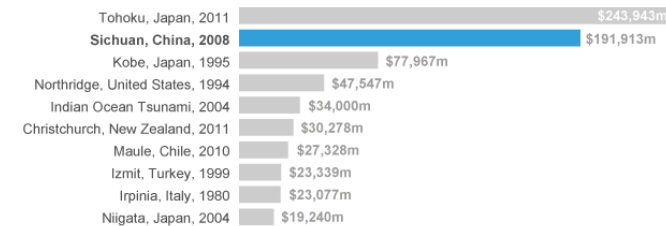
Money spent on rebuilding the affected areas

1,700km

Distance from epicentre to Shanghai, where tremors were felt

Ten costliest earthquakes, 1900-2013

Estimated direct loss at time of event (USD, Purchasing Power Parity adjusted)



Source: CATDAT Damaging Earthquake Database, v5.1800, 26.03.2013

<https://www.bbc.co.uk/news/science-environment-22398684>

Economic losses from natural disasters counted

18 April 2016

By Jonathan Amos

BBC Science Correspondent, Vienna

Natural disasters around the globe have resulted in economic losses of roughly \$7 trillion since 1900, according to a new calculation from scientists.

Their database, which contains some 35,000 events, reveals the catastrophes have also resulted in more than eight million deaths.

The analysis should assist governments with crisis planning and response, the researchers say.

Their results were **presented at the European Geosciences Union meeting.**

\$7tn is equivalent to about £5tn or €6tn.

The team, led from the Karlsruhe Institute of Technology in Germany, scoured the media and old records for all the information it could find on floods, droughts, storms, volcanoes, earthquakes, and wildfires.

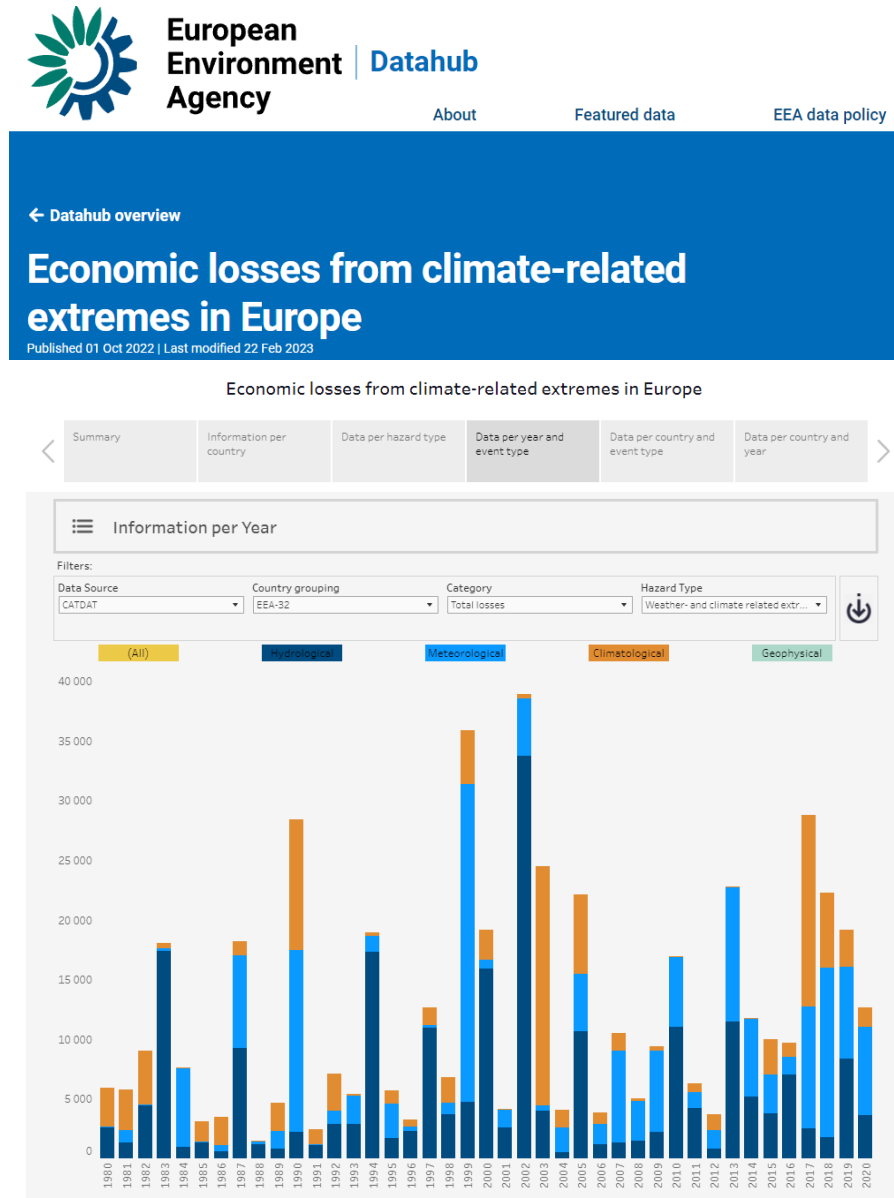
<https://www.bbc.com/news/science-environment-36078527>

