

# Natural disasters report

based on 2001-2019 data



## World

- Extreme phenomena such as intense precipitation, droughts or hurricanes have occurred for centuries, but the observed **increase in air temperature** is causing noticeable changes in their occurrence. They are becoming **more frequent**, more intense and **appearing in regions** where they have **not previously been recorded**.
- Floods were the **most frequently** reported occurrences of the extreme events in the world between 2001 and 2019, accounting for **nearly 50% of events** included in the statistics and were responsible for **27% of property losses** caused by them.

## Europe

- Annually extreme events caused an average loss of more than **8 billion USD**, with floods being the most common cause - 51% of events.
- **172 000** people in Europe (EU-27 + UK) are currently **exposed to river flooding** on an annual basis and **100 000** are exposed to **coastal flooding**. Over the period 1980-2021, flood events have resulted in **5584 fatalities** in EEA member countries.
- As a result of the **progress of civilization** and human activity, there has been an **increase in the vulnerability** of areas to extreme events around the world. The wealth of societies is increasing, including the accumulation of assets that **can potentially be destroyed**.

## Poland

- The first mentions of **catastrophic river flooding in the Polish territories** can be found in historical records and chronicles. Analysis of **historical documents** has shown that such phenomena, on a larger scale, affect Poland periodically and occur **every few or several years**.



# Project bibliography

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- Natural disasters research:
  - <https://climate-adapt.eea.europa.eu/en/observatory/evidence/health-effects/flooding/flooding>
  - [https://klimada2.ios.gov.pl/files/2023/Atlas\\_skutkow\\_zjawisk\\_ekstremalnych\\_w\\_Polsce.pdf](https://klimada2.ios.gov.pl/files/2023/Atlas_skutkow_zjawisk_ekstremalnych_w_Polsce.pdf)
  - [https://wody.isok.gov.pl/imap\\_kzgw/?gmap=gpPDF](https://wody.isok.gov.pl/imap_kzgw/?gmap=gpPDF)
- Rescue missions research:
  - <https://www.reuters.com/graphics/EARTHQUAKE-RESCUE/mopajqojmva/>
  - <https://www.reuters.com/graphics/MOROCCO-QUAKE/CONSTRUCTION/xmpjlblojpr/>
- Datasets
  - <https://xview2.org/dataset>
  - <https://browse.arxiv.org/pdf/2212.13876.pdf>
  - <https://github.com/cloudtostreet/Sen1Floods11>
- Foundation model
  - <https://github.com/NASA-IMPACT/hls-foundation-os>
  - <https://www.earthdata.nasa.gov/news/impact-ibm-hls-foundation-model>
- Flooded town image:
  - DigitalGlobe, a Maxar company via APP
- Icons:
  - <https://icons8.com/>