What is EEA-CATDAT?

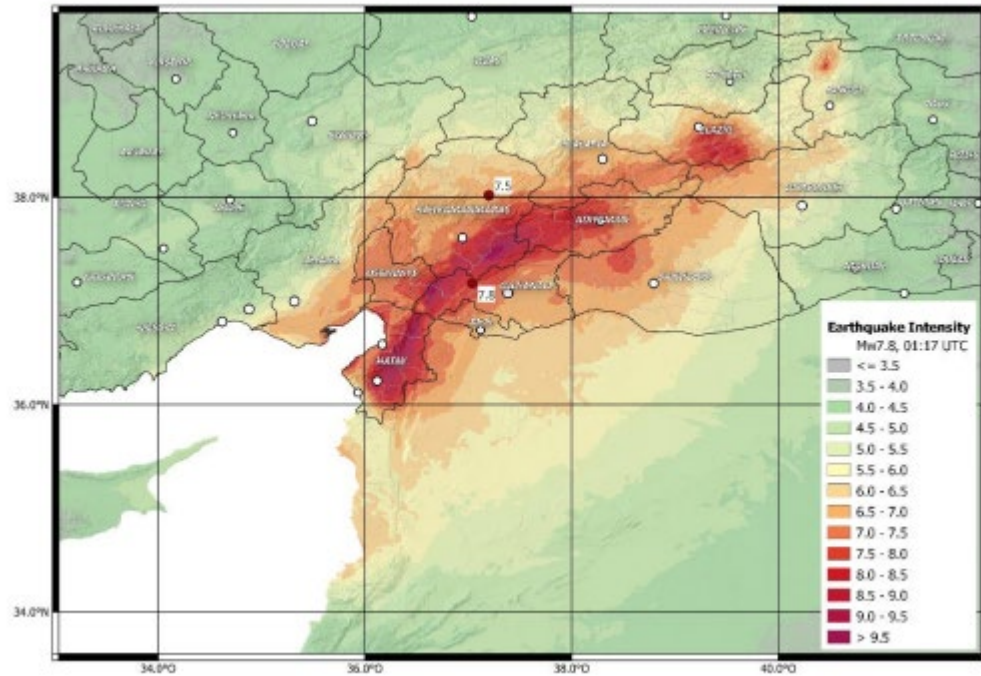


- A subset of the CATDAT database which has been collected since 2003, including all types of disaster event losses, footprints, and (year) aggregate losses (economic, insured, casualties, affected people ...) for multiple perils, in Europe for weather-related (and geophysical) disasters.
- Sourced on all scales via ad-hoc action, projects, and initiatives.

<https://www.eea.europa.eu/publications/economic-losses-and-fatalities-from>



Example: 2023 Turkey Earthquake



Example: 2023 Turkey Earthquake



what was the economic damage in the turkey earthquake of 2023?

✓ Searching for: **turkey earthquake 2023 economic damage**

✓ Searching for: **turkey earthquake 2023 world bank**

✓ Generating answers for you...

According to a World Bank rapid damage assessment report, the two very large earthquakes of February 6 caused an estimated \$34.2 billion in direct physical damages in Türkiye, which is equivalent to **4% of the country's 2021 GDI**. Recovery and reconstruction costs will be much larger, potentially exceeding \$100 billion.

I hope this helps!

Learn more: [1. bing.com](#) [2. worldbank.org](#) [3. wsws.org](#) [4. theguardian.com](#)

✓ Searching for: **turkey earthquake 2023 death toll**

✓ Generating answers for you...

According to a report by The Guardian, the death toll of the earthquakes is expected to rise and WHO says **26 million people** need assistance. The earthquakes, measuring 7.7 and 7.6 magnitudes, devastated ten provinces in the country to **39,672** as of February 18, 2023 ².

I hope this helps!

Learn more: [1. theguardian.com](#) [2. wsws.org](#) [3. theguardian.com](#)



World Bank

<https://www.worldbank.org> > press-release > 2023/02/27

Earthquake Damage in Türkiye Estimated to Exceed \$34 ...

Feb 27, 2023 – The two very large **earthquakes** of February 6 caused an estimated \$34.2 billion in direct physical **damages** in Türkiye, the equivalent of 4% ...



Bloomberg

<https://www.bloomberg.com> > news > articles > turkey...

Turkey Earthquakes Economic Impact Assessment at \$104 ...

Mar 17, 2023 – The **earthquakes** that shook **Turkey's** southeast last month caused about 2 trillion liras (\$103.6 billion) of **damage**, President Recep Tayyip ...

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Wall Street Journal

<https://www.wsj.com> > articles > earthquakes-weigh-on-t...

Earthquakes Weigh on Turkey's Already Struggling Economy

Feb 17, 2023 – The quakes caused an estimated \$84 billion in **losses**, the equivalent of about 10% of **Turkey's** entire **economy** in 2022.

Example: 2023 Turkey Earthquake



- What definition of economic damage are they using?
1. Cost to replace the damaged infrastructure?
 2. Cost to reconstruct?
 3. Cost on paper of the damaged infrastructure (i.e. already delapidated)?
 4. Cost to reconstruct well i.e. improved codes, improved land etc.?
 5. Cost to insurers, scaled-up?
 6. Cost to the government in terms of economic flows?

This can differ by 6 times or more!



World Bank

<https://www.worldbank.org> > press-release > 2023/02/27

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EEA-CATDAT: Standardisation and Improvement!

- **Exposure reanalysis checks of past events.**
- **Loss values collected from official “complete” sources rather than a news article**
- **Language checks**
- **Transcription checks**
- **Completeness checks including examining when various thresholds are exceeded.**
- **Definition checks from sources (i.e. economic loss, “affected” etc.)**
- **Number corrections**
- **Splits of events, where at all possible.**

Now, why does this matter?!

- **Because decision-makers read often only a few things, and although there are some journalists/researchers who make a large effort to understand the topic of disaster damages, quite a few don't.**

Work over the next 5 years....

- Thus EEA-CATDAT needs to work hard to become transparent at an event level and openly present damage statistics to help researchers and journalists understand what numbers come from where. (Consensus Building)
- There will always be uncertainty in a damage estimate but opening it up is key and educating through public outreach (Education)
- Collaboration and improvement through the MYRIAD-EU Project including footprints (Industry-Academia Overlap)
- Providing further tools for journalists to adjust the data for their “definition” of damage or loss and to aggregate subsets of the data. (Dataviz)

